

# Annual Report

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## 2020-2021



CENTRAL COUNCIL FOR RESEARCH IN UNANI MEDICINE

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CENTRAL COUNCIL FOR RESEARCH IN UNANI MEDICINE  
Ministry of AYUSH, Government of India



*Published by*

**CENTRAL COUNCIL FOR RESEARCH IN UNANI MEDICINE**

Ministry of AYUSH, Government of India

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## 1. OVERVIEW

### 1.1. Objectives of the Council

The Central Council for Research in Unani Medicine (CCRUM) is an autonomous organization under the Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), Government of India. It was established on 30<sup>th</sup> March 1978 under the Societies Registration Act, 1860 and started functioning from 10<sup>th</sup> January 1979. The main objectives of the Council are as follows:

- Formulation of aims and patterns of research on scientific lines in Unani Medicine
- To undertake research or any other programmes in Unani Medicine
- Prosecution of and assistance in research and propagation of knowledge and experimental measures generally in connection with the causation, mode of spread and prevention of diseases
- To initiate, aid, develop and coordinate scientific research on different aspects, fundamental and applied, of Unani Medicine, and to promote and assist institutions of research for the study of diseases, their prevention, causation and remedy
- To finance enquiries and researches for the furtherance of the objectives of the Council
- To exchange information with other institutions, associations and societies interested in the objectives similar to those of the Council, especially in the observation and study of diseases in the East in general, and in India in particular
- To prepare, print, publish and exhibit any papers, posters, pamphlets, periodicals and books for furtherance of the objectives of the Council and to contribute to such literature

### 1.2. Programme-wise Achievements

The year 2020–2021 was a challenging period due to the COVID-19 pandemic. However, it provided opportunities for research institutions like CCRUM to conduct research on newer health challenges and explore the potentials of Unani Medicine in combating pandemics like COVID-19.

During the reporting period, the Council took various initiatives to counter the spread of COVID-19 besides continuing its ongoing research activities in the areas of core research, namely Survey and Cultivation of Medicinal Plants, Drug Standardization Research, Clinical Research and Literary Research, and supplementary areas like information, education and communication and extension of healthcare services through a network of 22 centres throughout the country.

The continuing research activities delivered credible outcomes during the reporting period in spite of COVID-19 preventive measures in place. Under the Survey and Cultivation of Medicinal Plants Programme, ethnopharmacological surveys were conducted in different forest divisions/areas. As a result of these surveys, 911 botanical specimens were collected and 351 plant species identified. Later, herbarium sheets of 1,321 specimens including new and previous collections containing their basic details were prepared and 753 index cards were updated. A total of 502 herbarium sheets were digitized as well. The survey teams collected 1,313 saplings of important medicinal species for plantation and 272 kg of raw drugs. The surveyors also recorded 49 folk medicinal claims from the tribal inhabitants and other rural folks of the study areas. Experimental and large-scale cultivation of some

important medicinal species was also undertaken which yielded 52 kg of raw drugs. A total of 163 common species of medicinal plants used in Unani Medicine were maintained in the nurseries of the Council's centres.

Under the Drug Standardization Research Programme, SOPs for manufacture of 28 Unani formulations and their pharmacopoeial standards were developed. Besides, pharmacopoeial standards for 12 single drugs were developed. The monograph of AYUSH *Joshānda* was also developed in the laboratory of CCRUM and published as *Formulary Specifications of AYUSH Safūf-i-Joshānda* by Ministry of AYUSH. An *in-silico* study on the phyto-constituents present in four Unani formulations - *Triyāq Wabā'ī*, Novel Unani Drug, *Triyāq Arba'a* and *'Araq 'Ajīb* given to the people in the management of Covid-19 was also carried out to evaluate the efficacy of Unani formulations against SARS-CoV-2. The drug testing laboratory at the RRIUM, Chennai analysed 31 ASU drug samples received from different organizations. The Council finalized revised edition of National Formulary of Unani Medicine (NFUM), Part-IV consisting of 166 formulations. The revision of NFUM, Part-I & II and Unani Pharmacopoeia of India (UPI), Part-I, Vol. II as per the new format provided by the Pharmacopoeia Commission of Indian Medicine and Homoeopathy (PCIM&H) continued.

Under the Clinical Research Programme, preclinical safety evaluation studies, clinical studies and validation of safety and efficacy of classical / pharmacopoeial formulations, regimen therapies and fundamentals of Unani Medicine continued. Besides, research under intramural research (IMR) policy and collaborative research continued.

During the reporting period, 15 preclinical safety and pharmacological studies on Unani drugs were undertaken. In clinical research, five randomized controlled trials (RCTs) - one each on *Faqr al-Dam* (iron deficiency anaemia), *Tahajjur al-Mafāsil* (osteoarthritis), *Ḍīq al-Nāfas* (bronchial asthma), *Dhayābītus Sukkarī Qism Thānī* (diabetes mellitus type II) and *Shaqīqa* (migraine) were initiated. As much as much 38 studies for clinical validation of Unani pharmacopoeial formulations in different diseases continued, 30 studies were initiated and 20 studies were allotted. Besides, clinical validation studies on six Unani pharmacopoeial fast-acting drugs continued. Various regimen therapy procedures were performed on 4,583 patients of different diseases. *Hijāma bilā-Sharṭ* (dry cupping) was performed on 1,354 patients, *Hijāma bi'l-Sharṭ* (wet cupping) on 491, *Hijāma bi'l-Nār* (fire cupping) on 18, *Hijāma Muzliqa* (moving cupping) on 759, *Ḥammām al-Bukhār* (steam bath) on 03, *Dalk Mu'tadil* (moderate massage) on 362, *Ḥammām Yābis* (sauna) on 318, *Naṭūl* (fomentation) on 01, *Inkibāb* (vaporization) on 11, *Mundij-Mushil* therapy on 14, *Ta'līq* (leeching) on 20 and *Takmīd* (fomentation) on 138 patients.

Under the validation of fundamentals of Unani Medicine, three new projects continued and final reports of seven completed studies on theory of *Akhlāṭ* (humours) were compiled during the reporting period. Clinical assessment of *Mizāj* (temperament) also continued and assessment of temperament of 352 patients attending the OPD of NRIUMSD, Hyderabad was done. Five different projects were undertaken under the IMR policy.

The Council also undertakes research in collaboration with other prestigious institutes. During the reporting period, 18 collaborative studies continued / were initiated at Jamia Hamdard, New Delhi; Jamia Millia Islamia, New Delhi; Vallabhbhai Patel Chest Institute (VPCI), University of Delhi, New Delhi; Amity University, Noida; All India Institute of Medical Sciences, New Delhi; Jadavpur University, Kolkata; University of Mumbai, Mumbai; South Asian University, New Delhi; Interactive Research School for Health Affairs, Pune; National



Institute of Pharmaceutical Education and Research, Hyderabad; and CSIR-Central Drug Research Institute, Lucknow.

In the project on Integration of Unani Medicine in NPCDCS, 34,150 individuals were screened and treated with Unani medicine for different ailments. Of them, 480 individuals were enrolled in high risk group of diabetes mellitus and 1,078 as diseased, whereas 676 were enrolled in high risk group of hypertension and 1,116 as patients. Similarly, 57 persons were enrolled in high risk group of hyperlipidaemia. As much as 28,488 persons were advised Yoga. The NPCDCS team actively participated in COVID-19 prevention and control initiatives taken by the State Government and screened a total of 38,803 individuals.

Under the Literary Research Programme, the Council published 'Medicinal Plants for Longevity: Evidence-based Approach for Geriatric Care in Unani Medicine'. Besides, Urdu translation of Arabic book, *Al-Mughnī fī Tadbīr al-Amrāḍ wa Ma'rifat al-'Ilal wa al-A'rāḍ* and Persian book, *Riyāḍ al-Adwiya* was completed, while Urdu translation of classical Persian text, *Kitāb al-Abniya 'an Ḥaqā'iq al-Adwiya* and Arabic text *Al-Masā'il fi'l-Ṭib* continued. The work related to compilation of monographs on 'Mental Health and Mental Diseases in Unani Medicine' and 'Standard Unani Treatment Guidelines for *Ḥummayāt* (Fevers)' was completed. The revision of 'A Handbook of Common Remedies in Unani Medicine' was also completed. Information on 'Boost Your Immunity through Unani Medicine', 'Immunity Enhancement through *'Ilāj bi'l-Tadbīr*', 'Dietary Items for Health and Immunity', 'Special Advices for Women, Children and Old People for Immunity Enhancement' and 'Winter Care in Unani Medicine' were compiled. Besides, Modules for Dietotherapy, Regimenal Therapy and *Mizāj* were also developed for incorporation in AYUSH-Hospital Management Information System (A-HMIS). A project named 'Systematised Nomenclature of Medicine - Clinical Terms (SNOMED-CT)' also started during the reporting period. In the wake of COVID-19 pandemic, the researchers engaged in literary research programme were actively involved in compilation of 'Guidelines for Unani Practitioners for Covid-19' and identification of drugs/regimens from Unani classical texts for incorporation in 'Add-on therapy for Covid-19 patients'.

With a view to disseminating the research findings, 181 research papers were published in national and international scientific journals. During the reporting period, six publications were also brought out. Besides, publication of the Council's quarterly bulletin CCRUM Newsletter, quarterly Urdu journal *Jahan-i Tib*, quarterly English journal Hippocratic Journal of Unani Medicine, and IEC materials continued.

Research-oriented healthcare services continued at GOPDs and special OPDs of clinical centres of the Council. During the reporting period, a total of 2,40,225 patients comprising 1,93,824 patients in GOPDs, 15,856 in Geriatric OPDs, 4,842 in RCH / MCH OPDs, 9,866 in NCD's OPDs and 15,837 in OPDs for Post-trial Treatment Access (PTA) were treated at different centres.

Under the Mobile Clinical Research Programme, 25 rural pockets / urban slums covering over 2.43 lakh population were adopted and a total of 13,118 patients were treated with Unani pharmacopoeial formulations in 464 mobile visits made to these pockets during the reporting period.

The Unani Medical Centres functioning under the scheme of co-location of AYUSH centres in Dr. Ram Manohar Lohia Hospital, Deen Dayal Upadhyay Hospital and VMMC & Safdarjung Hospital, New Delhi treated 9194, 7228 and 3,389 patients respectively.



Under the Gender Component Plan for Women, 1,24,508 female patients in different OPDs were treated. Clinical studies on the diseases specific to women, such as *Sayalān al-Rahim* (leucorrhoea), *Ihtibās al-Ṭamth* (amenorrhoea) and *Kathrat al-Ṭamth* (menorrhagia) also continued. Under the Activities in North Eastern Region, 1,810 patients were treated for their common and chronic ailments at the Regional Research Centre located at Silchar, Assam.

Under the Special Component Plan – Scheduled Caste Sub-Plan (SCSP) and Tribal Sub-Plan (TSP), 6,45,266 total population including 4,55,230 SC population were covered under SCSP, whereas 80,690 total population including 57,462 ST population were covered under TSP. A total of 38,091 and 10,821 individuals benefited from SCSP and TSP respectively.

The academic activities under the postgraduate programmes in Unani Medicine successfully continued. Under MD (Unani) programme, a total of 32 new scholars in addition to continuing scholars were admitted who were actively engaged in academic, research and training activities at NRIUMSD, Hyderabad and RRIUM, Srinagar.

During the period under report, the Council celebrated Unani Day and organized a National Conference on Unani Medicine at Vigyan Bhawan, New Delhi on February 11, 2021 following COVID-19 preventive guidelines. The conference themed on 'Unani Medicine: Opportunities and Challenges in times of COVID-19' made very important scientific deliberations on the topic. Apart from organizing the national conference, the Council organized more than 30 webinars, workshops and awareness programmes.

The Council participated in four Arogya fairs / expos and similar events to propagate Unani Medicine and highlight its activities and achievements.

The Council continued the promotion of the Official Language and organized Hindi Pakhwada at the Headquarters and different centres. Quarterly workshops on Hindi language were also organized.

We hope that the Council work even more efficiently in the coming years for the fulfilment of its aims and objectives in the area of research and development in Unani Medicine.

New Delhi  
November 29, 2021

A blue ink signature of Prof. Asim Ali Khan, written in a cursive style.

**Prof. Asim Ali Khan**  
Director General

## 2. MANAGEMENT

The management of the affairs of the Council is entrusted to Governing Body (GB), Executive Committee (EC) and Standing Finance Committee (SFC). The research activities are conducted with the recommendations of Scientific Advisory Committee and ethical clearance of Central Ethics Committee (CEC) / Institutional Ethics Committee (IEC).

### 2.1. Governing Body

The constitution of the GB of the Council as on March 31, 2020 was as given below:

#### President

Union Minister of State (Independent Charge), Ministry of AYUSH, Government of India

#### Vice-President

Secretary, Ministry of AYUSH, Government of India

#### Official Members

- Financial Advisor, Ministry of AYUSH, Government of India
- Additional Secretary / Joint Secretary (Dealing with CCRUM), Ministry of AYUSH, Government of India
- Adviser (Unani), Ministry of AYUSH, Government of India
- Director, National Institute of Unani Medicine, Bengaluru

#### Non-Official Members

- Dr. M A Waheed, Former Officiating Director, CRIUM, Hyderabad
- Prof. Aftab Ahmad, Jamia Hamdard, New Delhi
- Prof. Misbahuddin Siddiqui, Aligarh Muslim University, Aligarh
- Dr. Mohd Zafar Hasan, Private Practitioner, Bhopal
- Prof. Mohammad Haroon, Uttranchal Unani Medical College, Haridwar
- Prof. Akhilesh Verma, Department of Chemistry, University of Delhi
- Dr. Veena Gupta, National Bureau of Plant Genetic Resources, New Delhi
- Prof. Surender Singh, AIIMS, New Delhi
- Prof. Rajesh S Sharma, District Homeopathic Medical College & Hospital, Ratlam

#### Member Secretary

- Director General, CCRUM

### 2.2. Executive Committee

The constitution of the EC of the Council as on March 31, 2020 was as given below:

#### Chairperson

Secretary, Ministry of AYUSH, Government of India

#### Official Members

- Financial Advisor, Ministry of AYUSH, Government of India
- Additional Secretary / Joint Secretary (Dealing with CCRUM), Ministry of AYUSH, Government of India
- Adviser (Unani), Ministry of AYUSH, Government of India
- Director, National Institute of Unani Medicine, Bengaluru

## Non-Official Members

- Dr. M A Waheed, Former Officiating Director, CRIUM, Hyderabad
- Prof. Misbahuddin Siddiqui, Aligarh Muslim University, Aligarh
- Dr. Mohd. Zafar Hasan, Private Practitioner, Bhopal
- Dr. Veena Gupta, National Bureau of Plant Genetic Resources, New Delhi
- Prof. Rajesh S Sharma, District Homeopathic Medical College & Hospital, Ratlam, Madhya Pradesh

## Member Secretary

- Director General, CCRUM

## 2.3. Standing Finance Committee

During the reporting period, the composition of the Standing Finance Committee (SFC) of the Council was as follows:

- Additional Secretary / Joint Secretary, Ministry of AYUSH, Government of India (Dealing with CCRUM) : Chairman
- Financial Advisor or his nominee not below the rank of Deputy Secretary, Integrated Finance Division, Ministry of AYUSH : Member
- Adviser (Unani), Ministry of AYUSH
- Prof. Tajuddin, Chairman (Retd.), Department of Ilmul Advia, Aligarh Muslim University, Aligarh : Technical Member
- Director General, CCRUM : Member-Secretary

## 2.4. Scientific Advisory Committee

The following was the composition of the Scientific Advisory Committee (SAC) as on March 31, 2021:

- Dr. Ram Vishvakarma, Director, CSIR-IIIM, Jammu : Chairperson
- Dr. M A Waheed, Former Officiating Director, CRIUM, Hyderabad : Member
- Prof. Abdul Wadud, Director, NIUM, Bangalore : Member
- Prof. Imamuddin, former Principal, Government Unani Medical College, Chennai : Member
- Prof. D S Arya, Department of Pharmacology, AIIMS, New Delhi : Member
- Prof. Sunil Kohli, Hamdard Institute of Medical Sciences & Research, Jamia Hamdard, New Delhi : Member
- Dr. (Mrs.) Sunita Garg, Chief Scientist (Retd.), National Institute of Science Communication and Information Resources, CSIR, New Delhi : Member

- Dr. Arun Kumar Sinha, Chief Scientist, Medicinal and Process Chemistry, CSIR-Central Drug Research Institute, Lucknow : Member
- In-charge, NRIUMSD, Hyderabad : Member Secretary

#### 2.4.1. Research Sub-Committees

The SAC is assisted by five research sub-committees, namely Clinical Research Sub-committee, Drug Standardization Sub-committee, Literary Research Sub-committee, Survey and Cultivation of Medicinal Plants Sub-committee and Claim of Cure Sub-committee. There was no sub-committee in place during the reporting period.

#### 2.5. Ethics Committee

It is mandatory that all the proposals on biomedical research involving human participants are approved by a duly constituted ethics committee to protect their welfare and rights. At the end of the reporting period, there were 13 Institutional Ethics Committees (IEC) functioning at various Institutes / Units of the CCRUM. These committees review and approve all the research proposals involving human participants. The committees also examine the compliance with regulatory requirements, applicable guidelines and laws. Besides, the CCRUM has a Central Ethics Committee at its headquarters to examine the multi-centric clinical trials or human clinical trials which may have to be carried out in certain specific conditions like COVID-19 pandemic or any other clinical trials referred to it by the CCRUM Headquarters for examination and approval. The composition of the Central Ethics Committee as well as Institutional Ethics Committees is as follow:

##### 2.5.1. Central Ethics Committee

- Prof. Sunil Kohli, Department of Medicine, Hamdard Institute of Medical Sciences and Research, Jamia Hamdard, New Delhi : Chairperson
- Dr. D. S. Arya, Professor, Department of Pharmacology, AIIMS, New Delhi : Member
- Prof. Idris Ahmed, Principal, A&U Tibbia College, New Delhi : Member
- Prof. Shakeel Ahmad Tamanna, Sr. Unani Physician, Tughlaqabad, New Delhi : Member
- Shri Mohd. Jamshed, Assistant Professor, Department of Management Studies, Jamia Hamdard, New Delhi : Member
- Shri Kumar Onkareshwar, Advocate, High Court, New Delhi : Member
- Shri Mohd. Sulemaan, Former Teacher, Jamia Secondary School, Jamia Millia Islamia, New Delhi : Member
- Dr. Naheed Parveen, Assistant Director (Unani), CCRUM Headquarters, New Delhi : Member Secretary

## 2.5.2. Institutional Ethics Committee

### National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad

- Prof. Akhtarul Wasey, President, Maulana Azad University, : Chairperson  
Jodhpur, Rajasthan
- Dr. M U R Naidu, Former Dean, Faculty of Medicine, : Member  
Nizam's Institute of Medical Sciences, Hyderabad
- Dr. M A Wajid, Associate Professor & Head, Department of : Member  
Microbiology, ESIC, Hyderabad
- Prof. Ahsan Farooqui, Government Nizamia Tibbi College, : Member  
Hyderabad
- Shri Abdul Fatah Khan, Advocate, Hyderabad : Member
- Smt. Chandana Pal, Apollo Hospitals, Hyderabad : Member
- Hafiz Mohammed Ajaz Ahmed, Imam, Hyderabad : Member
- Dr. Qamar Uddin, NRIUMSD, Hyderabad : Member Secretary

### Central Research Institute of Unani Medicine (CRIUM), Lucknow

- Prof. Kausar Usman, King George's Medical University, : Chairperson  
Lucknow
- Dr. M P Darokar, Senior Principal Scientist, CSIR– CIMAP, : Member  
Lucknow
- Prof. Jalees Fatima, Era's Lucknow Medical College and : Member  
Hospital, Lucknow
- Prof. Jamal Akhtar, State Takmil-ut-Tib College & Hospital, : Member  
Lucknow
- Shri I H Farooqui, Former, Lucknow Bench of Allahabad : Member  
High Court, Lucknow
- Smt. Zahida Begum, Social Worker & Treasurer, Al- Karim : Member  
Educational Society, UP
- Maulana Haroon Rasheed Nadvi, Deputy Registrar, Darul : Member  
Uloom Nadwat-ul-Ulama, Lucknow
- In-charge, CRIUM, Lucknow : Member Secretary

### Regional Research Institute of Unani Medicine (RRIUM), Chennai

- Hakim Syed Imamuddin Ahmed, Former Principal, : Chairperson  
Government Unani Medical College, Chennai
- Dr. P Elango, Ramachandra Medical College & Research : Member  
Institute, Chennai
- Dr. R Ilavarasan, Assistant Director Incharge, CSM Drug : Member  
Research Institute of Ayurveda, Chennai

- Dr. (Mrs) Chand Usmani, Principal, Government Unani Medical College, Chennai : Member
- Dr. Syed Hissar, Scientist C, ICMR-NIRT, Chennai : Member
- Dr. K Amjath Khan, Advocate, Madras High Court, Chennai : Member
- Dr. C Ponnuraja, Scientist D, NIRT, Chennai : Member
- Dr. S Nagasubramanian, Chennai : Member
- Shri Abdul Samad, Institute of Management, The New College, Chennai : Member
- In-charge, RRIUM, Chennai : Member Secretary

#### Regional Research Institute of Unani Medicine (RRIUM), Mumbai

- Dr. Sadiq Bapumiya Patel, Former Head, Department of Pharmacology, Grant Medical College & Sir JJ Group of Hospitals, Mumbai : Chairperson
- Prof. Badrul Subhan Usmani, Navi Mumbai : Member
- Dr. Asfia Tarannum, Head, Department of Moalajat, Anjuman-i-Islam Dr. Mohammad Ishaque Jamkhanawala Tibbia Unani Medical College & Haji A R Kalsekar Tibbia Hospital, Mumbai : Member
- Prof. Hemant R Gupta, Head, Department of Medicine, Grant Medical College & Sir JJ Group of Hospitals, Mumbai : Member
- Shri Asim Khan, Advocate, Mumbai : Member
- Shri Salauddin Baig, Social Worker, PSM Department, Grant Medical College & Sir JJ Group of Hospitals, Mumbai : Member
- Shri Iftekar Ahmed Rakhang, Mumbai : Member
- In-charge, RRIUM, Mumbai : Member Secretary

#### Regional Research Institute of Unani Medicine (RRIUM), Srinagar

- Prof. Mohammad Afzal Zargar, Central University of Kashmir, Srinagar : Chairperson
- Dr. Shajrul Amin, Associate Professor, Department of Biochemistry, Kashmir University : Member
- Dr. Shabir Ghaffari, Sr. Medical Officer, ISM, Nodal Officer Govt. Unani Medical College, Ganderbal : Member
- Dr. Zilhuma, Medical Officer, ISM, Jammu & Kashmir : Member
- Dr. Syed Mushtaq Saif Andrabi, Consultant Medicine, Srinagar : Member
- Dr. Zubair Ashai, Associate Professor, Govt. Medical College, Srinagar : Member

- Prof. S M Afzal Qadri, Central University of Kashmir, Ganderbal, Jammu & Kashmir : Member
- Prof. Peerzada Mohammad Amin, Head, Department of Sociology, University of Kashmir, Srinagar : Member
- Shri Mohammad Farooq Rathar, Srinagar : Member
- In-charge, RRIUM, Srinagar : Member Secretary

## Regional Research Institute of Unani Medicine (RRIUM), Aligarh

- Prof. K M Y Amin, Department of Ilmul Advia, Ajmal Khan Tibbiya College, Aligarh Muslim University, Aligarh : Chairperson
- Prof. M Athar Ansari, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh : Member
- Prof. M M W Amin, Chairman, Department of Ilmul Amraz, Ajmal Khan Tibbiya College, Aligarh Muslim University, Aligarh : Member
- Dr. Nasreen Noor, Department of Gynaecology, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh : Member
- Prof. A Mannan, Department of Moalajat, Ajmal Khan Tibbiya College, Aligarh Muslim University, Aligarh : Member
- Shri Zakiuddin Khairuwala, Advocate, Civil Court, Aligarh : Member
- Dr. M Laiq Ali Khan, President, Hakim Ajmal Khan Foundation, Kasganj : Member
- Mufti Suhaib Ahmad Khan, Theologian, Aligarh : Member
- Shri Abdul Majid Khan, Aligarh : Member
- In-charge, RRIUM, Aligarh : Member Secretary

## Regional Research Institute of Unani Medicine (RRIUM), New Delhi

- Prof. Prem Kapoor, Department of Medicine, Hamdard Institute of Medical Sciences & Research, New Delhi : Chairperson
- Prof. Surender Singh, AIIMS, New Delhi : Member
- Dr. K K Sharma, Former Head, Department of Pharmacology, Guru Teg Bahadur Hospital, New Delhi : Member
- Dr. Mohammad Maaz, Jamia Hamdard, New Delhi : Member
- Prof. Aftab Ahmad, Department of Ilmul Advia, Jamia Hamdard, New Delhi : Member
- Dr. Rubina Mansoori, Zakir Nagar, New Delhi : Member
- Shri M H Zaidi, Advocate, New Delhi : Member
- Prof. Nimatullah Khan, Jamia Millia Islamia, New Delhi : Member
- Prof. Nusratullah Khan, New Delhi : Member
- In-charge, RRIUM, New Delhi : Member Secretary



### Regional Research Institute of Unani Medicine (RRIUM), Kolkata

- Dr. Anjan Adhikari, Associate Professor, Department of Pharmacology, R G Kar Medical College, Kolkata : Chairperson
- Prof. Anwarul Haq, Head, Department of Ilaj bit Tadbeer, The Calcutta Unani Medical College & Hospital, Kolkata : Member
- Dr. Hakimuddin Akhtar, Consultant Physician, BM Birla Heart Research Centre, Kolkata : Member
- Shri Haider Ali, President, Howrah Health Awareness Mission, Kolkata : Member
- Shri Md. Salamuddin, Advocate, Kolkata : Member
- Shri Saptarishi Sanyal, Social Worker, Kolkata : Member
- In-charge, RRIUM, Kolkata : Member Secretary

### Regional Research Institute of Unani Medicine (RRIUM), Patna

- Prof. Alaaddin Ahmad, Former Vice-Chancellor, Jamia Hamdard, New Delhi : Chairperson
- Dr. Rajesh Kumar, Assistant Professor, Department of Microbiology, Nalanda Medical College, Patna : Member
- Shri Mohd. Shamim Akhtar, Department of Pathology, Government Tibbi College, Patna : Member
- Dr. Md. Israrul Haque, Cardiologist, Indira Gandhi Institute of Medical Sciences, Patna : Member
- Shri Md. Imteyazuddin Azad, Advocate, Patna : Member
- Dr. Haroon Rasheed, Programme Manager for Rural Development, Government of Bihar : Member
- Prof. Shakil Ahmad Qasmi, Formerly Head, Department of Urdu, Oriental College, Patna : Member
- Shri Sandip Kumar, Social Worker, Patna : Member
- In-charge, RRIUM, Patna : Member Secretary

### Regional Research Institute of Unani Medicine (RRIUM), Bhadrak

- Prof. Debashish Hota, Head, Department of Pharmacology, AIIMS, Bhubaneswar : Chairperson
- Dr. Dharendra Kumar Roy, Medical Director, Institute of Medical Sciences & SUM Hospital, Bhubaneswar : Member
- Dr. Jhasaketan Mohanty, Former Sr. Medicine Specialist, District Headquarters Hospital, Bhadrak : Member
- Dr. Sayed Mozammil Ali, Medical Officer (Unani), Government Unani Dispensary, Balasore : Member
- Shri Shaikh Zulfiqar Ali, Advocate, Bhadrak District Court : Member

- Shri SM Farooque, Secretary, Fellowship (NGO), Bhadrak : Member
- Shri Basant Kumar Nayak, Bhadrak : Member
- In-charge, RRIUM, Bhadrak : Member Secretary

## Regional Research Centre (RRC), Silchar

- Dr. Dolly Roy, Chairperson / Associate Professor of Pharmacology, Silchar Medical College and Hospital, Silchar : Chairperson
- Dr. Riturag Thakuria, Assistant Professor, Department of Medicine, Silchar Medical College and Hospital, Silchar : Member
- Dr. Wahiduzzaman, Former Deputy Director, RRIUM, Patna : Member
- Shri Ramizur Rahman Barlaskar, Advocate, Silchar Bar Association, Silchar : Member
- Shri Lutfur Rahman Laskar, Secretary, Bank Sangha (NGO), Neairgram, Cachar : Member
- Maulana Ikramuddin Mazumder, Assistant Teacher, Ghoniwala Hafizia Madarsa, Silchar : Member
- Shri Saleh Ahmed Mazumder, Silchar : Member
- In-charge, RRC, Silchar : Member Secretary

## Clinical Research Unit (CRU), Bhopal

- Prof. Arun Kumar Shrivastav, Superintendent of Hamidia Hospital, Gandhi Medical College, Bhopal : Chairperson
- Dr. Syed Mohd Abbas Zaidi, Department of Moalajat, HSZH Government Unani Medical College, Bhopal : Member
- Dr. Anil Sejwar, Associate Professor, Gandhi Medical College, Bhopal : Member
- Shri Abdul Karim Ansari, Eidgah Hills, Bhopal : Member
- Dr. Zafar Hassan, Khamgaon, Bhopal : Member
- Shri Mohd. Umar, Pari Park, Bhopal : Member
- In-charge, CRU, Bhopal : Member Secretary

## Clinical Research Unit (CRU), Burhanpur

- Dr. Humayun Shareef Dawood, Govt. Nehru District Hospital, Burhanpur : Chairperson
- Dr. K M Gupta, Formerly Civil Surgeon, Govt. Nehru District Hospital, Burhanpur : Member
- Dr. Mazhar Hussain Ansari, Assistant Professor, S.H.U. Tibbia College, Burhanpur : Member

- Dr. Mohammad Kaleem Ansari, Senior Medical Officer : Member  
(Unani), Govt. Unani Dispensary, Burhanpur
- Prof. Khaleel Ansari, Seva Sadan Law College, : Member  
Burhanpur
- Shri M F Mahajan, Retired SBI Officer, Burhanpur : Member
- Shri Abdul Hameed Ansari, Social Worker, Burhanpur : Member
- Smt. Seema Salve, Lecturer, MAIPS College, Burhanpur : Member
- In-charge, CRU, Burhanpur : Member Secretary

## 2.6. Organisational Set-Up

The Council has its Headquarters in New Delhi and a network of 22 centres functioning in different parts of the country. These centres are as follows:

Centre	Number
National Research Institute of Unani Medicine for Skin Disorders	01
Central Research Institute of Unani Medicine	01
Regional Research Institute of Unani Medicine	08
Regional Research Centre	02
Clinical Research Unit	06
Hakim Ajmal Khan Institute for Literary & Historical Research in Unani Medicine	01
Drug Standardization Research Institute	01
Drug Standardization Research Unit	01
Chemical Research Unit (Grant-in-aid)	01

The Council's centres are based in different States. The following is the State-wise institutional network.

### Andhra Pradesh

- Clinical Research Unit (CRU), Kurnool

### Assam

- Regional Research Centre (RRC), Silchar

### Bihar

- Regional Research Institute of Unani Medicine (RRIUM), Patna

### Delhi

- Regional Research Institute of Unani Medicine (RRIUM), New Delhi
- Hakim Ajmal Khan Institute for Literary & Historical Research in Unani Medicine (HAKILHRUM), New Delhi
- Drug Standardization Research Unit (DSRU), New Delhi
- Unani Medical Centre (Extension Centre of RRIUM, New Delhi), Dr. Ram Manohar Lohia Hospital, New Delhi
- Unani Speciality Centre (Extension Centre of RRIUM, New Delhi), Deen Dayal Upadhyay Hospital, New Delhi

- Unani Medical Centre (Extension Centre of RRIUM, New Delhi), VMMC & Safdarjung Hospital, New Delhi

#### Jammu & Kashmir

- Regional Research Institute of Unani Medicine (RRIUM), Srinagar

#### Karnataka

- Clinical Research Unit (CRU), Bengaluru

#### Kerala

- Clinical Research Unit (CRU), Edathala (Alwaye) with an extension centre at Pattiam, Kannur

#### Madhya Pradesh

- Clinical Research Unit (CRU), Bhopal
- Clinical Research Unit (CRU), Burhanpur

#### Maharashtra

- Regional Research Institute of Unani Medicine (RRIUM), Mumbai

#### Odisha

- Regional Research Institute of Unani Medicine (RRIUM), Bhadrak

#### Tamil Nadu

- Regional Research Institute of Unani Medicine (RRIUM), Chennai

#### Telangana

- National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad

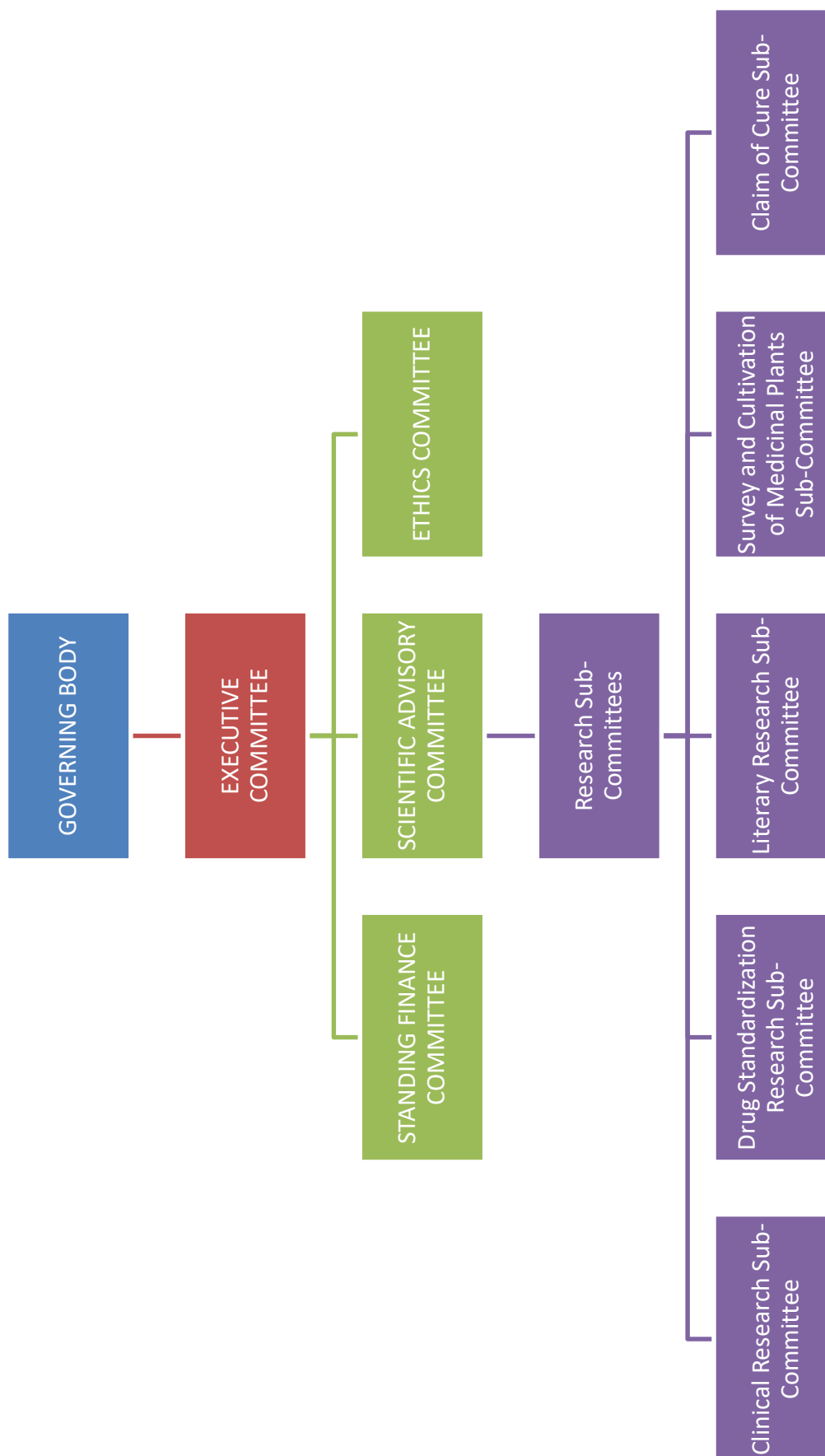
#### Uttar Pradesh

- Central Research Institute of Unani Medicine (CRIUM), Lucknow
- Regional Research Institute of Unani Medicine (RRIUM), Aligarh
- Drug Standardization Research Institute (DSRI), Ghaziabad
- Regional Research Centre (RRC), Allahabad
- Clinical Research Unit (CRU), Meerut
- Chemical Research Unit (Grant-in-aid), Aligarh

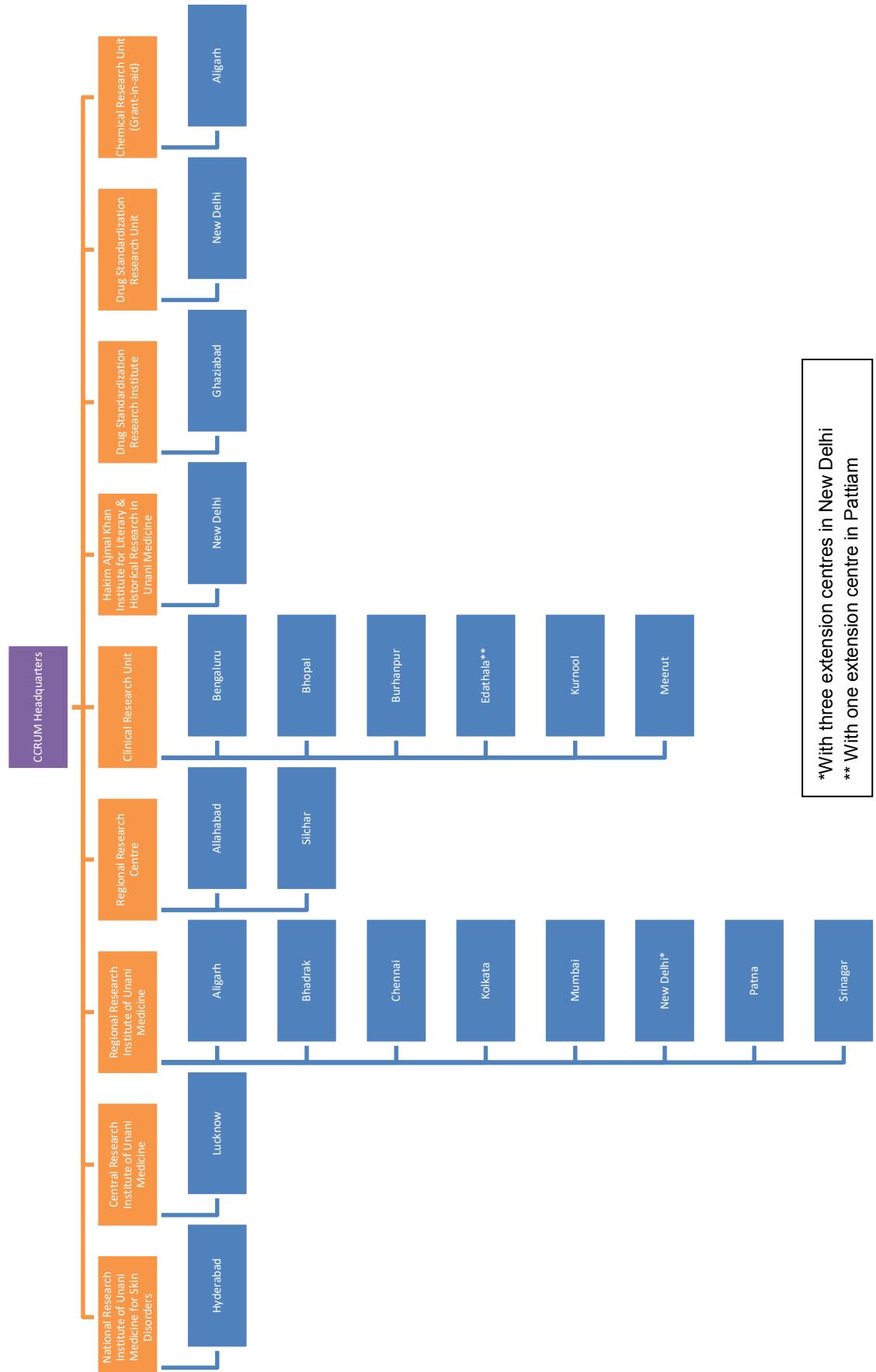
#### West Bengal

- Regional Research Institute of Unani Medicine (RRIUM), Kolkata

## Management of CCRUM

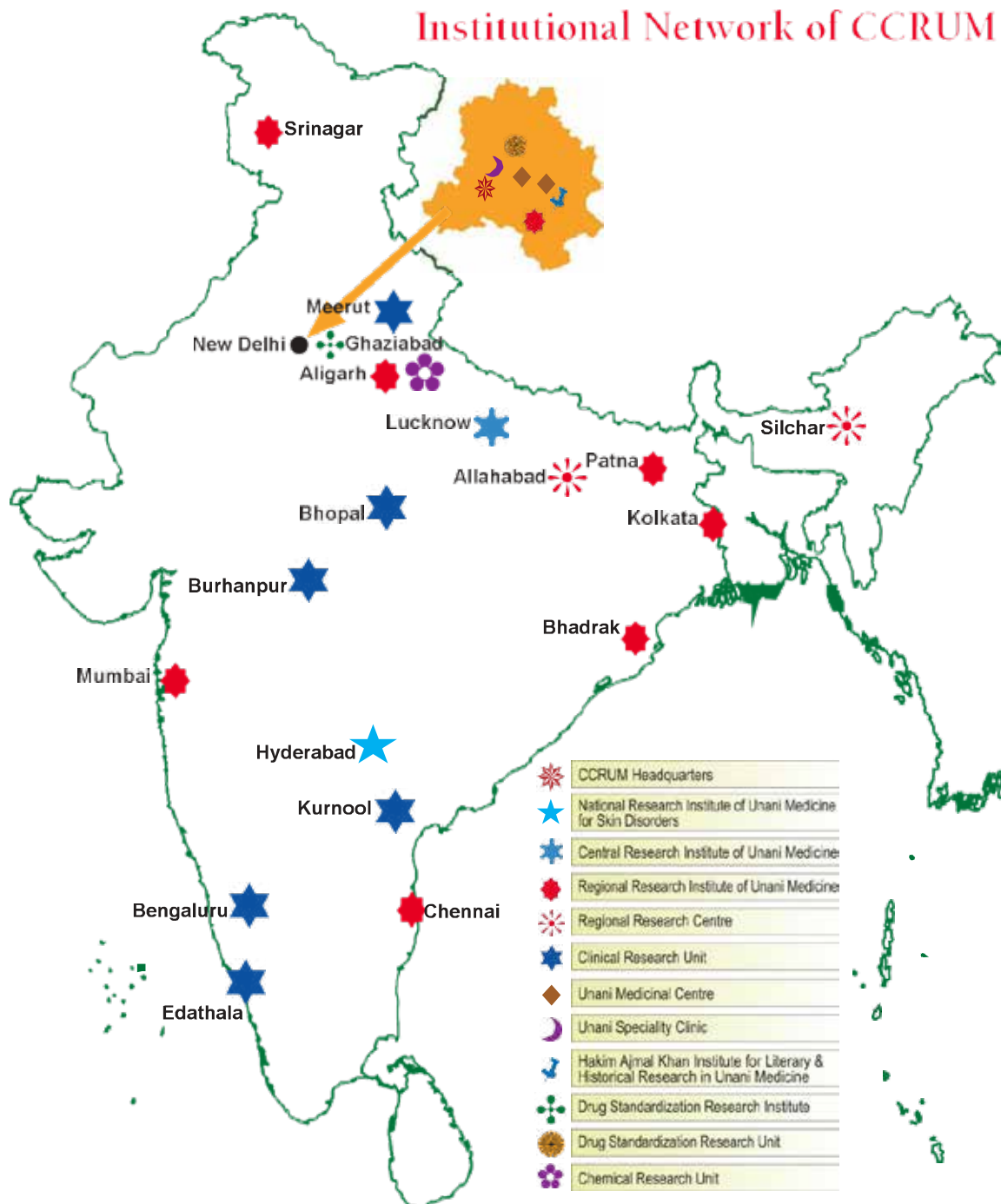


## Organizational Set-up of CCRUM



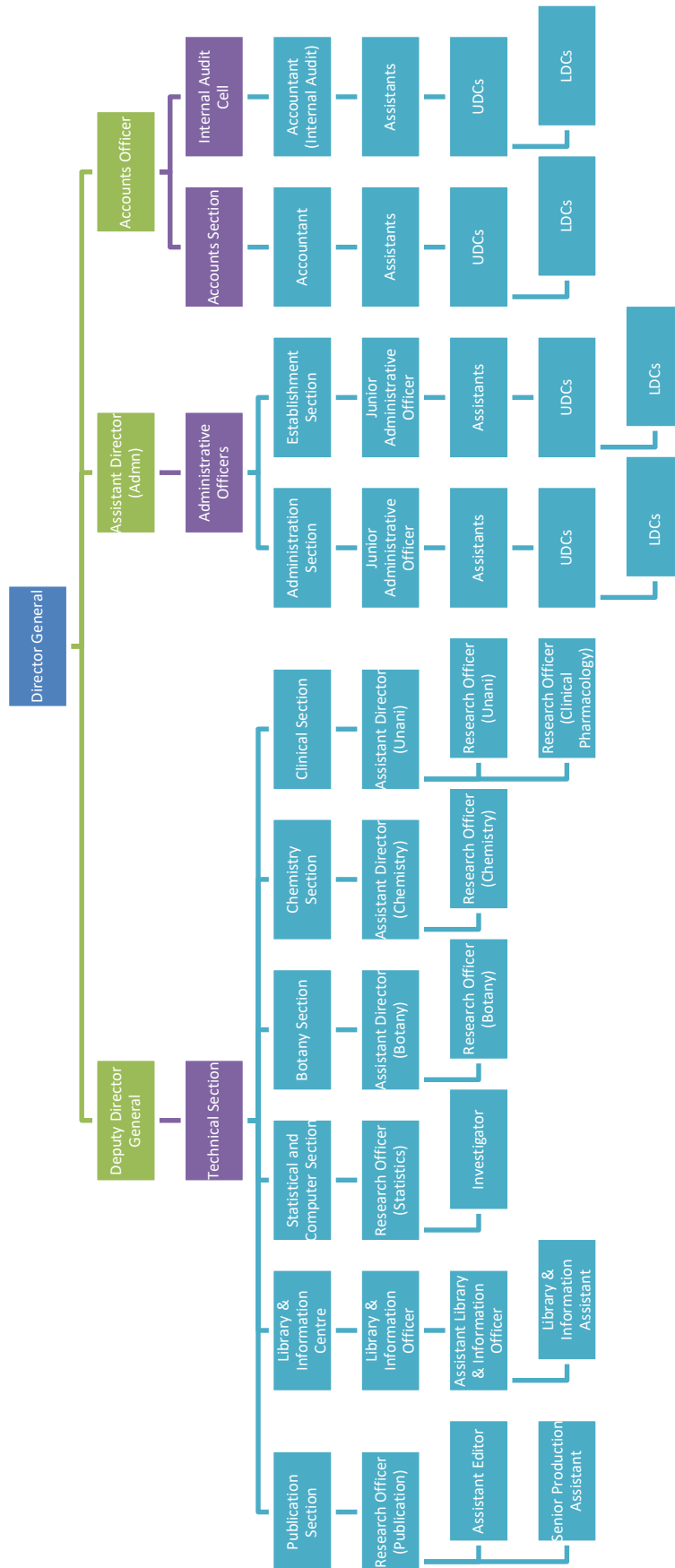
\*With three extension centres in New Delhi  
 \*\* With one extension centre in Pattiam

## Institutional Network of CCRUM





## Organizational Structure at CCRUM Headquarters



## 2.7. Budget (Actual Expenditure)

The centre-wise actual expenditure of the Council during 2020–21 was as follows:

S. No.	Name of State and Centre	Rupees in Thousand
1.	Andhra Pradesh	
	(i) CRU, Kurnool	9,699
2.	Assam (NER)	
	(i) RRC, Silchar	3,762
3.	Bihar	
	(i) RRIUM, Patna	41,947
4.	Jammu & Kashmir	
	(i) RRIUM, Srinagar	72,656
5.	Karnataka	
	(i) CRU, Bengaluru	9,888
6.	Kerala	
	(i) CRU, Alwaye	7,101
7.	Madhya Pradesh	
	(i) CRU, Burhanpur	13,261
	(ii) CRU, Bhopal	14,307
8.	Maharashtra	
	(i) RRIUM, Mumbai	39,608
9.	Manipur (NER)	
	(i) Clinical Research Pilot Project	-
10.	New Delhi	
	(i) HAKILHRUM, New Delhi	29,127
	(ii) RRIUM, New Delhi	101,462
	(iii) Headquarters, New Delhi	142,125
	(iv) DSRU, New Delhi	15,789
11.	Odisha	
	(i) RRIUM, Bhadrak	42,850
12.	Tamil Nadu	
	(i) RRIUM, Chennai	73,611
13.	Telangana	
	(i) NRIUMSD, Hyderabad	152,276
14.	Uttar Pradesh	
	(i) DSRI, Ghaziabad	23,145
	(ii) CRIUM, Lucknow	91,133
	(iii) RRC, Allahabad	20,299
	(iv) RRIUM, Aligarh	56,105

S. No.	Name of State and Centre	Rupees in Thousand
	(v) CRU, Meerut	23,155
15.	West Bengal	
	(i) RRIUM, Kolkata / Howrah	20,126
16.	Other Charges	
	(i) AHMIS	-
	(ii) Contribution to NPS	22,045
	(iii) CGHS Contribution	2,537
	(iv) Pension Fund Transfer	320,000
	(v) Medical Advance	379
	(vi) DLIS	420
	(vii) Swatchhta Action Plan	4,004
	(viii) SRPP	-
	(ix) Hindi Pakhwada	21
	(x) Health Mela	83
	(xi) Collaborative Research Projects	21,342
	(xii) Unani Day/Seminar	2,632
	(xiii) Arogya Mela	17
	(vix) EMR	84
	(xv) Ethics Committee	71
	(xvi) UPC	-
	(xvii) NPCDCS	25,366
	(xviii) Seminar/Workshop	338
	(xix) Unani Academic Course	54,054
	(xx) NABH Accreditation	-
	(xxi) Training Programme	3
	(xxii) Health Camps	2
	(xxiii) Capital Works	190,000
	(xxiv) Advance to Govt. Servants	3,813
	(xxv) Publication (Priced)	-
	(xxvi) Covid-19	3,929
	(xxvii) Survey Expenses	205
	(xxviii) GIA to CRU, AMU, Aligarh	300
	(xxix) IEC Expenses	1,713
	(xxx) Ayurveda Parv	100
	<b>Grand Total S. No. 1 to 16</b>	<b>1,656,890</b>

### 3. TECHNICAL REPORT

#### 3.1. Intramural Research

##### 3.1.1. Centre-wise Activities

CENTRE	ACTIVITIES
National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad	<ul style="list-style-type: none"> <li>• Survey and Cultivation of Medicinal Plants Programme</li> <li>• Drug Standardization Research Programme</li> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> <li>○ Validation of Regimen Therapies</li> <li>○ Validation of Fundamentals</li> </ul> </li> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>• School Health Programme</li> <li>• Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>
Central Research Institute of Unani Medicine (CRIUM), Lucknow	<ul style="list-style-type: none"> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> <li>○ Validation of Regimen Therapies</li> </ul> </li> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>• School Health Programme</li> <li>• Integration of Unani Medicine in NPCDCS</li> <li>• Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>
Regional Research Institute of Unani Medicine (RRIUM), Chennai	<ul style="list-style-type: none"> <li>• Survey and Cultivation of Medicinal Plants Programme</li> <li>• Drug Standardization Research Programme</li> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> <li>○ Validation of Regimen Therapies</li> </ul> </li> </ul>

CENTRE	ACTIVITIES
	<ul style="list-style-type: none"> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>• School Health Programme</li> <li>• Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>
Regional Research Institute of Unani Medicine (RRIUM), Bhadrak	<ul style="list-style-type: none"> <li>• Survey and Cultivation of Medicinal Plants Programme</li> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> <li>○ Validation of Regimen Therapies</li> </ul> </li> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>• School Health Programme</li> <li>• Mobile Healthcare Program under Tribal Sub Plan</li> </ul>
Regional Research Institute of Unani Medicine (RRIUM), Patna	<ul style="list-style-type: none"> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> <li>○ Validation of Regimen Therapies</li> </ul> </li> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>• School Health Programme</li> <li>• Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>
Regional Research Institute of Unani Medicine (RRIUM), Aligarh	<ul style="list-style-type: none"> <li>• Survey and Cultivation of Medicinal Plants Programme</li> <li>• Drug Standardization Research Programme</li> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>• Research-oriented Healthcare</li> </ul>

CENTRE	ACTIVITIES
	<ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> <li>● Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>
Regional Research Institute of Unani Medicine (RRIUM), Mumbai	<ul style="list-style-type: none"> <li>● Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> <li>○ Validation of Regimen Therapies</li> </ul> </li> <li>● Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>● School Health Programme</li> <li>● Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>
Regional Research Institute of Unani Medicine (RRIUM), Srinagar	<ul style="list-style-type: none"> <li>● Survey and Cultivation of Medicinal Plants Programme</li> <li>● Drug Standardization Research Programme</li> <li>● Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Pharmacological Research Programme</li> <li>○ Validation of Regimen Therapies</li> </ul> </li> <li>● Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>● School Health Programme</li> </ul>
Regional Research Institute of Unani Medicine (RRIUM), Kolkata	<ul style="list-style-type: none"> <li>● Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>● Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>● Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>

CENTRE	ACTIVITIES
Regional Research Institute of Unani Medicine (RRIUM), New Delhi	<ul style="list-style-type: none"> <li>• Clinical Research Programme <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> <li>○ Validation of Regimen Therapies</li> </ul> </li> <li>• Research-oriented Healthcare <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>• Unani Speciality Clinics at Allopathic Hospitals</li> <li>• Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>
Regional Research Centre (RRC), Allahabad	<ul style="list-style-type: none"> <li>• Clinical Research Programme <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>• Research-oriented Healthcare <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>• School Health Programme</li> <li>• Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>
Regional Research Centre (RRC), Silchar	<ul style="list-style-type: none"> <li>• Clinical Research Programme <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>• Research-oriented Healthcare <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> </ul> </li> </ul>
Clinical Research Unit (CRU), Bengaluru	<ul style="list-style-type: none"> <li>• Clinical Research Programme <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>• Research-oriented Healthcare <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> </ul> </li> </ul>



CENTRE	ACTIVITIES
Clinical Research Unit (CRU), Meerut	<ul style="list-style-type: none"> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> </ul> </li> </ul>
Clinical Research Unit (CRU), Bhopal	<ul style="list-style-type: none"> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> </ul> </li> <li>• Mobile Healthcare Program under Schedule Caste Sub-Plan</li> </ul>
Clinical Research Unit (CRU), Burhanpur	<ul style="list-style-type: none"> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> <li>○ Mobile Clinical Research Programme</li> </ul> </li> <li>• School Health Programme</li> <li>• Mobile Healthcare Program under Tribal Sub Plan</li> </ul>
Clinical Research Unit (CRU), Edathala	<ul style="list-style-type: none"> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> </ul> </li> </ul>
Clinical Research Unit (CRU), Kurnool	<ul style="list-style-type: none"> <li>• Clinical Research Programme               <ul style="list-style-type: none"> <li>○ Validation of Unani Pharmacopoeial Drugs</li> <li>○ Validation of Unani Pharmacopoeial Fast-acting Drugs</li> </ul> </li> <li>• Research-oriented Healthcare               <ul style="list-style-type: none"> <li>○ General Outpatient Department (GOPD) Programme</li> </ul> </li> </ul>

CENTRE	ACTIVITIES
	<ul style="list-style-type: none"> <li>Mobile Healthcare Program under Tribal Sub Plan</li> </ul>
Drug Standardization Research Unit (DSRU), New Delhi	<ul style="list-style-type: none"> <li>Drug Standardization Research Programme</li> </ul>
Drug Standardization Research Institute (DSRI), Ghaziabad	<ul style="list-style-type: none"> <li>Drug Standardization Research Programme</li> </ul>
Hakim Ajmal Khan Institute for Literary & Historical Research in Unani Medicine (HAKILHRUM), New Delhi	<ul style="list-style-type: none"> <li>Literary Research Programme</li> <li>Research-oriented Healthcare               <ul style="list-style-type: none"> <li>General Outpatient Department (GOPD) Programme</li> </ul> </li> </ul>
Chemical Research Unit (CRU) (Grant-in-aid), Aligarh	<ul style="list-style-type: none"> <li>Chemical Investigation of Unani Medicinal Plants</li> </ul>

## 3.1.2. Programme-wise Activities

### 3.1.2.1. Survey and Cultivation of Medicinal Plants Programme

The Council has a programme for extensive survey of medicinal plants in different parts of the country, primarily with a view to collect and identify medicinal plants and record basic data on ethno-pharmacological uses of plants from the tribal and other rural folks of the study area. The broad objectives of the programme are:

- To survey, collect and identify medicinal plants in different forest zones of the country;
- To study distribution, availability, ethno-pharmacological uses and threats of medicinal plants;
- To carry out experimental and field-scale cultivation of medicinal plants;
- To maintain a herbarium of medicinal plants and raw drugs for demonstration purposes;
- To maintain a demonstrable herb garden;
- To document folk knowledge on medicinal uses of plants;
- To collect samples of genuine drugs from the forests for pharmacopoeial standardization; and
- To develop nurseries of medicinal plants for demonstration purpose with a view to popularize them among masses.

This programme is carried out at the following research centres:

- National Research Institute of Unani Medicine for Skin Disorders, Hyderabad
- Regional Research Institute of Unani Medicine, Chennai
- Regional Research Institute of Unani Medicine, Srinagar
- Regional Research Institute of Unani Medicine, Bhadrak
- Regional Research Institute of Unani Medicine, Aligarh

### Ethnopharmacological Survey

Under this programme, the Council undertook ethno-pharmacological surveys in different forest divisions/areas during the period under report. These include Namakkal Forest Division and Kallakuruchi Forest Division of Tamil Nadu; and Hyderabad Forest Division of Telangana. As a result of the survey tours conducted, 911 botanical specimens were collected and 351 plant species identified.

### Herbarium

The plant specimens collected from the study areas, including previous collection, were mounted on herbarium sheets. During the reporting period, 1321 such herbarium sheets were prepared and information pertaining to the botanical name, family, local name, Unani name (wherever available), date of collection, brief morphological features and medicinal / other uses of the plants were recorded on each herbarium sheet. Besides, 753 index cards were updated.

The survey team members collected 1313 saplings of important medicinal species for plantation in the nurseries attached to the institutes.

The survey teams also collected 272 kg of raw drugs and sent them to the pharmacy section of NRIUMSD, Hyderabad for preparation of Unani formulations.

### Digitization of Herbarium Specimens

Under this activity, 502 herbarium sheets were digitized by the Council's research centres at Chennai and Hyderabad.

### Folk Claims

The surveyors enquired from the local communities about traditional uses of plants after obtaining oral informed consent. The information was systematized taxonomically and efforts were made to develop a database for comparative analysis of the information recorded. As a result, 49 folk medicinal claims were recorded from the tribal inhabitants and other rural folks of the study areas. The Council publishes the information in the form of books providing details comprising botanical name and family, synonym, local name, Unani name, habit and habitat, wild or cultivated, medicinal efficacy claimed and name of the tribe, locality, collection number, part(s) used, mode of application, and biodynamic notes.

### Experimental and Field-Scale Cultivation of Medicinal Plants

Under this activity, the Council cultivates some important medicinal plants used in Unani medicines. These include *Atrilāl* (*Ammi majus* L.), *Afsantīn* (*Artemisia absinthium* L.), *Bābchī* (*Psoralea corylifolia* L.), *Gulnār Fārsī* (*Punica granatum* L. abortive var.), *Gurmārbūti* (*Gymnema sylvestre* (Retz.) R.Br. ex Sm.), *Kāsnī* (*Cichorium intybus* L.), *Khaṭmī* (*Althaea officinalis* L.), *Suddāb* (*Ruta graveolens* L.), *Nagdon* (*Artemisia nilagirica* (Clarke) Pamp), *Dirmānā Turkī* (*Artemisia maritima* L.), *Asgandh* (*Withania somnifera* (L.) Dunal), *Ajwāyin Khurāsāni* (*Hyoscyamus niger* L.), etc. As a result of the field-scale cultivation, 52 kg raw drugs were obtained and supplied to the pharmacy section of NRIUMSD, Hyderabad from Chennai and Srinagar for preparation of Unani formulations.

### Herbal Garden and Nursery of Medicinal Plants

With a view to popularize medicinal plants among the masses, the Council maintained about 163 common species in its *Ibn al-Bayṭār* Herbal Garden at NRIUMSD, Hyderabad and nurseries developed at Aligarh, Chennai and Srinagar. Some of the important and

interesting species grown under this activity include: *Āmla* (*Phyllanthus emblica* L.), *Anār* (*Punica granatum* L.), *Ashok* (*Saraca asoca* (Roxb.) Willd.), *Atrilāl* (*Ammi majus* L.), *Afsantīn* (*Artemisia absinthium* L.), *Arūsā* (*Justicia adhatoda* L.), *Aspaghol* (*Plantago ovata* Forsk.), *Aṣl al-Sūs* (*Glycyrrhiza glabra* L.), *Asrol* (*Rauvolfia serpentina* (L.) Benth. ex Kurz.), *Bijāsār* (*Pterocarpus marsupium* Roxb.), *Belgirī* (*Aegle marmelos* (L.) Correa.), *Bābchī* (*Psoralea corylifolia* L.), *Banafshā* (*Viola odorata* L.), *Bhāngrā* (*Eclipta prostrata* (L.) L.), *Brinjāsif* (*Achillea millefolium* L.), *Fūfal* (*Areca catechu* (L.f.) Willd.), *Ghīkawār* (*Aloe vera* (L.) Burm.f.), *Gulnār Fārsī* (*Punica granatum* L. abortive var.), *Gurmārbūtī* (*Gymnema sylvestre* (Retz.) R.Br. ex Sm.), *Hinā* (*Lawsonia inermis* L.), *Irsā* (*Iris ensata* Thunb.), *Jadwār* (*Delphinium denudatum* Wall. ex Hook.f. & Thoms.), *Keorā* (*Pandanus tectorious* Soland. ex Parkinson), *Kājū* (*Anacardium occidentale* L.), *Khulanjān* (*Alpinia galanga* Willd.), *Konch* (*Mucuna pruriens* L.), *Mako* (*Solanum americanum* Mill.), *Marorphālī* (*Helicteres isora* L.), *Muqil* (*Commiphora mukul* (Hook. ex Stocks) Engl.), *Pālas* (*Butea monosperma* (Lam.) Taub.), *Qinnāb* (*Cannabis sativa* L.), *Qurṭūm* (*Carthamus tinctorius* L.), *Rasan* (*Inula racemosa* C.B. Clarke), *Sadābahār* (*Catharanthus roseus* (L.) G. Don), *Ṣandal Surkh* (*Pterocarpus santalinus* L. f.), *Satāwar* (*Asparagus racemosus* Willd.), *Suddāb* (*Ruta graveolens* L.), *Raiḥān* (*Ocimum tenuiflorum* L.), *Turbud* (*Operculina turpethum* (L.) Silva Manso), *Waj* (*Acorus calamus* L.), etc.

### 3.1.2.2. Drug Standardization Research Programme

The Drug Standardization Research Programme is mainly concerned with evolving pharmacopoeial standards for single drugs and compound formulations of Unani Medicine included in various volumes of *National Formulary of Unani Medicine* (NFUM) and *Essential Drugs List* for their incorporation in *Unani Pharmacopoeia of India* (UPI). The work on compound formulations includes development of standard operating procedures (SOPs) for their manufacture followed by the development of their pharmacopoeial standards. Besides, standardization of investigational drugs for clinical trials at the Council and estimation of heavy metals, microbial load, aflatoxin content and pesticidal residues in the drugs are also undertaken as a part of this programme. Chemical investigations of Unani medicinal plants are also carried out under this programme. The standardization work is carried out in accordance with the format approved by the Unani Pharmacopoeia Committee of the Government of India through the following research centres:

- Drug Standardization Research Institute (DSRI), Ghaziabad
- National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad
- Regional Research Institute of Unani Medicine (RRIUM), Chennai
- Regional Research Institute of Unani Medicine (RRIUM), Srinagar
- Regional Research Institute of Unani Medicine (RRIUM), Aligarh
- Drug Standardization Research Unit (DSRU), New Delhi

During the reporting period, the following works were carried out:

#### Development of SOPs for Manufacture of Unani Formulations and their Pharmacopoeial Standards

Under this programme, SOPs for the method of preparation and Pharmacopoeial standards of following 28 Unani formulations were developed:

S. N.	Formulation	S. N.	Formulation
1	<i>Anoshdārū Lu'lu'wī</i>	15	<i>Qurş Tabāshīr Mulayyin</i>
2	<i>Sharbat-i-Nilofar</i>	16	<i>Qurş Tabāshīr Lu'lu'wī</i>
3	<i>Safūf Dhayābīṭus Dūlābī</i>	17	<i>Qurş Gulnār Fārsī</i>
4	<i>Jawārish-i- 'Ūd Tursh</i>	18	<i>Dawā' -i-Luk</i>
5	<i>Ma'jūn-i-La'na</i>	19	<i>Sharbat I'jāz</i>
6	<i>Safūf-i-Tīn</i>	20	<i>Qurş Musakkin</i>
7	<i>Khamīra Ābresham Arshad Wālā</i>	21	<i>Ḥabb-i-Karanjwā</i>
8	<i>Rawghan-i-Zaytūn</i>	22	<i>Ḥabb-i-Bukhār*</i>
9	<i>Sharbat-i-Fawlād</i>	23	<i>Ḥabb-i-Hindī Muḥallīl*</i>
10	<i>Qurş Mulayyin</i>	24	<i>Ḥabb-i-Momyā'ī Sāda</i>
11	<i>Qurş Zirishk</i>	25	<i>Labūb Saghīr</i>
12	<i>Qurş Dhayābīṭus Khāṣ</i>	26	<i>Ḥalwa Supārī Pāk</i>
13	<i>Qurş Dhayābīṭus Sāda</i>	27	<i>La'ūq-i-Ḥulba</i>
14	<i>Qurş Tabāshīr Qābiḍ</i>	28	<i>Khamīra Marwārīd</i>

\*The drugs were re-allotted for completion of parameters in accordance with the format of Scientific Body, PCIM&H.

#### Development of Pharmacopoeial Standards of Single Drugs

Under the programme, pharmacopoeial standards of the following 12 single drugs were developed:

S. N.	Drug	Botanical / English Name	Part Studied
1.	<i>Nishāsta Makkī</i>	<i>Zea mays</i> L.	Starch from endosperm
2.	<i>Tukhm-i-Jirjir</i>	<i>Eruca sativa</i> Mill.	Seed
3.	<i>Tukhm-i-Nilofar</i>	<i>Nymphaea alba</i> L.	Seed
4.	<i>Nāgbalā</i>	<i>Sida spinosa</i> L.	Seed
5.	<i>Tukhm-i-Maru (Kanocha)</i>	<i>Phyllanthus maderaspatensis</i> L.	Seed
6.	<i>Tukhm-i-Kāhū</i>	<i>Lactuca sativa</i> L.	Seed
7.	<i>Tukhm-i-Khurfa</i>	<i>Portulaca oleracea</i> L.	Seed
8.	<i>Aqāqiyā</i>	<i>Acacia arabica</i> Willd.	Extract
9.	<i>Gil-i-Armanī</i>	Arminium bole	Earthy clay
10.	<i>Shagūfa-i-Idhkhar</i>	<i>Cymbopogon jwarancusa</i> Schult	Flower
11.	<i>Dhatūra</i>	<i>Datura alba</i> Nees.	Seed
12.	<i>Kanghī</i>	<i>Abutilon indicum</i> Mill.	Fruit

## Revision of NFUM and UPI

The Council as the Secretariat for the Unani Pharmacopoeia Committee (UPC) organized meetings of the UPC. During the reporting period, the Council finalized and submitted revised edition of *National Formulary of Unani Medicine* (NFUM), Part-IV consisting of 166 formulations to PCIM&H for publication. The revision of NFUM, Part-I & II and Unani Pharmacopoeia of India (UPI), Part-I, Vol. II as per the new format provided by the Pharmacopoeia Commission of Indian Medicine and Homoeopathy (PCIM&H) continued.

## Development of Pharmacopoeial Monograph of AYUSH *Joshānda*

As per the guidelines of PCIM&H and mandate of the Ministry of AYUSH, the monograph of AYUSH *Joshānda* was developed in the laboratory of CCRUM and published as *Formulary Specifications of AYUSH Safūf-i-Joshānda* by Ministry of AYUSH.

## In-silico Screening of Four Unani Formulations against SARS-CoV-2

*In-silico* study on the phyto-constituents present in four Unani formulations, i.e. *Triyāq Wabā'ī*, Novel Unani Drug, *Triyāq Arba'a* and *'Araq 'Ajīb* given to the people in management of Covid-19 was carried out to evaluate the efficacy of Unani formulations against SARS-CoV-2. From the study, it was observed that the best ligands to interfere with the Spike protein binding to host cell are Isorhoifolin, Glycyrrhizin, Crocin and Aristolochic acid of the Unani formulations, viz. *Triyāq Wabā'ī*, Novel Unani Drug, *Triyāq Arba'a* and *'Araq 'Ajīb* respectively.

## Analysis of ASU Drugs

The drug testing laboratory at the RRIUM, Chennai analysed the following 31 ASU drug samples received from different organizations:

S. N.	Sample	Source	Parameters Analysed
1.	<i>Sargassum</i> spp.	Bharathi Women's College, Chennai	HPTLC studies
2.	Chirattaitailam	Dr. D. Jayashree, Nerkundrum, Chennai	Antifungal activity studies
3.	Thulasi Ennai	Government Siddha Medical College, Chennai	Anti-microbial activity
4.	Uraimathirai		Microbial load detection, aflatoxin detection and antimicrobial activity studies
5.	<i>Spirullina platensis</i>	International Institute of Biotechnology & Toxicology, Padappai	HPTLC studies
6.	Catche Insta Repellent	Muktha Laboratories, Chennai	HPTLC analysis, detection of aflatoxin and microbial load contamination
7.	Catche Trapellent		HPTLC analysis, detection of aflatoxin and microbial load contamination
8.	Repellent & Trapellent		AYUSH protocol



S. N.	Sample	Source	Parameters Analysed
9.	Repellent A01		Microbial load, HPTLC and detection of Aflatoxin
10.	Repellent H03		Microbial load
11.	Repellent I01		Microbial load
12.	Gandaga Chooranam	National Institute of Siddha, Chennai	HPTLC studies, Microbial contamination and detection of Aflatoxin
13.	<i>Koraikihangu Kudineer</i>		Physicochemical, HPTLC, antimicrobial activity and microbial load
14.	Kukilathi Urundai		HPTLC studies, Microbial load, and detection of Aflatoxin
15.	Pancha Lavanya Dravagam (PLD)		pH, Volatile matter, specific gravity, refractive index, HPTLC, microbial load and test for specific pathogens
16.	Swasakarasak Kudori		HPTLC studies, Microbial contamination and detection of Aflatoxin
17.	Kandamalaga Legiym		HPTLC analysis and detection of aflatoxin
18.	Pereechangai Nei		HPTLC analysis, microbial load contamination and detection of aflatoxin
19.	<i>Ma'jūn-i-Sarakhs</i>	National Institute of Unani Medicine, Bangalore	Microbial load, Heavy metals, HPTLC, Physico-chemical analysis
20.	Vitex negundo	Presidency College, Chennai	HPTLC analysis, preliminary phytochemical analysis and antimicrobial activity studies
21.	<i>Syzygiumcumini</i> (Coded sample A, B & C)	Queen Mary's College, Chennai	HPTLC studies
22.	Coded sample A & M	Sree Balaji Medical College and Hospital, Chennai	HPTLC analysis
23.	<i>Ehretia pubescens</i> Royle.		HPTLC studies
24.	Coded sample – PPE	SRM University, Chennai	HPTLC analysis
25.	<i>Desmodium gangeticum</i> L.	Tamil Nadu Veterinary & Animal Sciences University, Chennai	Pharmacognosy work
26.	Code VN	University of Madras, Chennai	HPTLC studies
27.	CuNPS		Antimicrobial studies



S. N.	Sample	Source	Parameters Analysed
28.	Coded sample AKNOO36	Vels University, Chennai	Preparation of alcohol extract
29.	Coded sample CG		Physicochemical parameters, extraction for alcohol, preliminary phytochemical analysis and HPTLC studies
30.	Lemon peel extract		HPTLC analysis
31.	Orange peel extract		HPTLC analysis

### 3.1.2.3. Clinical Research Programme

#### Preclinical Studies

Preclinical safety and pharmacological studies are conducted at the National Research Institute of Unani Medicine for Skin Disorders, Hyderabad and Regional Research Institute of Unani Medicine, Srinagar.

During the reporting period, acute and repeated dose (28-day) oral toxicity studies on five Unani formulations (*Sharbat Belgirī*, *Sharbat Khāksī*, *Khamīra Ābresham Shīra ‘Unnāb Wālā*, *Qurṣ Mafāṣil*, *Capsule Nazla*) were conducted at NRIUMSD, Hyderabad after prior approval from Institutional Animal Ethics Committee. Experimental part for repeated dose (90-day) oral toxicity studies on *Ma‘jūn Māsik al-Bawl* and *Qurṣ Damawī* were completed and histopathological investigation was in progress. Apart from this, animal experimental part of four preclinical studies of MD (Ilmul Advia, second batch) dissertation was completed in the Pharmacology Department during the reporting period. All animal experiments/ procedures were performed with strict adherence to the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA) guidelines. Summary of the studies undertaken is as under:

#### Preclinical Safety Evaluation of *Sharbat Belgirī*

##### (a) Acute oral toxicity study in rats

Acute oral toxicity potential of *Sharbat Belgirī* (SB) was assessed in female Sprague Dawley (SD) rats. Considering the low acute toxicity potential of SB, a limit test at the dose of 20 mL/kg body weight (i.e., maximum feasible dose and about 8X of therapeutically equivalent dose), was conducted as per the OECD Test Guideline 425. Animals were sequentially administered with single dose of SB and observed for lethality and toxic signs and symptoms for 14 days post-treatment. As no lethality was observed following the treatment with SBG in five consecutive animals respectively, dosing to further animals was stopped. All the five animals were sacrificed on day 15 and necropsy was performed. No treatment related gross pathological abnormality was observed. No mortality was observed at the tested dose of 20 mL/kg body weight of SB. Therefore, oral LD<sub>50</sub> of the SB in female SD rats was estimated to be greater than 20 mL/kg body weight.

##### (b) Repeated dose 28-day oral toxicity study in rats

Repeated dose 28-day oral toxicity study on SB was performed as per OECD Test Guideline 407 in SD rats. Animals were divided into four groups (n=05 per sex per group). SB was orally administered at the dose levels of 2.50, 5.00 and 10 mL/kg bw/day (i.e.,

approximately 1X, 2X and 4X of therapeutic equivalent dose, respectively) for 28 days. Control animals were administered with water only. Body weight and feed intake for all animals was measured weekly throughout the study duration. Detailed clinical observations were made periodically to detect signs of toxicity. After completion of dosing period, blood samples were collected for haematological and biochemical analysis and animals were euthanized; vital organs were harvested for organ weight determination and histopathological evaluation. Tissue samples would be submitted to National Institute of Nutrition, Hyderabad for histopathology investigations. Statistical analysis of data of body weight, feed consumption, haematology and biochemistry parameters continued.

#### Preclinical Safety Evaluation of *Sharbat Khāksī*

##### (a) Acute oral toxicity study in rats

Acute oral toxicity of *Sharbat Khāksī* (SKH) was assessed in female Sprague Dawley (SD) rats. Considering the low acute toxicity potential of the drug, a limit test at the dose of 20 mL/kg bw (i.e., maximum feasible dose) as per OECD Test Guideline 425 was conducted. Animals were administered with single dose of the test formulation and observed for lethality and toxic signs and symptoms for 14 days post-treatment. As no lethality was observed following treatment with SKH in five consecutive animals, dosing to further animals was stopped. All the five animals were sacrificed on day 15 and necropsy was performed. No treatment related gross pathological abnormality was observed. Under the given conditions, no toxic signs and symptoms or mortality was observed at the dose of 20 mL/kg bw. Therefore, oral LD<sub>50</sub> of SKH in the female SD rats was estimated to be greater than 20 mL/kg body weight.

##### (b) Repeated dose 28-day oral toxicity study in rats

Repeated dose 28-day oral toxicity study on SKH was performed as per OECD Test Guideline 407 in SD rats. Rats were randomly divided into four groups (n=05 per sex per group). SKH was administered at the dose of 2.50, 5.00 and 10 mL/kg bw/day p.o. for 28 days. Control animals were administered with water. Body weight and feed intake for all animals was measured weekly throughout study duration. Detailed clinical observations were made periodically to detect signs of toxicity. After completion of 28 days, blood samples were collected for haematological and biochemical analysis and animals were sacrificed, organs were harvested for organ weight determination and histopathological evaluation. No post dose adverse effect was reported on survival of both male and female rats after oral administration of SKH for 28 consecutive days. The SKH treated animals did not showed any significant alteration in hematological and biochemical parameters in both male and female rats at all tested dose levels as compared to control animals except few alterations which were toxicologically insignificant and within normal reference range. No significant alteration was observed with regard to body weight, feed intake and relative organ weights of control and SKH treated rats of either sex. The study findings did not indicate any toxicological significant observation in terms of body weight, feed intake, behavioural pattern, haematology, clinical chemistry; organ weight in SKH treated group at all tested dose levels as compared to control animals. The conclusive statement regarding safety of SKH could possibly be made based on histopathological findings which were in progress.

#### Preclinical Safety Evaluation of *Khamīra Ābresham Shīra* 'Unnāb Wālā

##### (a) Acute oral toxicity study in rats

Acute oral toxicity study of *Khamīra Ābresham Shīra ‘Unnāb Wālā* (KASU) was conducted at a limit dose of 2,000 mg/kg bw in female Sprague Dawley (SD) rats. No mortality was observed at the tested limit dose level of 2000 mg/kg bw. Therefore, oral LD50 of the KASU may be considered to be greater than 2000 mg/kg body weight in female SD rats.

(b) Repeated dose 28-day oral toxicity study in rats

Repeated dose 28-day oral toxicity study on KASU was performed in SD rats as per OECD Test Guideline 407. Animals were randomly divided into four groups (n=05 per sex per group). KASU was orally administered at the dose levels of 500, 1000 and 2000 mg/kg bw/day (i.e., approximately 1X, 2X and 4X of therapeutic equivalent dose, respectively) for 28 days. Control group rats were administered with water as vehicle. Body weight and feed intake for all animals were monitored weekly throughout the study duration. Detailed clinical observations were made periodically to detect signs of toxicity. After completion of dosing period, blood samples were collected for haematological and biochemical analysis and animals were euthanized; vital organs were harvested for organ weight determination and histopathological evaluation. Tissue samples would be submitted to National Institute of Nutrition, Hyderabad for histopathology investigations. Compilation of data of body weight, feed consumption, haematology and biochemistry was in progress.

**Preclinical Safety Evaluation of *Qurş Mafāşil***

(a) Acute oral toxicity study in rats

Acute oral toxicity study of *Qurş Mafāşil* (QM) was conducted in Sprague Dawley rats. Considering the low acute toxicity potential of tested drug, a limit test at the dose of 2000 mg/kg bw (i.e., maximum feasible dose and about 10X of therapeutically equivalent dose) was conducted as per OECD Test Guideline 425. Animals were sequentially administered with single dose of QM and observed for lethality and toxic signs and symptoms for 14 days post-treatment. As no lethality was observed following treatment with QM in five consecutive animals respectively, dosing to further animals was stopped. All the five animals were sacrificed on day 15 and necropsy was performed. No treatment related gross pathological abnormality was observed. Under the given conditions, no toxic signs and symptoms or mortality was observed at the dose of 2000 mg/kg bw. Therefore, oral LD50 of QM was estimated to be greater than 2,000 mg/kg body weight in female SD rats.

(b) Repeated dose 28-day oral toxicity study in rats

Repeated dose 28-day oral toxicity study on QM was performed in SD rats. Animals were divided into four groups (n=05 per sex per group). QM was orally administered at the dose levels of 200, 1000 and 2000 mg/kg bw/day (i.e., approximately 1X, 5X and 10X of therapeutic equivalent dose, respectively) for 28 days. Control animals were administered with 0.3% aqueous Carboxymethyl Cellulose (CMC) suspension. A satellite group (n=05 rats per sex per group) was also included in the control and high dose QM group to monitor the reversibility or persistence of treatment related changes (if any). Animals in satellite groups received respective treatment for 28 days, followed by maintaining them for two weeks without dosing before euthanasia. Body weight and feed intake for all animals were measured weekly throughout the study duration. Detailed clinical observations were made periodically to detect signs of toxicity. After completion of respective dosing period, blood samples were collected for haematological and biochemical analysis and animals were euthanized, vital organs were harvested for weight determination and histopathological evaluation. Tissue samples were submitted to National Institute of Nutrition, Hyderabad for

histopathology investigations. Body weight, feed consumption, haematology and biochemistry data were under analysis.

#### Preclinical Safety Evaluation of Capsule *Nazla*

##### (a) Acute oral toxicity study in rats

Acute oral toxicity of Capsule *Nazla* was evaluated (CNaz) in female Sprague Dawley (SD) rats. Considering the low acute toxicity potential of the test drug, a limit test at the dose of 3000 mg/kg bw (i.e., maximum feasible dose) was conducted as per OECD Test Guideline 425. Animals were administered with single dose of the test formulation and observed for lethality and toxic signs and symptoms for 14 days post-treatment. No mortality was observed following treatment with CNaz in five consecutive animals. All the five animals were sacrificed on day 15 and necropsy was performed. No treatment related gross pathological abnormality was observed. Under the given conditions, no mortality was observed following treatment with CNaz at the dose of 3000 mg/kg bw. Therefore, LD50 of CNaz in the female SD rats was estimated to be greater than 3,000 mg/kg body weight.

##### (b) Repeated dose 28-day oral toxicity study in rats

Repeated dose 28-day oral toxicity of CNaz was studied in Sprague Dawley rats. Animals were divided into four groups (n=05 per sex per group). CNaz was orally administered at the dose levels of 300, 900 and 1800 mg/kg bw/day (i.e., approximately 1X, 3X and 6X of therapeutic equivalent dose, respectively) for 28 days. Control animals were administered with 0.3% aqueous carboxymethyl cellulose (CMC) suspension. A satellite group (n=05 rats per sex per group) was also included in the control and high dose CNaz group to monitor the reversibility or persistence of treatment related changes (if any). Animals in satellite groups received respective treatment for 28 days, followed by maintaining them for two weeks without dosing, before euthanasia. Body weight and feed intake for all animals were measured weekly throughout the study duration. Detailed clinical observations were made periodically to detect signs of toxicity. After completion of respective dosing period, blood samples were collected for haematological and biochemical analysis and animals were euthanized; vital organs were harvested for weight determination and histopathological evaluation. Tissue samples were submitted to National Institute of Nutrition for histopathology. Body weight, feed consumption, haematology and biochemistry data were under analysis.

#### Preclinical Safety and Efficacy Evaluation of *Ma'jūn Māsik al-Bawl*

Experimental part of repeated dose 90-day oral toxicity study on *Ma'jūn Māsik al-Bawl* (MMB) in rats was completed. MMB was administered orally at the dose levels of 1000 and 2000 mg/kg bw in Sprague Dawley rats for three months. Rats were observed for gross behavioural changes, body weight and feed consumption. Haematological and clinical chemistry parameters were analysed at the end of the test period of three months. All animals were subjected to gross necropsy at the termination of study. Data compilation and analysis were in progress. Tissues were submitted to National Institute of Nutrition, Hyderabad for histopathology and reporting.

#### Preclinical Safety and Efficacy Studies on *Qurş Damawī*

Experimental part of repeated dose 90-day oral toxicity study on *Qurş Damawī* was completed. *Qurş Damawī* was administered at the dose levels of 125 and 250 mg/kg bw in Sprague Dawley rats for three months. Rats were observed for gross behavioural changes, body weight and feed consumption. Haematological and clinical chemistry parameters



were analysed at the end of the test period of three months. All animals were subjected to gross necropsy at the termination of study. Data analysis and compilation were in progress and tissues were submitted to National Institute of Nutrition, Hyderabad for histopathology and reporting.

At RRIUM, Srinagar, preclinical study of Unani formulations namely *Ma'jūn Piyāz*, 50% hydroalcoholic extract of *Ma'jūn Piyāz*, *Tiryāq Afā'ī*, 50 % extract of *Tiryāq Afā'ī*, *Ma'jūn 'Ushba* and *Khamīra Ga'uzabān Sāda* was carried out in both sexes of Albino wistar rats following OECD Test Guidelines and on GLP pattern. The effect of drug on various biochemical, haematological and physiological parameters were observed, recorded and compared with respective controls. The histopathological studies were also carried out in all the drugs. The work is summed up below:

#### **Acute oral toxicity study of *Ma'jūn Piyāz* in Wistar Albino rats**

Acute oral toxicity of *Ma'jūn Piyāz* was studied at the dose level of 2000 mg/kg body weight in both male and female Wistar Albino rats. The rats were randomly divided into 4 groups (male treated, female treated, male control and female control) each consisting of 6 rats. The male and female control groups were treated orally with RO water (vehicle only). The male and female treated groups were orally administered *Ma'jūn Piyāz* with a single dose of 2000 mg/kg body weight. Cage side observation of rats was carried out for any behavioural and neurological changes for next 24 hours after the administration of the drug and daily twice thereafter till the completion of experimentation. The physiological parameters such as body weight change, water consumption and feed consumption were recorded on weekly basis. The rats were sacrificed after 14 days of oral drug administration. The rats were kept on fasting for overnight prior to sacrifice. Blood was collected for haematological and biochemical parameters from the dorsal vena cava after opening the abdomen under the mild effect of Isoflurine anaesthesia. All the animals were dissected to check macroscopic morphology of the body organs. Statistical analysis / compilation of data were under process.

#### **Acute oral toxicity study of 50% hydroalcoholic extract of *Ma'jūn Piyāz* in Wistar Albino rats**

Acute oral toxicity of 50% hydroalcoholic extract of *Ma'jūn Piyāz* was studied at the dose level of 2000 mg/kg body weight in both male and female Wistar Albino rats. The rats were randomly divided into 4 groups (male treated, female treated, male control and female control) each consisting of 6 rats. The male and female control groups were treated orally with RO water (vehicle only). The male and female treated groups were orally administered with a single dose of 50 % hydroalcoholic extract of *Ma'jūn Piyāz* at the dose of 2000 mg/kg body weight. Cage side observation of rats was carried out for any behavioural and neurological changes for next 24 hours after the administration of the drug and daily twice thereafter till the completion of experimentation. The physiological parameters such as body weight change, water consumption and feed consumption were recorded on weekly basis. The rats were sacrificed after 14 days of oral drug administration. The rats were kept on fasting for overnight prior to sacrifice. Blood was collected for haematological and biochemical parameters from the dorsal vena cava after opening the abdomen under the mild effect of Isoflurine anaesthesia. All the animals were dissected to check macroscopic morphology of the body organs. Statistical analysis / compilation of data were under process.

#### Acute oral toxicity study of *Ma'jūn 'Ushba* in Wistar Albino rats

Acute oral toxicity study of *Ma'jūn 'Ushba* was conducted at the dose level of 2000 mg/kg body weight in both male and female Wistar Albino rats. The rats were randomly divided into 4 groups (male treated, female treated, male control and female control) each consisting of 6 rats. The male and female control groups were treated orally with RO water (vehicle only). The male and female treated groups were orally administered *Ma'jūn 'Ushba* with a single dose of 2000 mg/kg body weight. Cage side observation of rats was carried out for any behavioural and neurological changes for next 24 hours after the administration of the drug and daily twice thereafter till the completion of experimentation. The physiological parameters such as body weight change, water consumption and feed consumption were recorded on weekly basis. The rats were sacrificed after 14 days of oral drug administration. The rats were kept on fasting for overnight prior to sacrifice. Blood was collected for haematological and biochemical parameters from the dorsal vena cava after opening the abdomen under the mild effect of Isoflurine anaesthesia. All the animals were dissected to check macroscopic morphology of the body organs. Statistical analysis / compilation of data was under process.

#### Acute oral toxicity study of *Tiryāq Afā'ī* in Wistar Albino rats

Acute oral toxicity study of *Tiryāq Afā'ī* was conducted at the dose level of 2000 mg/kg body weight in both male and female Wistar Albino rats. The rats were randomly divided into 4 groups (male treated, female treated, male control and female control) each consisting of 6 rats. The male and female control groups were orally treated with RO water (vehicle only). The male and female treated groups were orally administered *Tiryāq Afā'ī* with a single dose at the dose of 2000 mg/kg body weight as a single dose. Cage side observation of rats was carried out for any behavioural and neurological changes for next 24 hours after the administration of the drug and daily twice thereafter till the completion of experimentation. The physiological parameters such as body weight change, water consumption and feed consumption were recorded on weekly basis. The rats were sacrificed after 14 days of oral drug administration. The rats were kept on fasting for overnight prior to sacrifice. Blood was collected for haematological and biochemical parameters from the dorsal vena cava after opening the abdomen under the mild effect of Isoflurine anaesthesia. All the animals were dissected to check macroscopic morphology of the body organs. Statistical analysis / compilation of data was under process.

#### Sub-acute oral toxicity study of *Tiryāq Afā'ī* in Wistar Albino rats

In this study the drug was studied at the dose levels of 1000 mg/kg body weight in both male and female Wistar rats. The rats were randomly divided into 4 groups (male treated, female treated, male control and female control) each consisting of 6 rats. The male and female control groups were treated orally with RO water (vehicle only). The treated male and female rats groups were orally administered drug *Tiryāq Afā'ī* at the dose of 1000 mg/kg body weight daily upto 28 days. Cage side observation of rats was carried out for any behavioural and neurological changes for next 4 hours at an interval of 30 minutes after the administration of the drug and twice daily thereafter till the completion of experimentation. The physiological parameters such as body weight change, water consumption and feed consumption were recorded on weekly basis. The rats were sacrificed on day 29 of oral drug administration. The rats were kept on fasting for overnight prior to sacrifice. Blood was collected for haematological and biochemical parameters from dorsal vena cava after opening the abdomen under the mild effect of Isoflurine

anaesthesia. All the animals were dissected to check macroscopic examination of vital organs of the body. The vital organs such as liver, lung, kidney, adrenal gland, pancreas, spleen, brain, ovary/testes and heart were collected to record the organ weight followed by grossing for the collection of tissues to evaluate histopathological studies. Statistical analysis / compilation of data was under process.

#### **Acute oral toxicity study of 50% hydroalcoholic extract of *Tiryāq Afā'ī* in Wistar Albino rats**

Acute oral toxicity study of 50% hydroalcoholic extract of *Tiryāq Afā'ī* was conducted at the dose level of 2000 mg/kg body weight in both male and female Wistar Albino rats. The rats were randomly divided into 4 groups (male treated, female treated, male control and female control) each consisting of 6 rats. The male and female control groups were treated orally with RO water (vehicle only). The male and female treated groups were orally administered 50 % hydroalcoholic extract of *Tiryāq Afā'ī* with a single dose of 2000 mg/kg body weight. Cage side observation of rats was carried out for any behavioural and neurological changes for next 24 hours after the administration of the drug and twice daily thereafter till the completion of experimentation. The physiological parameters such as body weight change, water consumption and feed consumption were recorded on weekly basis. The rats were sacrificed after 14 days of oral drug administration. The rats were kept on fasting for overnight prior to sacrifice. Blood was collected for haematological and biochemical parameters from the dorsal vena cava after opening the abdomen under the mild effect of Isoflurine anaesthesia. All the animals were dissected to check macroscopic morphology of the body organs. Statistical analysis / compilation of data was under process.

#### **Sub-acute oral toxicity study of 50% hydroalcoholic extract of *Tiryāq Afā'ī* in Wistar Albino rats**

Sub-acute oral toxicity study of 50% hydroalcoholic extract of *Tiryāq Afā'ī* was conducted at the dose level of 1000 mg/kg body weight in both male and female Wistar rats. The rats were randomly divided into 4 groups (male treated, female treated, male control and female control) each consisting of 6 rats. The male and female control groups were treated orally with RO water (vehicle only). The treated male and female rats groups were orally administered 50% hydroalcoholic extract of *Tiryāq Afā'ī* at the dose of 1000 mg/kg body weight daily upto 28 days. Cage side observation of rats was carried out for any behavioural and neurological changes for next 24 hours after the administration of the drug and twice daily thereafter till the completion of experimentation. The physiological parameters such as body weight change, water consumption and feed consumption were recorded on weekly basis. The rats were sacrificed on day 29 of oral drug administration. The rats were kept on fasting for overnight prior to sacrifice. Blood was collected for haematological and biochemical parameters from dorsal vena cava after opening the abdomen under the mild effect of Isoflurine anaesthesia. All the animals were dissected to check macroscopic examination of vital organs of the body. The vital organs such as liver, lung, kidney, adrenal gland, pancreas, spleen, brain, ovary/testes and heart were collected to record the organ weight followed by grossing for the collection of tissues to evaluate histopathological studies. Statistical analysis / compilation of data was under process.

#### **Acute oral toxicity study of *Khamīra Ga'uzabān Sāda* in Wistar Albino rats**

Acute oral toxicity study of *Khamīra Ga'uzabān Sāda* was conducted at the dose level of 2000 mg/kg body weight in both male and female Wistar Albino rats. The rats were randomly divided into 4 groups (male treated, female treated, male control and female control) each consisting of 6 rats. The male and female control groups were treated orally

with RO water (vehicle only). The male and female treated groups were orally administered *Khamīra Ga'uzabān Sāda* with a single dose of 2000 mg/kg body weight. Cage side observation of rats was carried out for any behavioural and neurological changes for next 24 hours after the administration of the drug and twice daily thereafter till the completion of experimentation. The physiological parameters such as body weight change, water consumption and feed consumption were recorded on weekly basis. The rats were sacrificed after 14 days of oral drug administration. The rats were kept on fasting for overnight prior to sacrifice. Blood was collected for haematological and biochemical parameters from the dorsal vena cava after opening the abdomen under the mild effect of Isoflurine anaesthesia. All the animals were dissected to check macroscopic morphology of the body organs. Statistical analysis / compilation of data was under process.

### Clinical Studies

The Clinical Research Programme of the Council deals with the methods of diagnosis and treatment of diseases and aims at critical appraisal of the theory of pathogenesis, symptomatology, clinical methods of diagnosis, principles and methods of treatment, and the drug and diet therapies peculiar to Unani Medicine. Under this programme, clinical studies on different diseases were undertaken with a view to develop safe and effective Unani treatments. Besides, clinical validation of safety and efficacy of Unani pharmacopoeial formulations was conducted. Clinical validation of Unani pharmacopoeial fast-acting drugs in different diseases was also undertaken. The programme continued at the following centres:

- National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad
- Central Research Institute of Unani Medicine (CRIUM), Lucknow
- Regional Research Institute of Unani Medicine (RRIUM), Chennai
- Regional Research Institute of Unani Medicine (RRIUM), Bhadrak
- Regional Research Institute of Unani Medicine (RRIUM), Patna
- Regional Research Institute of Unani Medicine (RRIUM), Aligarh
- Regional Research Institute of Unani Medicine (RRIUM), Mumbai
- Regional Research Institute of Unani Medicine (RRIUM), Srinagar
- Regional Research Institute of Unani Medicine (RRIUM), Kolkata
- Regional Research Institute of Unani Medicine (RRIUM), New Delhi
- Regional Research Centre (RRC), Allahabad
- Regional Research Centre (RRC), Silchar
- Clinical Research Unit (CRU), Bengaluru
- Clinical Research Unit (CRU), Meerut
- Clinical Research Unit (CRU), Bhopal
- Clinical Research Unit (CRU), Burhanpur
- Clinical Research Unit (CRU), Edathala
- Clinical Research Unit (CRU), Kurnool



## CENTRE-WISE ALLOCATION OF DISEASES FOR CLINICAL STUDIES ON SAFETY AND EFFICACY OF UNANI DRUGS

Centre	Diseases
National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad	<i>Ḥaṣāt al-Kulya</i> (nephrolithiasis), <i>Kathrat al-Ṭamth</i> (heavy menstrual bleeding), <i>Ḍīq al-Nafas</i> (bronchial asthma), <i>Litha Dāmiya</i> (bleeding gums), <i>Ḍuʿf al-Ishtihāʾ</i> (anorexia), <i>Suʿāl Yābis</i> (dry cough), <i>Ḍuʿf al-Miʿda</i> (functional dyspepsia), <i>Iḥtibās al-Ṭamth</i> (amenorrhoea), <i>Mālankhūliyā</i> (mixed anxiety depressive disorder), <i>Sūʾ al-Qinya</i> (anaemia), <i>Ḥummā</i> (fever), <i>Kathrat al-Bawl</i> (overactive bladder), <i>Amrāḍ-i-Jild</i> (skin eruptions) and <i>Qūbā</i> (dermatophytosis)
Central Research Institute of Unani Medicine (CRIUM), Lucknow	<i>Siman Mufriṭ</i> (central obesity), <i>Sūʾ al-Qinya</i> (anaemia), <i>Sayalān al-Raḥim</i> (leucorrhoea), <i>Ḍīq al-Nafas</i> (bronchial asthma), <i>Nazla Ḥārr</i> (common cold), <i>Litha Dāmiya</i> (bleeding gums), <i>Ḍuʿf al-Dimāgh</i> (cerebrasthenia), <i>Ḥummā</i> (fever), <i>Iḥtibās al-Ṭamth</i> (amenorrhoea), <i>Ḍuʿf al-Ishtihāʾ</i> (anorexia), <i>Kathrat al-Ṭamth</i> (heavy menstrual bleeding), <i>Suʾ al-Ḥaḍm</i> (dyspepsia), <i>Wajaʾ al-Mafāṣil</i> (rheumatoid arthritis), <i>Ḍuʿf al-Miʿda</i> (dyspepsia), <i>Ḥaṣāt al-Kulya</i> (nephrolithiasis) and <i>Mālankhūliyā</i> (mixed anxiety depressive disorder)
Regional Research Institute of Unani Medicine (RRIUM), Chennai	<i>Ṣudāʾ</i> (headache), <i>Ḥaṣāt al-Kulya</i> (nephrolithiasis), <i>Bawāsīr ʿUmya</i> (non-bleeding piles), <i>Kathrat al-Ṭamth</i> (heavy menstrual bleeding), <i>Ḥummā</i> (fever), <i>Qūbā</i> (dermatophytosis), <i>Mālankhūliyā</i> (mixed anxiety depressive disorder), <i>Ḍīq al-Nafas</i> (bronchial asthma), <i>Ḍuʿf al-Dimāgh</i> (cerebrasthenia), <i>Sahar</i> (insomnia), <i>Zahīr</i> (dysentery), <i>Wajaʾ al-Mafāṣil</i> (rheumatoid arthritis), <i>Fālij</i> (hemiplegia) and <i>Sayalān al-Raḥim</i> (leucorrhoea)
Regional Research Institute of Unani Medicine (RRIUM), Bhadrak	<i>Buthūr al-Jild</i> (macules / pustules), <i>Ḍuʿf al-Ishtihāʾ</i> (anorexia), <i>Wajaʾ al-Mafāṣil</i> (rheumatoid arthritis), <i>Surʾat al-Inzāl</i> (premature ejaculation), <i>Khafaqān</i> (palpitation), <i>Jarab</i> (scabies), <i>Ḍīq al-Nafas</i> (bronchial asthma), <i>Litha Dāmiya</i> (bleeding gums) and <i>Bahaq Abyaḍ / Aswad</i> (pityriasis alba/nigra)
Regional Research Institute of Unani Medicine (RRIUM), Patna	<i>Nazla</i> (common cold), <i>Khafaqān</i> (palpitation), <i>Ḍīq al-Nafas</i> (bronchial asthma), <i>Sūʾ al-Qinya</i> (anaemia), <i>Nazla Muzmin</i> (chronic rhinosinusitis), <i>Qūbā</i> (dermatophytosis), <i>Niqris</i> (gout), <i>Wajaʾ al-Mafāṣil</i> (rheumatoid arthritis), <i>Ḍuʿf al-Miʿda</i> (dyspepsia), <i>Bawāsīr Dāmiya</i> (bleeding piles) and <i>Sahar</i> (insomnia)

Centre	Diseases
Regional Research Institute of Unani Medicine (RRIUM), Aligarh	<i>Ḍuʿf al-Ishtihāʾ</i> (anorexia), <i>Nazla Muzmin</i> (chronic rhinosinusitis), <i>Siman Mufriṭ</i> (obesity), <i>Kathrat al-Ṭamth</i> (heavy menstrual bleeding), <i>Sahar</i> (insomnia), <i>Ghathayān</i> (nausea), <i>Ḍiq al-Nafas</i> (bronchial asthma), <i>Ḍuʿf al-Miʿda</i> (functional dyspepsia), <i>Hummā Ajāmiyya</i> (malaria), <i>Sayalān al-Raḥim</i> (leucorrhoea), <i>Ḍuʿf al-Dimāgh</i> (cerebrasthenia), <i>Qulāʾ</i> (stomatitis), <i>Niqris</i> (Gout), <i>Ḥumūḍat al-Miʿda</i> (hyperacidity), <i>Jildī Qurūḥ</i> (cutaneous ulcers), <i>Waram al-Ḥanjara</i> (laryngitis) and <i>Sūʾ al-Haḍm</i> (functional dyspepsia)
Regional Research Institute of Unani Medicine (RRIUM), Mumbai	<i>Bawāsir ʿUmya</i> (non-bleeding piles), <i>Siman Mufriṭ</i> (obesity), <i>Ḥaṣāt al-Kulya</i> (nephrolithiasis), <i>Sūʾ al-Qinya</i> (anaemia), <i>Iḥtibās al-Ṭamth</i> (amenorrhoea), <i>Niqris</i> (gout), <i>Qūbā</i> (dermatophytosis), <i>Khafaqān</i> (palpitation), <i>Mālankhūliyyā</i> (mixed anxiety depressive disorder), <i>Sayalān al-Raḥim</i> (leucorrhoea), <i>Nisyān</i> (amnesia), <i>Salas al-Bawl</i> (stress urinary incontinence) and <i>Qurūḥ</i> (healing ulcers)
Regional Research Institute of Unani Medicine (RRIUM), Srinagar	<i>Ḍiq al-Nafas</i> (bronchial asthma), <i>Ḍuʿf al-Miʿda</i> (functional dyspepsia), <i>Hummā</i> (fever), <i>Sayalān al-Raḥim</i> (leucorrhoea), <i>Wajaʾ al-Mafāṣil</i> (rheumatoid arthritis), <i>Khafaqān</i> (palpitation), <i>Mālankhūliyya</i> (mixed anxiety depressive disorder), <i>Ḍaghṭ al-Dam Qawī</i> (hypertension), <i>Kathrat al-Ṭamth</i> (heavy menstrual bleeding), <i>Iḥtibās al-Ṭamth</i> (amenorrhoea) and <i>Niqris</i> (gout)
Regional Research Institute of Unani Medicine (RRIUM), Kolkata	<i>Nazla Muzmin</i> (chronic rhinosinusitis), <i>Suʿāl</i> (cough), <i>Ḍuʿf al-Ishtihāʾ</i> (anorexia), <i>Sūʾ al-Qinya</i> (anaemia) and <i>Wajaʾ al-Mafāṣil</i> (rheumatoid arthritis)
Regional Research Institute of Unani Medicine (RRIUM), New Delhi	<i>Suʿāl Yābis</i> (dry cough), <i>Nazla Muzmin</i> (chronic rhinosinusitis), <i>Sayalān al-Raḥim</i> (leucorrhoea), <i>Buthūr al-Jild</i> (skin eruptions), <i>Kathrat al-Ṭamth</i> (heavy menstrual bleeding), <i>Sūʾ al-Qinya</i> (anaemia), <i>Khafaqān</i> (palpitation), <i>Sūʾ al-Haḍm</i> (dyspepsia), <i>ʾIrq al-Nasā</i> (sciatica), <i>Nisyān</i> (amnesia) and <i>Ḍuʿf al-Aʿṣāb</i> (neurasthenia)
Regional Research Centre (RRC), Allahabad	<i>Khafaqān</i> (palpitation), <i>Bawāsir ʿUmya</i> (non-bleeding piles), <i>Zaḥīr</i> (dysentery), <i>Suʿāl</i> (cough), <i>Nazla Ḥārr</i> (common cold), <i>Niqris</i> (gout), <i>Sūʾ al-Qinya</i> (anaemia), <i>Wajaʾ al-Mafāṣil</i> (rheumatoid arthritis), <i>Suʿāl Yābis</i> (dry cough), <i>Sahar</i> (insomnia) and <i>Ḍiq al-Nafas</i> (bronchial asthma)
Regional Research Centre (RRC),	<i>Nazla Ḥārr</i> (common cold), <i>Wajaʾ al-Mafāṣil</i>

Centre	Diseases
Silchar	(rheumatoid arthritis), <i>Su'āl</i> (cough), <i>Ghathayān</i> (nausea), <i>Buthūr al-Jild</i> (skin eruptions), <i>Waja' al-Asnān</i> (toothache), <i>Sū' al-Qinya</i> (anaemia), <i>Sahar</i> (insomnia) and <i>Bahaq Abyaḍ / Aswad</i> (pityriasis alba/nigra)
Clinical Research Unit (CRU), Bengaluru	<i>Sū' al-Qinya</i> (anaemia), <i>Ḍu'f al-Ishtihā'</i> (anorexia), <i>Waram al-Kabid</i> (hepatitis), <i>Nazla Ḥārr</i> (common cold), <i>Waja' al-Asnān</i> (toothache) and <i>Fālij</i> (hemiplegia)
Clinical Research Unit (CRU), Meerut	<i>Ḍu'f al-Ishtihā'</i> (anorexia), <i>Sū' al-Qinya</i> (anaemia), <i>Ḍīq al-Nafas</i> (bronchial asthma), <i>Nazla Muzmin</i> (chronic rhinosinusitis), <i>Sayalān al-Raḥīm</i> (leucorrhoea), <i>Sū' al-Haḍm</i> (dyspepsia), <i>Su'āl Yābis</i> (dry cough), <i>Salas al-Bawl</i> (stress urinary incontinence), <i>Bawāsīr Dāmiya</i> (bleeding piles), <i>Nazla Ḥārr</i> (common cold) and <i>Waram al-Ḥanjara</i> (laryngitis)
Clinical Research Unit (CRU), Bhopal	<i>Sahar</i> (insomnia), <i>Su'āl</i> (cough), <i>Ṣudā'</i> (headache), <i>Ḍu'f al-Ishtihā'</i> (anorexia), <i>Nazla Ḥārr</i> (common cold), <i>Sayalān al-Raḥīm</i> (leucorrhoea) and <i>Mālanḫūliya</i> (mixed anxiety depressive disorder)
Clinical Research Unit (CRU), Burhanpur	<i>Su'āl</i> (cough), <i>Waram al-Kabid</i> (hepatitis), <i>Ṣudā'</i> (headache), <i>Ḍu'f al-Ishtihā'</i> (anorexia), <i>Nazla</i> (common cold), <i>Sur'at al-Inzāl</i> (premature ejaculation), <i>Sū' al-Qinya</i> (anaemia) and <i>Sū' al-Haḍm</i> (functional dyspepsia)
Clinical Research Unit (CRU), Kerala	<i>Sahar</i> (insomnia), <i>Nazla</i> (common cold) and <i>Sur'at al-Inzāl</i> (premature ejaculation)
Clinical Research Unit (CRU), Kurnool	<i>Zahīr</i> (dysentery), <i>Waram al-Kabid</i> (hepatitis), <i>Ghathayān</i> (nausea), <i>Ḍu'f al-Ishtihā'</i> (anorexia), <i>Waja' al-Asnān</i> (toothache), <i>Qulā'</i> (stomatitis) and <i>Amrāḍ-i-Jild</i> (skin eruptions)

## Randomized Controlled Trials

The following studies under randomized controlled trials were allotted / initiated during the reporting period:

- A single blind, randomized, parallel group study to compare efficacy and safety of coded Unani formulation K2019 with Ferrous sulphate in patients with *Faqr al-Dam* (iron deficiency anaemia)
- A single blind, randomized, parallel group study to compare efficacy and safety of Unani formulation *Qurṣ-i-Mafāṣil* with Paracetamol in patients with *Taḥajjur al-Mafāṣil* (osteoarthritis)

- A single blind, randomized, parallel group study to compare efficacy and safety of Unani formulation *Safūf-i-Dama Haldīwālā* with Salbutamol in patients with *Ḍīq al-Nafas* (bronchial asthma)
- A single blind, randomized, parallel group study to compare efficacy and safety of coded Unani formulation UNIM-D 2000 with Metformin in patients with *Dhayābīṭus Sukkarī Qism Thānī* (diabetes mellitus type II)
- A single blind, randomized, parallel group study to compare efficacy and safety of Unani formulation *Cap. Shaqīqa* with Divalproate in patients with *Shaqīqa* (migraine)

### Validation of Unani Pharmacopoeial Drugs

#### Clinical validation of a Unani pharmacopoeial formulation *Safūf Hābis al-Dam* in *Kathrat al-Ṭamth* (heavy menstrual bleeding)

A study on validation of a Unani pharmacopoeial formulation *Safūf Hābis al-Dam* in *Kathrat al-Ṭamth* (heavy menstrual bleeding) was carried out at NRIUMSD, Hyderabad; and RRIUMs, Aligarh and Srinagar. The patients received *Safūf Hābis al-Dam* 2.5 g twice daily for ten days in a month starting from the 1st day of the menstrual cycle for three consecutive months.

During the reporting period, 87 patients were studied, of which 25 completed the study. Out of the completed cases, 16 (64%) were relieved, seven (28%) partially relieved and two (8%) not relieved. Total 45 patients were under study and 17 dropped out of the study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Iṭrīfal Fawlādī* in *Sū' al-Qinya* (anaemia)

A study on validation of a Unani pharmacopoeial formulation *Iṭrīfal Fawlādī* in the patients of *Sū' al-Qinya* (anaemia) was carried out at RRIUM, Patna; and CRUs, Meerut and Bangalore. The patients received *Iṭrīfal Fawlādī* 7 g twice daily for six weeks.

During the reporting period, no new patient was registered in the study. Since inception of the study, a total of 184 cases have completed the study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Habb-i-Tinkār* in *Ḍu'f al-Ishtihā'* (anorexia)

A study on validation of a Unani pharmacopoeial formulation *Habb-i-Tinkār* in the patients of *Ḍu'f al-Ishtihā'* (anorexia) was carried out at NRIUMSD, Hyderabad; CRIUM, Lucknow; and CRU, Bengaluru. The patients received *Habb-i-Tinkār* two pills (250 mg each) twice daily for two weeks.

During the reporting period, no new patient was registered in the study. Since inception of the study, a total of 230 cases have completed the study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Habb-i-Sūranjān* in *Waja' al-Mafāṣil* (rheumatoid arthritis)

A study on validation of a Unani pharmacopoeial formulation *Habb-i-Sūranjān* in the patients of *Waja' al-Mafāṣil* (rheumatoid arthritis) was carried out at RRIUMs, Srinagar and Bhadrak; and RRC, Silchar. The patients received *Habb-i-Sūranjān* one pill (360 mg each) twice daily for six weeks.

During the reporting period, no new patient was registered in the study. Since inception of the study, a total of 86 cases have completed the study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Iṭrīfal Mulayyin* in *Ṣudā' Muzmin* (chronic headache)

A study on validation of a Unani pharmacopoeial formulation *Iṭrīfal Mulayyin* in the patients of *Ṣudā' Muzmin* (chronic headache) was carried out at RRIUM, Chennai; and CRUs, Bhopal and Burhanpur. The patients received *Iṭrīfal Mulayyin* 7 g once a day at bed time for seven days.

During the reporting period, no new patient was registered in the study. Since inception of the study, a total of 166 cases have completed the study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Ḥabb-i-Bawāsīr 'Umya* in *Bawāsīr 'Umya* (non-bleeding piles)

A study on validation of a Unani pharmacopoeial formulation *Ḥabb-i-Bawāsīr 'Umya* in the patients of *Bawāsīr 'Umya* (non-bleeding piles) was carried out at RRIUMs, New Delhi and Mumbai; and RRC, Allahabad. The patients received *Ḥabb-i-Bawāsīr 'Umya* one pill (250 mg) twice daily for two weeks.

During the reporting period, 38 patients were studied, of which 32 completed the study. Out of the completed cases, 25 (78%) patients were relieved and seven (22%) partially relieved. Six cases dropped out of the study whereas no patient was under study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Safūf-i-Tīn* in *Zaḥīr* (dysentery)

A study on validation of a Unani pharmacopoeial formulation *Safūf-i-Tīn* in the patients of *Zaḥīr* (dysentery) was carried out at RRIUM, Bhadrak; CRU, Kurnool; and RRC, Allahabad. The patients received *Safūf-i-Tīn* 7 g twice daily for six weeks.

During the reporting period, 41 patients were studied, of which 24 completed the study. Out of the completed cases, 16 (67%) were relieved and eight (33%) partially relieved. Nine patients were under study and eight dropped out of the study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Qurṣ Ḥābis* in *Kathrat al-Ṭamth* (menorrhagia)

A study on validation of a Unani pharmacopoeial formulation *Qurṣ Ḥābis* in the patients of *Kathrat al-Ṭamth* (menorrhagia) was carried out at NRIUMSD, Hyderabad; and RRIUMs, Mumbai and Chennai. The patients received *Qurṣ Ḥābis* (250 mg) twice daily for nine days a month starting from the 1st day of the menstrual cycle for three consecutive months.

During the reporting period, 74 patients were studied, of which 31 completed the study. Out of the completed cases, 30 (97%) patients were relieved, and one (3%) showed no response. A total of 26 patients were under study and 17 dropped out of the study. The test drug was found well-tolerated and no adverse effect was observed.



### Clinical validation of a Unani pharmacopoeial formulation *Jawārish Bisbāsa* in *Siman Mufrit* (central obesity)

A study on validation of a Unani pharmacopoeial formulation *Jawārish Bisbāsa* in the patients of *Siman Mufrit* (central obesity) was carried out at CRIUM, Lucknow; and RRIUMs, Aligarh and Mumbai. The patients received *Jawārish Bisbāsa* 7 g twice daily for eight weeks.

During the reporting period, 57 patients were studied, of which 27 completed the study. Out of the completed cases, One (4%) patient got relieved, 19 (70%) partially relieved and seven (26%) showed no response. A total of seven patients were under study and 23 dropped out of the study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Khamīra Ābresham Sāda* in *Khafaqān* (palpitation)

A study on validation of a Unani pharmacopoeial formulation *Khamīra Ābresham Sāda* in the patients *Khafaqān* (palpitation) was carried out at RRIUMs, Patna and Chennai; and RRC, Allahabad. The patients received *Khamīra Ābresham Sāda* 5 g twice daily for two weeks.

During the reporting period, 18 patients were studied and all of them completed the study. Of them, 14 (78%) patients were relieved and four (22%) partially relieved. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Jawārish Anārayn* in *Ghathayān* (nausea)

A study on validation of a Unani pharmacopoeial formulation *Jawārish Anārayn* in the patients of *Ghathayān* (nausea) was carried out at RRIUM, Aligarh; RRC, Silchar; and CRU, Kurnool. The patients received *Jawārish Anārayn* 7 g twice daily for one week.

During the reporting period, no new patient was registered in the study. Since inception of the study, a total of 160 cases have completed the study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Jawārish Zanjabīl* in *Ḍuʿ al-Ishtihāʾ* (anorexia)

A study on validation of a Unani pharmacopoeial formulation *Jawārish Zanjabīl* in the patients of *Ḍuʿ al-Ishtihāʾ* (anorexia) was carried out at RRIUMs, Aligarh and Bhadrak; and CRU, Burhanpur. The patients received *Jawārish Zanjabīl* 7 g twice daily for two weeks.

During the reporting period, no new patient was registered in the study. Since inception of the study, a total of 228 cases have completed the study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Iṭrīfal Zamānī* in *Nazla Muzmin* (chronic rhinosinusitis)

A study on validation of a Unani pharmacopoeial formulation *Iṭrīfal Zamānī* in the patients of *Nazla Muzmin* (chronic rhinosinusitis) was carried out at RRIUMs, Aligarh, New Delhi and Kolkata; and CRU, Meerut. The patients received *Iṭrīfal Zamānī* 7 g at bedtime for six weeks.

During the reporting period, 17 patients were studied, of which five completed the study. Out of the completed cases, four (80%) patients were relieved whereas one (20%) showed no response. A total of 10 patients dropped out of the study and two patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### **Clinical validation of a Unani pharmacopoeial formulation *Habb Mudirr* in the patients of *Ihtibās al-Ṭamth* (amenorrhoea)**

A study on validation of a Unani pharmacopoeial formulation *Habb Mudirr* was conducted in the patients of *Ihtibās al-Ṭamth* (amenorrhoea) at NRIUMSD, Hyderabad; CRIUM, Lucknow; and RRIUM, Mumbai. The study drug *Habb Mudirr* was given in the dose of 2 pills (500 mg) thrice daily for 5 days each month for three consecutive months.

During the reporting period, 151 patients were studied, of which 45 completed the study. Out of the completed cases, 32 (71%) patients were relieved and five (11%) partially relieved, whereas eight (18%) showed no response. A total of 36 patients dropped out of the study and 70 patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### **Clinical validation of a Unani pharmacopoeial formulation *Sharbat-i-Khāksī* in *Ḥummā* (fever)**

A study on validation of a Unani pharmacopoeial formulation *Sharbat-i-Khāksī* in the patients of *Ḥummā* (fever) was carried out at CRIUM, Lucknow; and RRIUMs, Srinagar and Chennai. The patients received *Sharbat-i-Khāksī* 15 ml four times a day.

During the reporting period, no new patient was registered in the study. Since inception of the study, a total of 29 cases have completed the study. The test drug was found well-tolerated and no adverse effect was observed.

#### **Clinical validation of a Unani pharmacopoeial formulation *Habb Muṣaffī-i-Khūn* in *Buthūr al-Jild* (skin eruptions)**

A study on validation of a Unani pharmacopoeial formulation *Habb Muṣaffī-i-Khūn* in the patients of *Buthūr al-Jild* (skin eruptions) was carried out at RRIUMs, New Delhi and Bhadrak; and RRC, Silchar. The patients received *Habb Muṣaffī-i-Khūn* one pill (250 mg) twice daily for two weeks.

During the reporting period, 136 patients were studied, of which 73 completed the study. Out of the completed cases, 12 (16%) patients relieved and 45 (62%) partially relieved, whereas 16 (22%) showed no response. A total of 40 patients dropped out of the study and 23 patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### **Clinical validation of a Unani pharmacopoeial formulation *Iṭrīfal Kishnīzī* in *Nazla Muzmin* (chronic rhinosinusitis)**

A study on validation of a Unani pharmacopoeial formulation *Iṭrīfal Kishnīzī* in the patients of *Nazla Muzmin* (chronic rhinosinusitis) was carried out at RRIUMs, Kolkata and Patna; and CRU, Meerut. The patients received *Iṭrīfal Kishnīzī* 10 g twice daily for four weeks.

During the reporting period, 91 patients were studied, of which 60 completed the study. Out of the completed cases, 35 (58%) patients were relieved and 22 (37%) partially relieved whereas three (5%) showed no response. A total of 16 patients dropped out of the study and 15 patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Jawārish Pudīna* in *Ḍuʿf al-Ishtihāʾ* (anorexia)

A study on validation of a Unani pharmacopoeial formulation *Jawārish Pudīna* in the patients of *Ḍuʿf al-Ishtihāʾ* (anorexia) was carried out at RRIUM, Kolkata; and CRUs, Meerut, Kurnool and Bhopal. The patients received *Jawārish Pudīna* 5 g twice daily for two weeks.

During the reporting period, 63 patients were studied, of which 57 completed the study. Out of the completed cases, 19 (33%) patients were relieved and 33 (58%) partially relieved, whereas five (9%) showed no response. A total of six patients dropped out of the study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Safūf-i-Chobchīnī* in *Niqris* (gout)

A study on validation of a Unani pharmacopoeial formulation *Safūf-i-Chobchīnī* in the patients of *Niqris* (gout) was carried out at RRIUMs, Mumbai and Patna, and RRC, Allahabad. The patients received *Safūf-i-Chobchīnī* 5 g twice daily for six weeks.

During the reporting period, 46 patients were studied, of which 19 completed the study. Out of the completed cases, 15 (79%) patients were relieved and three (16%) partially relieved, whereas one (5%) showed no response. A total of 27 patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of Unani pharmacopoeial formulations *Maʿjūn-i-ʿUshba* and *Marham-i-Qūbā* in *Qūbā* (dermatophytosis)

A study on validation of Unani pharmacopoeial formulations *Maʿjūn-i-ʿUshba* and *Marham-i-Qūbā* in the patients of *Qūbā* (dermatophytosis) was carried out at RRIUMs, Mumbai, Chennai and Patna. The patients received *Maʿjūn-i-ʿUshba* 5 g oral and *Maʿjūn-i-ʿUshba* and *Marham-i-Qūbā* topical twice daily for five weeks.

During the reporting period, 17 patients were studied, of which four completed the study and all the four (100%) patients were relieved. A total of eight cases dropped out of the study and five were under study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Maʿjūn Ḥajr al-Yahūd* in *Ḥaṣāt al-Kulya* (nephrolithiasis)

A study on validation of a Unani pharmacopoeial formulation *Maʿjūn Ḥajr al-Yahūd* in the patients of *Ḥaṣāt al-Kulya* (nephrolithiasis) was carried out at NRIUMSD, Hyderabad; and RRIUMs, Mumbai and Chennai. The patients received *Maʿjūn Ḥajr al-Yahūd* 5 g twice daily for 8 weeks.

During the reporting period, 53 patients were studied, of which 25 completed the study. Out of the completed cases, eight (32%) patients were relieved and two (8%) partially relieved, whereas 15 (60%) showed no response. A total of 14 cases dropped out of the study and 14 were under study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Qurṣ-i-Anjibār* in *Kathrat al-Ṭamth* (heavy menstrual bleeding)

A study on validation of a Unani pharmacopoeial formulation *Qurṣ-i-Anjibār* in the patients of *Kathrat al-Ṭamth* (heavy menstrual bleeding) was carried out at NRIUMSD, Hyderabad;



CRIUM, Lucknow; and RRIUM, New Delhi. The patients received *Qurş-i-Anjibār* 2 tablets (500 mg) thrice daily for 12 weeks.

During the reporting period, 85 patients were studied, of which 27 completed the study. Out of the completed cases, 11 (41%) patients were relieved and 13 (48%) partially relieved, whereas three (11%) showed no response. A total of 20 cases dropped out of the study and 38 were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *La'ūq-i-Shamūn* in *Nazla Hārr* (common cold)

A study on validation of a Unani pharmacopoeial formulation *La'ūq-i-Shamūn* in the patients of *Nazla Hārr* (common cold) was carried out at RRC, Allahabad; and CRUs, Burhanpur, Bengaluru and Kerala. The patients received *La'ūq-i-Shamūn* 5 g twice daily for seven days.

During the reporting period, 17 patients were studied, of which 16 completed the study. Out of the completed cases, 14 (88%) patients were relieved and two (12%) partially relieved. One patient was under study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Ma'jūn-i-Suhāg Sonth* in *Sayalān al-Raḥim* (excessive abnormal vaginal discharge)

A study on validation of a Unani pharmacopoeial formulation *Ma'jūn-i-Suhāg Sonth* in the patients of *Sayalān al-Raḥim* (excessive abnormal vaginal discharge) was carried out at CRIUM, Lucknow; RRIUM, Srinagar; and CRU, Meerut. The patients received *Ma'jūn-i-Suhāg Sonth* 5 g twice daily for four weeks.

During the reporting period, 33 patients were studied, of which 24 completed the study. Out of the completed cases, 10 (42%) patients were relieved and 12 (50%) partially relieved, whereas two (8%) showed no response. A total of three cases dropped out of the study and six were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Habb Khabath al-Ḥadīd* in *Sū' al-Qinya* (anaemia)

A study on validation of a Unani pharmacopoeial formulation *Habb Khabath al-Ḥadīd* in the patients of *Sū' al-Qinya* (anaemia) was carried out at CRIUM, Lucknow; and RRIUMs, New Delhi and Mumbai. The patients received *Habb Khabath al-Ḥadīd* 1 pill twice daily for 12 weeks.

During the reporting period, 103 patients were studied, of which 15 completed the study. Out of the completed cases, five (34%) patients were relieved and eight (53%) partially relieved, whereas two (13%) showed no response. A total of 27 cases dropped out of the study and 61 were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Ma'jūn-i-Ispand Sokhtanī* in *Sur'at al-Inzāl* (premature ejaculation)

A study on validation of a Unani pharmacopoeial formulation *Ma'jūn-i-Ispand Sokhtanī* in the patients of *Sur'at al-Inzāl* (premature ejaculation) was carried out at RRIUM, Bhadrak;

and CRUs, Kerala and Burhanpur. The patients received *Ma'jūn-i-Ispand Sokhtanī* 5 g twice daily for two weeks.

During the reporting period, 40 patients were studied, of which 30 completed the study. Out of the completed cases, 14 (47%) patients were partially relieved, whereas 16 (53%) showed no response. A total of 10 patients dropped out of the study and none was under study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Rawghan-i-Qaranful* in *Waja' al-Asnān* (toothache)

A study on validation of a Unani pharmacopoeial formulation *Rawghan-i-Qaranful* in the patients of *Waja' al-Asnān* (toothache) was carried out at CRUs, Kurnool and Bengaluru; and RRC, Silchar. The patients received *Rawghan-i-Qaranful* for local application twice daily for 3 days.

During the reporting period, 41 patients were studied, of which 34 completed the study. Out of the completed cases, 18 (53%) patients were relieved and 16 (47%) partially relieved. Seven patients dropped out of the study and no patient was under study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Habb Hindī Dīqī* in *Dīq al-Nafas* (bronchial asthma)

A study on validation of a Unani pharmacopoeial formulation *Habb Hindī Dīqī* in the patients of *Dīq al-Nafas* (bronchial asthma) was carried out at RRIUMs, Srinagar, Aligarh and Patna. The patients received *Habb Hindī Dīqī* one pill (125 mg) twice daily for four weeks.

During the reporting period, 18 patients were studied, of which 10 completed the study. Out of the completed cases, four (40%) patients were relieved, two (20%) partially relieved whereas four (40%) showed no response. Two patients dropped out of the study and six patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of a Unani pharmacopoeial formulation *Ma'jūn Sangdāna Murgh* in *Ḍu'f al-Mi'da* (functional dyspepsia)

A study on validation of a Unani pharmacopoeial formulation *Ma'jūn Sangdāna Murgh* in the patients of *Ḍu'f al-Mi'da* (functional dyspepsia) was carried out at NRIUMSD, Hyderabad; and RRIUMs Srinagar and Aligarh. The patients received *Ma'jūn Sangdāna Murgh* 5 g twice daily for six weeks.

During the reporting period, 51 patients were studied, of which 25 completed the study. Out of the completed cases, 11 (44%) patients were relieved and 11 (44%) partially relieved, whereas three (12%) showed no response. Nine patients were under study and 17 dropped out of the study. The test drug was found well-tolerated and no adverse effect was observed.

#### Clinical validation of Unani pharmacopoeial formulation *Jawārish Pudīna Wilāyatī* in *Sū' al-Haḍm* (dyspepsia)

A study on validation of a Unani pharmacopoeial formulation *Jawārish Pudīna Wilāyatī* in the patients of *Sū' al-Haḍm* (dyspepsia) was carried out at CRIUM, Lucknow; RRIUM, New Delhi; and CRU, Meerut. The patients received *Jawārish Pudīna Wilāyatī* 5 g twice daily for six weeks.

During the reporting period, 133 patients were studied, of which 49 completed the study. Out of the completed cases, 12 (25%) patients were relieved and 30 (61%) partially relieved, whereas seven (14%) showed no response. A total of 34 patients dropped out of the study and 50 patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### **Clinical validation of Unani pharmacopoeial formulation *La'ūq Ḍīq al-Nafas* in *Ḍīq al-Nafas* (bronchial asthma)**

A study on validation of a Unani pharmacopoeial formulation *La'ūq Ḍīq al-Nafas* in the patients of *Ḍīq al-Nafas* (bronchial asthma) was carried out at NRIUMSD, Hyderabad; and RRIUMs, Chennai and Bhadrak. The patients received *La'ūq Ḍīq al-Nafas* 5 g twice daily for four weeks.

During the reporting period, four patients were studied and all of them completed the study. Of them, two (50%) patients were relieved and two (50%) partially relieved. The test drug was found well-tolerated and no adverse effect was observed.

#### **Clinical validation of Unani pharmacopoeial formulation *Sayalānī* in *Sayalān al-Raḥīm* (leucorrhoea)**

A study on validation of a Unani pharmacopoeial formulation *Sayalānī* in the patients of *Sayalān al-Raḥīm* (leucorrhoea) was carried out at RRIUMs; Mumbai and Aligarh; and CRU, Bhopal. The patients received 2 tablets of *Sayalānī* twice daily for four weeks.

During the reporting period, 36 patients were studied, of which 14 completed the study. Out of the completed cases, four (29%) patients were relieved and nine (64%) partially relieved, whereas one (7%) showed no response. One patient dropped out of the study and 21 patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### **Clinical validation of Unani pharmacopoeial formulation *Ma'jūn Najāḥ* in *Mālakḥūliyā* (mixed anxiety depressive disorder)**

A study on validation of a Unani pharmacopoeial formulation *Ma'jūn Najāḥ* in the patients of *Mālakḥūliyā* (mixed anxiety depressive disorder) was carried out at NRIUMSD Hyderabad; and RRIUMs, Srinagar, Chennai and Mumbai. The patients received *Ma'jūn Najāḥ* 5 g twice daily for six weeks.

During the reporting period, eight patients were studied, of which two completed the study and were relieved. One patient dropped out of the study and five patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

#### **Clinical validation of Unani pharmacopoeial formulation *Ḥabb 'Irq al-Nasā* in *Waja'al-Mafāṣil* (rheumatoid arthritis)**

A study on validation of a Unani pharmacopoeial formulation *Ḥabb 'Irq al-Nasā* in the patients of *Waja'al-Mafāṣil* (rheumatoid arthritis) was carried out at CRIUM Lucknow; RRIUM, Patna; and RRC, Allahabad. The patients received two tablets of *Ḥabb 'Irq al-Nasā* thrice daily for 12 weeks.

During the reporting period, 55 patients were studied, of which 13 completed the study. Out of the completed cases, four (31%) patients were relieved and eight (62%) partially relieved, whereas one (7%) showed no response. Four patients dropped out of the study and 38 patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of Unani pharmacopoeial formulation *Ma'jūn Khabath al-Ḥadīd* in *Sū' al-Qinya* (anaemia)

A study on validation of a Unani pharmacopoeial formulation *Ma'jūn Khabath al-Ḥadīd* in the patients of *Sū' al-Qinya* (anaemia) was carried out at CRIUM, Lucknow; RRIUMs, Patna and Kolkata; RRCs, Allahabad and Silchar; and CRU, Burhanpur. The patients received *Ma'jūn Khabath al-Ḥadīd* 5 g twice daily for 12 weeks.

During the reporting period, one new patient was registered in the study and was under study.

### Clinical validation of Unani pharmacopoeial formulation *Khamīra Ga'uzabān Sāda* in *Khafaqān* (palpitation)

A study on validation of a Unani pharmacopoeial formulation *Khamīra Ga'uzabān Sāda* in the patients of *Khafaqān* (palpitation) was carried out at RRIUMs, New Delhi, Mumbai and Bhadrak. The patients received *Khamīra Ga'uzabān Sāda* 5 g twice daily for four weeks.

During the reporting period, no patient was registered in the study.

### Clinical validation of Unani pharmacopoeial formulation *Ḥabb Mubārak* in *Ḥummā Ajāmiyya* (malaria)

A study on validation of a Unani pharmacopoeial formulation *Ḥabb Mubārak* in the patients of *Ḥummā Ajāmiyya* (malaria) was carried out at RRIUM, Aligarh. The patients received of *Ḥabb Mubārak* (500 mg) twice daily for two weeks.

During the reporting period, no patient was registered in the study.

### Clinical validation of Unani pharmacopoeial formulation *Iṭrīfal Kabīr* in *Ḍu'f al-Dimāgh* (cerebrasthenia)

A study on validation of a Unani pharmacopoeial formulation *Iṭrīfal Kabīr* in the patients of *Ḍu'f al-Dimāgh* (cerebrasthenia) was carried out at CRIUM, Lucknow; and RRIUMs, Chennai, Aligarh and Patna. The patients received *Iṭrīfal Kabīr* 5 g twice daily for six weeks.

During the reporting period, no patient was registered in the study.

### New studies initiated

The following studies under validation of Unani pharmacopoeial drugs were initiated during the reporting period:

- Clinical validation of Unani pharmacopoeial formulation *Ḥabb Lu'āb-i-Behidāna* in *Su'āl Yābis* (dry cough)
- Clinical validation of Unani pharmacopoeial formulation *Ḥabb Qulā'* in *Qulā'* (stomatitis)
- Clinical Validation of Unani pharmacopoeial formulation *Qurṣ Zirishk* in *Sū' al-Qinya* (anaemia)
- Clinical validation of Unani pharmacopoeial formulations *Rawghan Nārjīl* and *Qurṣ Aṣfar* in *Qūbā* (dermatophytosis)
- Clinical validation of Unani pharmacopoeial formulations *Rawghan Nafa'-i-Waram-i-Niqris* and *Ma'jūn Yaḥyā bin Khālīd* in *Niqris* (gout)
- Clinical validation of Unani pharmacopoeial formulation *Kushta Bayḍa-i-Murgh* in *Sayalān al-Raḥīm* (leucorrhoea)
- Clinical validation of Unani pharmacopoeial formulation *Ḥabb Karanjwā* in *Ḥummā* (fever)

- Clinical validation of Unani pharmacopoeial formulation *Qurş Dawā' al-Shifā'* in *Ḍaght al-Dam Qawī* (hypertension)
- Clinical validation of Unani pharmacopoeial formulation *La'ūq Ḥulba* in *Ḍīq al-Nafas* (bronchial asthma)
- Clinical validation of Unani pharmacopoeial formulation *Qurş 'Atash* in *Ḥumūdat al-Mi'da* (hyperacidity)
- Clinical validation of Unani pharmacopoeial formulations *Ma'jūn Adhārāqī* and *Rawghan Surkh* in *Waja' al-Mafāṣil* (rheumatoid arthritis)
- Clinical validation of Unani pharmacopoeial formulation *Ma'jūn Būlis* in *Nisyān* (amnesia)
- Clinical validation of Unani pharmacopoeial formulation *Ḥabb 'Irq al-Nasā* in *'Irq al-Nasā* (sciatica)
- Clinical validation of Unani pharmacopoeial formulation *Ḥabb Banafsha* in *Ḍīq al-Nafas Ri'wī* (bronchial asthma)
- Clinical validation of Unani pharmacopoeial formulation *Kundurī* in *Salas al-Bawl* (stress urinary incontinence)
- Clinical validation of Unani pharmacopoeial formulation *Ma'jūn Zanjabīl* in *Kathrat al-Ṭamth* (menorrhagia)
- Clinical validation of Unani pharmacopoeial formulation *Jawārish Dārchīnī Qawī* in *Ḍu'f al-Mi'da* (dyspepsia)
- Clinical validation of Unani pharmacopoeial formulation *Marham Gulābī* in *Jildī Qurūḥ* (cutaneous ulcers)
- Clinical validation of Unani pharmacopoeial formulation *Rawghan-i-Banafsha* in *Sahar* (insomnia)
- Clinical validation of Unani pharmacopoeial formulations *Iṭrifal Mundī* and *Marham Raskapūr* in *Jarab* (scabies)

#### New studies allotted

In addition to the above, the following studies under validation of Unani pharmacopoeial drugs were allotted during the reporting period:

- Clinical validation of Unani pharmacopoeial formulation *Ḥabb Mafāṣil* and *Ḍimād Muḥallil* in *Waja' al-Mafāṣil* (rheumatoid arthritis)
- Clinical validation of Unani pharmacopoeial formulation *Ma'jūn Balādur* in *Nisyān* (amnesia)
- Clinical validation of Unani pharmacopoeial formulation *Jawārish Kundur* in *Kathrat-i-Bawl* (overactive bladder)
- Clinical validation of Unani pharmacopoeial formulation *Jawārish Zarūnī Sāda* in *Haṣāt al-Kulya* (nephrolithiasis)
- Clinical validation of Unani pharmacopoeial formulation *La'ūq Ḍīq al-Nafas Balghamī* in *Ḍīq al-Nafas* (bronchial asthma)
- Clinical validation of Unani pharmacopoeial formulation *Ma'jūn La'na* in *Ḍu'f-i-A'ṣāb* (neurasthenia)
- Clinical validation of Unani pharmacopoeial formulation *Ma'jūn Tiwāj* in *Bawāsīr Dāmiya* (bleeding piles)



- Clinical validation of Unani pharmacopoeial formulations *La'ūq Fālij* and *Rawghan Mom* in *Fālij* (hemiplegia)
- Clinical validation of Unani pharmacopoeial formulation *Iṭrīfal Aftīmūn* in *Mālinkhūliyā* (mixed anxiety depressive disorder)
- Clinical validation of Unani pharmacopoeial formulation *Jawārish Qurṭūm* in *Iḥtibās al-Ṭamth* (amenorrhoea)
- Clinical validation of Unani pharmacopoeial formulation 'Araq *Chirā'ita* in *Amrād-i-Jild* (skin eruptions)
- Clinical validation of Unani pharmacopoeial formulation *Ḥabb Pachlona* in *Sū'-i-Haḍm* (functional dyspepsia)
- Clinical validation of Unani pharmacopoeial formulation *Marham I'jāz* in *Qurūḥ* (healing ulcers)
- Clinical validation of Unani pharmacopoeial formulation *Rawghan Lubūb Sab'a Bārid* in *Sahar* (insomnia)
- Clinical validation of Unani pharmacopoeial formulation *Safūf Hāḍim Kalān* in *Ḍu'f al-Ishtihā'* (anorexia)
- Clinical validation of Unani pharmacopoeial formulation *Safūf Sūranjān Za'frānī* in *Niqris* (gout)
- Clinical validation of Unani pharmacopoeial formulation *Ḥabb Kibrīt Saghīr* in *Qūbā* (dermatophytosis)
- Clinical validation of Unani pharmacopoeial formulation *Ḥabb Khunāq* in *Waram-i-Hanjara* (laryngitis)
- Clinical validation of Unani pharmacopoeial formulation *Tiryāq-i-Raḥim* in *Sayalān al-Raḥim* (leucorrhoea)
- Clinical validation of Unani pharmacopoeial formulation *Ḥabb Kalaf* in *Bahaq Abyaḍ /Aswad* (pityriasis alba/nigra)

### Validation of Unani Pharmacopoeial Fast-Acting Drugs

The Council continued the programme of validating the efficacy and safety of some Unani pharmacopoeial fast-acting drugs in different disease conditions at its various clinical centres.

During the reporting period, clinical validation of six Unani pharmacopoeial fast-acting drugs was carried out in six disease conditions. The summary of the studies is as follows:

#### Clinical validation of a Unani pharmacopoeial formulation *Ḥabb-i-Surfa* in the patients of *Su'āl* (cough)

Clinical validation of a Unani pharmacopoeial formulation *Ḥabb-i-Surfa* was conducted in the patients of *Su'āl* (cough) at RRC, Allahabad; and CRUs, Bhopal and Burhanpur. The study drug *Ḥabb-i-Surfa* one pill (125 mg) was given orally twice daily for seven days.

During the reporting period, 27 patients were studied, all of which completed the study. Out of the completed cases, 22 (81%) were relieved and five (19%) partially relieved. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *La'ūq-i-Sapistān* in the patients of *Nazla* (common cold)

Clinical validation of a Unani pharmacopoeial formulation *La'ūq-i-Sapistān* in the patients of *Nazla* (common cold) was conducted at CRIUM, Lucknow; CRUs, Bhopal, Kerala and Meerut; and RRC, Silchar. The study drug *La'ūq-i-Sapistān* was given orally in the dose of five g twice daily for seven days.

During the reporting period, five patients were studied, of which four completed the study. Out of the completed cases, one (25%) patient was relieved, one (25%) partially relieved whereas two (50%) showed no response. One patient dropped out of the study and none was under study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Rawghan-i-Kāhū* in *Sahar* (insomnia)

Clinical validation of a Unani pharmacopoeial formulation *Rawghan-i-Kāhū* in the patients of *Sahar* (insomnia) was conducted at RRIUM, Aligarh; and CRUs, Bhopal and Kerala. The study drug *Rawghan-i-Kāhū* was applied locally on scalp at bedtime once a day for seven days.

During the reporting period, no new patient was registered in the study. Since inception of the study, a total of 102 cases have completed the study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Khamīra Banafsha* in *Su'āl Yābis* (dry cough)

Clinical validation of a Unani pharmacopoeial formulation *Khamīra Banafsha* was conducted in the patients of *Su'āl Yābis* (dry cough) at NRIUMSD, Hyderabad; and RRIUMs, Aligarh and New Delhi. The study drug *Khamīra Banafsha* was given orally in the dose of 7 g twice daily for seven days.

During the reporting period, 100 patients were studied, of which 62 completed the study. Out of the completed cases, 28 (45%) were relieved and 22 (36%) were partially relieved, whereas 12 (19%) showed no response. A total of 29 patients dropped out of the study and nine were under study. The test drug was found well-tolerated and no adverse effect was observed.

### Clinical validation of a Unani pharmacopoeial formulation *Sanūn Mukhrij-i-Ruṭūbat* in *Litha Dāmiya* (bleeding gums)

Clinical validation of a Unani pharmacopoeial formulation *Sanūn Mukhrij-i-Ruṭūbat* was conducted in the patients of *Litha Dāmiya* (bleeding gums) at NRIUMSD, Hyderabad; RRIUM, Aligarh; and CRU, Kurnool. The study drug *Sanūn Mukhrij-i-Ruṭūbat* in the dose of 1 g was applied locally on the gums twice a day for seven days.

During the reporting period, 42 patients were studied, of which 26 completed the study. Out of the completed cases, 24 (92%) patients were relieved whereas two (8%) patients showed no response. A total of 15 patients dropped out of the study and one patient was under study. The test drug was found well-tolerated and no adverse effect was observed.



### Clinical validation of a Unani pharmacopoeial formulation *La'ūq-i-Khiyārshambar* in *Nazla* (common cold)

Clinical validation of a Unani pharmacopoeial formulation *La'ūq-i-Khiyārshambar* was conducted in the patients of *Nazla* (common cold) at CRIUM, Lucknow; RRIUM, Patna; and CRU, Kerala. The study drug *La'ūq-i-Khiyārshambar* in the dose of 10 g was given twice daily for seven days.

During the reporting period, no new patient was registered in the study. Since inception of the study, a total of 161 cases have completed the study. The test drug was found well-tolerated and no adverse effect was observed.

### Validation of Regimen Therapies

Besides pharmacotherapy, Unani Medicine offers *'Ilāj bi'l-Tadbīr* (regimen therapy), such as *Hijāma* (cupping), *Ta'īrq al-'Alaq* (leeching), *Dalk* (massage), *Hammām Yābis* (sauna), *Hammām al-Bukhār* (steam bath), etc. for certain disease conditions. During the reporting period, various regimen therapy procedures were performed in a total of 4,583 patients with different diseases. These patients showed significant therapeutic effects in subsiding the signs and symptoms of the diseases.

*Hijāma bilā-Sharṭ* (dry cupping) was performed in 1,354 patients with different diseases including *Taḥajjur al-Mafāṣil* (osteoarthritis), *'Irq al-Nasā* (sciatica), *Taḥajjur Mafāṣil al-'Unuq* (cervical spondylosis), *Taḥajjur Mafāṣil al-Zahr* (lumbar spondylosis), *Katif Mujammad* (frozen shoulder), *Waja' al-Zahr* (backache), *Waja' al-Katif* (shoulder pain), *Waja' al-'Unuq* (neck pain), *Waja' al-Rukba* (knee pain), *Waja' al-'Aqib* (achillodynia), *Dawālī* (varicose veins), *Kathrat al-Ṭamth* (menorrhagia), *'Usr al-Ṭamth* (dysmenorrhoea), *Ṣudā'* (headache), *Ṣala'* (baldness), *Huzn* (depression), etc. at NRIUMSD, Hyderabad; CRIUM, Lucknow; RRIUMs, Chennai, Bhadrak, Patna, New Delhi and Srinagar; and HAKILHRUM, New Delhi.

*Hijāma bi'l-Sharṭ* (wet cupping) was performed in 491 patients with different diseases including *Nār Fārsī* (eczema), *Buthūr Labaniyya* (acne vulgaris), *Dā' al-Tha'lab* (alopecia), *Bawāsīr* (haemorrhoid), *Daghṭ al-Dam Qawī* (hypertension), *'Uqr* (infertility), *Waja' al-Mafāṣil* (rheumatoid arthritis), *Taḥajjur al-Mafāṣil* (osteoarthritis), *'Irq al-Nasā* (sciatica) and other musculoskeletal disorders at CRIUM, Lucknow; RRIUMs, Chennai, Bhadrak, Mumbai, Patna, New Delhi and Srinagar; and HAKILHRUM, New Delhi.

*Hijāma bi'l-Nār* (fire cupping) was performed in 18 patients with different diseases including *Waja' al-Mafāṣil* (rheumatoid arthritis), *Taḥajjur al-Mafāṣil* (osteoarthritis), *'Irq al-Nasā* (sciatica), *Waja' al-Zahr* (backache), *Katif Mujammad* (frozen shoulder), *Waja' al-Katif* (shoulder pain) and *Waja' al-Rukba* (knee pain) at RRIUMs, Srinagar and Chennai.

*Hijāma Muzliqa* (moving cupping) was performed in 759 patients with different diseases including *Waja' al-Zahr* (backache) and *Katif Mujammad* (frozen shoulder) at RRIUMs, Chennai and Srinagar.

*Hammām al-Bukhār* (steam bath) was performed in three patients with diseases including *Waja' al-Katif* (shoulder pain), *Qūbā* (dermatophytosis) and *Siman Mufrit* (obesity) at CRIUM, Lucknow; and RRIUM, Srinagar.

*Dalk Mu'tadil* (moderate massage) was performed in 362 patients with different diseases including *Waja' al-Mafāṣil* (rheumatoid arthritis), *Taḥajjur al-Mafāṣil* (osteoarthritis), *Taḥajjur Mafāṣil al-'Unuq* (cervical spondylosis), *Katif Mujammad* (frozen shoulder), *Waja' al-Zahr*

(backache), *Waja' al-Katif* (shoulder pain) and *Waja' al-'Aqib* (achillodynia) at RRIUM, New Delhi.

*Hammām Yābis* (sauna) was performed in 318 patients with different diseases including *Waja' al-Katif* (shoulder pain), *Taḥajjur al-Mafāṣil* (osteoarthritis), *Siman Mufriṭ* (obesity) at RRIUM, New Delhi.

*Naṭūl* (fomentation) was performed in one patient of *Waja' al-Mafāṣil* (rheumatoid arthritis) at RRIUM Srinagar.

*Inkibāb* (vaporisation) was performed in 11 patients of *Waja' al-Mafāṣil* (rheumatoid arthritis) and *Waja' al-Katif* (shoulder pain) at RRIUM, Chennai and Srinagar.

*Mundij-Mushil* therapy was performed in 14 patients of *Baraṣ* (vitiligo) at RRIUMs, New Delhi.

*Ta'liq* (leeching) was performed in 20 patients of *Dawālī* (varicose veins) and *Takhaththur al-Dam* (deep vein thrombosis) at RRIUM, Chennai.

*Takmīd* (fomentation) was performed in 138 patients of *Waja' al-Mafāṣil* (rheumatoid arthritis), *Taḥajjur al-Mafāṣil* (osteoarthritis), *Siman Mufriṭ* (obesity) and *Katif Mujammad* (frozen shoulder) at CRIUM, Lucknow; and RRIUMs, Chennai, Srinagar and New Delhi.

## Validation of Fundamentals

### Theory of *Akhlāṭ wa Mizāj* (Humours and Temperament)

The objective of the project was to test scientifically the concept of *Akhlāṭ* (Humours) and *Mizāj* (Temperament) and its relevance to the states of health and disease. The project was undertaken at NRIUMSD, Hyderabad. It aimed at studying the clinical, physiological, pathological, biochemical and genetic parameters of the subjects of different temperaments, conducting clinical assessment of *Mizāj* (Temperament) in different diseases, and scientifically establishing correlation among them.

### Genetic studies on the theory of Humours

Genetic studies on the theory of humours with special reference to diabetes mellitus, essential hypertension, vitiligo, gastritis and psoriasis were carried out; and healthy volunteers served as control. Pharmacogenomic studies of Unani formulations in vitiligo were also conducted.

A total of 1891 healthy volunteers and patients including 262 subjects enrolled during 2020–2021 have completed the studies. The 1st part of the project is an observational study wherein the subjects are being analyzed for dominant temperament according to *Ajnās 'Ashara*. Whereas the healthy volunteers and patients are subjected to genetic marker studies, biochemical, physiological, pathological and pulse wave analysis studies are done in the second part.

During the reporting period, the following studies under validation of fundamentals were completed and their final reports were compiled:

- Genetic studies on theory of humours with special reference to diabetes mellitus
- Genetic studies on theory of humours with special reference to essential hypertension
- Genetic studies on theory of humours with special reference to vitiligo

- Genetic studies on theory of humours with special reference to hepatitis and other *Şafrāwī* related diseases (gastritis)
- Genetic studies on theory of humours with special reference to cancer and other *Sawdāwī* related diseases (psoriasis)
- Genetic studies on theory of humours with special reference to healthy volunteers
- Pharmacogenomics of Unani formulations in vitiligo

Apart from the above, three studies involving the following components continued during the reporting period:

- Determination of dominant temperament by *Ajnās 'Ashara*
- Determination of dominant temperament by special CRF on assessment of temperament
- Genetic marker studies in relation to temperament of each subject
- Study of biochemical, physiological and pathological parameters and pulse wave component analysis

Study-wise summary of the progress made during the year is as under:

#### A molecular approach towards understanding of Unani philosophy – Temperament susceptibility gene expression studies (IFN-gamma)

A total of 27 patients (*Damawī* - 13; *Balghamī* - 01; *Şafrāwī* - 04; *Sawdāwī* - 09) and 65 healthy subjects (*Damawī* - 26; *Balghamī* - 12; *Şafrāwī* - 15; *Sawdāwī* - 12) were enrolled during the reporting period.

Samples of 27 patients were collected for fundamental IFN- $\gamma$  and RNA isolation of 77 patients (27 new + 50 continuing) was carried out. The isolated samples were kept at -80°C deep freezer. Two RNA isolated samples were converted into cDNA using cDNA kit and PCR experiment was performed with  $\beta$ -actin gene as internal control for protocol standardization.

#### Genetic studies of liver metabolism genes in relation to clinical phenotyping as per Unani philosophy (APOE gene)

A total of 27 patients (*Damawī* - 13; *Balghamī* - 01; *Şafrāwī* - 04; *Sawdāwī* - 09) and 65 healthy subjects (*Damawī* - 26; *Balghamī* - 12; *Şafrāwī* - 15; *Sawdāwī* - 12) were enrolled during the reporting period.

Sample of 27 patients were collected for fundamental APOE gene and DNA Isolation was carried out. DNA was isolated from the blood samples by using blood isolation kit (Hi Media) and stored at - 20°C.

#### Genetic variants of IFN- $\gamma$ (+874/A and +2109A/G genes polymorphism and its mRNA expression and inflammatory parameters in vitiligo)

A total of 58 patients of vitiligo (39 new and 19 follow-up cases), all of *Balghamī* temperament, and 20 healthy subjects of *Balghamī* temperament were studied during the reporting period.

Samples of the subjects were collected and DNA isolation was carried out for 98 samples (50 vitiligo samples and 48 healthy volunteers including 28 continuing subjects). DNA concentrations were checked and stored for further analysis. RNA isolation was initiated and completed on 20 samples. Primer designing for +874 (ARMS PCR) and +2109A/G

IFN- $\gamma$  genetic variants was done, restriction enzyme was selected and mRNA primer designing for IFN- $\gamma$  for qPCR studies was carried out.

### Clinical Assessment of *Mizāj* (Temperament)

During the reporting period, assessment of temperament of 352 patients attending the OPD of NRIUMSD, Hyderabad was done. These included patients of *Kathra al-Ṭamth* (heavy menstrual bleeding), *Ḍīq al-Nafas* (bronchial asthma), *Ḍuʿf al-Dimāgh* (cerebroasthenia), *Litha Dāmiya* (bleeding gums), *Nazla Muzmin* (chronic rhinosinusitis), *Dhayābīṭus Sukkarī* (diabetes mellitus type-2), *Suʿāl* (cough), *Ḥaṣāt al-Kulya* (nephrolithiasis), *Ḍuʿf al-Miʿda* (functional dyspepsia), *Ilthihāb al-Kabid* (asymptomatic hepatitis B carriers) and *Iḥtibās al-Ṭamth* (amenorrhoea).

In these patients, susceptibility for acquiring diseases in relation to different temperaments was also studied. An interim analysis of data revealed that the individuals of *Balghamī* temperament were more susceptible to *Kathra al-Ṭamth* (heavy menstrual bleeding), *Ḍīq al-Nafas* (bronchial asthma) and *Ḍuʿf al-Dimāgh* (cerebroasthenia) followed by *Damawī*, *Ṣafrāwī* and *Sawdāwī* temperaments. Similarly, persons of *Damawī* temperament were more susceptible to *Litha Dāmiya* (bleeding gums), *Nazla Muzmin* (chronic rhinosinusitis) and *Dhayābīṭus Sukkarī* (diabetes mellitus type-2) followed by *Balghamī*, *Ṣafrāwī* and *Balghamī* temperament. The persons of *Ṣafrāwī* temperament were susceptible to *Suʿāl* (cough), *Ḥaṣāt al-Kulya* (nephrolithiasis), *Ḍuʿf al-Miʿda* (functional dyspepsia) and *Ilthihāb al-Kabid* (asymptomatic hepatitis B carriers) followed by *Balghamī*, *Sawdāwī* and *Damawī* temperaments. It was also observed that persons of *Sawdāwī* temperament were more susceptible to *Iḥtibās al-Ṭamth* (amenorrhoea) followed by *Balghamī*, *Ṣafrāwī* and *Sawdāwī* temperaments.

### Research-oriented Healthcare

#### General Outpatient Department (GOPD) Programme

The CCRUM undertakes GOPD Programme which also includes Geriatric OPD and RCH / MCH OPD. It is aimed at promoting, protecting and preserving public health through Unani Medicine. Besides, OPDs for Post-trial Treatment Access (PTA) is also conducted in order to provide treatment facility to the research patients after completing the trial. During the reporting period, this programme continued at National Research Institute of Unani Medicine (NRIUMSD), Hyderabad; Central Research Institutes of Unani Medicine (CRIUMs), Lucknow; Regional Research Institutes of Unani Medicine (RRIUMs), Chennai, Bhadrak, Patna, Aligarh, Mumbai, Srinagar, Kolkata and New Delhi; Regional Research Centres, Allahabad and Silchar; Clinical Research Units (CRUs), Bengaluru, Bhopal, Burhanpur, Meerut, Kurnool and Edathala; Hakim Ajmal Khan Institute for Literary and Historical Research in Unani Medicine, New Delhi; AYUSH Wellness Centre, President's Estate, New Delhi; and All India Institute of Ayurveda, New Delhi. During the reporting period, a total of 2,40,225 patients comprising 1,93,824 patients in GOPDs, 15,856 in Geriatric OPDs, 4,842 in RCH / MCH OPDs, 9,866 in NCD's OPDs and 15,837 in OPDs for Post-trial Treatment Access (PTA) were treated at different centres. These patients were also assessed for their temperaments and various other factors responsible for occurrence of the disease, thus generating data for research feedback and Unani treatment was prescribed accordingly. These patients were treated with Unani pharmacopoeial formulations.



### Mobile Clinical Research Programme

The Mobile Clinical Research Programme is aimed at providing healthcare to the population residing in rural areas, urban slums, scheduled caste and scheduled tribe pockets, besides reducing the disease burden in the society by creating health awareness among them. Under this programme, rural areas, urban slums and pockets predominantly inhabited by Scheduled Caste (SC) / Scheduled Tribe (ST) population with no medical facility are covered. The Council's researchers visit the adopted pockets at regular intervals and provide free Unani treatment to the patients at their door steps, and thus serve as a potential source of healthcare delivery to the masses. The cases of different ailments are referred to the Council's institutes / units and also to other hospitals for treatment of specific diseases or clinical research. Besides, health awareness is created among the population under coverage particularly the women and senior citizens through health lectures and group meetings on the preventive, promotive and curative health aspects based on the principles of Unani Medicine. They are also made aware of the therapeutic uses of medicinal plants growing in their vicinity in the management of different common / seasonal ailments.

During the reporting period, this programme continued at National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad; Central Research Institutes of Unani Medicine (CRIUM), Lucknow; Regional Research Institutes of Unani Medicine (RRIUMs), Patna, Mumbai, New Delhi and Srinagar; Regional Research Centre (RRC), Allahabad; and Clinical Research Unit (CRU), Burhanpur and Kurnool. During the reporting period, 25 rural pockets / urban slums covering over 2.43 lakh population were covered. A total of 13,118 patients were treated with Unani pharmacopoeial formulations in 464 mobile visits made to these pockets. Predominant diseases as observed were rheumatoid arthritis, cough, fever, skin infections, joint pain, constipation, headache, dysentery, leucorrhoea, piles, etc.

#### 3.1.2.4. Literary Research Programme

Under the Literary Research Programme, the Council published 'Medicinal Plants for Longevity: Evidence-based Approach for Geriatric Care in Unani Medicine'. The book comprises description of 35 medicinal plants used in Unani Medicine for their actions related to promotion of longevity, healthy ageing and prevention and treatment of chronic diseases. The plants that are commonly found within the rich repository of flora and fauna of the country have been included in this book. The book comprises name of the drug including scientific name, introduction, vernacular name, temperament, chemical constituents, pharmacological actions, therapeutic uses, important formulations and evidence-based pharmacological/clinical studies for each plant.

Besides, Urdu translation of Arabic book, *Al-Mughnī fī Tadbīr al-Amrāḍ wa Ma'rifat al-'Ilal wa al-A'rāḍ* and Persian book, *Riyāḍ al-Adwiya* was completed, while Urdu translation of classical Persian text, *Kitāb al-Abniya 'an Ḥaqā'iq al-Adwiya* and Arabic text *Al-Masā'il fī'l-Ṭib* continued.

The work related to compilation of monographs on 'Mental Health and Mental Diseases in Unani Medicine' and 'Standard Unani Treatment Guidelines for *Ḥummayāt* (Fevers)' was completed. The revision of 'A Handbook of Common Remedies in Unani Medicine' was also completed.

Information on 'Boost Your Immunity through Unani Medicine', 'Immunity Enhancement through *'Ilāj bi'l-Tadbīr'*, 'Dietary Items for Health and Immunity', 'Special Advices for Women, Children and Old People for Immunity Enhancement' and 'Winter Care in Unani Medicine' were compiled. Besides, Modules for Dietotherapy, Regimenal Therapy and *Mizāj* were also developed for incorporation in AYUSH-Hospital Management Information System (A-HMIS).

A project named 'Systematised Nomenclature of Medicine - Clinical Terms (SNOMED-CT)' also started during the reporting period. SNOMED-CT is the most comprehensive, multilingual, well-organized clinical healthcare terminology maintained by SNOMED International, a not-for-profit organization that is owned and governed by its national members. The integration of Unani Medicine into SNOMED-CT is a step ahead in the upliftment of the system making it familiar across the globe.

In the wake of COVID-19 pandemic, the researchers engaged in literary research programme were actively involved in compilation of 'Guidelines for Unani Practitioners for Covid-19' and identification of drugs/regimens from Unani classical texts for incorporation in 'Add-on therapy for COVID-19 patients'. The researchers also took part in conducting a 'Population-based Prospective Study on Effectiveness and Outcomes of Unani Medicine Prophylactic Interventions on Population at Risk of COVID-19'.

### 3.2. Studies under IMR Policy

To utilize full potentials of the scientists working in the different centres and to conduct studies based on region-specific needs, the Council has an Intramural Research (IMR) Policy. The policy aims to conduct studies in a time-bound manner. During the reporting period, the following studies under the IMR policy were conducted:

*Immunological study on Unani pharmacopoeial drugs Ma'jūn Jogrāj Gūgal and Rawghan Mālkanganī to validate their anti-inflammatory and anti-arthritic property in cases of Waja' al-Mafāṣil (rheumatoid arthritis)*

The study being conducted at NRIUMSD, Hyderabad aims to validate anti-inflammatory and anti-arthritic property of Unani pharmacopoeial drugs – *Ma'jūn Jogrāj Gūgal* and *Rawghan Mālkanganī* in the cases of *Waja' al-Mafāṣil* (rheumatoid arthritis) using specific biomarkers of rheumatoid arthritis.

The patients received *Ma'jūn Jogrāj Gūgal* 5 g orally twice daily with water after meals and *Rawghan Mālkanganī* was applied topically on the affected joint for 84 days. The patients were followed-up clinically on every 14<sup>th</sup> day up to 84 days, whereas biomarker estimation was done at the baseline and at the end of treatment.

During the reporting period, estimation of the immunological biomarkers, such as high sensitive C-reactive protein (Hs-CRP), IL-1 $\beta$ , IL-6, TNF- $\alpha$ , IL-11 and IL-17 from 26 patients' samples was done by ELISA kits. The immunological biomarker study on the remaining 04 patients' samples as well as 10 healthy volunteers' samples was in progress.

*A comparative clinical study on Hijāma bi'l-Sharṭ (wet cupping) and Unani pharmacopoeial formulation Qurṣ Dawā' al-Shifā' in the management of Ḍagħṭ al-Dam Qawī Ibtidā'ī (essential hypertension)*

A clinical study for evaluation of Unani pharmacopoeial formulation *Qurṣ Dawā' al-Shifā'* in the clinically stable patients of *Ḍagħṭ al-Dam Qawī Ibtidā'ī* (essential hypertension) was

conducted at RRIUM, Patna. The patients received *Qurş Dawā' al-Shifā'*, 1 pill twice daily with water after meals. The duration of the treatment was 6 weeks.

During the reporting period, 79 new patients were registered, whereas three patients continued from the previous year bringing the total number of patients studied to 82. Of them, 37 patients completed the study. Out of the completed cases, 27 patients were relieved, 04 partially relief and 06 were not relieved. A total of 26 patient were dropped out of the study and 19 patients were under study.

#### Evaluation of a classical Unani formulation for putative anticancer activity

A preclinical study was initiated at NRIUMSD, Hyderabad with the aim to assess the anti-cancer potential of a Unani formulation.

During the reporting period, literature relevant to the study was collected. Ingredients of Unani formulation were procured from the commercial sources and submitted to Survey of Medicinal Plants Unit of the institute for identification and record. Extraction of the proposed formulation as well as individual ingredient was initiated using three different solvents, viz. water, hydroethanol (1:1) and methanol. Aqueous extracts were freeze-dried and stored for further experiments.

#### Preclinical efficacy and safety of a polyherbal Unani formulation for dengue

A preclinical study was initiated with the aim of evaluating anti-pyretic, analgesic, anti-inflammatory, anti-thrombocytopenic and immunomodulatory potential of polyherbal Unani formulation for dengue at NRIUMSD, Hyderabad.

During the reporting period, literature relevant to the project was collected. Animals, drugs, chemicals and consumable items required for the study were procured. Qualitative phytochemical characterization of polyherbal Unani formulation was initiated. Acute oral toxicity of polyherbal Unani formulation was initiated in rats as per OECD Test Guideline 425. Dose range finding study in rats was in progress to select doses for further animal experiments.

#### Evaluation of analgesic and anti-inflammatory activity of *Rawghan Mālish* in cases of *Waja' al-Mafāṣil* (arthralgia) – A pilot study

A clinical study to evaluate the safety and therapeutic efficacy of *Rawghan Mālish* in cases of *Waja' al-Mafāṣil* (arthralgia) was conducted at RRIUM, Chennai. The patients were advised to apply 2.5 ml formulated oil over the painful joint and perform *Dalk Layyin* for 5 minutes in circular motion twice daily for 2 weeks.

During the reporting period, 98 cases were screened and 45 cases were registered, whereas one case continued from the previous reporting period bringing the total number of cases studied to 46. Of them, 41 cases completed the trial, 4 cases dropped out of the study and one case was under study. Among the completed cases, 28 showed relief, 10 showed partial relief and 3 cases showed no relief. The course of the study was uneventful with no undesirable side effects of the formulation.

### 3.3. Collaborative Research

#### Pharmacokinetic, stability and quality control studies on 'Araqiyāt reported in Unani Pharmacopoeia of India using HPTLC and GC-MS

A study on pharmacokinetics, stability and quality control of 'Araqiyāt reported in Unani Pharmacopoeia of India using HPTLC and GC-MS was conducted at Department of



Pharmacognosy and Phyto-chemistry, School of Pharmaceutical Education and Research, Jamia Hamdard, New Delhi. The main objective of the study was to develop quality control methods using HPTLC and GC-MS and to analyse metabolites present in them for their stability and pharmacokinetic profile.

During the reporting period, the pharmacokinetic analysis and in vivo pattern recognition analysis of Araqiya't mentioned in Unani Pharmacopoeia of India (UPI, P-I, V-I-II) were carried out. All the blood samples were extracted separately in methanol and dichloromethane mixture (1:1). The sample was stored at -20°C until analysis.

Quality control analysis of Arqiyat led to the identification of many compounds in different Arqiyat using GCMS camphor. Menthol and thymol in 'Araq 'Ajib; fenchone and anethole in 'Araq-i Badiya'n and 'Araq-i Brinjāsif; cymene and thymol in 'Araq-i Ajwāyin; carvone in 'Araq-i Na'na; phenyl ethyl alcohol in 'Araq-i Gulāb and Arq-e-Keora; thymol in Arq-e-Gazar; phenol and phthalic acid in Arq-e-Mako and Arq-e-Kasni were found as major contributing compounds and these compounds were used for pharmacokinetic analysis of these Araqiya't. The pharmacokinetic analysis of these Arqiyat was carried out at different time interval (1h, 2h, 4h, 8h, 16h, 24h).

#### Evaluation of *Aftimūn* (*Cuscuta reflexa* Roxb.) plant and seeds on different human cancer (Saraṭān) cell lines

A study on evaluation of *Aftimūn* (*Cuscuta reflexa* Roxb.) plant and seeds on different human cancer (Saraṭān) cell lines were carried out at Department of Chemistry, Jamia Millia Islamia, New Delhi.

During the reporting period, the anti-cancerous and antioxidant activities of the plant extracts were evaluated. The percentage of anticancer activities for lung cancer cell lines was in the range of 2.16 to 47.50 for all the extracts. Among them, ethyl acetate extract was more effective with anticancer activities in the range of 2.16 to 32.68% for all the concentrations used. Among all the plant extracts, acetone extract was more effective with anticancer activities in the range of 0.230 to 33.84% for all the concentrations.

It was observed that the plant extracts showed greater anticancer activities in breast cancer cell lines as well as lung cancer cell lines as compared to fractions obtained from the extracts using flash chromatography. These results confirmed good binding characteristics of the plant extracts with DNA. Further, these plant extracts were screened for anticancer activities with lung cancer cell lines (H-1299) and breast cancer (MCF-7) cell lines. It was observed that the plant extracts have greater anti-cancerous activity in breast cancer cell line than lung cancer cell line. Finally, it was concluded that the plant extract may be used to control the breast and lung cancer.

#### Experimental studies on the hepatoprotective and immunomodulatory effects of *Dawā' al-Kurkum*, a polyherbal Unani preparation, and its cellular and molecular mechanisms in rats

A study to evaluate the hepatoprotective and immunomodulatory effects of *Dawā' al-Kurkum*, a polyherbal Unani preparation, and to assess the cellular and molecular mechanisms involved in mediating such effects was conducted at Department of Pharmacology, Vallabhbhai Patel Chest Institute (VPCI), University of Delhi, Delhi.

During the reporting period, the study concluded that anti-tubercular drugs, paracetamol and D-Galactosamine are potentially hepatotoxic as proven by changes in markers of liver, immunoglobulin levels, cytokine levels, delayed type hypersensitivity, oxidative stress and histopathological studies in rats.

Both *Dawā' al-Kurkum* and its hydro-alcoholic extract was found to be effective against the anti-TB drugs, paracetamol and D-Galactosamine induced hepatotoxicity as it significantly prevented the hepatotoxic damage induced in rats. The sub-chronic toxicity study clearly indicated that *Dawā' al-Kurkum* and its hydroalcoholic extract have no adverse/toxic effects in animal models at tested dosages as per OECD guidelines. Therefore, it can be concluded that *Dawā' al-Kurkum* and its hydroalcoholic extract is non-toxic at tested dose levels as evidenced by sub-chronic toxicity studies.

#### Evaluation of anticancer potential of a Unani pharmacopoeial formulation *Dawā' al-Kurkum*

A study to evaluate the potential of Unani pharmacopoeial formulation, *Dawā' al-Kurkum* against human liver cancer cells was carried out at Amity Institute of Pharmacy, Amity University, Noida, Uttar Pradesh. The *in-vitro* study utilized human cancer cell line HepG2.

During the reporting period, the drug *Dawā' al-Kurkum* showed *in-vitro* cytotoxic potential against HepG2, Hep3B and Huh7 cell lines. Considering the comparative results among three different cell lines, lowest IC50 value was observed in case of Hep3B cells, i.e., 45.81µg/ml and the highest was noted in case of Huh7 (IC50 90.05µg/ml). In wound healing assay, distinct gap in the manual scratch remained in Huh7 cells and Hep3B cells treated with sub-IC50 concentration of *Dawā' al-Kurkum*. A non-significant migration was observed in case of *Dawā' al-Kurkum* treated HepG2 cells compared to control cells. The results of p53 mRNA expression analysis showed a magnified upregulation of p53 gene with respect to the control in Huh7 and HepG2 cells. The results of gene expression conclude that cancer leads to serious damage at the genetic level, while *Dawā' al-Kurkum* seems to restore it.

#### Delineating the anti-cancer potential and the mechanism of action of Unani medicinal formulation *Iṭrīfal Aftīmūn* in chronic myelogenous leukaemia

A study to evaluate the potential of Unani pharmacopoeial formulation, *Iṭrīfal Aftīmūn* in chronic myelogenous leukaemia (CML) was carried out at All India Institute of Medical Sciences, New Delhi.

During reporting period, the effect of combinatorial treatment of *Iṭrīfal Aftīmūn* and imatinib was tested on angiogenesis, inflammation, Th1 and Th2 cytokines. The treatment resulted in the reduction in the levels of angiogenic marker, inflammatory marker and Th2 cytokines, however, Th1 cytokines increased significantly after treatment. Moreover, marker based assessment of proliferation and apoptosis showed decrease in proliferation while increase in apoptosis in leukemic cells after treatment with *Iṭrīfal Aftīmūn* alone and in combination with imatinib. Additionally, multiple signalling pathways such as pFAK, pSTAT3, pAkt and pERK were found to be involved in the mechanism of action of *Iṭrīfal Aftīmūn* in CML cells in vitro. The study showed that *Iṭrīfal Aftīmūn* possesses anti-tumour potential in vitro. The standard drug, imatinib, was found highly effective when used in combination with *Iṭrīfal Aftīmūn* even at lower doses which suggests the utilization of this formulation as an adjuvant therapy with currently used imatinib for the better management of CML. Further, the signalling cascade affected by *Iṭrīfal Aftīmūn* treatment alone or in combination with standard drug, imatinib, will be identified in K562 leukemic cell line.

### Effect of Unani preparations on macrophage polarization and its role in increased browning of fat leading to amelioration of insulin resistance

A study to evaluate the effect of Unani preparations on macrophage polarization and its role in increased browning of fat leading to amelioration of insulin resistance was carried out at Jamia Hamdard, New Delhi.

During reporting period, high fat diet (HFD) mice model was prepared by feeding mice with HFD for 24 weeks and were orally fed with 'Araq for 4 weeks in addition to HFD. Adipose tissues were dissected for fat pad measurements and adiposity index and were found to be decreased in 'Araq treated groups as compare to HFD groups. HFD mice treated with 'Araq exhibited significant improvement in metabolic parameters such as body weight, fat pad weight, adiposity index, blood glucose levels, blood insulin levels, serum triglyceride and serum cholesterol levels when compared to HFD and control groups. The epididymal fat pad showed increased levels of NF- $\kappa$ B in the HFD mice on immuno histochemical analysis. Supplementation with 'Araq resulted in a reduction in NF- $\kappa$ B staining in comparison to HFD mice.

### Phytochemical standardization and evaluation of anti-cancer and immune-modulatory activity of Unani formulation *Itrifal Ghudadi*

A study was initiated to evaluate the anti-cancer and immune-modulatory effect and phytochemical standardization of Unani formulation *Itrifal Ghudadi* at Interactive Research School for Health Affairs, Pune, Maharashtra.

During reporting period, first LCMS analysis of aqueous extract of *Itrifal Ghudadi* was performed. The analysis revealed the presence of 44 major phyto-chemicals, among which most of the compounds were phenolic acids, polyphenols, flavonoids and terpenoids, most of which have reported anticancer activity against different cancers. *Itrifal Ghudadi* was further evaluated for anticancer activity against HPV positive cervical cancer (HeLa and SiHa), Triple negative breast cancer (MDA MB 231), ER/PR receptor positive (MCF-7) and oral cancer (SCC-9) cell lines. The cells were dosed with different concentration (0, 100, 200, 400 and 800  $\mu$ g/ml) of *Itrifal Ghudadi*. At maximum dose of 800 $\mu$ g/ml, viability of HeLa, SiHa, MDAMB231, and SSC9 was reduced by  $69.2 \pm 14.0$  %,  $68.4 \pm 10.8$  %,  $44.0 \pm 5.2$  and  $60.7 \pm 1.05$ % respectively, compared to the untreated control cells. However, it was interesting to find that *Itrifal Ghudadi* did not affect the viability of MCF-7 cells. Thus, these preliminary findings suggest the anticancer potential of *Itrifal Ghudadi*. Further, the effect of *Itrifal Ghudadi* would be evaluated on non-cancerous breast and squamous cell lines and growth curve study would be performed.

### Pharmacokinetics, stability and quality control studies of *Itrifal* in Unani Pharmacopoeia of India (Part 2, V1 & 2) using chromatographic analysis by HPTLC and LC-MS

A study was initiated to evaluate the pharmacokinetics, stability and quality control of *Itrifal* of Unani Pharmacopoeia of India (Part 2, V1 & 2) using chromatographic analysis by HPTLC and LC-MS at Department of Pharmacognosy and Phyto-chemistry, School of Pharmaceutical Education and Research, Jamia Hamdard, New Delhi. The main objective of the study is to develop quality control methods using HPTLC and GC-MS and to analyze metabolites present in them for their stability and pharmacokinetic profile.

### Identification of anti-dengue viral compounds from Unani medicinal plants and formulations

A study was initiated to evaluate the anti-dengue viral compounds from Unani medicinal plants and formulations at Institute of Molecular Medicine, School of Interdisciplinary

Sciences, Jamia Hamdard, New Delhi. The main objective of the study is to prepare the drugs as per Unani Pharmacopoeia of India and to evaluate their potential anti-viral activities against dengue infection.

#### *In-vitro* evaluation of antiviral activity of Unani drugs and their green nanoparticles against dengue virus

A study for *in-vitro* evaluation of antiviral activity of Unani drugs and their green nanoparticles against dengue virus was conducted at Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi.

During reporting period, the ADMET analysis of potential antiviral components of the study drugs (*Habb Papīta*, *Sharbat Anjibār* and *Khamīra Marwārīd*) was carried out. The Lipinski's rule of five considering key physicochemical parameters (molecular weight, water solubility, lipophilicity, polar surface area, hydrogen bonding, and charge) and other parameters were used to evaluate the drug likeness of the potential inhibitors. Swiss ADME server was used to perform the *in-silico* absorption, distribution, metabolism, excretion and toxicity (ADMET) analysis for the selected compounds. Based on most used drug-like databases such as Comprehensive Medical Chemistry (CMC), Derwent World Drug Index (WDI) and Modern Drug Data Report (MDDR), the major and significant results were summarized.

The analysis showed that most of the study compounds such as carpaine, ursolic acid, apigenin, gingerol, kaempferol, stigmaterol, ascorbic acid, chlorogenic, luteolin, catechin, carvacrol, myricetin followed all the parameters of the Lipinski's rules. The low lipophilicity of hesperidin, ascorbic acid and poor water solubility of carpaine, cardenolide implying a low oral bioavailability can be overcome by using oral drug delivery system or intravenous administration. Furthermore, most of the compounds were not able to permeate the blood brain barrier (BBB), thus the central nervous system was protected from their action. Also, the ADMET analysis showed that several compounds of the study drugs followed the Lipinski's rules, have drug like properties and low toxicity. These two *in-silico* studies showed the antiviral potential of the study drugs against the DENV which would help to infer the possible antiviral mechanism and the required dose to prevent the disease, if successful. ADMET analysis revealed that the components of the drugs have potential to inhibit the DENV.

#### Preclinical evaluation of UNIM-401 and UNIM-403 against experimentally induced psoriasis and UNIM-004 and UNIM-005 for their efficacy against experimentally induced vitiligo in mice

A study was conducted for preclinical evaluation of UNIM-401 and UNIM-403 against experimentally induced psoriasis and UNIM-004 and UNIM-005 for their efficacy against experimentally induced vitiligo in mice at National Institute of Pharmaceutical Education and Research (NIPER), Hyderabad.

During the reporting period, a topical based formulation was proposed for UNIM 005. Hence, five Carbopol based hydrogel formulations were prepared and encoded F1, F2, F3, F4, F5, F6 with different concentrations of Carbopol 934 and 940. Prepared formulations were subjected to characterization using Spreadability analyzer and Rheometer for determination of spreadability and viscosity. The formulations were also found to be safe on skin and did not show any signs of irritation. These formulations would be further optimized to determine the optimum formulation which could be used for further in-vivo studies on hydroquinone induced vitiligo model in C57BL/6 mice. A standardized model



was being established for the same. Further, in-vitro studies were also being performed using the methanolic, hydroethanolic and aqueous extracts of UNIM 004 on SK-MEL-28 cell line and B16F10 cell lines. Also in-vitro studies were being carried out on HaCaT cell lines which are human epidermal keratinocytes using UNIM 401 and UNIM 403.

#### Reverse pharmacology of *Asrīn* and *Dawā' al-Shifā'* to evaluate their anti-hypertensive efficacy, safety and mechanism of action

A study for reverse pharmacology of *Asrīn* and *Dawā' al-Shifā'* and to evaluate their anti-hypertensive efficacy, safety and mechanism of action was initiated at Division of Pharmacology, CSIR-Central Drug Research Institute, Lucknow.

The main objective of the study is to generate scientific evidence for clinical efficacy of antihypertensive Unani formulations as well as to envisage the demonstration of antihypertensive and cardioprotective activity and safety by using various *in-vitro* assays and the rat model of hypertension.

During the reporting period, the Candesartan (2 mg/kg) and Reserpine (1 mg/kg) doses were standardized in the spontaneously hypertensive rat (SHR) model of hypertension and were found to be antihypertensive. Treatment with *Dawā' al-Shifā'* (100 mg/kg and 200 mg/kg) for 60 days reduced the blood pressure in SHRs. *Dawā' al-Shifā'* (100 mg/kg and 200 mg/kg) for 60 days improved the cardiac functions in SHRs as observed by 2-D Echocardiographic analysis. *Dawā' al-Shifā'* (100 mg/kg and 200 mg/kg) for 60 days significantly reduced the left ventricular hypertrophy in SHRs. Treatment with *Dawā' al-Shifā'* (100 mg/kg and 200 mg/kg) for 60 days downregulated the expression of pro-inflammatory markers, IL-1 $\beta$ , IL-6 and TNF- $\alpha$ , and upregulated the expression of the anti-inflammatory cytokine, IL-10, in SHRs.

#### Formulation and evaluation of *Khamīra Banafsha* based comestible chocolate coated lozenges/troches: Prophylactic and restorative potential against COVID-19 infection and associated complications

A study on formulation and evaluation of *Khamīra Banafsha* based comestible chocolate coated lozenges/troches: Prophylactic and restorative potential against COVID-19 infection was carried out at Amity Institute of Indian System of Medicine & Amity Institute of Pharmacy, Amity University, Noida.

The study focused on replacing sugar and formulating it into chocolate lozenges. Sugar was replaced with artificial sweeteners like stevia and maltitol. To improve the thickness of aqueous extract of *Viola odorata* flower, methylcellulose was used as thickening polymer. FTIR studies revealed the absence of interaction between *Viola odorata* flower extract and methyl cellulose. Dose to be incorporated in each lozenge was calculated and fixed and incorporated by pouring into chocolate cavities created in molds using specifically tempered chocolate base. The cavities were then sealed with chocolate base and lozenge was evaluated for its stability. During the stability studies, evaluation was done for texture, hardness, disintegration time and in vitro drug release. The final formulation of medicated *Khamīra Banafsha* showed 97% release of active constituent and disintegration time of 13min, 11:21 min and 12:05 min in distilled water, phosphate buffer pH 6.8 and simulated salivary fluid, respectively.

### Investigation and validation of the molecular mechanism of Unani medicines *in vitro* and *in vivo* for the treatment of atopic dermatitis

A study was initiated at the Faculty of Life Science and Technology, South Asian University, Chanakyapuri, New Delhi to evaluate the anti-inflammatory properties of *Barg-i-Shāhitara*, *Bābchī*, *Bādām Shīrīn*, *Tukhm-i-Khurfa* and *Halela Siyāh* in HaCat, HMC-1 and RAW 264.7 cells *in-vitro*, *in-vivo*, and to validate the molecular mechanism of Unani medicines for the treatment of atopic dermatitis.

### Drug proving studies, mechanistic insight and development of novel drug delivery systems of UNIM-H and UNIM-R used in the treatment of arthritis in Unani Medicine

A study was started at Department of Life Sciences, University of Mumbai to carry out phytochemical standardization and HPTLC fingerprint studies of UNIM-H and UNIM-R by MTT assay, DPPH, FRAP, NO, LPO and elucidation of mechanism of anti-inflammatory and anti-arthritic activity of the selected drugs.

### Pharmacological studies on the probable mechanism of action of *Khamīra Ga'uzabān Sāda* (KGS) in the management of hypertension, involving quality control and formulation optimization studies for this age-old Unani preparation

A study was initiated at Department of Pharmaceutical Technology, Jadavpur University, Kolkata on *Khamīra Ga'uzabān Sāda* (KGS) in the management of hypertension involving cardiac function and development of quality control standards and formulation optimization studies for the test drug.

### Evaluation of anti-oxidant and anticancer effect of Unani medicine against the liver cancer - A preclinical study

A study was initiated at School of Pharmaceutical Education and Research, Jamia Hamdard, New Delhi to evaluate hepato-protective and antioxidant activities of aqueous extract of herbs followed by formulation of extract into *Qurş* / suitable Unani formulation (UNIM-HC-I).

### Elucidating the therapeutic potential of a Unani formulation in glaucoma

A study to validate the therapeutic potential of a Unani formulation in glaucoma was initiated at Department of Ocular Biochemistry, All India Institute of Medical Sciences, New Delhi.

During reporting period, trabecular meshwork specimens were collected from the diagnosed primary glaucoma patients, including both open angle and closure angle glaucoma during their operative procedures. The crude drugs of Unani formulation (*Mamīrān*, *Zanjabīl*, *Filfil*, *Dār Filfil* and *Barg-i-Bādiyān*) were procured from the local market of Aligarh (Baradwari) and identified in the Pharmacognosy Section, Department of Ilmul Advia, A. K. Tibbiya College, Aligarh Muslim University. They were also authenticated by CSIR-National Institute of Science Communication and Policy Research, New Delhi with authentication No. NIScPR/RHMD/Consult/2021/3842-43-3, 3842-43-1, 3842-43-4, 3842-43-2, 3842-43-5 respectively. The plant drugs, namely *Mamīrān*, *Zanjabīl*, *Filfil*, *Dār Filfil* were taken in equal quantity and *Barg-i-Bādiyān* was added half of these drugs. All these drugs were cleaned from the earthy material, washed with double distilled water and dried at 45°C in hot air oven and powdered in by electrical grinder. Extraction was done in double distilled water by Soxhlet's apparatus for 6 hours. The extract was filtered and dried by



evaporation on water bath. The yield percentage was calculated with reference to crude drug and was found to be 10%.

### 3.4. Publications

#### 3.4.1. Books, Monographs, Reports, etc.

During the reporting period, the Council brought out the following books, monographs and reports, etc.:

- Medicinal Plants for Longevity: Evidence-based Approach for Geriatric Care in Unani Medicine
- Clinical Study of a Unani Formulation – *Ma'jūn Nisyān in Nisyān* (Amnesia)
- Compendium of Patents Granted to CCRUM
- Research on Fundamentals of Unani Medicine - A Summary of Studies Conducted by CCRUM
- A Handbook of Common Remedies in Unani Medicine (4<sup>th</sup> Edition)
- CCRUM Annual Report – 2019-20 (English)
- CCRUM Annual Report – 2019-20 (Hindi)
- Unani Day 2021 and National Conference on Unani Medicine

#### 3.4.2. Journals / Periodicals

During the reporting period, the Council published the following periodicals:

- Hippocratic Journal of Unani Medicine, Volume-13, Number-3
- Hippocratic Journal of Unani Medicine, Volume-13, Number-4
- Hippocratic Journal of Unani Medicine, Volume-14, Number-1
- Hippocratic Journal of Unani Medicine, Volume-14, Number-2
- Hippocratic Journal of Unani Medicine, Volume-14, Number-3
- Hippocratic Journal of Unani Medicine, Volume-14, Number-4
- Hippocratic Journal of Unani Medicine, Volume-15, Number-1
- Hippocratic Journal of Unani Medicine, Volume-15, Number-2
- Jahan-e-Tib, Volume-17-21
- Jahan-e-Tib, Volume-22, Issue-1
- Jahan-e-Tib, Volume-22, Issue-2
- CCRUM Newsletter, Volume-40, Number-1

#### 3.4.3. Research Papers

During the reporting period, the following research papers authored by the Council's officers were published in reputed national and international journals:

- Aaliya., Nawab, M., Ayyub, S., & Kazmi, M. H. (2020). Therapeutic approach and management of *Quba* in the perspective of Unani medicine. *Hippo. J. Unani Med.*, 15(2), 1–12.
- Afrin, Z., Kumar, P., Naushin, S., Parveen, N., & Khan, A. A. (2019). A review on Kalonji (*Nigella sativa*) with special reference to Unani Medicine. *Hippo. J. Unani Med.*, 14(4), 19–28.

- Afrin, Z., Parveen, S., Raheem, A., Nazli, T., & Khan, A. A. (2020). *Sharbat Fawlad* – A potent Unani formulation for *Faqr al-Dam* (anaemia). *Hippo. J. Unani Med.*, 15(3), 1–7.
- Afza, S., Khan, P., Rehman, S., Ayub, S., Singh, R., Verma, R. S., Akhtar, J., & Khan, A. A. (2021). Comparative study of efficacy and safety of Unani coded drug UNIM-904 with allopathic drug amlodipine in the treatment of essential hypertension. *International Journal of Unani and Integrative Medicine*, 5(1), 01–08.
- Ahmad, A. I., Qureshi, M. A., Ahmad, J., & Usmani, B. S. (2020). Importance of *Quwwat Mudabbira-i-Badan* (Medicatrix Naturae) in the management of diseases. *Hippo. J. Unani Med.*, 15(2), 43–51.
- Ahmad, F., Khanam, R., Khatoon, A., Naime, M., Rauf, E., Saher, N., Arshad, M., Siddiqui, Z. H., Arfeen, S., Salam, M. U., Khalid, M., Fatima, A., Aqil, M., Khan, M. N., & Bari, B. (2021). Prevalence of anaemia in women of reproductive age group in Lucknow district and surrounding areas. *World J. Pharm. Res.*, 10(2), 1209–1215.
- Ahmad, F., Naime, M., Khatoon, A., Salam, M. U., Rauf, E., Arshad, M., Khanum, R., Saher, N., Siddiqui, Z. H., Arfeen, S., Fatima, A., Aaqil M. A., Bari, B., Qazmi, H., Asma, M., & Singh, S. (2021). Evaluation of pathological and biochemical parameters in rheumatoid arthritis patients. *World J. Pharm. Res.*, 10(3), 1828–1831.
- Ahmad, H., Wadud, A., Sofi, G., & Khazir, M. (2019). *Khabasul Hadeed* (Iron Rust): An important mineral drug of Unani medicine for the management of hematopoietic disorders especially anaemia. *Hippo. J. Unani Med.*, 14(2), 33–44.
- Ahmad, N., Nawab, M., & Kazmi, M. H. (2019). Efficacy of a Unani regimen in the treatment of *Yaraqan* (Jaundice): A case report. *Hippo. J. Unani Med.*, 14(4), 37–44.
- Ahmad, N., Nawab, M., Kazmi, M. H., & Fatima, S. H. (2021). Evaluation of efficacy and safety of a polyherbal Unani formulation in diabetes mellitus type 2 (*Zayābītus Sukkari Qism Sāni*) - A randomised controlled clinical study. *Indian Journal of Traditional Knowledge*, 20(1), 15–20.
- Ahmad, N., Rauf, A., Ahmad, G., & Nasiruddin, M. (2020). A study of nephroprotective, diuretic and steroidal activity of a Unani pharmacopoeial preparation *Tabikh Kaknaj* in Rats. *Hippo. J. Unani Med.*, 15(1), 43–61.
- Ahmad, S., Rifaqat., Khan, P., Ahmad, S., Qayyum, Z., Raheem, A., & Parveen, S. (2020). A socio-demographic study of rural scheduled castes of Aligarh, Uttar Pradesh, India. *Hippo. J. Unani Med.*, 15(1), 33–42.
- Ahmad, T., Alam, M. I., Goswami, A., Yadav, P. K., & Kazmi, M. H. (2019). Biochemical, immunological and pathological studies on the patients of *Waja-al Mafasil* (Rheumatoid Arthritis) simultaneously treated with Unani pharmacopoeial drugs *Majun Suranjan*, *Safuf Suranjan* and *Raughan Suranjan*. *Hippo. J. Unani Med.*, 14(1), 41–50.
- Ahmad, T., Zakir, M., Fatma, S. H., Kazmi, M. H., Javed, G., & Ali, S. (2020). *Kushta Jast*, a conventional herbo-mineral immunity booster tonic: potential use in COVID-19. *CellMed Orthocellular Medicine Pharmaceutical Association*, 10(3), e24.
- Ahmed, M. W., Ahmad, T., Goswami, A., Sehar, N., Imam, M. H., & Alam, M. I. (2019). Effects of Unani pharmacopoeial formulation *Araq-i-Ajib* in cases of *Suda* (Headache): A preliminary study. *Hippo. J. Unani Med.*, 14(2), 55–66.

- Ahmed, N. Z., Ahmed, K., Anwar, N., Ezhil, R., Anjum, N., & Khan, A. A. (2020). Lithotriptic effect of *Safūf Hajar al-Yahūd* in patients of *Hissat-ul-Kuliyah* (Nephrolithiasis) – an open prospective clinical validation trial. *Journal of Complementary & Integrative Medicine*, 18(1), 139–146. <https://doi.org/10.1515/jcim-2019-0301>
- Ahmed, S., Khan, A. A., Yadav, P., Akhtar, J., Akram, U., Fatima, L., & Shamim. (2020). *Gokhru (Tribulusterrestris Linn.)*: Pharmacological actions and therapeutic applications: A review. *Int. J. Herb. Med.*, 8(4), 25–29.
- Alam, A., Siddiqui, J. I., Naikodi, M. A. R., & Kazmi, M. H. (2020). Development of HPTLC fingerprinting and phytochemical study of a polyherbal Unani formulation. *Cellmed Orthocellular Medicine and Pharmaceutical Association*, 10(1), e7.
- Alam, K., Nawab, M., & Kazmi, M. H. (2019). Pharmacological and therapeutic profile of *Kafur (Cinnamomumcamphora (L.) J. Presl)* – A review. *Hippo. J. Unani Med.*, 14(3), 1–16.
- Alam, M. I., Iman, M. H., Perveen, A., Ahmed, M. W., Goswami, A., & Anjum, N. (2018). Clinical efficacy and safety of Unani pharmacopoeial formulations *Jawarish Kamuni* and *Araq-i-Badiyan* in *Su' al-Hadam* (Dyspepsia). *Hippo. J. Unani Med.*, 13(3), 1–14.
- Alam, S., & Khan, N. A. (2020). Prophylactic and curative potential of *Qurs-i-Ghafis* against carbon tetrachloride induced hepatic injury in Rats. *Hippo. J. Unani Med.*, 15(2), 53–65.
- Alam, S., Anjum, N., Akhtar, J., Bashir, F., & Khan, A. A. (2020). *Majoon-e-Piyaz*: A potent Unani formulation for premature ejaculation. *Journal of Drug Delivery and Therapeutics*, 10(3-s), 330–334.
- Alam, S., Anjum, N., Akhtar, J., Bashir, F., Khan, A. A., & Parveen, N. (2018). Phytochemical and pharmacological investigations of *Rumman (Punica granatum L.)*. *Hippo. J. Unani Med.*, 13(4), 13–24.
- Alam, S., Bashir, F., Akhtar, J., & Anjum, N. (2020). “Evidence based research study on *Diq al-Nafs* (Asthma) in Unani medicine - A review. *Int. J. Ayurveda Res.*, 11(1), 35–40.
- Ali, A., Jameel, M., & Ali, M. (2020). New naphthyl substituted phytosterol and lanostane type-triterpenic esters from the stem bark of *Ficus religiosa L.* *Indian J. Pharm. Educ. Res.*, 54(3), 750–754.
- Amin, M. M., W, Ahmer, S. M., 7 Rasool, K. I. (2020). Efficacy & safety of *Hijama bi'l-Shart* (Wet Cupping) in the treatment of Knee osteoarthritis. *Hippo. J. Unani Med.*, 15(1), 61–73.
- Anas, M., Sahar, N., Zakir, M., Naushad, M., & Kazmi, M. H. (2020). An updated review on ethno-pharmacology of *Gurmar Booti (Gymnema sylvestre R.Br.)* with reference to Unani system of medicine. *Unimed-Kulliyat*, 11(1&2), 69–75.
- Anju., Javaid, R., & Javed, G. (2019). *Nisyan* (Amnesia): A review. *Hippo. J. Unani Med.*, 14(3), 17–22.
- Anju., Javaid, R., & Javed, G. (2020). *Bawasir* (Haemorrhoids): An overview. *Hippo. J. Unani Med.*, 15(1), 25–32.
- Anju., Javaid, R., & Javed, G. (2020). Concept of adulteration and substitution of drugs in Unani system of medicine. *Int. J. Pharma Bio Sci.*, 11(3), 67–70.

- Anju., Javaid, R., & Javed, G. (2020). *Qarha Humudi* (Peptic Ulcer): An overview. *Hippo. J. Unani Med.*, 15(3), 9–13.
- Anju., Javed, G., Javaid, R., & Ahmed, F. (2020). *Kasni* (Cichoriumintybus): A Unani Hepatoprotective drug. *Journal of Drug Delivery & Therapeutics*, 10(4), 238–241.
- Ansari, A. P., Ahmed, N. Z., Ahmed, K. K., & Khan, A. A. (2020). An insight on *Wabāi Amrād* (Epidemic Diseases) and COVID-19 like conditions – Unani perspective. *International Journal of Current Research & Review*, 12(17), 109–119.
- Ansari, A. P., Ahmed, N. Z., Rather, S. A., Rafeeqi, T. A., & Beigh, B. S. (2020). Immune boosting and anti-influenza effects of an Unani decoction in influenza like illness and COVID-19 like epidemics: a rational approach. *International Journal of Research in Medical Sciences*, 8(12), 4544–4552.
- Ansari, A. P., Ahmed, N. Z., Wadud, A., Arif, M., & Raheem, A. (2019). Polyherbal pharmaceutical preparations in Unani medicine- A rationale approach. *Hippo. J. Unani Med.*, 14(1), 1–16.
- Ansari, A., Naikodi, M. A. R., Viqar, U., Siddiqui, J. I., Kazmi, M. H. (2020). Development of standard operating procedures, phytochemical screening with HPTLC fingerprint of a polyherbal formulation. *Annals of Phyto-medicine*, 9(2), 142–154.
- Ansari, M. Z., Rahman, A., & Jamali, A. H. (2019). *Suranjan Talkh* (Colchicum leteum Baker): A review of pharmacological activities and clinical effects). *Hippo. J. Unani Med.*, 14(1), 29–40.
- Ansari, S. A., Khan, A. S., Ahmed, M. W., Asif, M., Meena, R. P., & Subhani, S. (2020). Pharmacognostical and HPTLC study of Unani formulation *Khamira Khas*: A cardiac tonic. *Journal of Alternative, Complementary & Integrative Medicine*, 6, 118.
- Anwar, N., Ahmed, N. Z., Fatima, A. F., Begum, S., & Khan, A. A. (2021). Emergence of anti-microbial resistance and magnitude of Unani medicine – Scope and challenges. *Journal of Complementary and Integrative Medicine*, 18(3), 477–483. <https://doi.org/10.1515/jcim-2020-0092>
- Ara, S. A., Viqar, U., Zakir, M., Naikodi, M. A. R., Kazmi, M. H., & Mohammad, T. (2019). Standardization and HPTLC fingerprinting of Unani formulation *Habb-i-Azaraqi* with contemporary analytical techniques. *Hippo. J. Unani Med.*, 14(4), 57–74.
- Ara, S. A., Viqar, U., Zakir, M., Urooj, M., Kazmi, M. H., & Husain, G. M. (2021). Preclinical toxicity evaluation of *Habb-e-Azaraqi*: A nux-vomica-based traditional Unani polyherbal formulation in rats. *Traditional & Kampo Medicine*, 8(1), 29–41. <https://doi.org/10.1002/tkm2.1263>
- Arfeen, S., Khan, M. N., Saimbi, C. S., Ahmed, Z., & Khan, M. A. (2018). Clinical evaluation of Unani coded drug UNIM-856 in *Dhahab Ma al-Asnan* (Tooth Hypersensitivity). *Hippo. J. Unani Med.*, 13(3), 25–34.
- Arfeen, S., Zaman, W., Kidwai, M. R., Akhtar, J., Parveen, N., & Khan, M. A. (2020). Clinical evaluation of coded drugs UNIM-304 & UNIM-312 along with *Munziji* (UNIM-308), *Mushil* (UNIM-309) and *Tabreed* (UNIM-310) therapy in *Waja-ul-Mafasil* (Rheumatoid arthritis). *World J. Pharm. Res.*, 9(10), 798–710.
- Asif, M., Tomar, S., Maurya, A., Mohan, S., & Meena, R. P. (2020). Pharmacognostic evaluation and HPTLC study of leaf part of the medicinal shrub- *Justicia adhatoda* L. *Asian Journal of Pharmacognosy*, 6(9), 152–156.



- Azhar, M., Qamar, U., Kazmi, M. H., Faiza, K., & Husain, N (2020). Therapeutic evaluation of a topical Unani formulation, *Tila-i Muhāsā* in *Buthūr Labaniyya* (Acne Vulgaris): A randomized, controlled clinical study. *CellMed*, 10(2), 15.1–15.9.
- Azhar, M., Ahmad, Z., & Mustehasan. (2020). Effect of Unani medicine in *Iltehab-e-Jild Huzaazi* (Seborrheic Dermatitis) of head: A case study. *Int. J. Sci. Res. Biol. Sci.*, 7(2), 41–43.
- Azhar, M., Ayub, S., Anjum, N., & Ahmad, S. (2020). Role of Dieto-therapy in weight and dyslipidemia management – A case study. *Int. J. Sci. Res. Biol. Sci.*, 2020; 7(1), 17–18.
- Azhar, M., Mustehasan, Alam, M., Ahmad, S. G., Anjum, N., & Quddusi, N. (2020). Nephroprotective Unani drug *Khar-e-Khasak Khurd* (*Tribulus terrestris* L.) - A review. *Int. J. Sci. Res. Biol. Sci.*, 7(1), 24–36.
- Bano, H., Qureshi, M. A., & Rahman, S. (2020). Efficacy of Unani medicines in management of *Shiqāq-e-Jild* (Xerotic eczema) - A case study. *Journal of Traditional Medicine & Clinical Naturopathy*, 9(2), 288.
- Bashir, F. (2020). Utility of *Unnab* (*Zizyphus jujube* Gaertn.) in Unani system of medicine. *International Journal of Advance and Innovative Research*, 7(1), 43–49.
- Bashir, F., Akhtar, J., & Bi, S. (2020). *Tadabeer-i Wiladat wa Baad az Wiladat* (Perinatal and post-natal care): An approach through Unani system of medicine. *Int. J. Herb. Med.*, 8(3), 105–108.
- Bashir, F., Akhtar, J., Anjum, N., Alam, S., & Khan, A. A. (2019). Management of *Falij* (Paralysis) in Unani medicine. *Hippo. J. Unani Med.*, 14(3), 23–32.
- Bashir, F., Akhtar, J., Anjum, N., Alam, S., & Khan, A. A. (2019). Utility of *Filfil Daraz* (*Piper longum* L.) in Unani medicine: An evidence-based approach. *Hippo. J. Unani Med.*, 14(4), 1–18.
- Bashir, F., Akhtar, J., Anjum, N., Alam, S., Khan, A. A., & Parveen, N. (2018). Phytochemical and pharmacological investigations of *Pudina* (*Mentha arvensis* L.). *Hippo. J. Unani Med.*, 13(3), 57–74.
- Bashir, F., Alam, S., Anjum, N., Akhtar, J., & Khan A. A. (2020). Concept of *Sartān* (Cancer) and anti-cancerous drugs in Unani system of medicine. *International Journal of Current Science and Multidisciplinary Research*, 3(6), 159–169.
- Beg, M. B., Viqar, U., Naikodi, M. A. R., Suhail, H., & Kazmi, M. H. (2021). Standardization and HPTLC fingerprinting of a polyherbal Unani formulation. *CellMed Orthocellular Medicine Pharmaceutical Association*, 11(1), e4.
- Bi, S., Bashir, F., Akhtar, J., Alvi, R. (2020). Pharmacological investigations of *Babchi* (*Psoralea corylifolia* L.) – An important drug of Unani system of medicine. *Int. J. Unani. Integ.*, 4(1), 32–36.
- Dar, S. A., Akbar, Hamdani, M., Ghazanfar, K., Nazir, T., Masood, A., Siddiqui, K. M., & Akbar, S. (2018). Sub-acute oral toxicity study of *Kushta Qalai* (Herbo-mineral Unani formulation) in Wistar Rats. *Hippo. J. Unani Med.*, 13(4), 37–56.
- Haridas, R., & Murugeswaran, R. (2020). Screening of antioxidant potential and antimicrobial studies of tender leaf part of *Grewia tiliifolia* Vahl. *International Journal of Research in Pharmacy and Pharmaceutical Sciences*, 5(2), 21–24.
- Haridas, R., Ahmed N. Z., Meena, R. P., & Murugeswaran, R. (2020). Pharmacognostical study of male inflorescence of *Pandanus odoratissimus* L. *International Journal of Pharmacognosy and Pharmaceutical Sciences*, 2(1), 24–26.

- Haridas, R., Ahmed, N. Z., Meena, R. P., & Murugeswaran, R. (2020). Pharmacognostical view of Unani single drug Neem gum. *Devagiri Journal of Science*, 6(1), 01–06.
- Haridas, R., Meena, R. P., Ahmed, N. Z., & Murugeswaran, R. (2020). Unani drug 'Mulsari' (flower part of *Mimusopselengi* Linn)- Pharmacognostical profile and a review of its medicinal uses. *World Journal of Pharmaceutical and Life Sciences*, 2(4), 5–13.
- Hasan, I., & Kumar, P. (2020). Platelet Rich Plasma (P.R.P) treatment: A view. *International Journal of Clinical Nursing*, 1(1), 34–47.
- Hasan, I., Kumar, P., & Ahmad, H. (2020). Mesotherapy strategies and techniques: A view. *Journal of Pharma and Ayurveda Research*, 1(1), 46–56.
- Heena., Nazli, T., Grover, S., & Kishore, J. (2020). Covid-19 pandemic and “feeling depressed”: An online survey. *Epidemiology International*, 5(2), 27–31.
- Husain, G. M., Urooj, M., Mustehsan., Javed, G., Kumar, P., & Kazmi, M. H. (2020). Beneficial effect of *Qurs-e-Damavi*, a traditional Unani formulation in cyclophosphamide induced haematological perturbations in Rats. *Advances in Complementary & Alternative Medicine*, 6(2), 576–592.
- Husain, M., Qamar, U., & Kazmi, M. H. (2020). *Baraş* (Vitiligo) in Unani medicine and conventional medicine: An overview. *European Journal of Pharmaceutical and Medical Research*, 7(7), 491–496.
- Hussain, M., Begum, T. S., Aslam, H. C. M., Javed, G., Anjum, N., & Anju. (2020). Efficacy and Safety Study on Unani Formulation *Ma'jun Nisyan* in *Nisyan* (Amnesia). *Hippo. J. Unani Med.*, 15(2), 67–75.
- Imam, M. H., Goswami, A., Alam, M. I., Khan, Q., & Lone, A. H. (2020). Immunity boosting measures against coronavirus disease 2019 (Covid-19) in the light of Unani medicine. *International Journal of Research and Analytical Reviews*, 7(2), 284–297.
- Iqbal, A., Bhat, S. A., Qureshi, H. A., Jan, A., & Rashid, A. (2020). Corona virus - Herbal approach for boosting immunity and influencing viral activity. *International Journal of Pharmaceutical Research*, 12(4), 722–733. <https://doi.org/10.31838/ijpr/2020.12.04.074>
- Islam, N. (2020). Concept of *Tanqiya* (read here as Detoxification or Detoxication) in Unani system of medicine with its scientific interpretation and correlation: Scientific review – Part-I. *International Journal of AYUSH*, 9(2), 22–31.
- Islam, N. (2020). Potential management / treatment of uncommon symptoms in novel coronavirus disease-19 (NCOVID-19) by Unani polyherbal decoction formulation – An alternative therapy - Part-II. *World J Pharm Pharm Sci.*, 9(5), 1855–1866.
- Islam, N. (2020). Potential management / treatment of uncommon symptoms in novel coronavirus disease-19 (NCOVID-19) by Unani polyherbal decoction formulation – An alternative therapy - Part-I. *World J Pharm Pharm Sci.*, 9(6), 583–594.
- Jahan, N., Akhtar, J., & Khan, A. A. (2020). Prevention and management of lifestyle diseases through Unani system of medicine. *International Journal of Unani and Integrative Medicine*, 4(1), 32–36.



- Javaid, R., Javaid, R., Singh, A., & Javed, G. (2020). The Physico-chemical studies of *Khar-e-Khasak* (*Tribulusterrestris* Linn.). *International Journal of Phyto-Medicine*, 12(2), 042–045.
- Javaid, R., Javed, G., Javaid, R., Anju., & Khan, A. A. (2020). Concept of Kidney disorders & its treatment in Unani system of medicine. *International Journal of Health Sciences and Research*, 10(9), 290–295.
- Javaid, R., Javed, G., Javaid, R., Anju., & Khan, A. A. (2020). Understanding Kidney disorders in times of Coronavirus-COVID19- A. *International Journal of Biological & Medical Research*, 11(4), 7179–7183.
- Javaid, R., Javed, G., Javaid, R., Anju., Ahmed, F., Khan, A. A. (2020). *Hing* (*Ferula foetida* Regel): A potent Unani herb with its descriptive parameters of pharmacognosy and pharmacology: A review. *Journal of Drug Delivery & Therapeutics*, 10(5), 362–367.
- Javed, G. & Ahmed, F. (2020). The concept of Alzheimer's disease in Unani system of medicine: A historical perspective. *Journal of Research on History of Medicine*, 9(4), 281–290.
- Jyothi, B., Pratap, G. P., Husain, M. K., Swamy, D. M., Prasad, G. P., & Sudarsanam, G. (2020). Standardization of *Parpataka* (*Peristrophe paniculata*) - An Ayurvedic Drug. *International Journal of Pharmaceutical Sciences and Research*, 11(2), 811–819.
- Kalam, M. A., Haseeb, A., Mushtaq, M. S., & Hussain, Z. (2020). *Taryaq-i-Waba'i*: A review on potent compound formulation of Unani medicine with special reference to epidemic/pandemic diseases. *Journal of Drug Delivery and Therapeutics*, 10(4), 234–237.
- Kayum, M. A., Qaiyyum, I. A., Jabeen, A., & Nawab, M. (2021). A review on pharmacological and therapeutic profile of *Zaranbad* (*Curcuma Zedoaria* Rosc.). *World Journal of Pharmaceutical Sciences*, 9(1): 60–66.
- Khan, A. A., Afrin, Z., & Kumar, P. (2020). Overview of Covid 19 and Unani formulation *Tiryag-e-Wabai*. *Journal of Drug Delivery and Therapeutics*, 10(5-s), 205–208.
- Khan, A. A., Bashir, F., & Akhtar, J. (2020). *Tiryag e Arba* - A classical Unani Formulation to boost Immunity, *Journal of Drug Delivery & Therapeutics*, 10(4-s), 259–263.
- Khan, A. A., Kumar, P., Ahmed, S., Hasan, I., Fatima, L., & Shamim. (2021). Novel coronavirus (COVID-19) etiological characteristics, clinical manifestations and Unani management. *Int. J. Herb. Med.*, 9(1), 111–114.
- Khan, A. S., Ahmed, F., Mustafa, A., Alvi, A. I., Chandra, M., & Meena, R. P. (2020). Standardization of classical Unani formulation- *Sharbat Zufa Murakkab*. *Hippo. J. Unani Med.*, 13(3), 51–56.
- Khan, A. S., Ahmed, F., Mustafa, A., Ansari, S. A., Negi, K., Alvi, A. I., Mirza, A., Hussain, U., Siddiqui, Z. A., & Meena, R. P. (2020). Evaluation of pharmacopoeial standards with HPTLC profile of *Habb Hindi Chashm*, a compound Unani formulation. *Hippo. J. Unani Med.*, 15(3), 15–27.
- Khan, J. A., & Khan, P. J. (2021). Randomization, replication and local control in clinical trials. *International Journal of Creative Research Thoughts*, 9(1), 168–170.

- Khan, K. A., Zakir, M., Khan, R. A. (2021). Concept of Anaemia (*Faqr al-dam*) and its management in Unani system of medicine. *Wesleyan Journal of Research*, 14(01), V.
- Khan, K. A., Zakir, M., Khan, S. A., & Khan, S. A. (2021). Concept and management of *Istisqa'* (oedema) in Unani system of medicine. *CellMed Orthocellular Medicine Pharmaceutical Association*, 11(1), e3.
- Khan, M. A., Salam, M. S., Raheem, A., Akhtar, J., Rauf, E., & Fatima, A. (2021). Survey of common ailments with special reference to joints diseases in village Dilwar Nagar, Lucknow. *World Journal of Pharmaceutical and Medical Research*, 7(1), 137–144.
- Khan, M. A., Salam, M. U., Raheem, A., & Rauf, E. (2021). Prevalence of multiple diseases in Shivpuri, Lucknow. *World J Pharm Pharm Sci.*, 9(12), 1752–1764.
- Khan, M. A., Salam, M. U., Raheem, A., Akhtar, J., Rauf, E., & Fatima, A. (2021). Prevalence of multiple diseases in Hariharpur area of Lucknow with special reference to *Humma* (fever). *World J Pharm Pharm Sci.*, 10(1), 1245–1262.
- Khan, M. A., Salam, M. U., Raheem, A., Akhtar, J., Rauf, E., & Fatima, A. (2021). Prevalence of multiple diseases in *Magath* and *Tarhiya* area of Lucknow with special reference to *Jarab* (Scabies). *World J. Pharm. Res.*, 10(1), 1417–1430.
- Khan, M. A., Salam, M. U., Raheem, A., Akhtar, J., Rauf, E., & Fatima, A. (2021). Prevalence of multiple diseases in Kallupura (*Kursi*) area of Barabanki with special reference to *Sual* (Cough). *World J. Pharm. Res.*, 10(1), 1668–1681.
- Khan, M. A., Sehar, N., & Yasir, N. (2020). A prophylactic study on Unani drugs in COVID-19 at CRIUM, Lucknow. *World J. Pharm. Res.*, 10(1), 1371–1387.
- Khan, M. A., Sehar, N., Naime, M., & Akhtar, J. (2020). Evaluation of efficacy of Unani pharmacopoeial formulation *Dabid-ul-Ward* in *Tashhamul Kabid* (Nafid) - A preliminary study. *World Journal of Pharmaceutical and Medical Research*, 6(5), 236–241.
- Khan, M. A., Tariq, M., Akhtar, J., Siddique, Z. H., Naime, M., & Rauf, E. (2018). Cancer prevention and treatment in Unani medicine: A literature review. *Hippo. J. Unani Med.*, 13(4), 1–12.
- Khan, P., Ahmed, S., Rifaqat, Nazli, T., Raheem, A., & Afza, S. (2020). SARS-CoV-2 pandemic: A review on current evidence and Unani perspective. *Journal of Integrated Community Health*, 9(2), 1–10.
- Khan, P., Verma, R. S., Ayub, S., Afza, S., Akhtar, J., & Khan, A. A. (2020). Comparative study of efficacy and safety of coded Unani formulations–UNIM-001+UNIM-003 with methoxsalen in cases of *Bars* (Vitiligo). *J. Adv. Res. in Ayurveda, Yoga, Unani, Sidhha & Homeopathy*, 7(3&4), 16–26.
- Khan, Q. A., Khan, A. A., Raheem, A., & Parveen, S. (2020). *Luk* (Lacciferlacca): A potent Unani drug for Obesity and Dyslipidemia. *Hippo. J. Unani Med.*, 15(2), 13–17.
- Kumar, P., & Hasan, I. (2020). Concept of Dengue fever (*Humma Danj*) in Unani system of medicine: A view. *Advanced Journal of AYUSH Research*, 1(1), 1–5.
- Mageswari, S., Meena, R. P., Sri, M. D. P., Murugeswaran, R., Raiza, J., & Ahmed, N. Z. (2019). Macro and microscopical evaluation, HPTLC fingerprinting and quality control Studies on *Mimusopdelengi* L. fruits. *Hippo. J. Unani Med.*, 14(1), 51–66.
- Mahmood, J., Chakraborty, A., Javed, G., & Kazmi, M. H. (2021). Study on clinical assessment of central blood pressure in healthy volunteers, and its relation to

- clinical phenotyping. *International Journal of Life science and Pharma Research*, 11(3), 23–29.
- Mannan, M. N., Kazmi, M. H., Chakraborty, A., Zakir, M., Tasleem, A., & Lahari, K. (2020). *In-vitro* anticancer and free radical scavenging potential of compound Formulation used in Unani system of medicine. *CellMed*, 10(4), 27.1–27.7.
  - Mannan, M. N., Kazmi, M. H., Zakir, M., Naikodi, M. A. R., Zahid, U., Siddiqui, J. I. (2020). Standardization and development of pharmacopoeial standard operating procedures (SOPs) of classical Unani formulation. *Cellmed Orthocellular Medicine and Pharmaceutical Association*, 10(2), e16.
  - Mannan, M. N., Zakir, M., Ahmad, I., Ahmad, T., & Kazmi, M. H. (2021). A simplified review on *Aftimoon* (*Cuscuta reflexa* Roxb.), a parasitic vine with special reference to Unani medicine. *New Horizons*, XVIII, 113–27.
  - Meena, R. P., Khan, A. A., Subhani, S., Mustehasan., Rashid, N. M. A., Siddiqui, A., & Imam, J. Pharmacopoeial and HPTLC fingerprint studies of *Darchini* – An immunity booster Unani single drug. *International Journal of Advanced Research*, 8(11), 245–253.
  - Mustafa, A., Alvi, A. I., Siddiqui, Z. A., & Meena, R. P. (2020). Brief literature on essential oils – A systematic review. *World J. Pharm. Res.*, 9(14), 1282–1294.
  - Mustehasan., & Azhar, M. (2020). *Abrak* (Mica) and its Unani formulations- Review. *World J. Pharm. Res.*, 9(8), 2475–2484.
  - Mustehasan., Azhar, M. (2020). *Hajar al-Yahood* (Jew's stone) Anti-urolithiatic Unani mineral drug – review. *World J. Pharm. Res.*, 9(6), 1127–1133.
  - Mustehasan., Azhar, M., & Naushin, S. (2020). Historical ethnopharmacological review of a Unani mineral drug – *Samm al-Far* (Arsenic Trioxide). *Hippo. J. Unani Med.*, 15(2), 21–31.
  - Mustehasan., Azhar, M., & Naushin, S. (2020). *Kibreet* (Sulphur) A Unani Mineral drug– review. *International Journal of Scientific Research in Biological Sciences*, 7(3), 99–103.
  - Mustehasan., Azhar, M., Naushin, S., & Alam, M. (2020). *Zahar Mohra* (Bezoar) an alexipharmic Unani mineral drug: Review. *Journal of Drug Delivery & Therapeutics*, 10(6), 236–238.
  - Mustehasan., Naushin, S., & Alam, M. (2019). Role of diet in prevention and management of Cancer (*Saratan*) in Unani medicine. *Hippo. J. Unani Med.*, 14(2), 1–14.
  - Naushad, M., Zakir, M., Sahar, N., & Kazmi, M. H. (2020). A comprehensive review on *Tukhm-e-Karafs* (*Apium graveolens* L.) with special reference to Unani system of medicine. *CellMed*, 10(3), 20.1–20.6.
  - Naushad, M., Urooj, M., Tasleem, A., Husain, G. M., Kazmi, M. H., Javed, G., & Zakir, M. (2020). Nephroprotective effect of *Tukhm-e-Karafs* (*Apium graveolens* L.) against gentamicin induced nephrotoxicity in experimental animals. *Indian Drugs*, 57(07), 63–69.
  - Naushad, M., Zakir, M., Sahar, N., & Kazmi, M. H. (2020). Ethno-pharmacology of *Banafsha* (*Viola odorata* L.) with reference to Unani system of medicine and its importance in management of Covid-19. *Unimed-Kulliyat*, 12(1), 1–9.

- Naushin, S., Mustehasan., Afrin, Z., Parveen, N., & Khan, A. A. (2020). *Khatmi (Althaea officinalis L.) and its therapeutic effect in Unani medicine – A review. Hippo. J. Unani Med., 15(1), 1–10.*
- Nayak, M. K., Jamal, A., Ahmed, W., & Verma, P. (2018). Study to evaluate efficacy of coded drugs UNIM-152 and UNIM-158 in cases of Malaria. *Hippo. J. Unani Med., 13(3), 15–24.*
- Nazli, T., Heena., Raheem, A., & Kishore, J. (2020). Perceptions and practices of the adult population in response to SARS-CoV-2 pandemic in India. *Epidemiology International, 5(2), 10–16.*
- Nazli, T., Kishore, J., Khan, S. A., Heena., Raheem, A., & Khan, A. A. (2020). Knowledge and practices of Unani medicine among patients attending OPD at a tertiary care hospital in north India. *International Journal of Healthcare Education & Medical Informatics, 7(1&2), 10–15.*
- Negi, K., & Siddiqui, Z. A. (2021). Microscopical characterization of selected floral powders used in Unani system of medicine. *International Journal of Research and Review, 7(9), 453–461.*
- Negi, R. K., Naikodi, M. A. R., Sajwan, S., Khan, A. S., & Meena, R. P. (2020). Standardization and HPTLC fingerprinting of Unani compound formulation *Habb-e-Muqil Jadeed. Journal of Emerging Technologies and Innovative Research, 7(9), 758–767.*
- Negi, R. K., Rasheed, N. M. A., Jayanthi, A., Sajwan, S., Khan, A. S., Meena, R. P., & Verma, S. C. (2020). Quality evaluation and standardization of traditional Unani medicine *Majoon-e-Pumba Dana. World J. Pharm. Res., 9(7), 2128–2136.*
- Nikhat, S., & Fazil, M. (2020). Overview of Covid-19; its prevention and management in the light of Unani medicine. *Science of the Total Environment, 728, 138859.*
- Pasirja, R., & Naime, M. (2020). The deregulated immune reaction and cytokines release storm (CRS) in COVID-19 disease. *International Immunopharmacology, 90, 107225.* <https://doi.org/10.1016/j.intimp.2020.107225>
- Qaiyyum, I. A., & Nawab, M. (2020). A review on pharmacological and therapeutic profile of *Turmus (Lupinus albus L.)*. *Hippo. J. Unani Med., 15(1), 11–24.*
- Qaiyyum, I. A., & Nawab, M. (2020). Clinical effectiveness of a Unani regimen in the management of *Hasah al-Kuliya* (nephrolithiasis): A case report. *CellMed, 10(3), 23.1–23.5.*
- Qureshi, M. A., Bano, H. and Ahmad, I. (2020). Therapeutic Implications of *Nuqra* (Silver) and its preparations in various disorders. *World J. Pharm. Res., 9(7), 2808–2812.*
- Qureshi, M. A., Bano, H., & Lari, H. A. (2020). *Marwareed* (Pearls) a natural vital and general tonic: A review. *Journal of Traditional Medicine & Clinical Naturopathy, 9(2), 22–31.*
- Qureshi, M. A., Bano, H., Devi, N., & Lari, H. (2020). Coronavirus (Covid-19) and Unani medicine: A review. *World J. Pharm. Res., 9(5), 2467–2472.*
- Qureshi, M. A., Husain, G. M., Urooj, M., Khan, M. A., Husain, M., & Kazmi, M. H. (2021). Preclinical safety, anxiolytic and antidepressant activity of *Sufoof Jawahar Mohra*: A Unani formulation. *Advances in Integrative Medicine, 8(2), 114–121.*



- Raheem, A., Nazli, T., Kishore, J., Heena., Kazmi, M. H., Khadeerunisa, S., Minhajuddin, A., Ahmad, S. G., & Javed, G. (2020). Perception and practice of people about Unani medicine attending national Arogya fair, Visakhapatnam, Andhra Pradesh. *Journal of Advanced Research in Ayurveda, Yoga, Unani, Sidhha & Homeopathy*, 7(1&2), 16–24.
- Raheem, A., Nazli, T., Saeed, A., Alvi, R., & Kalaivani, M. (2020). Effectiveness of Fire cupping (*Hijamah Nariya*) versus dry warm fomentation (*Takmeed Yabis*) in chronic neck pain - a randomized control trial. *Journal of Integrated Community Health*, 8(1), 21–32.
- Rahman, A., Siddiqui, J. I., Ahmad, S., & Ansari, S. A. (2019). Phytochemical analysis of *Gymnemasyvestre* L. and identification of bio-inhibitors linked to diabetes and oxidative stress using HPTLC-MS bioautography. *Hippo. J. Unani Med.*, 214(3), 51–62.
- Raiza, A. J., Meena, R. P., Mageswari, S., Sri, P. M. D., Selvarani, R., & Ahmed, N. Z. (2020). Establishment of quality standards of *Abrusprecatorius* L. (Root) by physicochemical and HPTLC method. *International Journal of Advanced Research*, 8(09), 33–39.
- Raiza, A. J., Murugeswaran, R., Mageswasri, S., Sri, P. M. D., Meena, R. P., & Ahmed, N. Z. (2021). Pharmacognostical, physico-chemical and HPTLC profile of Shalgum seed (*Brassicca Rapa* L.). *European Journal of Biomedical and Pharmaceutical sciences*, 2021; 8(2), 130–140.
- Rauf, A., Rahim, A., & Qasmi, I. A. (2020). Antihyperglycaemic activity of extracts of *Hiran Khuri* (*Convolvulus arvensis* L.) in streptozotocin induced diabetic Rats. *Hippo. J. Unani Med.*, 15(3), 49–60.
- Rauf, E., Khan, M. A., Siddiqui, Z. H., Akhtar, J., Jahan, N., & Shahzad, N. (2021). Evaluation of Unani formulation, lifestyle modifications and yoga in hypertension patients under NPCDCs Ayush (Unani), *Lakhimpur Kheri. World J Pharm Pharm Sci.*, 10(1), 1135–1145.
- Rauf, E., Siddiqui, Z. H., Akhtar, J., Jahan, N., Khan, M. N., & Khan, A. A. (2021). Clinical evaluation of Unani drug *Sandroos*, lifestyle modifications and yoga in hyperlipidemia patients under NPCDCS (Unani) project. *International Journal of Pharma Science and Research*, 12(2), 34–40.
- Raza, R., Raheem, A., Chishti, D. K., Khan, N., & Parveen, S. (2020). A socio demographic study of schedule caste in certain areas of Delhi under scheduled castes sub plan (SCSP) mobile health care programme. *Paripex - Indian Journal of Research*, 9(11), 84–86.
- Rehman, S., Sultana, N., Verma, R. S., Akhtar, J., & Ahmad, S. (2018). Clinical validation of Unani pharmacopoeial formulation *Majum Muqawwi-i-Rahim* in *Sayalan al-Rahim* (Leucorrhoea). *Hippo. J. Unani Med.*, 13(4), 69–74.
- Rifaqat., Ahmad, S., Khan, P., Nazli, T., Raheem, A., & Parveen, S. (2020). A cross-sectional descriptive study on status of family planning practices in rural scheduled castes of district Aligarh, Uttar Pradesh, India. *Hippo. J. Unani Med.*, 15(3), 39–47.
- Sagar, P. K., Murugeswaran, R., Meena, R. P., Khan, A. S., Mageswari, S., Sri, P. M. D., Sajwan, S., & Ahmad, S. G. (2020). Drug standardization and monographs development, HPTLC finger printing research studies of polyherbal formulation -

- Habb-e-Nishat Jadeed. European Journal of Biomedical and Pharmaceutical sciences*, 7(12), 210–218.
- Sagar, P. K., Murugswaran, R., Ahmed, M. W., Khair, S., Ansari, S. A., Sajwan, S., Hashmi, S. A. A., Asif, M., & Kumar, J. (2020). Standardization and HPTLC fingerprint study of polyherbal formulation *Habb-e-Falij*; traditionally used in the treatment of Paralysis and facial treatment. *International Journal of Traditional and Complementary Medicine*, 5(27), 01–09.
  - Sagar, P. K., Murugswaran, R., Meena, R. P., Ahmed, M. W., Ansari, S. A., Khair, S., Sajwan, S., & Hashmi, S. A. A. (2020). Standardization and HPTLC fingerprint study of polyherbal formulation *Itrifal Hammaan*. *International Journal of Ayurveda and Pharmaceutical Chemistry*, 12(3), 220–232.
  - Sajwan, S., Kumar, J., Negi, R. K., Tomar, S., Khan, A. S., & Meena, R. P. (2020). Comparative Pharmacognostical and Chemical study of *Amba Haldi* and *Haldi*. *World J. Pharm. Res.*, 9(7), 2363–2370.
  - Sajwan, S., Negi, R. K., Khan, A. A., Khan, A. S., Ansari, S. A., Ahmed, M. W., Kumar, J., & Meena, R. P. (2020). Pharmacognostical and phytochemical studies on some immunity booster herbs used in Unani system of medicine. *Journal of Pharmacognosy and Phytochemistry*, 9(5), 767–774.
  - Sehar, N., Salam, M. U., Ahmad, T., Goswami, A., & Alam, M. I. (2018). Therapeutic response of Unani coded drugs in lymphatic Filariasis (*Daul-Feel*). *Hippo. J. Unani Med.*, 13(4), 57–68.
  - Shahzad, N., Khan, M. A., Siddiqui, Z. H., Akhtar, J., Jahan, N., & Rauf, E. (2021). Combined effect of life style modifications and Yoga in patients of borderline Hyperlipidemia: A pre-post interventional study. *World J Pharm Pharm Sci.*, 10(1), 1300–1308.
  - Shaikh, M., Ahmed, S. S., Urooj, M., Viquar, U., Kazmi, M. H., & Husain, G. M. (2020). 90-days repeated dose oral toxicity study on *Majoon-e-Nisyan*. *International Journal of Pharmacology Phytochemistry and Ethnomedicine*, 15, 22–33.
  - Shaikh, M., Husain, G. M., Naikodi, M. A. R., Kazmi, M. H., Viquar, U. (2021). Quality control of *Majoon-e-Nisyan* and its acute oral toxicity study in experimental Rats. *CellMed Orthocellular Medicine Pharmaceutical Association*, 11(1), e2.
  - Shamim., Khan, A. A., Amanullah., Akhtar, J., & Ahmed, S. (2020). Anti-inflammatory, analgesic and antimicrobial activities of classical Unani formulation *Raughan e Haft Barg*: A review. *International Journal of Pharmacy and Biological Sciences*, 10(2), 308–316.
  - Shamim., Khan, A. A., Amanullah., & Ahmed, S. (2018). Elderly care in Unani medicine-A review. *Hippo. J. Unani Med.*, 13(4), 25–36.
  - Shamim., Khan, A. A., Amanullah., & Ahmed, S. (2019). Pharmacological actions and therapeutic benefits of *Babunah* (*Matricaria chamomile* L.). *Hippo. J. Unani Med.*, 14(2):15–32.
  - Shamim., Khan, A. A., Amanullah., & Ahmed, S. (2019). *Raughan Chahar Barg*- A classical Unani formulation having anti-inflammatory, analgesic and antimicrobial activities; A review. *Hippo. J. Unani Med.*, 14(1), 17–28.
  - Sheeraz, M., & Kalam, M. A. (2020). Pragmatic approach towards the role of Unani medicine in the prevention of Covid-19: A review. *World J Pharm Pharm Sci.*, 9(6), 249–255.



- Siddiqui, A., Zakir, M., & Kazmi, M. H. (2021). Safe and effective galactogogues from Unani system of medicine. In A. Hussain, & S. Behl (ed.), *Treating endocrine and metabolic disorders with herbal medicines* (pp. 363-377). IGI Global. <http://doi:10.4018/978-1-7998-4808-0.ch016>
- Siddiqui, M. Z., Ahmad, G., Amin, K. M. Y., Rehman, S., & Akhtar, S. (2019). Organoleptic and physicochemical characterization of *Suranjan Shirin* (*Colchicum autumnale*), an anti-arthritis Unani drug. *Hippo. J. Unani Med.*, 14(4), 45–56.
- Siddiqui, N. A., Abid, A., Zakir, M., Azam, A., & Qureshi, M. A. (2018). Extraction and evaluation of anti-helminthic activity of *Bisehri Booti* (*Aervalanata* (L.) Juss, a Unani medicinal plant). *Hippo. J. Unani Med.*, 13(3), 41–50.
- Siddiqui, U., Jamali, M. A. H., & Amir, M. (2020). Management of *Ilzterab-i-Nafsan* (Anxiety) During Covid-19 Pandemic in Unani Medicine: A Review. *World J. Pharm. Res.*, 9(8), 1202–1217.
- Sri, P. M. D., Meena, R. P., Mageswari, S., Murugeswaran, R., & Ahmed, N. Z. (2019). Antimicrobial studies of *Ocimum Basilicum* L. seeds against urinary tract infection causing organism. *Hippo. J. Unani Med.*, 14(2), 45–54.
- Subhani, S., Meena, R. P., Khan, A. A., Mageswasri, S., & Sri, P. M. D. (2020). Development of quality standards of *Behidana*- A prophylaxis Unani single drug used for management of COVID-19. *International Journal of Advanced Research*, 8(7), 1216–1225.
- Tariq, M., Khan, K., Rasheed, A., Alam, M., & Siddiqui, Z. H. (2021). Physicochemical assessment of *Kushta Nuqra*: A Unani formulation. *World Journal of Pharmaceutical and Medical Research*, 7(3), 87–94.
- Urooj, M., Husain, G. M., Nadeem, M., Naikodi, M. A. R., Alam, M., & Kazmi, M. H. (2020). Antiepileptic and antidepressant activity of *Majoon Najah* (A traditional Unani formulation) in experimental animals. *International Journal of Pharmaceutical Investigation*, 10(3), 396–401.
- Venkatesan, K., Alam, M., Murugeswaran, R., & Ahmed, N. Z. (2019). Floristic diversity of Unani medicinal plants in Kalakadu Mundanthurai Tiger Reserve Forest, Tirunelveli district, Tamil Nadu, India. *Hippo. J. Unani Med.*, 14(3), 33–50.
- Venkatesan, K., Murugeswaran, R., Alam, M., Kand, K. A., & Ahmed, N. Z. (2020). Ethnobotanical report of wild flowers used by Kani tribes of southern western ghats of Tamil Nadu-India. *Int. J. Innov. Pharm. Sci. Res.*, 10(1), 11–17.
- Venkatesan, K., Murugeswaran, R., Alam, M., Meena, R. P., Yadav, P. K., & Ahmed, N. Z. (2020). Analysis of use value, informant consensus factor and fidelity level of ethnomedicinally used wild fruits by Tribals in selected areas of Western Ghats. *Int. J. Phytopharm.*, 11(1), 1–12.
- Verma, R. S., Khana, P., Ayub, S., Afza, S., Akhtar, J., Ahmad, S., & Khan, A. A. (2021). Efficacy and safety of a Unani compound drug– *Habb-e-Asgand* in *Waja' al-Mafasil* (Rheumatoid Arthritis) cases- A preliminary study. *Indian Journal of Traditional Knowledge*, 20(1), 8–14.
- Verma, R. S., Parveen, S., Rehman, S., Khan, P., Singh, R., Afza, S., Akhtar, J., & Khan, A. A. (2021). Comparative evaluation of efficacy and safety of a Unani coded drug UNIM-221 and metformin in cases of diabetes mellitus type-II: A preliminary study. *International Journal of Unani and Integrative Medicine*, 5(1), 09–16.

- Verma, R. S., Parveen, S., Rehman, S., Singh, R., Afza, S., Akhtar, J., & Ahmad, S., & Khan, A. A. (2021). The efficacy and safety of a Unani compound drug 'Damavi' in cases of anaemia: A preliminary study. *International Journal of Unani and Integrative Medicine*, 5(1), 43–48.
- Viqar, U., Mateen, A., Rasheed, N. M. A., Ahmad, T., Kazmi, M. H., & Mahmood, J. (2018). Evaluation of antibacterial activity of *Bisbasa* (*Myristica fragrans* Houtt.). *Hippo. J. Unani Med.*, 13(3), 35–40.
- Yasir, M., Fahad, A., Ahmad, I., & Fazil, M. (2020). Etiopathogenesis of *Malankhuliya Maraqi* (A Syndrome of Depression and Anxiety due to Gastro-Intestinal Pathology). *Hippo. J. Unani Med.*, 15(2), 33–41.
- Zakir, M., Fatima, S. H., & Kazmi, M. H. (2020). Importance of healthcare informatics and information technology in development of Unani system of medicine. *Unimed-Kulliyat*, 12(1), 15–18.
- Zakir, M., Jamali, A. H., Uddin, Q., Pal, C., Kumar, K., Singh, N., Khan, H., & Kazmi, M. H. (2019). Clinical study to validate analgesic effects and safety of Unani pharmacopoeial formulations in *Waja al-Mafasil* (Joint Pain) in Eastern India. *Hippo. J. Unani Med.*, 14(1), 67–78.
- Zakir, M., Jamali, A.H., Siddiqui, Z. H., Kumar, K., Pal, C., Singh, N., Khan, H., & Kazmi, M. H. (2019). Clinical study for validation of safety and efficacy of *Habb-i-Shifa* for symptomatic relief in *Nazala Harr* (Common Cold) in Eastern India. *Hippo. J. Unani Med.*, 14(2), 67–82.
- Zakir, M., Khan, H., Pal, C., Kumar, K., & Singh, N. (2019). Clinical study to validate the safety and efficacy of Unani pharmacopoeial formulation 'Araq-i-'Ajib in *Suda*' (Headache). *Hippo. J. Unani Med.*, 14(3), 63–74.
- Zakir, M., Khanam, S., & Kazmi, M. H. (2020). Ethno-pharmacology of *Sahdevi* (*Vernonia cinerea* Less.) - An important but lesser-known drug of Unani system of medicine. *Cell Med.*, 10(4), 26.1–26.7.
- Zakir, M., Khanum, S., & Kazmi, M. H. (2020). Ethno-pharmacology of *Sankhaholi* (*Evolvulus alsinoides* L.) - An important but lesser known drug of Unani system of medicine. *Unimed-Kulliyat*, 11(1&2), 90–97.
- Zehra, Q., Sofi, G., & Tabassum. (2019). *Dawa'-i-Hiltit*: As an antipyretic drug of Unani medicine. *Hippo. J. Unani Med.*, 14(4), 29–36.

### 3.5. Extension of Healthcare Services

#### 3.5.1. School Health Programme

The School Health Programme is aimed at improving the health and hygiene status of school children and to reduce morbidity rate among them through healthcare and health education. Under this programme, the Council's researchers visit selected Primary and Secondary Schools, particularly those in rural areas and urban slums. A baseline health check-up of school children is conducted and those found suffering from any ailment are treated with Unani medicines. Thereafter, health education is provided to them through lectures on different preventive, promotive and curative health aspects, and health related literature is distributed. The children are also educated about the potentialities of the commonly available plants in their vicinity for the management of different diseases. Specific lectures are given on oral hygiene, cleanliness of body and environment, safe drinking water, nutrition, balanced diet, etc.

During the reporting period, the activities under this programme could not take place due to closure of schools in view of Covid-19 pandemic.

### 3.5.2. Unani Medical Centres in Allopathic Hospitals

Under the scheme of collocation of AYUSH centres in Allopathic hospitals in Delhi, a Unani Medical Centre was established at Dr. Ram Manohar Lohia (RML) Hospital on 14 January 1998 with a view to provide Unani treatment facility to the patients desirous of taking treatment of this system. On public demand, another Unani Specialty Centre started functioning at Deen Dayal Upadhyay (DDU) Hospital, New Delhi on 01 November 2010. During the reporting period, a new Unani Medical Centre was established at VMMC & Safdarjung Hospital, New Delhi which was inaugurated by Shri Shripad Yesso Naik, Hon'ble Minister of State (IC) for AYUSH and Minister of State for Defence, Government of India on September 13, 2020. These centres are run by the Council. Besides the General Outpatient Department (GOPD) facilities, these centres provide specialized Unani treatment for some selected disorders like vitiligo, eczema, psoriasis, rheumatoid arthritis, bronchial asthma, sinusitis, infective hepatitis, diabetes mellitus, etc. During the reporting period, 9194 patients were treated at Unani Medical Centre in Dr. RML Hospital, 7228 patients at Unani Speciality Centre in DDU Hospital, New Delhi and 3,389 patients at Unani Medical Centre at VMMC & Safdarjung Hospital, New Delhi. Patients visiting the centres were suffering from chronic diseases. Counselling of patients, particularly the senior citizens, was also done to improve their physical activities and mental health.

### 3.5.3. Health Camps

The Council organized health camps through its Institutes/Units with a view to create health awareness among the masses and to provide treatment through Unani system of medicine. During the reporting period, 8 health camps were organized and 545 patients were treated in these camps. Lectures on preventive and promotive health aspects were also delivered by the physicians of the Council. Referral of the patients to the Council's centres as well as other hospitals was also done.

### 3.5.4. Activities under Gender Component Plan for Women

The Council continued research and treatment facilities for women under Gender Component Plan. Treatment facilities were made available to women at all clinical centres of the Council. Besides, female patients in the pockets adopted under Mobile Clinical Research Programme were also treated by the physicians in the Mobile OPD Scheme. During the reporting period, 1,24,508 female patients in different OPDs were treated. Efficacy of Unani pharmacopoeial formulations was also validated under this component. Health lectures / group meetings on preventive and promotive health aspects were also organized in the pockets adopted under Mobile Clinical Research Programme. Published literature on preventive, promotive and curative health aspects was also distributed among the masses. Clinical studies on the diseases specific to female such as *Sū' al-Qinya* (Anaemia), *Sayalān al-Rahim* (leucorrhoea), *Kathrat al-Tamth* (Menorrhagia) and *Ihtibās al-Tamth* (amenorrhoea) also continued.

### 3.5.5. Activities in the North-Eastern Region

The Regional Research Centre, Silchar continued Research/GOPD Programmes. During the reporting period, 1,810 patients were treated. The most commonly occurring diseases were

*Waja' al-Mafāsil* (rheumatoid arthritis), *Ishāl* (diarrhea), *Hummā* (fever), *Sayalān al-Raḥīm* (leucorrhoea), *Sū' al-Haḍm* (dyspepsia), *Hummā Ijāmiya* (malaria) and *Zaḥīr* (dysentery). The patients were treated with Unani pharmacopoeial drugs.

### 3.5.6. Mobile Healthcare Program under Schedule Caste Sub-Plan

The CCRUM runs Mobile Healthcare Program under Schedule Caste Sub-Plan (SCSP) at NRIUMSD, Hyderabad; CRIUM, Lucknow; RRIUMs, New Delhi, Aligarh, Patna, Mumbai, Kolkata and Chennai; RRC, Allahabad; and CRU, Bhopal to extend healthcare services to the SC population at their doorstep. The program aims to screen / examine the SC population for their health status in Mobile OPDs and health camps and to provide Unani treatments to the patients suffering from different diseases. It also aims to create awareness among the masses on preventive, promotive and curative health aspects through lectures, group meetings, health camps and distribution of literature. Five villages predominately having SC population were identified for undertaking the program at each centre. During the reporting period, 6,45,266 total population including 4,55,230 SC population were covered and a total of 38,091 individuals benefited from the program.

### 3.5.7. Mobile Healthcare Program under Tribal Sub Plan

Just like Mobile Healthcare Program under Schedule Caste Sub-Plan, the CCRUM runs Mobile Healthcare Program under Tribal Sub Plan (TSP) at RRIUM, Bhadrak and CRUs, Burhanpur and Kurnool to extend healthcare services to the ST population at their doorstep. The program aims to screen / examine the ST population for their health status in Mobile OPDs and health camps and to provide Unani treatments to the patients suffering from different diseases. It also aims to create awareness among the masses on preventive, promotive and curative health aspects through lectures, group meetings, health camps and distribution of literature. Five villages predominately having ST population were identified for undertaking the program at each centre. During the reporting period, 80,690 total population including 57,462 ST population were covered and 10,821 individuals benefited from the program.

## 3.6. Integration of Unani Medicine with NPCDCS

The CCRUM, under the aegis of the Ministry of AYUSH, Government of India, launched a pilot project for integration of Unani Medicine in National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) at Lakhimpur Kheri, Uttar Pradesh. With the objective to ensure prevention and early diagnosis of lifestyle diseases, reduce complications and drug dependency, and supplement NPCDCS in preservation and promotion of health, the CCRUM started this project through its Central Research Institute of Unani Medicine, Lucknow at 17 Community Health Centres (CHCs), 54 Primary Health Centres (PHCs) and NPCDCS Cell at District Hospital of Lakhimpur Kheri.

Under this programme, Lifestyle Clinics were set up at each of the District Hospital and 17 CHCs where after due screening healthy individuals are educated about preventive measures and healthy lifestyle and high risk individuals are offered diet therapy, regimen therapy and Yoga therapy, whereas the diseased people are provided Unani medicinal treatment along with the above therapies. Besides, all the 54 PHCs in the district are covered through health camps for screening, health awareness and propagation of healthy

lifestyle. The visitors suffering from any disease covered under the programme are referred to the Lifestyle Clinic for proper treatment.

In the project on Integration of Unani Medicine in NPCDCS, 34,150 individuals were screened and treated with Unani medicine for different ailments. Of them, 480 individuals were enrolled in high risk group of diabetes mellitus and 1,078 as diseased, whereas 676 were enrolled in high risk group of hypertension and 1,116 as patients. Similarly, 57 persons were enrolled in high risk group of hyperlipidaemia. As much as 28,488 persons were advised Yoga. The NPCDCS team actively participated in COVID-19 prevention and control initiatives taken by the State Government and screened a total of 38,803 individuals.

### 3.7. Linking Education with Research

With a view to link education with research and utilize the comprehensive facilities available at its institutes, the CCRUM is conducting postgraduate (MD) programmes in Unani Medicine at National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad and Regional Research Institute of Unani Medicine (RRIUM), Srinagar in affiliation with Kaloji Narayana Rao University of Health Sciences, Warangal (Telangana) and University of Kashmir, Srinagar respectively. Thirty two students were admitted during the reporting period with intake of 09 students in each discipline of *Mu'ālaḡāt* (Medicine) and *'Ilm al-Adwiya* (Pharmacology) at NRIUMSD, Hyderabad and 09 students in *Mu'ālaḡāt* and 05 students in *'Ilm al-Adwiya* at RRIUM, Srinagar.

The students were trained through a structured academic schedule comprising theory classes, hands-on practical classes, besides thesis work. The institutes also organized monthly meeting for postgraduate training that included clinical and research skills, development of protocols, case presentations and discussions. Students were posted in various OPDs as well as IPD wards for clinical training on rotation basis. The academic activities also included seminars, journal club and tutorials. The faculty members conducted classes as per fixed time table and syllabus prescribed by the CCIM. The students were also engaged in their theses work, in addition to attending classes.

During the reporting period, several meetings of Departmental Research Committee, Board of Studies and Institutional Ethics Committee were organized to deliberate, evaluate and approve the research proposals for thesis work.



## 4. INFORMATION, EDUCATION & COMMUNICATION

### 4.1. Library Services

The Council has a Library and Information Centre (LIC) at the Headquarters that aims to collect and preserve scattered literature on Unani Medicine, and to disseminate information to the researchers, academicians and practitioners of Unani Medicine.

During the reporting period, services of the LIC remained fully automated through Wide Area Network (WAN). The Centre provided its services to the readers through e-Granthalaya Library Software that controls the Web Online Public Access Catalogue (Web-OPAC), circulation of books, etc. A total of 122 books including 75 purchased and 47 complimentary books were acquired. One Unani Medical Manuscript was also added to the collection. Data of 122 new additions in the library were also uploaded on e-Granthalaya cloud database.

A total number of 1,654 books were in circulation including 78 books that were circulated through Inter-Library Loan Service to the Athens Academy Library and DELNET's member libraries. The library subscribed 3,590 issues of daily newspapers and 149 issues of popular magazines. In addition, 162 issues of journals were received, of which 20 were in Hindi language and 95 issues related to Unani Medicine. Besides the print journals, Library & Information Centre also subscribes on-line journals of Science Direct Scheme, Elseviers and provide access to all the researchers of the Council.

The LIC carried out physical processing and barcoding of 271 books after binding. The LIC provided spiral binding and photocopying, and reference services to the readers. Comb or thermal binding of 143 documents and photocopying of 11,400 pages were carried out. Besides, long and short range reference service was provided through WhatsApp and e-mail to the researchers and allied staff members of the Council. A Facebook page was also maintained during the year with an objective of facilitating the researchers with reference services and recent updates. The LIC collected Rs. 4,300.00 as user charges against annual membership, photocopy and spiral binding services and consultation.

The Library continued digital publication and circulation of Medical News Update Service among 780 subscribers on daily basis. The Selective Dissemination of Information (SDI) service also continued at the LIC. Under this service, 480 news clippings were collected, of which important ones were sent to the Director General & Assistant Director (Unani) and also were displayed on the library notice board.

Besides the Digitization of Unani Rare Manuscripts, Books & Journals and development of Digital Repository, the Library & Information Centre also developed "Digital Archives of CCRUM News Clippings" to preserve the news of the Councils..

The Centre continued institutional membership of British Council Library, Medical Library Association of India, American Resource Centre and Developing Library Network (DELNET). During the reporting period, 361 member and guest researchers visited the LIC to access its resources.

### 4.2. Organization of Conferences, Seminars, Workshops, etc.

#### 4.2.1. Unani Day Celebrations and National Conference on Unani Medicine

The Central Council for Research in Unani Medicine (CCRUM), Ministry of AYUSH, Government of India organized a hybrid virtual National Conference on Unani Medicine to



mark Unani Day on February 11, 2021 at Vigyan Bhawan, New Delhi. The conference themed on 'Unani Medicine: Opportunities and Challenges in times of COVID-19' made very important scientific deliberations on the topic.

### Inaugural Session

The conference was inaugurated by Shri Kiren Rijiju, Hon'ble Minister of State (IC), Youth Affairs & Sports, Minister of State, Ministry of Minority Affairs, and Additional Charge, Minister of State (IC), Ministry of AYUSH, Government of India in the august presence of Shri Vaidya Rajesh Kotecha, Secretary, Ministry of AYUSH, Shri Pramod Kumar Pathak, Additional Secretary, Ministry of AYUSH, Prof. Asim Ali Khan, Director General, CCRUM and Dr. M. A. Qasmi, Joint Advisor (Unani), Ministry of AYUSH, Government of India.

Inaugurating the conference, Shri Kiren Rijiju stated that Unani Medicine, enriched with the best of knowledge of various civilizations, is the most capable system to ensure the state of complete physical, mental and social well-being of people. He further stated that the Ministry of AYUSH created under the leadership of Hon'ble Prime Minister Shri Narendra Modi Ji has done commendable work in medical research and healthcare delivery, especially its role during the COVID-19 pandemic has been exceptional.

Hon'ble Minister Shri Shripad Yesso Naik in his recorded video message applauded the contribution of AYUSH stakeholders in the fight against COVID-19. He thanked everyone for their prayers and support during his difficult times.

Addressing the conference, Vaidya Rajesh Kotecha said that Unani Medicine and CCRUM played an important role in the fight against COVID-19. He highlighted the MoU with the World Health Organization for the standardization of AYUSH terminologies for incorporation in ICD-11 and the initiatives undertaken by the Ministry of AYUSH for integration of IT into AYUSH healthcare delivery like NAMSTE Portal, A-HMIS, etc. and appreciated the contribution of CCRUM in these initiatives.

Earlier in his welcome address, Prof. Asim Ali Khan shed light on the background of the conference theme and informed that the CCRUM played an active role in the fight against COVID-19 initiating four projects including two prophylaxis and two clinical studies at its different centres among several other measures. The inaugural session concluded with a vote of thanks proposed by Dr. M. A. Qasmi.

### Technical Sessions

During the technical sessions, keynote addresses were delivered by eminent medical scientists on 'Traditional medicine and its role in combating COVID-19 pandemic', 'Integration of traditional and modern health systems', 'Immune boosting potential of Unani Medicine during COVID-19 pandemic', 'Stress problems in academia due to COVID-19: Possible solutions in Tibb-e-Unani', 'Engaging the stakeholders in combating COVID-19 pandemic', Role of Unani & other AYUSH systems during COVID-19 pandemic', 'Medicinal plants - Current scenario in AYUSH sector' and 'Planning for new drug development in times of COVID-19 pandemic'. The conference also had panel discussion on 'Unani Medicine: Opportunities and challenges in times of COVID-19'. The conference highlighted the challenges and opportunities for Unani Medicine in times of COVID-19.

#### Technical Session-I

During Session-I, Dr. Kim Sungchol, Regional Advisor for Traditional Medicine, WHO South-East Asia Region, New Delhi delivered a keynote address on 'Traditional medicine and its role in combating COVID-19 pandemic' and Dr. G. N. Qazi, CEO, Hamdard Institute

of Medical Sciences and Research (HIMSR), New Delhi on 'Integration of traditional and modern health systems'.

The session was moderated by Prof. Abdul Wadud, Director, National Institute of Unani Medicine, Bangalore and Prof. S. Shakir Jamil, former Director General, CCRUM. Dr. Sheikh Zubair, former Vice President (Unani), Central Council of Indian Medicine, New Delhi co-moderated the session.

In his virtual address, Dr. Kim Sungchol highlighted the interventions of traditional medicine in the fight against COVID-19. He stressed the fact that traditional medicine has much to offer for health promotion and disease prevention and management with its holistic approach and it is the main or only source for health care for many people, particularly in rural and remote areas. He informed that many of the WHO member countries employed traditional medicine along with modern medicine in the fight against COVID-19 thereby improving conditions and symptoms of the patients, preventing the deterioration of mild cases to severe cases, increasing cure rate, reducing mortality and accelerating the recovery process.

Dr. G. N. Qazi underscored the need for the integration of traditional and modern medical systems for the welfare of human beings. He praised Hakim Ajmal Khan for his integrative approach and scientific transformation of Unani Medicine. He also highlighted the role of Hakim Abdul Hamid who materialized the actual integration of traditional and modern health systems under one umbrella by setting up a university where Unani Medicine as well as modern medicine are being practised under one roof.

#### Technical Session-II

In Technical Session-II, Dr. M.A. Waheed, Member, Scientific Advisory Committee, CCRUM and Prof. M. A. Jafri, Vice Chancellor, Jamia Hamdard, New Delhi delivered keynote addresses on 'Immune boosting potential of Unani Medicine during COVID-19 pandemic' and 'Stress problems in academia due to COVID-19: Possible solutions in Tibb-e-Unani' respectively.

Prof. Saud Ali Khan, Principal, Ajmal Khan Tibbiya College, Aligarh Muslim University, Aligarh was moderator of the session, while Prof. Mushtaq Ahmad, former Director, Central Research Institute of Unani Medicine, Hyderabad and Dr. Mohd. Akram, Associate Professor, School of Unani Medical Education and Research, Jamia Hamdard, New Delhi were the co-moderators.

Prof. M. A. Jafri discussed the factors causing stress and anxiety in academia due to COVID-19 and highlighted the potentialities of the principle of *Asbāb Sitta Darūriyya* (six essential factors), certain forms of *'Ilāj bi'l-Tadbīr* and drugs with anti-stress activity in preventing and managing the problems of stress and anxiety. He laid emphasis on conducting extensive research on the efficacy of such regimens and drugs.

Dr. M.A. Waheed elaborated pharmacological uses of plants to boost the immune system. He shed light on a number of medicinal plants which are claimed to possess immuno-modulatory activity, like *Allium sativum*, *Morus alba*, *Acacia catechu*, *Tinospora cordifolia* and *Mangifera indica*. He noted that research is being conducted on various medicinal plants possessing anti-inflammatory, antioxidant and antiviral properties to explore their usage in the treatment of COVID-19 patients.

### Technical Session–III

In Technical Session–III, Prof. A. Venkat Raman, Faculty of Management Studies, University of Delhi, New Delhi delivered his address on 'Engaging the stakeholders in combating COVID-19 pandemic' while Dr. Raj K. Manchanda, Director, Directorate of AYUSH, Govt. of Delhi delivered his address on 'Integration of AYUSH in COVID-19: Experiences from Delhi'.

The session was moderated by Dr. Mohd. Khalid, Assistant Drug Controller, Directorate of AYUSH, Delhi Government. Dr. Ghulam Nasir, State AYUSH Coordinator, Govt. of Haryana and Dr. Khursheed Ahmad Ansari, Associate Professor, School of Unani Medical Education & Research, Jamia Hamdard, New Delhi were the co-moderators.

In his address, Prof. A. Venkat Raman stated that each one of us is a stakeholder during a pandemic and that the Government of India had done remarkably well in handling the COVID crisis. He highlighted the key lesson learned from this pandemic that the health sector should not be neglected and that it is critical to align the efforts of the government, private sector, NGOs, and civil society not only in effectively tackling a pandemic in the short run, but to improve the health system in the long run.

Dr. Raj K. Manchanda elaborated the initiatives taken by the Govt. of Delhi for COVID management, which involved immunity boosting and preventive measures through AYUSH systems, training of AYUSH manpower, constitution of an interdisciplinary AYUSH Research and Development Task Force and integration of AYUSH to manage COVID outbreak through three-tier approach – preventive and prophylactic approach, symptomatic management of COVID-19 like illnesses, and add-on interventions to the institutional care.

### Technical Session–IV

In Technical Session–IV, two keynote addresses were delivered by Dr. J.L.N. Sastry, Chief Executive Officer, National Medicinal Plants Board (NMPB), Ministry of AYUSH, Government of India and Dr. Ram Vishwakarma, Chairman, Scientific Advisory Committee (SAC), CCRUM, New Delhi.

The session was moderated by Dr. Abdul Kabir Dar, Director General, Office Supplies & Stationery and former Director, ISM, Jammu & Kashmir and Prof. Arif Zaidi, School of Unani Medical Education & Research, Jamia Hamdard, New Delhi. Dr. Anwar Saeed, Secretary, Jamia Tibbiya Deoband, Deoband and Dr. Azhar Jabeen, School of Unani Medical Education & Research, Jamia Hamdard, New Delhi were co-moderators of the session.

In his presentation on 'Medicinal plants - Current scenario in AYUSH sector', Dr. J.L.N. Sastry accentuated the pivotal role being played by the NMPB at the national level in propagation, adoption and adherence to developing quality standards for medicinal plants especially in AYUSH sector. He emphasized that currently one of the goals of the NMPB is to work on medicinal plants which are used in COVID-19 pandemic like Gilo (*Tinospora cordifolia*). He underscored that the NMPB can work with AYUSH sector to conduct research on various species of plants which can help in improving the healthcare quality.

Delivering his keynote address on 'Planning for new drug development in times of COVID-19 pandemic', Dr. Ram Vishwakarma mentioned key therapeutic targets and drugs which are used to treat SARS CoV2. He explained the role of Remdesivir in the treatment of COVID 19 cases and the cost-effective synthesis of the drug. He shed light on drugs that are in pipeline for COVID-19 and major ongoing trials on the disease.

## Panel Discussion

The panel discussion session was themed on 'Unani Medicine: Opportunities and Challenges in times of COVID-19'. Prof. Ram Vishwakarma, Chairman, Scientific Advisory Committee, Central Council for Research in Unani Medicine, New Delhi and Prof. Asim Ali Khan, Director General, CCRUM were moderators of the session, whereas Dr. W. Selvamurthy, President, Amity Science, Technology and Innovation Foundation and Director General, Amity Directorate of Science and Innovation, Noida, Prof. Kunwar Mohammad Yusuf Amin, Department of Ilmul Advia, Ajmal Khan Tibbiya College, Aligarh Muslim University, Aligarh, Dr. Viswajanani J. Sattigeri, Head, Traditional Knowledge Digital Library Unit, CSIR, New Delhi, Dr. Atul Mohan Kochhar, Chief Executive Officer, NABH, New Delhi, Prof. Ritu Priya, Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi, Dr. Geetha Krishnan, Traditional, Complementary and Integrative Medicine Unit, World Health Organization, Prof. Mohammad Idris, Head of Department, Ilmul Saidla, Ayurvedic and Unani Tibbia College, New Delhi, Vaidya Devinder Triguna, President, Association of Manufacturers of Ayurvedic Medicine, New Delhi, Shri Pradeep Multani, Vice President, PHD Chamber of Commerce and Industry, New Delhi, Dr. S. Farooq, President, Himalaya Drug Company, New Delhi, Hakim Mohsin Dehlvi, General Secretary, Unani Drug Manufacturers Association, New Delhi, Shri Arvind Varchaswi, Managing Director, Sri Sri Tattva, Bengaluru and Dr. Santosh Kumar Joshi, Member, Association of Manufacturers of Ayurvedic Medicine, New Delhi participated as the panellists.

The session began with the welcome note to the moderators and panellists of the session. In his opening remarks, Prof. Asim Ali Khan said that in the wake of new health challenges like coronavirus there is a need to explore how Unani Medicine and other traditional medicine systems could be of relevance to address them. Moderating the discussion, Prof. Ram Vishwakarma highlighted that the modern medicine has enormously benefited from traditional systems of medicine as most of the modern medicines are derived from traditional medicine and therefore integration of traditional medicine with modern medicine is not a new phenomenon.

Dr. W. Selvamurthy said that Unani Medicine sees man as a whole; it considers physical, mental as well as spiritual wellbeing of humans. He further said that the molecular level studies of Unani polyherbal formulations are the absolute need of the hour.

Dr. Viswajanani Sattigeri said that there is tremendous potential in Unani Medicine as it has a rich natural resource in the form of polyherbal formulations. She further emphasized to create data through an evidence-based approach in order to establish confidence among practitioners of Unani Medicine and their patients.

Dr. Atul Mohan Kochhar appreciated the efforts of the CCRUM in research and development of Unani Medicine and talked about NABH and its role in providing quality health services to the masses.

Prof. Ritu Priya focused on a sustainable healthcare system and environmental integrity. She talked about how the natural ecosystem of medicine can bring innovation in modern healthcare system. Discussing the importance of interdisciplinary and transdisciplinary researches in traditional systems of medicine, she stated that research should be carried out on the principles of ancient Unani Medicine and their adoption in the present time.

Dr. Geetha Krishnan talked about various ongoing projects in WHO related to traditional system of medicine including Unani Medicine. He informed that the benchmark document



for practise of Unani Medicine and for training of practitioners as well as ICD codes for Unani Medicine are under development for universal acceptance of this system.

Prof. Mohammad Idris discussed the historical importance of Ayurvedic and Unani Tibbia College established in Karol Bagh, New Delhi. He also highlighted the role of Unani Medicine in fighting against COVID- 19 pandemic.

Prof. Yusuf Amin emphasized that to find out innovative solutions for contemporary healthcare issues from Unani Medicine and other traditional medicines, we have to look at and use them according to their own pathological and pharmacological schemes rather than converting them into their molecular counterpart.

Vaidya Devinder Triguna lauded the role of Unani Medicine in healthcare delivery and made special mention of the historical struggle of late Hakim Ajmal Khan in the propagation of Unani Medicine in the country.

Shri Pradeep Multani highlighted the need of conducting more clinical trials in Unani Medicine. He said that the investment in R&D must be increased and government approved labs should be set up in every manufacturing plant of Unani Medicine. He emphasized the need for establishing WHO and GMP certified manufacturing plants for better quality control of Unani medicinal products.

Dr. S. Farooq termed the AYUSH systems of medicine a blessing to the mankind and stressed the need to do more research in Unani Medicine and herbal nutraceuticals. Further, he advocated the need for certification of manufacturing plants so that the global export of ASU drugs may be increased.

Hakim Mohsin Dehlvi discussed the role of ASU drugs in boosting immunity and overcoming depression due to COVID-19.

Shri Arvind Varchaswi laid emphasis on the integration of AYUSH systems of medicine with modern medicine. He stressed the need to explore the ancient principles of these systems like Nabz (Nadi) examination for their better understanding.

Dr. Santosh Kumar Joshi appreciated the efforts of the CCRUM in the research and development of Unani Medicine.

#### **Valedictory Session**

In the valedictory session, Shri Pramod Kumar Pathak, Additional Secretary, Ministry of AYUSH praised the research works of CCRUM especially during the COVID-19. He appreciated the deliberations made in the conference and urged the Unani fraternity to adopt the suggestions and recommendations of experts for further growth and development of Unani Medicine.

Prof. M. Jagadesh Kumar, Vice Chancellor, Jawaharlal Nehru University, New Delhi emphasized the need for interdisciplinary research and collaboration, and bringing about creativity for the development of AYUSH systems of medicine.

Prof. Akhtarul Wasey, President, Maulana Azad University, Jodhpur highlighted the role of AYUSH in the fight against COVID-19 and said that the pandemic has increased the acceptability of AYUSH systems among people.

Prof. M. A. Jafri, Vice Chancellor, Jamia Hamdard, New Delhi urged Unani scientists to conduct more research to address Covid-19 like health conditions.



In his wrap-up remarks, Prof. Asim Ali Khan summarized the scientific deliberations of the conference and thanked the dignitaries, participants and officers of the CCRUM for making the event a success.

### Release of CCRUM Publications

The CCRUM released six new publications in the inaugural and valedictory sessions of the National Conference on Unani Medicine.

Shri Kiren Rijju, Hon'ble Minister of State (IC), Youth Affairs & Sports, Minister of State, Ministry of Minority Affairs, and Additional Charge, Minister of State (IC), Ministry of AYUSH, Government of India along with Shri Vaidya Rajesh Kotecha, Secretary, Ministry of AYUSH, Shri Pramod Kumar Pathak, Additional Secretary, Ministry of AYUSH, Prof. Asim Ali Khan, Director General, CCRUM and Dr. M. A. Qasmi, Joint Advisor (Unani), Ministry of AYUSH, Government of India released the Conference Souvenir, 'A Handbook of Common Remedies in Unani Medicine' and 'Research on Fundamentals of Unani Medicine – A Summary of Studies Conducted by CCRUM' in the inaugural session of the conference. While dignitaries in the valedictory session – Shri Pramod Kumar Pathak, Additional Secretary, Ministry of AYUSH, Prof. M Jagadesh Kumar, Vice Chancellor, Jawaharlal Nehru University, New Delhi, Prof. Akhtarul Wasey, President, Maulana Azad University, Jodhpur, Prof. M. A. Jafri, Vice Chancellor, Jamia Hamdard, New Delhi and Prof. Asim Ali Khan, Director General, CCRUM – released 'Clinical Study of a Unani Formulation – Ma'jūn Nisyān in Nisyān (Amnesia)', 'Compendium on Patents Granted to CCRUM' and 'Medicinal Plants for Longevity' published by the CCRUM.

The conference souvenir comprises 35 messages from dignitaries and brief bios of resource persons.

'A Handbook of Common Remedies in Unani Medicine' comprises prescriptions of Unani Medicine based on easily available, beneficial and cost-effective natural drugs. The remedies and the types of diseases cover a wide range of day to day illnesses. It is enriched with prescriptions from classical texts and for each disease condition, multiple prescriptions and compound drugs along with their dosage are mentioned.

'Research on Fundamentals of Unani Medicine – A Summary of Studies Conducted by CCRUM' is comprised of a summary of 20 studies carried out under the fundamental research programme at National Research Institute of Unani Medicine for Skin Disorders, Hyderabad. It presents a gist of polymorphism and expression studies in molecular biology, physiology and physiological chemistry.

'Clinical Study of a Unani Formulation – Ma'jūn Nisyān in Nisyān (Amnesia)' is based on the results of the clinical study conducted at three institutes of the CCRUM in 235 patients of Nisyān (amnesia). The study drug was found to be quite effective and no considerable adverse effects were observed during the study.

As the name suggests, 'Compendium on Patents Granted to CCRUM' presents a detailed description of the inventions for which 17 patents have been granted to the CCRUM. The publication comprising the data submitted to the Indian Patent Office with respective patent applications is meant for knowledge dissemination and apprising the society.

'Medicinal Plants for Longevity – Evidence-based Approach for Geriatric Care in Unani Medicine' comprises descriptions of medicinal plants used for longevity and healthy ageing in Unani Medicine. The information also includes references of scientific studies carried out for establishing the effects of Unani single drugs in various age related conditions.

#### 4.2.2. National Seminar on IPR

The CCRUM in collaboration with National Medicinal Plants Board (NMPB), Ministry of AYUSH organized a one-day National Seminar on Intellectual Property Rights (IPR) at India Habitat Centre, New Delhi on March 26, 2021. The seminar highlighted the significance of property rights and patents for a scientific organization and issues related to IPR management and commercialization.

The seminar was inaugurated by Dr. Balvinder Shukla, Vice Chancellor, Amity University, Noida, U.P. in the august presence of Prof. Asim Ali Khan, Director General, CCRUM, Dr. Mukhtar Qasmi, Joint Advisor (Unani), Ministry of AYUSH and Dr. R. Murugeswaran, Deputy Director, NMPB.

In her inaugural address, Dr. Balvinder Shukla highlighted the importance of patenting products of Indian origin because of the current scenario of patenting of Indian products by foreign agencies and appreciated the CCRUM for the patents it has been awarded.

In his welcome address, Prof. Asim Ali Khan provided an insight into the overall working of CCRUM, its network of hospitals and research institutes and various academic collaborations and MoUs signed over the last few years. He further said that the CCRUM has been making concerted efforts to provide scientific basis to Unani Medicine and make it acceptable to the modern and scientific world. Talking about the background of the seminar he said that it aimed to create awareness about IPR among people, particularly the scientific community to get more and more patents. The inaugural session concluded with a vote of thanks proposed by Dr. Mukhtar Qasmi.

The seminar was well-attended by scientists, researchers and students from CCRUM, NMPB, Amity University, Noida, Ayurvedic & Unani Tibbia College, New Delhi and School of Unani Medical Education and Research, Jamia Hamdard, New Delhi. The seminar was successful in its objective of sensitizing and training the participants for IPR management, technology transfer and commercialization of patents.

#### 4.2.3. Workshop on PFMS Modules

The Central Council for Research in Unani Medicine, Ministry of AYUSH, Government of India organised a two-day Training-cum-Handholding Workshop for Agencies under the EMR Scheme for Implementation of Expenditure, Advance and Transfer (EAT) Module of PFMS at AYUSH Auditorium, Janakpuri, New Delhi during March 15–16, 2021.

The workshop was inaugurated by Shri K K Sapra, Assistant Director (Administration), CCRUM. Shri Ajay Kumar, PFMS Cell, Controller General of Accounts, Ministry of Finance was the resource person. During the two-day workshop, he provided hands-on training to the delegates of participating agencies on overview and operation of PFMS (Public Financial Management System), a web-based online software application developed and implemented by the Controller General of Accounts (CGA), Department of Expenditure, Ministry of Finance, Government of India. The training covered the creation of user account and opening balance, mapping and addition of vendors, posting of accounting entry and other aspects of handling of EAT module.

About 30 delegates for AIIMS, New Delhi, Jawaharlal Nehru University, New Delhi, ICMR-National Institute of Cancer Prevention and Research, Noida, Vallabhbhai Patel Chest Institute, New Delhi, ICMR-National Institute of Pathology, New Delhi and Chaudhary

Brahm Prakash Ayurved Charak Sansthan, New Delhi as well as CCRUM participated in the workshop and benefited.

#### 4.2.4. Webinar on Data and its Use for Health System Strengthening

The Central Council for Research in Unani Medicine in collaboration with Public Health Foundation of India (PHFI) organised a webinar for AYUSH professionals on 'Data and its use for Health System Strengthening' on January 18, 2021.

The webinar was organised as a concluding activity of the agreement signed between CCRUM and PHFI which sets down the mutually agreed framework for extending technical support and facilitating the implementation of population based prophylactic studies related to COVID-19 along with modalities of activity. During the six month joint venture around 150 AYUSH professionals from Research Councils and National Institutes were trained in various aspects of populations based studies. The webinar was meant to sensitize and train registered AYUSH professionals working in research councils and national institutes under the Ministry of AYUSH.

Prof Asim Ali Khan, Director General, CCRUM highlighted the importance of public health programs and activities carried out under the agreement signed as per the mandate of Ministry of AYUSH. He congratulated the team PHFI and all participants for having interactive discussions on various topics related to public health research. He further informed that the aim of this collaboration was to strengthen research capacity of AYUSH through capacity building and to support dissemination of the findings through assisting the researchers in analysing, interpreting, drafting and presentation of their findings. Prof. Sanjay Zodpey, Vice President, Academic, PHFI delivered inaugural remarks and appreciated the initiatives of Ministry of AYUSH, CCRUM and team from PHFI. Dr. Tanica Lyngdoh and Dr. Preeti Negandhi from PHFI were the distinguished speakers. Dr. Ghazala Javed moderated the event.

#### Other Events

Apart from the events mentioned above, the CCRUM and its institutes / units organized the following seminars, webinars and awareness programmes.

S. No.	Event	Date	Venue
1.	Webinar on AYUSH Sanjivani Application	26 June 2020	Virtual
2.	Webinar on Role of Unani Practitioners in COVID-19 Pandemic	27 June 2020	Virtual
3.	Webinar on AYUSH Sanjivani Application	23 June 2020	Virtual
4.	Webinar on AYUSH Sanjivani Application	24 June 2020	Virtual
5.	Webinar on AYUSH Sanjivani Application	26 June 2020	Virtual
6.	Webinar on Vaishwik Mahamari (COVID-19) mein Hindi Bhasha ka Soochna Prodyogiki mein Mahatv	27 June 2020	Virtual
7.	Webinar on AYUSH Sanjivani Application	27 June 2020	Virtual
8.	Webinar on AYUSH Sanjivani Application	29 June 2020	Virtual
9.	Webinar on AYUSH Sanjivani Application	01 July 2020	Virtual

S. No.	Event	Date	Venue
10.	Webinar on AYUSH Sanjivani Application	02 July 2020	Virtual
11.	Webinar on AYUSH Sanjivani Application	03 July 2020	Virtual
12.	Webinar on AYUSH Sanjivani Application	04 July 2020	Virtual
13.	Webinar on AYUSH Sanjivani Application	15 July 2020	Virtual
14.	Webinar on the implementation of PFMS	21 August 2020	Virtual
15.	Webinar on AYUSH for Immunity	26 September 2020	Virtual
16.	Webinar on Severe Acute Malnutrition - A Challenge to Combat	30 September 2020	Virtual
17.	Webinar on How to Boost Immune System with Lifestyle Management	30 September 2020	Virtual
18.	Webinar on Implementation of PFMS-2	01 October 2020	Virtual
19.	Webinar on Role of Diet in Boosting Immunity	06 October 2020	Virtual
20.	Webinar on AYUSH for Immunity	9 October 2020	Virtual
21.	Webinar on Swachhta	16 October 2020	Virtual
22.	Webinar on Invigorating the Immune System through Unani Medicine	19 October 2020	Virtual
23.	Webinar on AYUSH for Immunity	20 October 2020	Virtual
24.	Webinar on Immunity Boosting through Diet, Unani Medicine and Tadabir	27 October 2020	Virtual
25.	National Webinar on Pharmacovigilance of ASU&H Drugs	25 November 2020	Virtual
26.	Pharmacovigilance Awareness Programme	23 November 2020	Virtual
27.	Awareness Programme on Pharmacovigilance of ASU&H Drugs	24 November 2020	Virtual
28.	Webinar on <i>Bahu Bhashikta ka Mahatv aur Rajbhasha Hindi ka Karyanwan</i>	11 December 2020	Virtual
29.	Webinar on Data and its Use for Health System Strengthening	18 January 2021	Virtual
30.	Seminar on Pharmaco-vigilance on ASU&H Drugs	25 March 2021	RRIUM, Delhi

## 4.3. Participation in Arogya Fairs/ Expos

The Ministry of AYUSH, Government of India in collaboration with state governments and other stakeholders organizes and participates in Arogya fairs / expos and similar events to propagate Indian systems of medicine, highlight activities and achievements of its research councils, provide free-of-cost diagnosis and treatment to the ailing visitors, and impart awareness about health, hygiene, and curative aspects of ill-health. The CCRUM and its institutes on the direction of Ministry of AYUSH participated in national and state level Arogya fairs and similar events mostly held online due to COVID-19 pandemic during the reporting period.

During all these events, the CCRUM showcased its progress in the area of clinical research, drug standardization, survey and cultivation of medicinal plants, and literary research. It also displayed posters and charts highlighting various concepts of Unani Medicine. Besides, some important publications of the Council like Unani Pharmacopoeia of India, National Formulary of Unani Medicine, Hippocratic Journal of Unani Medicine, Standard Unani Medical Terminology, and Standard Unani Treatment Guidelines for Common Diseases were put on display. With a view to create awareness about healthy living and intervention of Unani Medicine in curing diseases and promoting health, free-of-cost literature on Unani Medicine and success stories on treatment of some chronic and common diseases were distributed among the visitors. The Council also deployed its physicians to provide free consultation and treatment to the ailing visitors seeking Unani treatment. Lectures on various health issues were also delivered by the Council's researchers. The list of the events is as follows:

S. N.	Name of Event	Place	Duration
1.	Global-Virtual Healthcare & Hygiene Expo 2020 (G-VHHE)	Virtual	23–26 November 2020
2.	India International Science Festival	Virtual	22–25 December 2020
3.	COVID - Reboot India, AYUSH World Natural Virtual Expo	Virtual	23–29 December 2020
4.	Ayurveda Parv	Jalandhar, Punjab	19–21 March 2021

#### 4.4. Participation in Promotion of Official Language

The CCRUM puts its best efforts for promotion of the official language in day-to-day functioning and adopts appropriate measures as per time-to-time instructions and guidance from the Department of Official Language. The Council has central as well regional official language implementation committees at its headquarters and regional research institutes / centers that monitor and review the status of the use of Hindi language in official dealings.

During the reporting period, the Council conducted review meetings, organized Hindi workshops and observed Hindi Pakhwada at its headquarters and institutes. The Pakhwada was observed to mark Hindi Diwas on 14<sup>th</sup> September and motivate employees to create an environment for implementation of the Official Language Policy in day-to-day work. The Pakhwada at the headquarters was observed during September 7–21, 2020. Due to the prevailing COVID-19 situation, the activities to mark Hindi Diwas were organized online.

Apart from organizing the Hindi Pakhwada, the Council participated in the meetings of Town Official Language Implementation Committee and meetings of the Ministry of AYUSH pertaining to the official language. The Rajbhasha Section conducted quarterly meetings of official language implementation committee wherein matters related to the organization of workshops, promotion of letter writing in Hindi, review of Hindi works in various sections of the Council, review of quarterly reports of various institutes / centres of the Council, etc. were discussed and specific strategy was formulated. Besides, information, education and communication materials related to the promotion of Unani Medicine were printed in Hindi



for distribution in health camps, Swasthya Rakhshan Programme, Arogya fairs and exhibitions.

#### 4.5. Appointments

- Shri Krishan Kumar Sapra was appointed Assistant Director (Administration) on deputation basis at CCRUM headquarters on February 01, 2021.
- Shri Wajid Khan was appointed Junior Accountant at CCRUM headquarters on September 21, 2020.

#### 4.6. Promotions

- Dr. Munawwar Hussain Kazmi was promoted as Director, NRIUMSD, Hyderabad on November 11, 2020.
- Dr. Haseeb Alam Lari was promoted as Assistant Director / Deputy Director (Unani) on December 12, 2020.
- Dr. Naquibul Islam was promoted as Assistant Director / Deputy Director (Unani) on December 15, 2020.
- Dr. Ahmed Minhajuddin was promoted as Assistant Director / Deputy Director (Unani) on December 15, 2020.
- Dr. Rahat Raza was promoted as Assistant Director / Deputy Director (Unani) on December 15, 2020.
- Dr. Md. Ishtiaque Alam was promoted as Assistant Director / Deputy Director (Unani) on December 15, 2020.
- Dr. Najeebul Hasan was promoted as Assistant Director / Deputy Director (Unani) on February 03, 2021.
- Dr. Syed Ahmad Khan was promoted as Assistant Director / Deputy Director (Unani) on December 15, 2020.
- Dr. M. Nafees Khan was promoted as Assistant Director / Deputy Director (Unani) on December 17, 2020.
- Dr. N. Zaheer Ahmad was promoted as Assistant Director / Deputy Director (Unani) on December 15, 2020.
- Dr. Hakimuddin Khan was promoted as Assistant Director / Deputy Director (Unani) on December 15, 2020.
- Dr. Chander Pal was promoted as Assistant Director (Pathology) on December 14, 2020.
- Sh. Harish Arya was promoted as Administrative Officer on November 09, 2020.
- Shri Mulla Mohd. Iqbal was promoted as Junior Administrative Officer on January 27, 2021.
- Shri M. Iqbal Khan was promoted as Junior Administrative Officer on January 27, 2021.
- Shri G.P. Meena was promoted as Junior Administrative Officer on January 27, 2021.
- Smt. Shashi Bala Sharma was promoted as Assistant on January 27, 2021.
- Smt. Tayyaba Mobin was promoted as Assistant on January 27, 2021.

- Shri Hashmi Syed Tayyab was promoted as Assistant on January 27, 2021.
- Shri Shakil Ahmad was promoted as Upper Division Clerk on August 27, 2020.
- Shri Anas Salim Qazi was promoted as Upper Division Clerk on August 27, 2020.
- Shri Mohd. Nadeem Akhter was promoted as Upper Division Clerk/Store Keeper on August 27, 2020.
- Shri N.S. Kataria was promoted as Upper Division Clerk on August 27, 2020.
- Shri Sajid Aqeel was promoted as Upper Division Clerk on August 27, 2020.
- Shri Rais Ahmer was promoted as Upper Division Clerk on August 27, 2020.
- Shri Manveer Singh was promoted as Upper Division Clerk on August 27, 2020.
- Shri Atiqullah Siddiqui was promoted as Upper Division Clerk on August 27, 2020.
- Shri Mahesh Dangi was promoted as Upper Division Clerk on August 27, 2020.
- Shri Shamsul Huda was promoted as Upper Division Clerk on August 27, 2020.
- Smt Hemlata was promoted as Upper Division Clerk on August 27, 2020.
- Shri Iqbal Ahmad was promoted as Upper Division Clerk on August 27, 2020.
- Shri Bashir Ahmad Rather was promoted as Upper Division Clerk on August 27, 2020.
- Shri Khurshid Ahmad Wani was promoted as Upper Division Clerk/Store Keeper on August 27, 2020.
- Shri M. Ibrahim Hussain was promoted as Upper Division Clerk on August 27, 2020.
- Shri Qamruddin was promoted as Upper Division Clerk on August 27, 2020.
- Smt. Veena Sharma was promoted as Upper Division Clerk on August 27, 2020.
- Shri Mahesh Kumar Chalia was promoted as Upper Division Clerk on August 27, 2020.
- Shri Reyaz Ahmad was promoted as Upper Division Clerk on August 27, 2020.
- Shri Rajinder Mehra was promoted as Upper Division Clerk on August 27, 2020.
- Shri Amit Sharma was promoted as Upper Division Clerk on August 27, 2020.
- Shri Sheikh Imtiyaz was promoted as Upper Division Clerk on August 27, 2020.
- Smt. Roofa Qadri was promoted as Upper Division Clerk on August 27, 2020.
- Shri Yasin Ahmad Khan was promoted as Upper Division Clerk on August 27, 2020.
- Shri Mir Wajahat Ali Khan was promoted as was promoted as Upper Division Clerk/Store Keeper on August 27, 2020.
- Smt. Gulrukh was promoted as Upper Division Clerk on August 27, 2020.
- Shri Hari Ram Meena was promoted as Upper Division Clerk on August 27, 2020.
- Shri Mohd. Aslam was promoted as Upper Division Clerk on August 27, 2020.
- Shri Syed Abu Saleh Asim was promoted as Upper Division Clerk/Store Keeper on August 27, 2020.
- Smt. Tarannum Nigar was promoted as Upper Division Clerk on March 12, 2021.
- Shri Mohammad Hasan Shakir was promoted as Upper Division Clerk on March 12, 2021.

#### 4.7. Retirements

- Dr. Shaikh Noor Mohd, Research Officer (Unani) at CRU, Burhanpur retired on superannuation on May 31, 2020.
- Sh. Ghouse Sherriff, Lab Attendant at RRIUM, Chennai retired on superannuation on May 31, 2020.
- Smt. R. Laxmi, Sister Incharge at RRIUM, Chennai retired on superannuation on May 31, 2020.
- Smt. Jaswant, Staff Nurse at CRIUM, Lucknow retired on superannuation on June 30, 2020.
- Shri B. Krishna, Helper at NRIUMSD, Hyderabad retired on superannuation on June 30, 2020.
- Shri Mir Akhtar Ali, Upper Division Clerk at NRIUMSD, Hyderabad retired on superannuation on July 31, 2020.
- Dr. Shagufta Parveen, Deputy Director, RRIUM, New Delhi retired on superannuation on July 31, 2020.
- Shri Sushil Kumar Jaiswal, Lab Attendant at CRU, Meerut retired on superannuation on July 31, 2020.
- Shri Anil Kumar Sharma, Junior Administrative Officer at CCRUM headquarters retired on superannuation on July 31, 2020.
- Shri Imran Ahmed Faridi, Social Worker at CRIUM, Lucknow retired on superannuation on July 31, 2020.
- Smt. Anita Dangi, Female Attendant at RRIUM, New Delhi retired voluntarily on August 01, 2020.
- Shri Ali Mohd Dar, Lab Technician at RRIUM, Srinagar retired on superannuation on August 31, 2020.
- Shri Ramesh M Telang, Research Officer (Statistics) at RRIUM, Mumbai retired on superannuation on September 30, 2020.
- Shri Sirajuddin, Messenger at CRU, Burhanpur retired on superannuation on October 31, 2020.
- Shri Kishore Chowary, Ward Boy at RRIUM, Patna retired on superannuation on November 30, 2020.
- Dr. Rifat Ahmed Afidi, Research Officer (Unani) at RRIUM, Aligarh retired on superannuation on November 30, 2020.
- Dr. Alokanda Chakroborty, Research Officer (Physiology) at NRIUMSD, Hyderabad retired on superannuation on November 30, 2020.
- Shri Mohd Shane Ali, Lab Attendant at DSRU, New Delhi retired on superannuation on December 31, 2020.
- Shri Qamrul Islam Nisar Ahmed Azmi, Pharmacist at RRIUM, Mumbai retired on superannuation on December 31, 2020.
- Shri Danish Ahmad, Compounder at RRIUM, Patna retired on superannuation on September 30, 2020.

- Dr. Khadeerun Nisa, Assistant Director (Unani) at NRIUMSD, Hyderabad retired on superannuation on October 31, 2020.
- Shri Md. Mumtaz Ahmad, Junior Stenographer at RRIUM, Patna retired on superannuation on December 31, 2020.
- Shri Mohd. Zahid Alam, Filed Attendant at RRIUM, Patna retired on superannuation on December 31, 2020.
- Smt. Shamla Bibi, MTS at RRIUM, Bhadrak retired on superannuation on December 31, 2020.
- Shri A. R. Qazi, Senior Stenographer at CCRUM headquarters retired on superannuation on January 31, 2021.
- Dr. Naqibul Islam, Research Officer (Unani) at RRIUM, Srinagar retired on superannuation on January 31, 2021.
- Shri Ali Imran, Junior Administrative Officer at RRIUM, Patna retired voluntarily on January 01, 2021.
- Shri Devanand, Assistant Director (Administration) at CCRUM headquarters retired on superannuation on January 31, 2021.
- Shri Mulla Mohd Iqbal, Junior Administrative Officer at RRIUM, Bhadrak retired on superannuation on February 28, 2021.
- Shri P Usman Basha, Lab Attendant at NRIUMSD, Hyderabad retired on superannuation on February 28, 2021.
- Shri K. Shankar, Helper at NRIUMSD, Hyderabad retired on superannuation on February 28, 2021.
- Smt. Hemlata, Upper Division Clerk at CCRUM headquarters retired voluntarily on March 01, 2021.
- Dr. M. Salim Siddiqi, Research Officer (Unani) at RRIUM, New Delhi retired on superannuation on March 31, 2021.
- Shri Nazeer Ahmed Sheikh, Upper Division Clerk at RRIUM, Srinagar retired on superannuation on March 31, 2021.
- Shri Rasheed Lateef, Lab Technician at RRIUM, Chennai retired on superannuation on March 31, 2021.

#### 4.8. Deaths

- Shri Babu Jani, Helper at NRIUMSD, Hyderabad died in harness on July 26, 2020.
- Shri Mohd Kalim, Kitchen Servant at RRIUM, Kolkata died in harness on August 24, 2020.
- Dr. Mohd Abdul Samad, Research Officer at NRIUMSD, Hyderabad died in harness on August 22, 2020.
- Shri Humayun Amir, Stenographer at CCRUM headquarters died in harness on November 14, 2020.
- Shri Misbahuddin Siddiqui, Pharmacist at RRIUM, Kolkata died in harness on September 09, 2020.
- Shri Afzal Khan, Driver at NRIUMSD, Hyderabad died in harness on July 08, 2020.

- Dr. Chandra Pal, Assistant Director (Pathology) at CRU, Meerut died in harness on December 18, 2020.
- Shri Narender S. Kataria, Upper Division Clerk at CCRUM headquarters died in harness on December 11, 2020.
- Dr. Syed Abdullah Hussaini, Research Officer (Unani) at RRIUM, Bhadrak died in harness on August 08, 2020.



## 5. FINANCIAL STATEMENT

### 5.1. Audit Report

SEPARATE AUDIT REPORT OF THE COMPTROLLER & AUDITOR GENERAL OF INDIA ON THE ACCOUNTS OF CENTRAL COUNCIL FOR RESEARCH IN UNANI MEDICINE FOR THE YEAR ENDED 31 MARCH 2021

We have audited the attached Balance Sheet of Central Council for Research in Unani Medicine (Council) as at 31 March 2021, the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 20(1) of the Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act, 1971. The audit has been entrusted for the period upto 2023-24. These financial statements include the accounts of nine regional offices of the Council. These financial statements are the responsibility of the Council's management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Laws, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/Comptroller and Auditor General's Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

- (i) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit;
- (ii) The Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report have been drawn up in the format approved by the Ministry of Finance, Government of India.
- (iii) In our opinion, proper books of accounts on double entry system of accounting have been maintained by the Council in so far as it appears from our examination of such books.
- (iv) We further report that:
  - A. Balance Sheet**
    - A.1. Liabilities**
      - A.1.1. Corpus/Capital Fund (Schedule – 1) - ₹124.76 crore**

A.1.1.1. As per uniform format of accounts, Grant-in-Aid should be properly segregated and only grant for revenue purpose is recognised as income in Income & Expenditure Accounts. The grant for capital expenditure should be routed through Balance Sheet. The Council received ₹19 crore as Capital Grants out of which only ₹2.66 crore has been capitalized during the year. The balance of ₹16.34 crore has been taken as income in Income & Expenditure Accounts. This has resulted in overstatement of Income as well as Excess of Income over Expenditure by ₹16.34 crore.

## A.1.2. Current Liabilities & Provisions (Schedule – 7) - ₹101.08 crore

A.1.2.1. Provision had not been made by the Council for Gratuity, Leave Encashment and other retirement benefits on actuarial basis as required under the Uniform Format of Accounts and Accounting Standard 15 of ICAI.

## B. General

B.1. As per Schedule-3 of Earmarked/Endowment funds, Council is maintaining 14 specific project accounts. Audit observed that there was no transaction in these accounts during last year. Council should review these accounts in case the projects have been closed and a decision should be taken as per terms of grants either to refund the unspent amount or to take the balance as receipt of the Council. This observation was also made during the previous year audit but no action has been taken so far.

B.2. As the Provident Fund Accounts and the New Pension Scheme Account are owned by the members of those funds and not by the Organisation, these accounts should not be included in Organisation's main account. A Receipts & Payments Accounts, an Income & Expenditure Account and a Balance Sheet of the Provident Fund Accounts as well as the New Pension Scheme should be shown separately. However, Council has included assets and liabilities of Provident Fund Accounts and the New Pension Scheme in its main account. This has resulted in overstatement of Assets as well as Liabilities by ₹48.05 crore (GPF - ₹45.52 crore, NPS - ₹2.53 crore) in the main account.

B.3. The Council is maintaining 17 bank accounts at headquarters. Scrutiny of bank reconciliation statement of these accounts revealed that several accounts are lying un-reconciled in some of these accounts prior to 2017 as detailed below:

Bank Account No.	Particulars	Amount in ₹
16601	Cheques issued but not debited in account	3503
-do-	Demand Draft deposited in Bank, but not credited in account	91032

16602	Wrongly credited by Bank	10441
16640	Demand Draft deposited in Bank, but not credited in account	40367

This needs to be reconciled.

Apart from the above, 11 bank accounts maintained by Council are dormant.

B.4. Council has received Grant-in-Aid amount to ₹19 crore for creation of capital assets. However, during the year Council purchased fixed assets worth ₹2.66 crore and gave capital advance of ₹17.11 crore. Thus, the excess capital expenditure of ₹0.77 crore was booked against the General grant which is against the terms and conditions of grant.

B.5. Schedule for Significant Accounting policies and Contingent Liabilities have not been prepared by the Council.

#### C. Grants-in-aid

##### (i) Health Account

The Council had received Grants-in-Aid of ₹164.05 crore during 2020-21 and had an unspent balance of Grants-in-Aid of ₹2.24 crore of previous year. Council had generated ₹3.52 crore from its own resources. Thus, out of available amount of ₹169.81 crore, Council utilized a sum of ₹168.37 crore (including ₹2.24 crore refunded to the Ministry) leaving unspent balance of ₹1.44 crore as on 31.03.2021.

##### (ii) Specific Project Account

The Council also received grants of ₹0.55 crore during the year for specific projects from various agencies, in addition to unspent balance of previous year of ₹2.50 crore. It had its own receipt of ₹0.11 crore. Thus, out of available amount of ₹3.16 crore, it utilized ₹0.31 crore, leaving an unutilized balance of ₹2.85 crore as on 31.03.2021.

#### D. Management Letter

Deficiencies which have not been included in the Audit Report have been brought to the notice of management of the Council through a management letter issued separately for remedial/corrective action.

- (v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report are in agreement with the books of accounts.
- (vi) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant

matters stated above and other matters mentioned in Annexure to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India:

- a. In so far as it relates to the Balance Sheet, of the state of affairs of the Central Council for Research in Unani Medicine as at 31 March 2021; and
- b. In so far as it relates to Income & Expenditure Account of the surplus for the year ended on that date.

**For and on behalf of C&AG of India**

A handwritten signature in blue ink, appearing to read 'अ.सिन्हा' (A. Sinha), is written over the printed name.

**Ashok Sinha**

**Principal Director of Audit  
(Health Welfare & Rural Development)**

**Place: New Delhi**

**Date: 23.11.2021**

**ANNEXURE****1. Adequacy of internal audit system**

No internal audit wing is established. The internal audit of the Council was conducted upto 2018-19 by the Ministry of Health & Family Welfare. However, report is yet to be received.

**2. Adequacy of internal control system**

Internal control system was not adequate as risk assessment was not done by the management. Further, 18 paras pertaining to the period 2014-19 were outstanding for settlement.

**3. System of physical verification of fixed assets**

The physical verification of fixed assets was conducted up to 2020-21 and no discrepancy was reported.

**4. System of physical verification of inventory**

The physical verification of Books and Publications was conducted up to 22.06.2017. The physical verification of stationery and consumables etc. was conducted upto 2020-21.

**5. Regularity in payment of statutory dues**

As per accounts, no payments for over six months in respect of statutory dues were outstanding as on 31.03.2021.



## 5.2. Audited Statement of Accounts

### Index of the Annual Accounts for the Year 2020–2021

S. No.	Name of the Accounts	Page No.	Schedules at Page No.
1.	Balance Sheet	111	120–133
2.	Income & Expenditure Account	112	134–144
3.	Receipt & Payment Account	113–119	145–174
4.	Notes on Accounts	175	-

Balance Sheet as on 31<sup>st</sup> March 2021

Corpus/Capital Fund and Liabilities	Schedule	Current Year	Previous Year
Corpus/Capital Fund	1	1,24,76,35,862.00	1,10,67,91,530.00
Reserve and Surplus	2	-	-
Earmarked/Endowment Funds	3	2,85,06,985.00	2,49,61,506.00
Secured Loans and Borrowings	4	-	-
Unsecured Loans and Borrowings	5	-	-
Deferred Credit Liabilities	6	-	-
Current Liabilities and Provisions	7	1,01,07,50,906.00	95,45,81,348.00
Total		2,28,68,93,753.00	208,63,34,384.00
<b>Assets</b>	<b>Schedule</b>	<b>Current Year</b>	<b>Previous Year</b>
Fixed Assets	8	1,27,19,85,609.00	1,27,73,42,844.00
Investments-from Earmarked/Endowment Funds	9	-	-
Investments Others	10	55,12,80,967.00	53,03,06,979.00
Current Assets, Loans, Advances, etc.	11	46,36,27,177.00	{ 20,48,66,764.00 7,38,17,794.00
Miscellaneous Expenditure (To the Extent not Written off or Adjusted)		-	-
Total		2,28,68,93,753.00	208,63,34,384.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

## Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

Income	Schedule	Current Year	Previous Year
Income from Sales/Services	12	-	-
Grants	13	1,62,60,56,498.00	1,59,54,00,000.00
Fees	14	46,85,871.00	28,37,236.00
Income from Investments (Income on Invest from earmarked/endow. Funds transferred to Funds)	15	-	-
Income from Publication, etc.	16	2,49,096.00	3,14,955.00
Interest Earned	17	62,89,583.00	66,55,457.00
Other Income	18	1,75,16,144.00	1,99,15,695.00
Less: Capitalized	19	(-)2,65,75,012.00	(-)8,75,38,533.00
<b>Total (A)</b>		<b>1,62,82,22,180.00</b>	<b>1,53,75,84,810.00</b>
Expenditure	Schedule	Current Year	Previous Year
Establishment Expenses	20	(+)3,22,042.00 1,04,01,50,121.00	1,15,08,88,077.00
Other Administrative Expenses etc.	21 (A- D)	37,28,89,286.00 4,62,88,583.00	37,46,62,816.00
Expenditure on Grants, Subsidies etc.	22	-	-
Interest	23	-	-
Depreciation (Net Total at the Year End – Corresponding to Schedule 8)	FW -21 (E)	3901.00	1889.00
	H- 21 (E)	2,91,81,578.00	1,84,94,526.00
<b>Total (B)</b>		(H) - 1,48,88,31,610.00 (FW) - (+) 3901.00	1,54,40,47,308.00
Balance Being Excess of Income Over Expenditure (A-B) (1,64,26,65,682/- (-)1,50,32,75,112/-)		(H) - 13,93,90,570.00	64,62,498.00
Prior period transaction (Unspent Balance of 2019-20 Refundable to M/o AYUSH)		(H) (-)2,23,70,581.00	-
Balance being Surplus/(Deficit) Carried to Capital Fund		(H) - 11,70,19,989.00 (F.W) - (-)3901.00	64,60,609.00 (-)1889.00

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Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Receipt & Payment A/c for the Year Ending 31<sup>st</sup> March 2021

S. N.	Receipts	Current Year				Previous Year			
		Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total	Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total
I.	Opening Balance								
a.	Cash-in-Hand (Imprest)	4,60,855.00	-	-	4,60,855.00	4,54,855.00	-	-	4,54,855.00
b.	Cash at Bank	2,19,09,726.00	2,49,61,507.00	2,64,85,710.00	7,33,56,943.00	3,46,81,075.00	2,27,90,241.00	1,26,75,161.00	7,01,46,477.00
	Total (I)	2,23,70,581.00	2,49,61,507.00	2,64,85,710.00	7,38,17,798.00	3,51,26,930.00	2,27,90,241.00	1,26,75,161.00	7,05,92,332.00
II.	Grant in Aid From Govt. of India								
a.	Capital	19,00,00,000.00	-	-	19,00,00,000.00	6,00,00,000.00	-	-	6,00,00,000.00
b.	Revenue	1,45,05,00,000.00	55,00,000.00	-	1,45,60,00,000.00	1,53,54,00,000.00	76,77,500.00	-	1,54,30,77,500.00
	Total (II)	1,64,05,00,000.00	55,00,000.00	-	1,64,60,00,000.00	1,59,54,00,000.00	76,77,500.00	-	1,60,30,77,500.00
III.	Income from Investments of GPF/GIS/Pension fund & NPS Funds	-	-	57,14,869.00	57,14,869.00	-	-	1,88,51,877.00	1,88,51,877.00
	Total (III)	-	-	57,14,869.00	57,14,869.00	-	-	1,88,51,877.00	1,88,51,877.00
IV.	Interest Received								
a.	Bank Interest	54,29,112.00	7,35,427.00	-	61,64,539.00	57,29,841.00	8,49,359.00	-	65,79,200.00
	Total (IV)	54,29,112.00	7,35,427.00	-	61,64,539.00	57,29,841.00	8,49,359.00	-	65,79,200.00
V.	Other Income								
a.	Interest on Refundable Advances	8,60,471.00	-	-	8,60,471.00	9,25,616.00	-	-	9,25,616.00

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Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

## Receipt & Payment A/c for the Year Ending 31<sup>st</sup> March 2021

S. N.	Receipts	Current Year				Previous Year			
		Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total	Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total
b.	Other Misc. Income (As per Schedule H/8)	1,75,16,144.00	3,50,500.00	1,04,511.00	1,79,71,155.00	2,10,03,086.00	7,93,091.00	1,95,28,999.00	4,13,25,176.00
c.	Sale of Publications	2,49,096.00	-	-	2,49,096.00	3,14,155.00	-	-	3,14,155.00
d.	Unani Academic Courses Fee, etc.	46,85,871.00	-	-	46,85,871.00	-	-	-	-
	Total (V)	2,33,11,582.00	3,50,500.00	1,04,511.00	2,37,66,593.00	2,22,42,857.00	7,93,091.00	1,95,28,999.00	4,25,64,947.00
VI.	Amount Borrowed	-	-	-	-	-	-	-	-
VII.	Other Receipts								
a.	Refund against by Adjustment of Advances Pertaining to Previous Year	4,85,584.00	13,039.00	-	-	4,72,573.00 76,68,189.00	-	-	4,72,573.00 76,68,189.00
b.	Recoveries of Refundable Advances to Govt. Servants	17,66,683.00	-	-	-	18,71,861.00	-	-	18,71,861.00
c.	Recoveries for Remittances	13,24,42,195.00	26,261.00	-	-	13,98,92,854.00	25,299.00	-	13,99,18,153.00
d.	Recoveries of Subscription & Advance	-	-	5,94,00,393.00	-	-	-	5,67,95,560.00	5,67,95,560.00
e.	Security Deposit (CCRUM)	6,00,000.00	-	-	-	-	-	-	-
f.	Receivable Amount Received	-	-	1,65,57,058.00 (Accrued Interest)	-	6,19,446.00	-	3,60,11,335.00	3,66,30,781.00

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Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General



Receipt & Payment A/c for the Year Ending 31<sup>st</sup> March 2021

S. N.	Receipts	Current Year				Previous Year			
		Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total	Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total
g	In-Transit Amount Received	36,22,402.00	-	-	-	15,01,72,077.00	-	-	15,01,72,077.00
h.	Amount Received but to be Refunded to Other Decentralized Institutes	78,823.00	-	-	-	9,63,430.00	-	-	9,63,430.00
i.	Investment Received	-	-	-53,34,15,387.00	-	-	-	-55,33,12,656.00	55,33,12,656.00
j.	LIC Amount Received from LIC for Disbursement	-	-	12,00,000.00	-	-	-	4,60,000.00	4,60,000.00
k.	Pension Fund Transfer from Health A/c Received in Pension Fund A/c	-	-	-32,00,00,000.00	-	-	-	-31,87,00,000.00	31,87,00,000.00
	Total (VII)	13,89,95,686.00	39,300.00	93,05,72,838.00	1,06,96,07,825.00	30,16,60,430.00	25,299.00	96,52,79,551.00	1,26,69,65,280.00
	Grand Total (I to VII) of Receipt Side	1,83,06,06,962.00	3,15,86,734.00	96,28,77,928.00	2,82,50,71,624.00	-	-	-	-3,00,86,31,136.00

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Assistant Director (Admn.)

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(Prof. Asim Ali Khan)  
Director General

## Receipt & Payment A/c for the Year Ending 31<sup>st</sup> March 2021

S. N.	Payments	Current Year				Previous Year			
		Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total	Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total
I.	Expenses								
a.	Establishment Expense	104,01,50,121.00	-	-	-104,01,50,121.00	114,91,67,788.00			114,91,67,788.00
	Total I	104,01,50,121.00			104,01,50,121.00	114,91,67,788.00			114,91,67,788.00
II.	Administrative Expense (Corresponding to Schedule 21)								
i.	Admn. Expenses	19,74,45,628.00				11,99,64,498.00			
ii.	Material & Supplies	5,26,65,487.00				13,76,03,153.00			
iii.	Other Charges	12,27,78,171.00	30,49,678.00			84,202.00 11,47,78,279.00	68,01,316.00	-	-
iv.	Publication Expenses	-	-			2,80,399.00			
	Total (II)	37,28,89,286.00	30,49,678.00	-	-37,59,38,964.00	37,27,10,531.00	68,01,316.00	-	-37,95,11,847.00
III.	Investment Made Out of GPF, GIS, Pension Fund & NPS A/c	-	-	55,43,89,375.00	55,43,89,375.00			-60,16,69,707.00	60,16,69,707.00
	Total (III)	-	-	55,43,89,375.00	55,43,89,375.00	-		-60,16,69,707.00	60,16,69,707.00
IV.	Expenditure on Fixed Assets and								

Sd/-  
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Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Receipt & Payment A/c for the Year Ending 31<sup>st</sup> March 2021

S. N.	Payments	Current Year				Previous Year			
		Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total	Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total
	Capital Work in Progress								
a.	Purchase of Fixed Assets	64,89,281.00 11,55,391.00 31,090.00 1,88,99,250.00	-	-	-	75,01,912.00	-	-	
b.	Expenditure on Capital Work in Progress	-	-	-	-	8,59,99,364.00	-	-	
	Total (IV)	2,65,75,012.00			2,65,75,012.00	9,35,01,276.00	-	-	9,35,01,276.00
V.	Refund of Surplus Money & Loans	-	-	-	-	-	-	-	-
a.	To Govt. of India	-	-	-	-	-	-	-	-
b.	To the States Govt.	-	-	-	-	-	-	-	-
c.	To Other Provider of Funds	-	-	-	-	-	-	-	-
VI.	Finance Charges (Interest)	-	-	-	-	-	-	-	-
VII	Other Payments								
a.	Advances to Govt. Servants	38,12,500.00				35,34,950.00			

Sd/-  
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Assistant Director (Admn.)

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(Prof. Asim Ali Khan)  
Director General

## Receipt & Payment A/c for the Year Ending 31<sup>st</sup> March 2021

S. N.	Payments	Current Year				Previous Year			
		Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total	Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total
b.	Remittance of Recoveries	13,58,27,512.00	30,071.00			13,60,49,842.00			
c.	Amount Payable Paid/Adjusted	4,03,21,111.00				13,13,96,378.00			
d.	Refund of EMD	3,27,825.00				-			
e.	Amount with Decentralized Instts Pertains to Other Councils Paid/Transferred	7,42,885.00							
f.	Unspent Balance Refunded to the Ministry of AYUSH (2019-20)	2,23,70,581.00							
g.	LIC Amount Received from LIC Disbursed	8,00,000.00		8,00,000.00		4,60,000.00			
h.	Other Misc. Payments, Transfer			32,78,89,915.00		-	-	38,77,20,171.00	
i.	Undisbursed Amount Disbursed	-	-	-	-	47,686.00	-	-	-

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Receipt & Payment A/c for the Year Ending 31<sup>st</sup> March 2021

S. N.	Payments	Current Year				Previous Year			
		Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total	Health A/c	Other Specific A/c	GPF/GIS/ Pension NPS A/c	Total
j.	Excess Paid to be Received/ Adjusted					22,02,757.00			
k.	Amount Remitted by Decentralized Institute to be Received at Hqrs, New Delhi					2,01,138.00			
I.	Outstanding Advances	20,45,877.00 17,11,00,750.00				4,89,86,108.00	3,63,690.00	-	
	Total (VII) (a to I)	37,65,49,041.00	30,071.00	32,86,89,915.00	70,52,69,027.00	32,28,78,859.00	3,63,690.00	38,77,20,171.00	71,09,62,720.00
VIII	Closing Balance								
a.	Cash-in-Hand (Imprest)	4,48,000.00				4,60,855.00			
b.	Cash at Bank	1,39,95,502.00	2,85,06,985.00	7,97,98,638.00	12,27,49,125.00	2,19,09,726.00	2,49,61,507.00	2,64,85,710.00	
	Total VIII (a +b)	1,44,43,502.00	2,85,06,985.00	7,97,98,638.00	12,27,49,125.00	2,23,70,581.00	2,49,61,507.00	2,64,85,710.00	7,38,17,798.00
	Total (I to VIII) of Payment Side	1,83,06,06,962.00	3,15,86,734.00	96,28,77,928.00	2,82,50,71,624.00	1,96,06,29,035.00	3,21,26,513.00	101,58,75,588.00	3,00,86,31,136.00

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Assistant Director (Admn.)

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Director General



## Capital Fund of Balance Sheet for the Year Ending 31<sup>st</sup> March 2021 (Schedule – I)

S. N.		Current Year		Previous Year	
		Health A/c	F.W.	Health A/c	F.W.
	Balance at the Beginning of the Year	1,62,19,82,065.00	1,93,523.00	1,53,44,43,532.00	1,93,523.00
	Addition During the Year	2,65,75,012.00	-	9,44,29,546.00	-
	Less: Refunds	-	-	(-)68,91,013.00	-
	Less: Write off	(-)27,46,768.00	-	-	-
	Total (Rs.)	1,64,58,10,309.00	1,93,523.00	1,62,19,82,065.00	1,93,523.00
	Add/Deduct Balance of Net Income/Expenditure Transferred from the Income and Expenditure A/c	(-)39,81,72,509.00	(-)1,95,461.00	(-)51,51,92,498.00	(-)1,91,560.00
	Total (Rs.)	1,24,76,37,800.00	(-)1938.00	1,10,67,89,567.00	1963.00
	Net Balance	1,24,76,35,862.00		1,10,67,91,530.00	

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Director General

Schedule Forming Part of Balance Sheet as on 31<sup>st</sup> March 2021  
(Schedule -3) Earmarked/Endowment Funds

S.N.	Name of the Scheme	I.T. A/c	Herb Garden A/c	Publication of Text Books	UPS A/c I	DSOP A/c	Pharmacovigilance A/c	Unani Day	AIUM A/c	WHO A/c
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(a)	Opening Balance		52,706.00	59,400.00	46,704.82	2,26,648.00	6,90,000.00	8,60,318.00	35,49,777.00	2382.00
	Total (a)									
(b)	Additions									
	Grant-in-Aid	55,00,000.00								
	Other Additions A/c of									
	Bank Interest		21,550.00	1849.00	4,780.00	6983.00		33,159.00	108,545.00	74.00
	From Health A/c									
	Recoveries for Remittances	2238.00						14,484.00		
	Receivable received							3,50,500.00		
	Misc. Receipts							13,039.00		
	Total (b)	55,02,238.00	21,550.00	1849.00	4,780.00	6983.00		4,11,182.00	108,545.00	74.00
	Total (a+b)	55,02,238.00	74,256.00	61,249.00	51,484.82	2,33,631.00	6,90,000.00	12,71,500.00	36,58,322.00	2456.00
(c)	Utilization/Expenditure									
	i) Capital expenditure									
	Assets	19,05,993.00								
	Others									
	ii) Revenue Expenditure									

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## Schedule Forming Part of Balance Sheet as on 31<sup>st</sup> March 2021 (Schedule -3) Earmarked/Endowment Funds

S.N.	Name of the Scheme	I.T. A/c	Herb Garden A/c	Publication of Text Books	UPS A/c I	DSOP A/c	Pharmacovigilance A/c	Unani Day	AIUM A/c	WHO A/c
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Salaries/Wages Allowances									
	Other Administrative Expenditure							7,80,887.00		
	Material & Supplies									
	Remittance of Recoveries	746						24556.00		
	Amount Payable Paid									
	Unspent Balance Refunded									
	Temporary Transfer to Health A/c to be Received									
	Total (c)	19,06,739.00						8,05,443.00		
	Net Balance (a+b (-) c)	35,95,499.00	74,256.00	61,249.00	51,485.00	2,33,631.00	6,90,000.00	4,66,057.00	36,58,322.00	2456.00

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Schedule Forming Part of Balance Sheet as on 31<sup>st</sup> March 2021  
(Schedule -3) Earmarked/Endowment Funds

S.N.	Name of the Scheme	IPR (10)	International Events Conference A/c (11)	DST A/c (12)	CRISM A/c (13)	South African A/c (14)	Total	
							Current Year (15)	Previous Year (16)
(a)	Opening Balance	6,27,025.00	7,74,604.00	7,64,357.00	1,67,75,100.00	5,32,484.68	2,49,61,506.50	2,27,90,240.55
	Total (a)							
(b)	Additions							
	Grant-in-Aid						55,00,000.00	76,77,500.00
	Other Additions A/c of							
	Bank Interest		23,730.00		5,18,426.00	16,331.00	7,35,427.00	8,49,359.00
	From Health A/c							
	Recoveries for Remittances	9539.00					26,261.00	25,299.00
	Receivable Received							
	Misc. Receipts						3,63,539.00	7,93,091.00
	Total (b)	9539.00	23,730.00		5,18,426.00	16,331.00	66,25,227.00	
	Total (a+b)	6,36,564.00	7,98,334.00	7,64,357.00	1,72,93,526.00	5,48,815.68	3,15,86,733.50	3,21,35,489.55
(c)	Utilization/Expenditure							
	i) Capital Expenditure							
	Assets						19,05,993.00	
	Others							
	ii) Revenue Expenditure							

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Director General

## Schedule Forming Part of Balance Sheet as on 31<sup>st</sup> March 2021 (Schedule -3) Earmarked/Endowment Funds

S.N.	Name of the Scheme	IPR	International	DST A/c	CRISM A/c	South African	Total
	Salaries/Wages Allowances						
	Other Administrative Expenditure	3,62,798.00				11,43,685.00	68,01,316.05
	Material & Supplies						
	Remittance of Recoveries	4769.00				30,071.00	8977.00
	Amount Payable Paid						
	Unspent Balance Refunded						
	Temporary Transfer to Health A/c to be Received						
	Total (c)	3,67,567.00				30,79,749.00	71,73,983.05
	Net Balance (a+b (-) c)	2,68,997.00	7,98,334.00	7,64,357.00	1,72,93,526.00	5,48,816.00	2,49,61,506.50

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## Current Liabilities &amp; Provisions [Schedule 7 (2020-2021)]

S. N.	Name of the Scheme	Current Year	Previous Year
7(A)(5)	Statutory Liabilities: • Professional tax • TDS • Income Tax • GIS • GST	15,645.30 32.00 2,776.00 - 1,13,878.00	1,040.00 32.00 27,83,767.00 360.00 52,020.00
	Total 7 (A) (5)	1,32,331.00	28,37,219.00
7(A)(6)	Other Current Liabilities		
	Secured Deposits (CCRUM)	20,37,363.00	17,65,188.00
	Short Payments Payable	23,798.00	23,798.00
	Undisbursed Amounts (Decentralized Instt.)	16,103.00	16,103.00
	Undisbursed Amounts (Decentralized Instt)	63,845.00	63,845.00
	Recoveries not Received Details	2289.00	2289.00
	New Pension Scheme Recoveries	10,974.00	6,91,404.00
	Advances from Vidya Peeth (Decentralized Instt Srinagar)	2,50,000.00	2,50,000.00
	Amount Received but Detail not Received (Kol)	16,469.00	16,469.00
	Received from CCRAS for UPC	30,00,000.00	30,00,000.00
	Payable by RRI., New Delhi to Hqrs, ND	36.00	36.00
	Security Deposit (CCCCBC)	4,03,000.00	4,03,000.00
	Unspent Balance Payable to Ministry of AYUSH	1,44,43,502.00	-
	Advance from Hqrs, ND to be Adjusted by Decentralized Institute	-	4,43,840.00
	Amount Received from RRIUM, Chennai Wrongly on A/c of Unspent Refunds in R/O AIIA to be Refunded to RRIUM, Chennai	78,823.00	-
	Payable to AIIA	-	7,42,885.00

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Director General



## Current Liabilities & Provisions [Schedule 7 (2020-2021)]

S. N.	Name of the Scheme	Current Year	Previous Year
	<b>Total</b>	2,03,46,202.00	74,18,857.00
7(B)	Provisions For Retirement Benefits	30,22,83,563.00	34,26,04,674.00
	Total 7 (B)	30,22,83,563.00	34,26,04,674.00
	Total 7 (A+B) C/f	32,27,62,096.00	35,16,73,665.00
7(C)	FW A/c	17,090.00	17,090.00
7(D)	NPS A/c		
	• NPS Liability to NPS Subscribers	1,16,27,163.00	1,08,51,873.00
	• Bank Interest Earned and Accrued	1,37,08,087.00	1,25,68,728.00
7(E)	GPF A/c		
	• GPF Liability to GPF Subscribers	28,41,64,862.00	30,20,15,743.49
	• GPF Current Liability	10,825.00	10,825.00
	• Bank Interest Earned and Accrued	16,33,13,803.00	15,67,17,951.33
	• GPF Advance	76,94,133.00	64,18,683.00
7(F)	GIS A/c		
	• Amount from LIC to be Disbursed	4,00,000.00	2,81,71,814.00
	• GIS Liability to GIS Subscribers	2,80,19,469.00	1026.00
	• Excess Received	1026.00	650.00
	• CGHS Wrongly Credited in GIS A/c to be Transferred to Health A/c	650.00	
7(G)	Pension Fund A/c		
	• Pension Funds Bank Interest and Payment of Pension, FP Commutation of Pension From	17,90,31,701.00	8,49,46,213.13
	Total 7(C) to 7(G) Rs.	68,79,88,809.00	60,17,20,596.95
	Total 7(A) to 7(G) Rs.	101,07,50,906.00	95,45,81,346.70

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Consolidated Schedule of Fixed Assets as on 31<sup>st</sup> March 2021  
(Schedule 8)

S.N.	Name of the Assets	Opening Balance as on 01.04.2020	Gross Block			
			Addition	Deductions	Transferred to/from M/E A/c from wlp A/c	Total
		(1)	(2)	(3)	(4)	(5)
1.	Machinery (H) Equipment (FW)	12,27,93,320.00 31,527.00	2,40,15,189.00	7,49,043.00	(+) 1,98,30,864.00	16,58,90,330.00
2.	Furniture & (H) Fixture (FW)	9,62,29,957.00 16,158.00	6,79,306.00	5,81,125.00		9,63,28,138.00
3.	Computers	3,36,38,761.00	13,45,271.00	14,16,600.00		3,35,67,432.00
4.	Land	27,85,336.00				27,85,336.00
5.	Works in Progress	1,13,11,35,498.00			(-) 1,98,30,864.00	1,11,13,04,634.00
6.	Books & Journals (H) (FW)	3,45,31,554.00 5427.00	5,35,246.00			3,50,66,800.00
7.	Vehicles	79,24,684.00				79,24,684.00
8.	Building	13,43,46,873.00				13,43,46,873
9.	Council's Publications (Priced)					
	Total					
10.	Councils Publications Priced and Fixed Assets so Deducted from here					
	Total (H) (FW)	1,56,33,85,983.00 53,112.00	2,65,75,012.00	27,46,768.00	-	(H) -1,58,72,14,227.00 (FW)- 53112.00
	Total					

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## Consolidated Schedule of Fixed Assets as on 31<sup>st</sup> March 2021 (Schedule 8)

S.N.	Name of the Assets	Depreciation				Net Block		
		Rate of Depreciation (6)	Opening Balance As on 01.04.20 (7)	On addition (8)	On Deductions (9)	Total (10)	As on 31.03.2021 (11)	As on 31.03.2020 (12)
1.	Machinery (H) Equipment (FW)	10%	7,84,33,403.00 24,239.00	66,67,580.00	4,87,960.00	8,46,13,023.00	8,12,77,307.00 6559.00	4,43,67,205.00
2.	Furniture & (H) Fixture (FW)	10%	5,92,90,191.00 10,837.00	37,39,463.00	4,67,129.00	6,25,62,525.00	3,37,65,613.00 4789.00	3,69,45,087.00
3.	Computers	40%	3,01,54,328.00	21,26,936.00	10,27,576.00 14,16,161.00	2,98,37,527.00	37,29,905.00	34,84,433.00
4.	Land	-				-	27,85,336.00	27,85,336.00
5.	Works in Progress	-				-	1,11,13,04,634.00	1,13,11,35,498.00
6.	Books & Journals (H) (FW)	40%	64,95,101.00 1031.00	76,63,452.00 93,24,530.00		2,34,83,083.00	1,15,83,717.00 17,156.00	2,80,40,849.00
7.	Vehicles	10%	63,63,830.00	1,56,085.00		65,19,915.00	14,04,769.00	15,60,854.00
8.	Building	10%	10,53,23,291.00	29,02,358.00		10,82,25,649.00	2,61,21,224.00	2,90,23,582.00
9.	Council's Publications (Priced)							
	TOTAL							
10.	Councils Publications Priced not Fixed Assets so Deducted from here							
	Total (H) (FW)		28,60,60,144.00 36,107.00	3,25,80,404.00 3901.00	33,98,826.00	31,52,41,722.00 40008.00	1,27,19,72,505.00 13,104.00	1,27,73,42,844.00
	Total						1,27,19,85,609.00	

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Director General

Schedule of Investments Out of the Following Funds as on 31<sup>st</sup> March 2021  
(Schedule 10)

S. N.		Current Year	Previous Year
1.	GPF	38,40,33,991.01	42,83,16,508.16
2.	GIS	1,87,02,242.00	1,83,52,763.00
3.	Pension Fund	13,07,52,260.00	6,60,00,558.00
4.	NPS	177,92,473.99	1,76,37,149.99
	Total S/5C	55,12,80,967.00	53,03,06,979.15

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## Schedule of Current Assets (Schedule 11)

(A)	Health A/c	Current Year	Previous Year
1.	Contingent advance	10,04,14,604.00	14,61,96,984.00
2.	Exhibitions advance	73,000.00	73,000.00
3.	T.A advance	2,01,785.00	2,14,785.00
4.	Excess paid to be recovered/adjusted	8107.00	8107.00
5.	LTC advance	9,25,424.00	7,66,397.00
6.	Advance for Seminar	8,62,215.00	8,47,215.00
7.	Pay advance	17,11,00,750.00	-
8.	Scooter advance	56,376.00	1,00,876.00
9.	Fan advance	768.00	768.00
10.	Car advance	-	2,75,165.00
11.	Computer advance	9,84,545.00	16,57,978.00
12.	House building advance	53,32,787.00	22,93,872.00
13.	In transit amount	18,200.15	36,40,602.15
14.	Security deposits	4,70,311.00	4,70,311.00
15.	Medical advance	3,28,265.00	1,85,000.00
16.	Receivable from IPR A/c	-	-
17.	Receivable from LIC	1351.50	1351.50
18.	Excess TDS to be recovered/adjusted	19,706.00	19,706.00
19.	Training advance	4,50,225.00	4,50,225.00
20.	Ethics Committee Advance	72,024.00	72,024.00
21.	Share amount receivable from CCRYN, N. Delhi	2,62,992.00	2,62,992.00
22.	Advance for A-HMIS	1,34,200.00	1,34,200.00
23.	Receivable from F.W. A/c	17,090.00	17,090.00
24.	Swachhta Action Plan Advance	15,77,402.00	15,86,196.00

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## Schedule of Current Assets (Schedule 11)

(A)	Health A/c	Current Year	Previous Year
25.	NPS	-	-
26.	Bank Balance lying with RRI Kolkata to be received/adjustments	19,323.00	19,323.00
27.	Hindi Pakhwada Advance	1,38,100.00	1,89,550.00
28.	Advance for Health Camp	1,59,928.00	1,59,928.00
29.	Excess transfer to pension fund A/c to be received in Health A/c	-	-
30.	Arogya advance	51,706.00	1,10,251.00
31.	DD received from decentralized Institutes returned due to time barred now to be received therefrom.	-	-
32.	International Conference & Unani Day Advance	3,02,705.00	2,00,000.00
33.	Receivable from (Plan)	-	-
	Total (Rs.)	28,39,83,889.00	15,99,53,897.00
(B)	Family Welfare A/c:		
	(i) Current Assets	2047.94	2047.94
(C)	NPS A/c		
	(ii) Accrued Bank Interest on FDRs Invested	16,16,750.00	7,90,682.00
(D)	GPF A/c		
	(i) Current Assets	33,852.98	33,852.98
	(ii) GPF Advance	76,94,133.00	64,18,683.00
	(iii) Accrued Bank Interest on FDRs Invested	398,04,614.54	2,74,66,495.54
(E)	GIS A/c		
	(i) Current Assets Subscription in Transit	180.00	180.00
	(ii) Accrued Bank Interest on FDRs Invested	200.00	200.00
	(iii) Receivable from NPS A/c as Payment Wrongly Paid from GIS A/c	19,50,331.00	11,60,198.00
		7920.00	7920.00
(F)	Pension Fund A/c		
	• Accrued Bank Interest on FDRs Invested	57,84,134.00	90,32,607.00
	Total (A to C) Rs. C/f	34,08,78,052.00	20,48,66,763.46

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Director General



## Break-up of Closing Balance as on 31<sup>st</sup> March 2021 (Schedule 11)

(G)	16602		1,27,05,205.95	Health A/c
Bank of India (A)				
	Decentralized Institutes bank balances		12,90,295.95	
	Imprest- Decentralized Institutes		2,35,000.00	
	Imprest Headquarters, New Delhi & Centralized Institutes		2,13,000.00	
	Total (A)		1,44,43,502.00	
-do- (B)	16601		2,36,17,032.29	GPF A/c
-do-	16640		77,60,273.00	GIS A/c
Bank of Baroda	8477		4,24,95,307.13	Pension A/c
SBI	1088		59,26,026.31	NPS A/c
	Total (B)		7,97,98,638.00	
	Grand Total (A + B) Schedule S/5A			
-do- (C)	3988		35,95,499.00	CRISM A/c
-do-	11685		1,72,93,526.00	CRISM A/c
Bank of India	19612		36,58,322.00	AIUM A/c
-do-	17450		51,485.00	UPS Aligarh
-do-	17450		74,256.00	Herb Garden A/c
-do-	17450		2,68,997.00	IPR A/c
-do-	2226		61,249.00	Publication of Text Books
-do-	25291		2,33,631.00	DSOP A/c
-do-	3654		7,98,334.00	International Events Conferences
-do-	6063		5,48,816.00	Unani Chair South African
-do-	190312		7,64,357.00	DST A/c

Sd/- (Syed Asif Mian) Consultant (Accounts)      Sd/- (Mohammad Parvez) Accounts Officer      Sd/- (Krishan Kumar Sapra) Assistant Director (Admn.)      Sd/- (Prof. Asim Ali Khan) Director General

-do-	24656		2456.00	WHO A/c
State Bank of India	7704		6,90,000.00 4,66,057.00	(i) Pharmacovigilance A/c (ii) Unani Day Conferences A/c
	Total (C)		2,85,06,985.00	
		Total (A + B +C) of G	12,27,49,125.00	
		Grand Total S/11 (A to G)	46,36,27,177.00	

Sd/-  
(Prof. Asim Ali Khan)  
Director General

## Schedule of Grant-in-Aid for the Year Ending 31<sup>st</sup> March 2021

### Schedule of Income & Expenditure A/c

#### Schedule 13- Grants

#### Schedule of Income Forming Part of Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

S. N.	Grant in aid	Current Year	Previous Year
A.	Central Government	164,05,00,000.00	159,54,00,000.00
	Less – Unspent balance refunded to the Ministry of Ayush	(-) 144,43,502.00	-
	Total	162,60,56,498.00	159,54,00,000.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule 14- Fees/Subscription  
Schedule of Income Forming Part of Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

S.N.		Current Year	Previous Year
B.	Unani Academic Course/Fees	46,85,871.00	28,37,236.00
	Total	46,85,871.00	28,37,236.00

Sd/- (Syed Asif Mian)  
Consultant (Accounts)

Sd/- (Mohammad Parvez)  
Accounts Officer

Sd/- (Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/- (Prof. Asim Ali Khan)  
Director General

Schedule 16- Income from Publication  
Schedule of Income Forming Part of Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

	Current Year	Previous Year
Income from Sale of Publication	2,49,096.00	3,14,955.00
Total	2,49,096.00	3,14,955.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule 17(2) Interest Earned  
Schedule of Income Forming Part of Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

	Current Year	Previous Year
On Saving Accounts	54,29,112.00	57,29,841.00
On refundable advances	8,60,471.00	9,25,616.00
Total	62,89,583.00	66,55,457.00

Sd/- (Syed Asif Mian)  
Consultant (Accounts)

Sd/- (Mohammad Parvez)  
Accounts Officer

Sd/- (Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/- (Prof. Asim Ali Khan)  
Director General



Schedule 18- Other Income  
Schedule of Income Forming Part of Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

S.N.	18(4) Miscellaneous Income	Current Year	Previous Year
	OPD/Regn Fee from patients	1,32,26,539.00	1,73,28,398.00
	Recoveries of Excess Payment/Provision in Previous Year	18,72,770.00	7,36,664.00+98,191.00+2,299.00+20,900.00+91,200.00+16,929.00
	RTI	60.00	30.00
	Sale of Tender Form	41800.00	5,250.00
	Sale of Raddi, etc.	16700.00	5,160.00
	Application Fees	30765.00	
	NPS Dormant A/c	3,36,848.00	
	LS & PC	67710.00	47,248.00
	Library User Charges	4920.00	2,425.00
	CGHS Recovery	17,28,000.00	11,27,100.00
	Water and Electricity Charges	37180.00	49,457.00
	Licence Fees	1,25,458.00	1,23,350.00
	Postal Orders	189.00	18,925.00
	I Card Fees	100.00	175.00
	Auction Money	27105.00	
	Charges Issued in Previous Years Cancelled		69,751.00
	Pran Card Issue (NSDL)		95.00
	Penal Interest		3,948.00
	Scrap/Condemn items		11,647.00
	Miscellaneous Receipts		1,56,544.00
	<b>Total</b>	<b>1,75,16,144.00</b>	<b>1,99,15,695.00</b>

Sd/- (Syed Asif Mian) Consultant (Accounts)      Sd/- (Mohammad Parvez) Accounts Officer      Sd/- (Krishan Kumar Sapra) Assistant Director (Admn.)      Sd/- (Prof. Asim Ali Khan) Director General

Non-recurring/Capital expenditure (Schedule-19)  
Schedule of Income Forming Part of Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

S.N.	Non-Recurring/Capital Expenditure	Current Year	Previous Year
	Machinery & Equipment M.D /SAP (6,21,488/- + 5,33,903/-)	39,60,548.00 11,55,391.00	
	Capital Expenditure	1,88,99,250.00	
	Furniture & Fixture (SAP) F/F	6,48,216.00 31,090.00	
	Books & Journal	5,35,246.00	
	Computers	13,45,271.00	
	Total	2,65,75,012.00	8,75,38,533.00

Sd/-  
(Syed Asif Mian)  
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Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

## Income & Expenditure A/c - Schedule 20- Establishment Expenses

(A)		Current Year	Previous Year
	Salaries	63,22,67,015.00	75,16,25,490.00
	Contribution to Other Fund	34,24,64,614.00	35,94,86,334.00
	NPS 2,20,44,614.00		
	Pension 32,00,00,000.00		
	DLIS 4,20,000.00		
	<u>34,24,64,614.00</u>		
	Expenses on Employees Retirement Benefits	6,54,18,492.00	3,97,76,253.00
	Total (A)	104,01,50,121.00	115,08,88,077.00
(B)	Expenditure Against by Adjustment of Advances Pertaining to Previous Years	+3,22,042.00	
(C)	Total (A+B)	1,04,04,72,163.00	

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 Accounts Officer

Sd/- (Krishan Kumar Sapra)  
 Assistant Director (Admn.)

Sd/- (Prof. Asim Ali Khan)  
 Director General

Schedule 21 – Other Administrative Expenses, etc.  
Schedule of Expenditure Forming Part of Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

S.N.		Current Year	Previous Year
A.	Other Administrative Expenses		
	T.A.	10,90,105.00	
	Wages Including Contractual Staff Remuneration	10,72,39,552.00	
	Office Expenses (Stationary & Printing, Electricity, Water, Telephone, Cartage/Freight, Advocate Fees, Refreshment, Advertisement Charges, etc.)	5,65,43,386.00	
	Rent & Taxes (Rent of Building & Property Tax)	49,57,762.00	
	Maintenance & Repair, Petrol Diesel Expenses, etc.	90,39,281.00	
	Information Technology (Recurring Expenses, i.e. Repair of Computers Cartridge, Net Charges, Website Charges, etc.)	43,57,725.00	
	Consolidated Expenses on A/c SCP/TSP Wages/Remuneration of Staff/Stationary & Other Miscellaneous expenses	1,42,17,817.00	
B.	Material & Supplies (Medicines, Chemicals, Glasswares & Lab Investigation Charges, etc.)	19,74,45,628.00	12,03,58,225.00
	Total Schedule -21 (A)	5,26,65,487.00	13,77,63,783.00
	Total 21-(B)	5,26,65,487.00	
C.	Other Charges		
	• Medical Expenses	84,08,080.00	
	• Survey Expenses	2,05,000.00	
	• Arogya Fair	16,912.00	
	• Health Camps	1900.00	
	• Unani Academic Course	5,34,32,717.00	
	• Swatchta Action Plan	28,43,167.00	
	• COVID-19 Expenses	39,28,622.00	
	• Mobile Health Visits	20,11,741.00	
	• EMR Expenses	84,000.00	
	• Research Activities	2,13,42,280.00	
	• Training Programme	2838.00	

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Accounts Officer

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Assistant Director (Admn.)

Sd/- (Prof. Asim Ali Khan)  
Director General

Schedule 21 – Other Administrative Expenses, etc.  
Schedule of Expenditure Forming Part of Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

	<ul style="list-style-type: none"> <li>Seminar</li> <li>Ethics Committee Expenses</li> <li>Unani Day &amp; Seminar</li> <li>Hindi Pakhwada</li> <li>GIA to Chemical Research Unit- Aligarh</li> <li>IEC Expenses</li> <li>Health Mela Expenses</li> <li>Ayurveda Parv</li> <li>NPCDCS</li> </ul>	3,17,989.00 71,205.00 25,29,101.00 20,945.00 3,00,000.00 17,13,301.00 82,600.00 1,00,000.00 2,53,65,773.00	
	Total S.N.21(C)	12,27,78,171.00	11,65,40,808.00
	Grand Total Schedule 21 (A to C)	37,28,89,286.00	37,46,62,816.00
D.	Expenses Against Adjustment of Advances Pertaining to Previous Years	4,62,88,583.00	

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(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule 21(E)  
Schedule of Expenditure Forming Part of Income & Expenditure A/c for the Year Ending 31<sup>st</sup> March 2021

S.N.	(D)	Current Year		Previous Year	
		Health	(F.W)	Health	(F.W)
	Depreciation				
	(i) Machinery & Equipment			48,38,762.00	810.00
	(ii) Furniture & Fixtures			40,66,588.00	591.00
	(iii) Computers			30,82,728.00	0.00
	(iv) Books & Journals			31,08,178.00	488.00
	(v) Vehicles			1,73,428.00	0.00
	(vi) Building			32,24,842.00	0.00
	Total Rs.	2,91,81,578.00	3901.00	1,84,94,526.00	1889.00
	Grand Total			1,84,96,415.00	

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General



## Schedule of Income & Expenditure A/c (Unspent Balance Refundable to M/o AYUSH)

S.N.		Current Year	Previous Year
•	Unspent Balance	1,44,43,502.00	2,23,70,581.00

Sd/- (Syed Asif Mian) Consultant (Accounts)  
 Sd/- (Mohammad Parvez) Accounts Officer  
 Sd/- (Krishan Kumar Sapra) Assistant Director (Admn.)  
 Sd/- (Prof. Asim Ali Khan) Director General

Schedule of Receipts & Payments A/c  
Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Opening Balance		GIA		Bank Interest	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(1)		(2)		(3)	
1	(i) Health Scheme A/c						
	(a) Cash-in-Hand (Imprest)	4,56,867.60	4,41,867.60			54,29,112.00	57,29,841.00
	(b) Cash-in-Hand (Other than Imprest)	3987.15	3987.15	Cap- 19,00,00,000.00 Rev - 1,45,05,00,000.00	Cap- 6,00,00,000.00 Rev - 1,53,54,00,000.00		
	(c) Cash-at-bank	2,19,09,726.56	3,46,81,075.23				
	Total (Health A/c) S.N.1	2,23,70,581.31	3,51,26,929.98	1,64,05,00,000.00	1,59,54,00,000.00	54,29,112.00	57,29,841.00
2.	Other Specific Accounts						
	(i) JPR	6,27,025.00	2352.00		15,00,000.00		
	(ii) Herb Garden A/c	52,706.00	40,527.00			21,550.00	12,179.00
	(iii) Pub. of Text Books A/c	59,400.00	57,401.00			1849.00	1,999.00
	(iv) UPS A/c I	46,705.00	46,704.82			4780.00	
	(v) DSOP	2,26,648.00	2,22,287.05			6,983.00	7576.00
	(vi) AIILUM A/c	35,49,777.00	34,31,729.00			1,08,545.00	1,18,048.00
	(viii) I.T. A/c	-	-	55,00,000.00			
	(ix) National Conference on Unani Day	8,60,318.00	8,08,690.00		50,00,000.00	33,159.00	41,179.00
	(x) WHO A/c	2382.00	2302.00			74.00	80.00

Sd/- (Syed Asif Mian) Consultant (Accounts)      Sd/- (Mohammad Parvez) Accounts Officer      Sd/- (Krishan Kumar Sapra) Assistant Director (Admn.)      Sd/- (Prof. Asim Ali Khan) Director General

## Schedule of Receipts & Payments A/c Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Opening Balance		GIA		Bank Interest	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(1)		(2)		(3)	
	(xi) International Events Conference A/c	7,74,604.00	7,44,739.00			23,730.00	29,865.00
	(xii) DST A/c	7,64,357.00	7,64,357.00				
	(xiii) Pharmacovigilance Workshop A/c	6,90,000.00	-		11,77,500.00		-
	(xiv) CRISM A/c	1,67,75,100.00	1,61,54,410.00			5,18,426.00	6,20,690.00
	(xv) South African A/c	5,32,485.00	5,14,741.68			16,331.00	17,743.00
	Total S.N. 2	2,49,61,507.00	2,27,90,240.55	55,00,000.00	76,77,500.00	7,35,427.00	8,49,359.00
3.	(i) NPS A/c	49,92,769.00	38,01,131.81			1,42,843.00	3,06,225.00
	(ii) CPF/GPF A/c	29,27,663.00	68,19,413.14			44,22,014.00	1,44,66,871.00
	(iii) GIS A/c	86,52,230.00	38,877.84			2,39,010.00	4,00,481.00
	(iv) Pension Fund A/c	99,13,048.00	20,15,738.13			9,11,002.00	36,78,300.00
	Total S. N. 3	2,64,85,710.00	1,26,75,160.92			57,14,869.00	1,88,51,877.00
	Grand Total S. N. 1 to 3	7,38,17,798.00	7,05,92,331.45	1,64,60,00,000.00	1,60,30,77,500.00	1,18,79,408.00	2,54,31,077.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Receipts & Payments A/c  
Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Miscellaneous Receipts		Interest on Refundable Advances		Refunds against by Adjustment of Advances Pertaining to Previous Years	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(4)	(5)	(6)			
1.	Health Scheme A/c	1,75,16,144.00	2,10,03,086.00	8,60,471.00	9,25,616.00	4,85,584.00	4,72,573.00
	Total (H) S.N.1	1,75,16,144.00		8,60,471.00	9,25,616.00	4,85,584.00	4,72,573.00
2.	Other Specific Accounts						
	(i) ROTA A/c						
	(ii) Herb Garden A/c						
	(iii) Pub. Of Text Books A/c						
	(iv) UPS A/c I						
	(v) South African Unani Chair A/c						
	(vi) DSOP						
	(vii) IPR						
	(viii) I.T. A/c						
	(ix) WHO A/c						
	(x) NMPB A/c						
	(xi) UPS A/c II						
	(xii) ICST A/c						
	(xiii) Donation A/c						
	(xiv) International Events Conference A/c						
	(xv) DST A/c						
	(xvi) CRISM A/c						
	(xvii) International Conference on	3,50,500.00	7,93,091.00			13,039.00	

Sd/- (Syed Asif Mian) Consultant (Accounts)      Sd/- (Mohammad Parvez) Accounts Officer      Sd/- (Krishan Kumar Sapra) Assistant Director (Admn.)      Sd/- (Prof. Asim Ali Khan) Director General

## Schedule of Receipts & Payments A/c Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Miscellaneous Receipts		Interest on Refundable Advances		Refunds against by Adjustment of Advances Pertaining to Previous Years	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(4)		(5)		(6)	
	Unani Day						
	Total S.N. 2	3,50,500.00	7,93,091.00	-		13,039.00	
3.	(i) NPS A/c						
	(ii) CPF/GPF A/c		8,04,156.00				
	(iii) GIS A/c		98,64,927.00				
	(iv) Pension Fund A/c	83,080.00 + 21252.00	80,86,599.00				
		179.00	7,73,317.00				
	Total S.N. 3	1,04,511.00	1,95,28,999.00				
	Grand Total S.N. 1 to 3	1,79,71,155.00	4,13,25,176.00	8,60,471.00	9,25,616.00	4,98,623.00	4,72,573.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Receipts & Payments A/c  
Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Recoveries of Refundable Advances		Sale of Council's Publications	
		Current Year	Previous Year	Current Year	Previous Year
		(7)		(8)	
1.	(i) Health Scheme A/c	17,66,683.00	18,71,861.00	2,49,096.00	3,14,155.00
	Total S.N.1	17,66,683.00	18,71,861.00	2,49,096.00	3,14,155.00
2.	Other Specific Accounts:				
	(i) ROTP A/c				
	(ii) Herb Garden A/c				
	(iii) Pub. of Text Books A/c				
	(iv) UPS A/c I				
	(v) South African Unani Chair A/c				
	(vi) DSOP				
	(vii) EMR				
	(viii) I.T. A/c				
	(ix) WHO A/c				
	(x) NMPB A/c				
	(xi) UPS A/c II				
	(xii) ICST A/c				
	(xiii) Donation A/c				
	(xiv) International Events Conference A/c				
	(xv) DST A/c				
	(xvi) CRISM A/c				
	(xvii) National Conference on Unani Day				

Sd/- (Syed Asif Mian) Consultant (Accounts)      Sd/- (Mohammad Parvez) Accounts Officer      Sd/- (Krishan Kumar Sapra) Assistant Director (Admn.)      Sd/- (Prof. Asim Ali Khan) Director General



## Schedule of Receipts & Payments A/c Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Recoveries of Refundable Advances		Sale of Council's Publications	
		Current Year	Previous Year	Current Year	Previous Year
		(7)	(8)		
	Total S. N. 2	-	-		
3.	(i) NPS A/c				
	(ii) CPF/GPF A/c				
	(iii) GIS A/c				
	(iv) Pension fund A/c				
	Total S.N. 3				
	Grand Total S.N. 1 to 3	17,66,683.00	18,71,861.00	2,49,096.00	3,14,155.00

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Accounts Officer

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Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Receipts & Payments A/c  
Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Recoveries for Remittance		Recovery of Subscription/Advances		Refund of Advances Paid in Previous Year	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(9)		(10)		(11)	
1.	Health Scheme A/c						7,77,176.00
	Health Scheme A/c	13,24,42,195.00	13,96,63,114.00				68,91,013.00
	Health Scheme A/c		2,29,640.00				
			100.00				
	Total (H) S.N.1	13,24,42,195.00	13,98,92,854.00				76,68,189.00
2.	Other Specific Accounts :-						
	(i)ROTP A/c						
	(ii)Herb Garden A/c						
	(iii)Pub. Of Text Books A/c						
	(iv)UPS A/c I						
	(v)South African Unani Chair A/c						
	(vi)DSOP						
	(vii) IPR A/c	4769 + 4770.00					
	(viii) I.T. A/c	746 + 1492.00					
	(ix) WHO A/c						
	(x) NMPB A/c						
	(xi) UPS A/c II						
	(xii) ICST A/c						
	(xiii) Donation A/c						

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Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

## Schedule of Receipts & Payments A/c Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Recoveries for Remittance		Recovery of Subscription/Advances		Refund of Advances Paid in Previous Year	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(9)		(10)		(11)	
	(xiv) International Events conference A/c						
	(xv) DST A/c						
	(xvi) CRISM A/c						
	(xvii) International Conference on Unani Day	6928.00+7556.00	25,299.00				
	Total S.N. 2	26,261.00	25,299.00	-	-	-	-
3.	(i) NPS A/c			14,64,283.00	10,56,826.00		
	(ii) CPF/GPF A/c						
	CPF/GPF A/c subscription			5,48,92,180.00	5,36,54,104.00		
	CPF/GPF A/c advance			22,43,550.00	12,64,950.00		
	(iii) GIS A/c			8,00,380.00	8,19,680.00		
	(iv) Pension fund A/c						
	Total S.N. 3			5,94,00,393.00	5,67,95,560.00		
	Grand Total S.N. 1 to 3	13,24,68,456.00	13,99,18,153.00	5,94,00,393.00	5,67,95,560.00	-	76,68,189.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Receipts & Payments A/c  
Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Receivable Amount Received		Security Deposit Lying with the Council	
		Current Year	Previous Year	Current Year	Previous Year
		(12)	(13)		
1.	Health Scheme A/c		6,19,446.00	6,00,000.00	
	Total S.N.1		6,19,446.00		
2.	Other Specific Accounts:			6,00,000.00	
	(i) ROTP A/c				
	(ii) Herb Garden A/c				
	(iii) Pub. of Text Books A/c				
	(iv) UPS A/c I				
	(v) South African Unani Chair A/c				
	(vi) DSOP				
	(vii) EMR				
	(viii) I.T. A/c				
	(ix) WHO A/c				
	(x) NMIPB A/c				
	(xi) UPS A/c II				
	(xii) ICST A/c				
	(xiii) Donation A/c				
	(xiv) International Events Conference A/c				
	(xv) DST A/c				
	(xvi) CRISM A/c				
	(xvii) National Conference on Unani Day				

Sd/- (Syed Asif Mian) Consultant (Accounts)      Sd/- (Mohammad Parvez) Accounts Officer      Sd/- (Krishan Kumar Sapra) Assistant Director (Admn.)      Sd/- (Prof. Asim Ali Khan) Director General

## Schedule of Receipts & Payments A/c Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Receivable Amount Received		Security Deposit Lying with the Council	
		Current Year	Previous Year	Current Year	Previous Year
		(12)		(13)	
	Total S.N. 2				
3.	(i) NPS A/c	1,70,621.00	3,15,014.00		
	(ii) CPF/GPF A/c	1,03,81,465.00	2,89,29,697.00		
	(iii) GIS A/c	3,84,241.00	9,77,904.00		
	(iv) Pension Fund A/c	56,20,731.00	57,88,720.00		
	Total S.N. 3	1,65,57,058.00	3,60,11,335.00		
	Grand Total S.N. 1 to 3	1,65,57,058.00	3,66,30,781.00	6,00,000.00	

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Receipts & Payments A/c  
Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S.N.		In Transit Amount Received		Academic Course Fee		Amount Received but Payable to Other Institute/Units	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(14)	(14)	(15)	(15)	(16)	(16)
1.	(i) Health Scheme A/c	36,17,148.00	1,72,076.90	46,85,871.00		78,823.00	39.00
	(ii) Health Scheme A/c	5254.00	15,00,00,000.00				21,252.00
	(iii) T.D.S.		15,01,72,076.90				7,42,885.0
	Total S.N.1	36,22,402.00		46,85,871.00		78,823.00	1,99,254.00
2.	Other Specific Accounts						9,63,430.00
	(i) ROTP A/c						
	(ii) Herb Garden A/c						
	(iii) Pub. of Text Books A/c						
	(iv) UPS A/c I						
	(v) South African Unani Chair A/c						
	(vi) DSOP						
	(vii) EMR						
	(viii) I.T. A/c						
	(ix) WHO A/c						
	(x) NMPB A/c						
	(xi) UPS A/c II						
	(xii) ICST A/c						
	(xiii) Donation A/c						
	(xiv) International Conference A/c						
	(xv) DST A/c						
	(xvi) CRISM A/c						

Sd/- (Syed Asif Mian) Consultant (Accounts) Sd/- (Mohammad Parvez) Accounts Officer Sd/- (Krishan Kumar Sapra) Assistant Director (Admn.) Sd/- (Prof. Asim Ali Khan) Director General



## Schedule of Receipts & Payments A/c Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S.N.		In Transit Amount Received		Academic Course Fee		Amount Received but Payable to Other Institute/Units	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(14)		(15)		(16)	
	(xvii) International Conference on Unani Day						
	Total S.N. 2						
3.	(i) NPS A/c						
	(ii) CPF/GPF A/c						
	(iii) GIS A/c						
	(iv) Pension Fund A/c						
	Total S.N. 3						
	Grand Total S.N. 1 to 3	36,22,402.00	15,01,72,076.90	46,85,871.00		78,823.00	9,63,430.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Receipts & Payments A/c  
Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Investment Received		LIC Amount for Disbursement	
		Current Year	Previous Year	Current Year	Previous Year
		(17)		(18)	
1.	Health Scheme A/c				
	(i) Health Scheme				
	Total S. N. 1				
2.	Other Specific Accounts				
	(i)ROTP A/c				
	(ii)Herb Garden A/c				
	(iii)Pub. Of Text Books A/c				
	(iv)UPS A/c I				
	(v)South African Unani Chair A/c				
	(vi)DSOP				
	(vii) EMR				
	(viii) I. T. A/c				
	(ix) WHO A/c				
	(x) NMPB A/c				
	(xi) UPS A/c II				
	(xii) ICST A/c				
	(xiii) Donation A/c				
	(xiv) International Events Conference A/c				
	(xv) DST A/c				
	(xvi) CRISM A/c				
	(xvii) International Conference on Unani Day				
	Total S.N. 2				
3.	(i) NPS A/c	77,60,035.00	69,42,487.00		
	(ii) CPF/GPF A/c	37,59,97,543.00	42,84,94,195.45		

Sd/- (Syed Asif Mian) Consultant (Accounts)      Sd/- (Mohammad Parvez) Accounts Officer      Sd/- (Krishan Kumar Sapra) Assistant Director (Admn.)      Sd/- (Prof. Asim Ali Khan) Director General

## Schedule of Receipts & Payments A/c Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.		Investment Received		LIC Amount for Disbursement	
		Current Year	Previous Year	Current Year	Previous Year
	(iii) GIS A/c	1,74,60,082.00	1,07,66,346.00	12,00,000.00	4,60,000.00
	(iv) Pension Fund A/c	13,21,97,727.00	10,71,09,628.00		
	Total S.N. 3	53,34,15,387.00	55,33,12,656.45	12,00,000.00	4,60,000.00
	Grand Total S.N. 1 to 3	53,34,15,387.00	55,33,12,656.45	12,00,000.00	4,60,000.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Receipts & Payments A/c  
Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.	Pension Fund Transfer from Health Account	Amount Received to be Contra Against Remittance by Decentralized Institutes as Already Taken Receipts in Previous Year		Total Receipts	
		Current Year	Previous Year	Current Year	Previous Year
		(19)	(20)	(21)	
1.	Health Scheme A/c			1,83,06,06,962.00	1,96,01,60,058.00
	(i) Health Scheme				
	Total S.N. 1			1,83,06,06,962.00	1,96,01,60,058.00
2.	Other Specific Accounts				
	(i) IPR A/c			6,36,564.00	15,02,352.00
	(ii) Herb Garden A/c			74,256.00	52,706.00
	(iii) Pub. of Text Books A/c			61,249.00	59,400.00
	(iv) UPS A/c I			51,485.00	46,704.82
	(v) DSOP			2,33,631.00	2,29,863.05
	(vi) AIUM			36,58,322.00	35,49,777.00
	(vii) I. T. A/c			55,02,238.00	-
	(viii) WHO A/c			2456.00	2382.00
	(ix) International Events Conference A/c			7,98,334.00	7,74,604.00
	(x) international Conference on Unani Medicine			12,71,500.00	66,68,259.00

Sd/- (Syed Asif Mian)  
Consultant (Accounts)

Sd/- (Mohammad Parvez)  
Accounts Officer

Sd/- (Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/- (Prof. Asim Ali Khan)  
Director General

## Schedule of Receipts & Payments A/c Schedule of Receipts for the Year Ending 31<sup>st</sup> March 2021

S. N.	Pension Fund Transfer from Health Account	Amount Received to be Contra Against Remittance by Decentralized Institutes as Already Taken Receipts in Previous Year		Total Receipts	
		Current Year	Previous Year	Current Year	Previous Year
		(19)	(20)	(21)	
	(xi) DST A/c			7,64,357.00	7,64,357.00
	(xii) CRISM A/c			1,72,93,526.00	1,67,75,100.00
	(xiii) South Africa Unani Chair A/c			5,48,816.00	5,32,484,68
	(xiv) Pharmacovigilance workshop A/c			6,90,000.00	11,77,500.00
	Total S.N. 2			3,15,86,734.00	3,21,35,489.55
3.	(i) NPS A/c			1,45,30,551.00	1,24,21,683.81
	(ii) CPF/GPF A/c			45,08,64,416.00	53,44,33,386.59
	(iii) GIS A/c			2,87,35,943.00	2,33,28,215.84
	(iv) Pension fund A/c	32,00,00,000.00	31,87,00,000.00	46,87,47,019.00	44,61,52,302.13
	Total S.N. 3	32,00,00,000.00	31,87,00,000.00	96,28,77,928.00	1,01,63,35,588.37
	Grand Total S.N. 1 to 3	32,00,00,000.00	31,87,00,000.00	2,82,50,71,624.00	3,00,86,31,135.92

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Establishment Expenses		Administrative Expenses		Material & Supplies Expenses	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(1)		(2)		(3)	
1.	Health Scheme						
	(i) Health scheme A/c	104,01,50,121.00	1,14,91,67,788.00				
	Total(H) S.N.1	104,01,50,121.00	1,14,91,67,788.00	19,74,45,628.00	11,99,64,498.00	5,26,65,487.00	13,76,03,153.00
2.	Other Specific Accounts						
	(i) ROTP A/c						
	(ii) Herb Garden A/c						
	(iii) Pub. Of Text Books A/c						
	(iv) UPS A/c I						
	(v) South African Unani Chair A/c						
	(vi) DSOP						
	(vii) EMR						
	(viii) I.T. A/c						
	(ix) WHO A/c						
	(x) NMPB A/c						
	(xi) UPS A/c II						
	(xii) ICST A/c						
	(xiii) Donation A/c						
	(xiv) International Events						

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General



## Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Establishment Expenses		Administrative Expenses		Material & Supplies Expenses	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(1)		(2)		(3)	
	conference A/c						
	(xv) DST A/c						
	(xvi) CRISM A/c						
	(xvii) South African A/c						
	Total S.N.2						
3.	(i) NPS A/c						
	(ii) GPF A/c						
	(iii) GIS A/c						
	(iv) Pension fund A/c						
	Total S. No.3						
	Total S.N. 1 to 3	104,01,50,121.00	1,14,91,67,788.00	19,74,45,628.00	11,99,64,498.00	5,26,65,487.00	13,76,03,153.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Assets		Publications (Priced)		Advances to Government Servants	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(4)		(5)		(6)	
1.	Health Scheme A/c					38,12,500.00	35,34,950.00
	Health Scheme A/c	64,89,281.00	58,20,296.00		2,80,399.00		
	Total S.N.1		58,20,296.00		2,80,399.00		35,34,950.00
2.	Other Specific Accounts						
	(i) ROTP A/c						
	(ii) Herb Garden A/c						
	(iii) Pub. of Text Books A/c						
	(iv) UPS A/c I						
	(v) South African Unani Chair A/c						
	(vi) DSOP						
	(vii) EMR						
	(viii) I.T. A/c						
	(ix) WHO A/c						
	(x) NMPB A/c						
	(xi) UPS A/c II						
	(xii) DST A/c						
	(xiii) Donation A/c						
	(xiv) International Conference A/c						
	Events						

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

## Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Assets		Publications (Priced)		Advances to Government Servants	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(4)		(5)		(6)	
	(xv) South African A/c						
	Total S.N.2						
3.	(i) NPS A/c						
	(ii) GPF A/c						
	(iii) GIS A/c						
	(iv) Pension Fund A/c						
	Total S.N. 3						
	Total S.N. 1 to 3	64,89,281.00	58,20,296.00		2,80,399.00	38,12,500.00	35,34,950.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Outstanding Advances		Other Charges		Capital Payment	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(7)		(8)		(9)	
1.	Health Scheme A/c	2,50,000.00	4,75,55,163.00	11,55,391.00	Comp 973,711.00	Exp M/E	
		5,95,401.00		31,090.00	M/E 39,500.00	1,88,99,250.00	
		10,97,771.00		12,27,78,171.00	Rec 84,202.00	Adv. For	
		1,02,705.00			M/E 60,644.00	17,11,00,750.00	
			14,30,945.00		F/F 24,000.00	Cons. Work	8,59,99,364.00
					B&J 16,342.00		
	Health Scheme A/c				Comp 5,67,419.00		
	Health Scheme A/c				Rec 11,47,78,279.00		
	Total S.N.1	20,45,877.00	4,89,86,108.00	12,39,64,652.00	11,65,44,097.00	19,00,00,000.00	8,59,99,364.00
2.	Other Specific Accounts						
	(i) IPR			3,62,798.00	8,75,327.00		
	(ii) Herb Garden A/c						
	(iii) Pub. Of Text Books A/c						
	(iv) UPS A/c I						
	(v) AIUM A/c						
	(vi) DSOP A/c				3215.05		
	(vii) EMR A/c						
	(viii) I.T. A/c			19,05,993.00			
	(ix) WHO A/c						
	(x) NMIPB A/c						

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

## Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Outstanding Advances		Other Charges		Capital Payment	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(7)	(8)			(9)	
(xi)	UPS A/c II						
(xii)	Pharmacovigilance workshop				4,87,500.00		
(xiii)	Donation A/c						
(xiv)	International Events conference A/c						
(xv)	DST A/c						
(xvi)	CRISM A/c						
(xvii)	International Conference on Unani Day		3,63,690.00	7,80,887.00	54,35,274.00		
(xviii)	South African A/c						
Total S.N. 2			3,63,690.00	30,49,678.00	68,01,316.05		
3.	(i) NPS A/c						
	(ii) GPF A/c						
	(iii) GIS A/c						
	(iv) Pension Fund A/c						
Total S.N. 3							
Total S.N. 1 to 3		20,45,877.00	4,93,49,798.00	12,70,14,330.00	12,33,45,413.05	19,00,00,000.00	8,59,99,364.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Excess Paid to be Received /Adjusted		Remittance of Recoveries		Un-disbursed Amount Disbursed	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(10)		(11)		(12)	
1.	Health Scheme						47,686.00
	(i) Health Scheme A/c		21,97,230.00	13,58,27,512.00	13,58,11,225.00		
			5254.00 273.00		2,29,640.00		
	Total S.N.1		22,02,757.00	13,58,27,512.00	13,60,40,865.00		47,686.00
2.	Other Specific Accounts						
	(i) IPR			4769.00			
	(ii) Herb Garden A/c						
	(iii) Pub. Of Text Books A/c						
	(iv) UPS A/c I						
	(v) AIUM A/c						
	(vi) DSOP A/c						
	(vii) EMR A/c						
	(viii) I.T. A/c			746.00			
	(ix) WHO A/c						
	(x) NMPB A/c						
	(xi) UPS A/c II						
	(xii) ICSJ A/c						
	(xiii) Donation A/c						

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General



## Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Excess Paid to be Received /Adjusted		Remittance of Recoveries		Un-disbursed Amount Disbursed	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(10)		(11)		(12)	
	(xiv) International Events Conference A/c						
	(xv) DST A/c						
	(xvi) CRISM A/c						
	(xvii) International Conference on Unani Day			17000/- + 7556/-	8977.00		
	(xviii) South African A/c						
	Total S.N. 2			30,071.00	8977.00		
3.	(i) NPS A/c						
	(ii) GPF A/c						
	(iii) GIS A/c						
	(iv) Pension Fund A/c						
	Total S.N. 3						
	Total S.N. 1 to 3		22,02,757.00	13,58,57,583.00	13,60,49,842.00		47,686.00

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Amount Remitted by the Decentralized Institutes but Receivable in Hqrs, New Delhi		Investments A/c		Received from LIC Disbursed	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(13)		(14)		(15)	
1.	Health Scheme						
	(i) Health Scheme A/c		2,01,138.00				
	Total S.N.1		2,01,138.00				
2.	Other Specific Accounts						
	(i) IPR						
	(ii) Herb Garden A/c						
	(iii) Pub. of Text Books A/c						
	(iv) UPS A/c I						
	(v) AIUM A/c						
	(vi) DSOP A/c						
	(vii) EMR A/c						
	(viii) I.T. A/c						
	(ix) WHO A/c						
	(x) NMPB A/c						
	(xi) UPS A/c II						
	(xii) ICSJ A/c						
	(xiii) Donation A/c						

Sd/-  
(Syed Asif Mian)  
Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

## Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Amount Remitted by the Decentralized Institutes but Receivable in Hqrs, New Delhi		Investments A/c		Received from LIC Disbursed	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(13)		(14)		(15)	
	(xiv) International Events Conference A/c						
	(xv) DST A/c						
	(xvi) CRISM A/c						
	(xvii) International Conference on Unani Day						
	(xviii) South African A/c						
	Total S.N. 2						
3.	(i) NPS A/c			79,15,359.00	74,28,777.00		
	(ii) GPF A/c			33,17,15,026.00	46,71,57,414.45		
	(iii) GIS A/c			1,78,09,561.00	1,15,11,677.00	8,00,000.00	4,60,000.00
	(iv) Pension Fund A/c			19,69,49,429.00	11,55,71,839.00		
	Total S.N. 3		59,48,405.00	55,43,89,375.00	60,16,69,707.45		4,60,000.00
	Grand Total S.N. 1 to 3		2,01,138.00	55,43,89,375.00	60,16,69,707.45	8,00,000.00	4,60,000.00

Sd/-  
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(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Amount Payable Paid/Adjusted		Other Misc. Payments/Transfer		Refund of EMD	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(16)	(17)	(18)	(19)	(20)	(21)
1.	Health Scheme						
	(i) Health Scheme A/c		2,01,143.00			3,27,825.00	
	Health Scheme A/c	4,03,21,111.00	13,11,95,235.00				
	Total S.N.1	4,03,21,111.00	13,13,96,378.00			3,27,825.00	
2.	Other Specific Accounts						
	Other Accounts						
	(i) IPR						
	(ii) Herb Garden A/c						
	(iii) Pub. Of Text Books A/c						
	(iv) UPS A/c I						
	(v) AIUM A/c						
	(vi) DSOP A/c						
	(vii) EMR A/c						
	(viii) Digitization of Manuscript A/c						
	(ix) WHO A/c						
	(x) NMPB A/c						
	(xi) UPS A/c II						
	(xii) ICSJ A/c						
	(xiii) Donation A/c						
	(xiv) International Events Conference A/c						

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(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

## Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Amount Payable Paid/Adjusted		Other Misc. Payments/Transfer		Refund of EMD	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(16)	(17)	(18)	(19)	(20)	(21)
(xv)	DST A/c						
(xvi)	CRISM A/c						
(xvii)	International Conference on Unani day						
Total S.N. 2							
3. (i)	NPS A/c			6,89,166.00	138.00		
(ii)	GPF A/c			9,55,31,400.00	6,30,16,265.00		
-do-				898.00	5,56,721.00		
-do-					7,73,317.00		
-do-				59.00	2,006.00		
(iii)	GIS A/c			23,66,109.00	20,86,207.00		
					6,18,102.00		
(iv)	Pension fund A/c			22,88,52,217.00	32,05,94,445.00		
				4,50,066.00	72,970.00		
Total S.N. 3				32,78,89,915.00	38,77,20,171.00		
Grand Total S.N.1 to 3		4,03,21,111.00	13,13,96,378.00	32,78,89,915.00	38,77,20,171.00	3,27,825.00	

Sd/-  
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Accounts Officer

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Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Payable to Other Councils Paid Transferred by Decentralized Institutes		Unspent Balance Transferred to Ministry		Closing Balance		Total Payments	
		(19)		(20)		(21)		(22)	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
1.	Health Scheme								
	(i) Health scheme A/c					1,44,43,502.00	2,23,70,581.31	1,83,06,06,962.00	1,96,01,60,058.00
	Health scheme A/c								
	Health scheme A/c	7,42,885.00		2,23,70,581.00					
	Total S.N. 1	7,42,885.00		2,23,70,581.00		1,44,43,502.00	2,23,70,581.31	1,83,06,06,962.00	1,96,01,60,058.00
2.	Other Specific Accounts								
	(i) Pharmacovigilance workshop A/c					6,90,000.00	6,90,000.00	6,90,000.00	11,77,500.00
	(ii) Herb Garden A/c					74,256.00	52,706.00	74,256.00	52,706.00
	(iii) Pub. Of Text Book A/c					61,249.00	59,400.00	61,249.00	59,400.00
	(iv) UPS A/c I					51,485.00	46,704.82	51,485.00	46,704.82
	(v) DSOP A/c					2,33,631.00	2,26,648.00	2,33,631.00	2,29,863.05
	(vi) AIUM A/c					36,58,322.00	35,49,777.00	36,58,322.00	35,49,777.00
	(vii) I. T. A/c					35,95,499.00	-	55,02,238.00	
	(viii) WHO A/c					2456.00	2382.00	2456.00	2382.00
	(ix) International Events Conference					7,98,334.00	7,74,604.00	7,98,334.00	7,74,604.00
	(x) IPR					2,68,997.00	6,27,025.00	6,36,564.00	15,02,352.00
	(xi) DST A/c					7,64,357.00	7,64,357.00	7,64,357.00	7,64,357.00

Sd/-  
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Sd/-  
(Mohammad Parvez)  
Accounts Officer

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(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General



## Schedule of Payments for the Year Ending 31<sup>st</sup> March 2021

S.N.	Name of the Scheme	Payable to Other Councils Paid Transferred by Decentralized Institutes		Unspent Balance Transferred to Ministry		Closing Balance		Total Payments	
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
	(xii) CRISM A/c					1,72,93,526.00	1,67,75,100.00	1,72,93,526.00	1,67,75,100.00
	(xiii) South African A/c					5,48,816.00	5,32,484.68	5,48,816.00	5,32,484.68
	(xiv) International Conference on Unani Day					4,66,057.00	8,60,318.00	12,71,500.00	66,68,259.00
	Total S.N. 2 (ii to xiv)					2,85,06,985.00	2,49,61,506.50	3,15,86,734.00	3,21,35,489.55
3.	(i) NPS A/c					59,26,026.00	49,92,768.81	1,45,30,551.00	1,24,21,683.81
	(ii) GPF A/c					2,36,17,032.00	29,27,663.14	45,08,64,415.00	53,44,33,386.59
	(iii) GIS A/c					77,60,273.00	86,52,229.84	2,87,35,943.00	2,33,28,215.84
	(iv) Pension fund A/c					4,24,95,307.00	99,13,048.13	46,87,47,019.00	44,61,52,302.13
	Total S.N. 3					7,97,98,638.00	2,64,85,709.92	96,28,77,928.00	1,01,63,35,588.37
	Grand Total S.N.1 to 3	7,42,885.00		2,23,70,581.00		12,27,49,125.00	7,38,17,797.73	2,82,50,71,624.00	3,00,86,31,135.92

Sd/-  
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Consultant (Accounts)

Sd/-  
(Mohammad Parvez)  
Accounts Officer

Sd/-  
(Krishan Kumar Sapra)  
Assistant Director (Admn.)

Sd/-  
(Prof. Asim Ali Khan)  
Director General

### 5.3. Notes on Accounts

1. Annual accounts of the Council for the year 2020–21 have been prepared on the uniform format of account for Central Autonomous Bodies (Non-profit organization).
2. The Central Council for Research in Unani Medicine is fully financed by Govt. of India Ministry of AYUSH through grant-in-aid. Therefore, income tax is not applicable on the organization.
3. The said accounts prepared on accrual basis.
4. Schedules are attached wherever necessary.
5. Depreciation has been charged on assets on diminishing balance method.
6. The construction works are done by the CPWD & NPCC.
7. There is no valuation of Inventories since it is not a profit earning organization but a Research Organization under Ministry of AYUSH, Government of India.
8. A schedule of Investment prepared every year & given to audit which is duly reconciled with actual documents figures mentioning there the rate of interest duration amount & name of Institutions etc.
9. Retirement benefits are treated as per GOI Rules.
10. Depreciation has been charged under expenditure.
11. Earmarked/Endowment fund has been shown separately in the Balance Sheet with necessary Schedule.
12. The annual accounts of the Council for the year 2020-21 have been approved by the competent authority i.e. Standing Finance Committee on July 28, 2021.

Sd/-  
Assistant Director (Admn.)  
CCRUM, New Delhi

## APPENDIX-I

### INSTITUTIONAL NETWORK OF CCRUM

- |  |   |
|--|---|
| <p>1 <b>Central Council for Research in Unani Medicine</b><br/>61-65, Institutional Area, Opposite D Block, Janakpuri, New Delhi – 110 058<br/>Phone: +91-11-28521981<br/>Fax: +91-11-28522965<br/>E-mail: unanimedicine@gmail.com</p> | <p>2 <b>National Research Institute of Unani Medicine for Skin Disorders</b><br/>Opp. ESI Hospital, AG Colony Road Erragadda, Hyderabad – 500 038 Telangana<br/>Phone: +91-40-23811551, 23810246<br/>E-mail: criumhyderabad@gmail.com</p> |
| <p>3 <b>Central Research Institute of Unani Medicine</b><br/>Basaha, Kursi Road, Lucknow – 226 026 Uttar Pradesh<br/>Phone: +91-522-2361720<br/>E-mail: crium_lko@yahoo.co.in</p>  | <p>4 <b>Hakim Ajmal Khan Institute for Literary &amp; Historical Research in Unani Medicine</b><br/>Dr. MA Ansari Health Centre<br/>Jamia Millia Islamia, Okhla<br/>New Delhi – 110 025<br/>E-mail: Iriumnew1986@gmail.com</p>            |
| <p>5 <b>Regional Research Institute of Unani Medicine</b><br/>1, West Meda Church Street, Royapuram Chennai – 600 013, Tamil Nadu<br/>Phone: +91-44-25955519<br/>E-mail: rriumchennai@gmail.com</p>                                    | <p>6 <b>Regional Research Institute of Unani Medicine</b><br/>Chandbali Bypass Road, Near Rural Police Station, Bhadrak – 756 100, Odisha<br/>Phone: +91-6784-240289<br/>E-mail: rriumbdk_unani@yahoo.co.in</p>                           |
| <p>7 <b>Regional Research Institute of Unani Medicine</b><br/>Guzri, Patna City, Patna – 800 008, Bihar<br/>Phone: +91-612-2631106<br/>E-mail: rriumpatna@gmail.com</p>  | <p>8 <b>Regional Research Institute of Unani Medicine</b><br/>Shahjahan Manzil<br/>Near AMU Riding Club, Qila Road, Aligarh – 202 001, Uttar Pradesh<br/>Phone: +91-571-2704781, 2701399<br/>E-mail: rrium_aligarh@rediffmail.com</p>     |
| <p>9 <b>Regional Research Institute of Unani Medicine</b><br/>JJ Hospital Compound, Byculla, Mumbai – 400 008, Maharashtra<br/>Phone: +91-22-23718706<br/>E-mail: rrium_mumbai@gmail.com</p>   | <p>10 <b>Regional Research Institute of Unani Medicine</b><br/>University of Kashmir Campus, Hazrat Bal Srinagar – 190 006, Jammu &amp; Kashmir<br/>Phone: +91-194-2421604<br/>E-mail: rrium.srinagar@gmail.com</p>                       |
| <p>11 <b>Regional Research Institute of Unani Medicine</b><br/>250A/29, GT Road (North), Liluah Howrah – 711 204, West Bengal<br/>Phone: +91-33-26550108<br/>E-mail: kolrrium@gmail.com</p>  | <p>12 <b>Regional Research Institute of Unani Medicine</b><br/>D-11/1, Abul Fazal Enclave, Jamia Nagar New Delhi – 110 025<br/>Phone: +91-11-26922759<br/>E-mail: rriumdelhi@gmail.com</p>  |
| <p>13 <b>Drug Standardization Research Institute</b><br/>PLIM, Sector-23, Kamla Nehru Nagar Ghaziabad – 201 002, Uttar Pradesh<br/>Phone: +91-120-2783029<br/>E-mail: dsriccrum@gmail.com</p>  | <p>14 <b>Regional Research Centre</b><br/>B-501/4, GTB Nagar, Opp. Dulhan Palace Kareli, Allahabad – 211 016, Uttar Pradesh<br/>Phone: +91-532-2551223<br/>E-mail: rrcallahabad@gmail.com</p>   |

- |   |  |
|---|--|
| <p>15 <b>Regional Research Centre</b><br/>SM Dev Civil Hospital, Silchar – 788 001<br/>(Cachar) Assam<br/>Phone: +91-3843-267522<br/>E-mail: crukxj522@gmail.com</p>                                  | <p>16 <b>Drug Standardization Research Unit</b><br/>61-65, Institutional Area, Opposite D Block<br/>Janakpuri, New Delhi – 110 058<br/>Phone: +91-11-28521981<br/>E-Mail: dsru.newdelhi@gmail.com</p>                    |
| <p>17 <b>Clinical Research Unit</b><br/>Kurupatil Nina Memorial, Near Panchayat<br/>Office, Edathala (N)<br/>Alweye – 683 564, Kerala<br/>Phone: +91-484-2836006<br/>E-mail: crukerala@gmail.com</p>  | <p>18 <b>Clinical Research Unit</b><br/>National Institute of Unani Medicine<br/>Kotigepaliya, Magadi Main Road<br/>Bengaluru – 560 091, Karnataka<br/>Phone: +91-80-25480863<br/>E-mail: crubangalore2000@yahoo.com</p> |
| <p>19 <b>Clinical Research Unit</b><br/>Dr. Abdul Haq Unani Medical College<br/>40/23 Park Road, Kurnool – 518 001<br/>Andhra Pradesh<br/>E-mail: cru.kurnool@gmail.com</p>                           | <p>20 <b>Clinical Research Unit</b><br/>Cantonment General Hospital, Soti Ganj<br/>Begumpul, Meerut – 250 001, Uttar<br/>Pradesh<br/>Phone: +91-9012843253<br/>E-mail: doctormtk@gmail.com</p>                           |
| <p>21 <b>Clinical Research Unit</b><br/>Gandhi Medical College, Bhopal – 462<br/>001, Madhya Pradesh<br/>Phone: +91-755-2540590<br/>E-mail: cruu_incharge@yahoo.com</p>                               | <p>22 <b>Clinical Research Unit</b><br/>SH Unani Tibbiya College, Ganpati Naka<br/>Burhanpur – 450 331, Madhya Pradesh<br/>Phone: +91-7325-252250<br/>E-mail: cruburhanpur@rediffmail.com</p>                            |
| <p>23 <b>Chemical Research Unit</b><br/>Department of Research in Unani<br/>Medicine, Near Office of Dean, Faculty of<br/>Science, Aligarh Muslim University<br/>Aligarh – 202 001, Uttar Pradesh</p> | <p>24 <b>Unani Medical Centre</b><br/>(Extension Centre of RRIUM, New Delhi)<br/>Dr. Ram Manohar Lohia Hospital<br/>New Delhi – 110 001<br/>Phone: +91-11-23404594</p>   |
| <p>25 <b>Unani Speciality Centre</b><br/>(Extension Centre of RRIUM, New Delhi)<br/>Deen Dayal Upadhyay Hospital<br/>Ghantaghar, Harinagar<br/>New Delhi – 110 064</p>                                | <p>26 <b>Unani Medical Centre</b><br/>(Extension Centre of RRIUM, New Delhi)<br/>VMMC &amp; Safdarjung Hospital<br/>New OPD Block, Ansari Nagar East, New<br/>Delhi – 110029<br/>Phone: +91-11-26707121</p>              |

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**CENTRAL COUNCIL FOR RESEARCH IN UNANI MEDICINE**

Ministry of AYUSH, Government of India  
61-65, Institutional Area, Janakpuri, New Delhi – 110 058  
Telephone: +91-11-28521981, 28525982  
E-mail: [unanimedicine@gmail.com](mailto:unanimedicine@gmail.com)  
Website: <https://ccrum.res.in>



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