

CENTRAL COUNCIL FOR RESEARCH IN UNANI MEDICINE

Ministry of AYUSH, Government of India



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CENTRAL COUNCIL FOR RESEARCH IN UNANI MEDICINE

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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 30th March 1978 under the Societies Registration Act, 1860; however, it started functioning from 10th 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 Financial Year 2018–2019 was very fruitful for the Council. During this period, the Council took various new initiatives 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 23 centres throughout the country. During the period under report, Unani Day was celebrated on 11th February 2019 and a two-day National Conference on Unani Medicine was held. The AYUSH Awards for Unani Medicine – 2018 for Best Research Paper, Young Scientist, Best Teacher and Lifetime Achievement were also conferred during the conference.

Apart from organizing national conference, the Council organized 10 such other events. The researchers of the Council also participated in various national / international seminars/events in different disciplines for their exposure and updates in their respective fields. Under the capacity building programme, the Council's researchers also attended 24 training programmes / workshops organized by other scientific organizations.

The continuing research activities witnessed credible outcomes during the reporting period. Under the Survey and Cultivation of Medicinal Plants Programme, ethnopharmacological surveys were conducted in different forest divisions/areas. The areas included Viluppuram Forest Division, Gudalur Forest Division and Dindigul Forest Division of Tamil Nadu; Upper



Yamuna Forest Division and Haridwar Forest Division of Uttarakhand; Hyderabad, Medak, Eluru, Etunagaram, Bhupalpally and Mulugu Forest Divisions of Telangana; and Andhrapradesh, Pulwama, Ganderbal and Beerwah Forest Divisions of Jammu & Kashmir. As a result of these surveys, 1,773 botanical specimens were collected and 476 plant species identified. Of the plant specimens collected, herbarium sheets of 857 containing their basic details were prepared and 376 herbarium sheets were digitized. Besides, 180 new index cards were compiled. The survey team also recorded 181 folk medicinal claims from the tribal inhabitants and other rural folks of the study areas. Besides, 171 kg of raw drugs and 472 saplings of important medicinal species were collected for plantation in the nurseries of the Council. Experimental and large-scale cultivation of some important medicinal species was also undertaken that yielded 57 kg of raw drugs. About 160 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 40 Unani formulations and their pharmacopoeial standards were developed. Besides, pharmacopoeial standards for 33 single drugs were developed. The drug testing laboratory at the RRIUM, Chennai analysed 36 ASU drug samples received from different organizations. The Council as the Secretariat for the Unani Pharmacopoeia Committee (UPC) organized meetings of UPC and published 4th volume of Unani Pharmacopoeia of India, Part-II. The revision of National Formulary of Unani Medicine (NFUM), Part-I to VI and Unani Pharmacopoeia of India (UPI), Part-I, Vol. I to VI as per the new format provided by the Pharmacopoeia Commission of Indian Medicine and Homoeopathy (PCIM&H) continued. At the end of the reporting period, revision of NFUM, Part-IV comprising 166 formulations was completed, whereas 30 monographs of UPI, Part-I, Vol. I and 20 monographs of UPI, Part-I, Vol. III were revised.

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 new intramural research (IMR) policy and collaborative research continued.

During the reporting period, 12 preclinical safety and pharmacological studies on Unani drugs were undertaken.

In clinical research, three studies on Baraṣ (Vitiligo) continued. Three randomized controlled trials (RCTs) - one each on <code>Dhayābīṭus Sukkarī Qism-i Thānī</code> (Diabetes Mellitus Type-II), <code>Daghṭ al-Dam Qawī Lāzimī</code> (Essential Hypertension) and <code>Baraṣ</code> (Vitiligo) continued. Clinical validation of 41 Unani pharmacopoeial formulations in different diseases also continued. Besides, clinical validation of seven Unani pharmacopoeial fast-acting drugs continued and 10 other studies were initiated under this category.

Various regimen therapy procedures were also performed on a total of 12,472 patients of different diseases. Ḥijāmah bilā-Sharṭ (Dry Cupping) was performed on 4,130 patients, Ḥijāmah bi'l-Sharṭ (Wet Cupping) on 878, Ḥijāmah bi'l-Nār (Fire Cupping) on 2,327, Ḥijāmah Muzliqah (Moving Cupping) on 2,067, Taʻlīq al-ʻAlaq (Leeching) on 10, Ḥammām al-Bukhār (Steam Bath) on 779, Dalk Muʻtadil (Moderate Massage) on 1,467, Naṭūl (Fomentation) on 51, Inkibāb (Vaporization) on 234 and Munḍij-Mushil therapy on 42 patients.

With a view to scientifically validate the fundamentals of Unani Medicine like the concepts of humours and temperaments, five genetic studies continued and clinical assessment of



temperament of 845 patients was done and susceptibility of acquiring diseases in relation to the temperament of the patients was studied. Under the IMR policy, six projects were undertaken.

The Council also undertakes research in collaboration with other prestigious institutes like Aligarh Muslim University, Aligarh; Jamia Millia Islamia, New Delhi; Vallabhbhai Patel Chest Institute, Delhi; Jamia Hamdard, New Delhi; Shobhaben Pratapbhai Patel School of Pharmacy & Technology Management (SPPSPTM), SVKM's NMIMS, Mumbai; National Institute of Pharmaceutical Education and Research, Hyderabad, and Amity University, Noida. During the reporting period, nine studies were undertaken.

Under the Literary Research Programme, Urdu translation of Arabic book *Manafi'* al-Aghdhiya wa-Daf' Maḍārrihā and Urdu translation of Persian book Qarābādīn-i Jalālī were published. Under the programme of reprinting rare books, *Kitāb al-Murshid aw al-Fuṣūl* (Arabic) and *Intikhāb-i Jalīl* (Urdu) were reprinted. Besides, Urdu translation of Arabic books; *Al-Masā'il fi'l-Ṭib li'l-Muta'allimīn* and *Al-Mughnī fī Tadbīr al-Amrāḍ wa Ma'rifat al-'llal wa al-Amrāḍ*, and Urdu translation of two classical Persian texts; *Kitāb al-Abniyah 'an Haqā'iq al-Adviyah* and *Riyāḍ al-Adviyah* continued. For the purpose of rendering Unani wisdom in international languages, translation of Persian book *Qarābādīn-i Jalālī* into English language was also started. The work on the monographs; Mental Health and Mental Diseases in Unani Medicine and Standard Unani Treatment Guidelines for *Hummayāt* (Fevers) continued.

Research-oriented healthcare services continued at GOPDs and special OPDs of 20 clinical centres of the Council. During the reporting period, a total of 4,02,070 patients comprising 3,43,688 patients in GOPDs, 27,366 in Geriatric OPDs, 8,962 in RCH / MCH OPDs, and 22,054 in OPDs for Post-trial Access were treated at different centres. Under the Mobile Clinical Research Programme, 18 rural pockets / urban slums covering over 1.50 lakh population were adopted and a total of 14,813 patients were treated with Unani pharmacopoeial formulations in 508 mobile visits made to these pockets during the reporting period. Apart from providing healthcare, health awareness was also created among the masses through group meetings and public lectures. Under the School Health Programme, 7,362 children were covered, of which health check-up was conducted for 3,597 and 3,424 suffering from different ailments were treated in 192 visits. To educate them on healthy living, 95 lectures were also delivered. Also, 10 health camps, in addition to those organized under NPCDCS and SRP Programmes, were organized and 2,136 patients were treated in these camps.

The two Unani Medical Centres functioning under the scheme of co-location of AYUSH centres in Dr. RML Hospital and DDU Hospital treated 24,328 and 17,866 patients respectively.

Under the Gender Component Plan for Women, 2,01,977 female patients in different OPDs were treated. Clinical studies on the diseases specific to women, such as $Sayal\bar{a}n$ al-Rahim (Leucorrhoea) and $S\bar{u}'$ al-Qinyah (Anaemia) also continued. Unani physicians delivered lectures to create health awareness among the females.

Under the Activities in North Eastern Region, 8,089 patients were treated for their common and chronic ailments at the two clinical centres of the Council in the region.

Under the Special Component Plan – Scheduled Caste Sub-Plan (SCSP) and Tribal Sub-Plan (TSP), 6,90,836 total population including 2,27,013 SC were covered under SCSP,



whereas 54,442 total population including 41,138 ST were covered under TSP. A total of 30,831 and 2,886 individuals benefited from SCSP and TSP respectively.

With a view to disseminating the research findings, 87 research papers were published in national and international scientific journals. During the reporting period, nine 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 publicity material continued.

Under the Swasthya Rakshan Programme, 72,774 individuals were screened, of which 63,328 were treated with Unani medicines. The number of OPD attendance including 64,589 follow-ups reached 130,793. Besides, 986 health camps were organized that benefited 50,403 individuals.

In the project on Integration of Unani Medicine in NPCDCS, 1,18,176 patients were registered and treated with Unani medicines. Total number of the individuals screened was 1,89,684 during the period. Of them, 2,048 individuals were enrolled in high risk group of Diabetes Mellitus and 3,210 as patients, whereas 2,610 were enrolled in high risk group of Hypertension and 4,576 as patients. Similarly, 63 persons were enrolled in high risk group of Hyperlipidaemia and 47 as patients. Besides, 696 health camps were organized that benefitted 15,119 individuals.

The activities under the postgraduate and doctoral programmes in Unani Medicine successfully continued. Under MD (Unani) programme, a total of 28 new scholars in addition to continuing scholars were admitted who were actively engaged in academic, research and training activities at CRIUM, Hyderabad and RRIUM, Srinagar.

The Council organized exhibitions and clinics in 36 Arogya Fairs / Expos and similar events to propagate Unani System of Medicine, highlight its activities and achievements, provide free-of-cost diagnosis and treatment to the ailing visitors and create awareness among them about health and hygiene.

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.

At this end, the Council is taking progressive steps and it is our mandate to further enhance the scope of research and development work in the Council. The focus will be on non-communicable diseases and vector borne diseases. It is also proposed to engage more proactively with collaborative institutes at national level for capacity building and research projects.

It is our endeavour to mainstream Unani System of Medicine in public healthcare delivery system and in future we propose to engage actively in public health programs for the benefit of masses. Besides, improvement of standards and quality in research will be further worked upon.

We are also initiating a dialogue with intenational community and propose to organise an international conference in the coming year to explore collaboration and establish linkages.

New Delhi January 03, 2020 Prof. Asim Ali Khan Director General

2. MANAGEMENT

The management of the affairs of the Council is entrusted to a Governing Body (GB) consisting of official and non-official members.

2.1. Governing Body

The constitution of the GB of the Council as on March 31, 2019 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

Vice-President (Technical)

Hakim Khurshid Murad Siddique, Bareilly

Official Members

- Additional Secretary & Financial Advisor, Ministry of Health & Family Welfare / AYUSH, Government of India
- Joint Secretary (Dealing with CCRUM), Ministry of AYUSH, Government of India

Non-Official Members

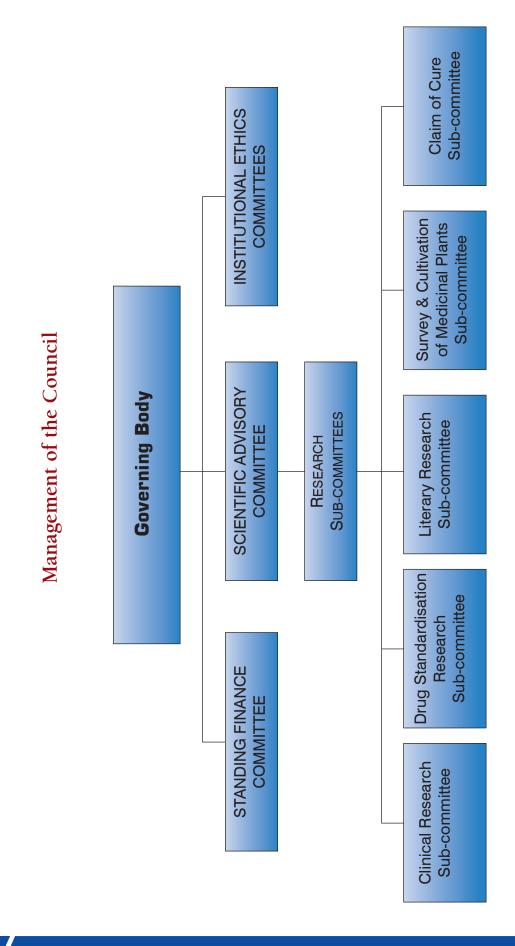
- Dr. Mohammed Abdul Waheed, Hyderabad
- Hakim Sirajuddin Ahmed, Meerut
- Prof. Hasibunnisa, Bengaluru
- Dr. Madan Singh Jakhar, Faridabad
- Dr. Tasleem Bano, Jaipur
- Dr. Rameshwar Dayal, New Delhi
- Dr. Veena Gupta, New Delhi
- Prof. Arunabha Ray, Delhi
- Dr. Govind K Makharia, New Delhi

Member Secretary

• Director General, CCRUM

During the reporting period, no meeting of the GB was held.







2.2. Standing Finance Committee

The composition of the Standing Finance Committee (SFC) of the Council is as follows:

• Joint Secretary, Ministry of AYUSH, Government of India : Chairman

• Financial Advisor, Ministry of AYUSH/ Health & Family : Member Welfare, Government of India or his/her nominee not below

the rank of Section Officer

 One Technical member nominated by President of the : Technical Member Council

• Director General, CCRUM :

: Member-Secretary

During the reporting period, the SFC met on April 18 and November 29, 2018. Important recommendations made by the SFC are as follows:

Recommendations of SFC Meeting Held on April 18, 2018

- The SFC recommended the proposal for setting up of Extension Research Centre at Pattiam Village, Kannur District, Kerala at an estimated annual expenditure of Rs. 31,57,800/-.
- The SFC gave its nod to the proposal for procurement of some instruments for Drug Standardization Centres of CCRUM and establishment of Microbiology Laboratory at Drug Standardization Research Institute, Ghaziabad at an estimated expenditure of Rs. 2,75,00,000/-
- The SFC recommended the proposal for continuation of Swasthya Rakshan Programme for 3rd year.
- The SFC considered the proposal for additional funds required for research work in MD programme at the Central Research Institute of Unani Medicine, Hyderabad and Regional Research Institute of Unani Medicine, Srinagar and recommended expenditure of Rs. 27,68,650/- and Rs. 33,74,000/- for the two institutes respectively.

Recommendations of SFC Meeting Held on November 29, 2018

- The SFC recommended the Annual Accounts of the Council for the year 2017-2018 subject to audit observations.
- The SFC recommended the proposal for installation of Goods Lift at the Regional Research Institute of Unani Medicine, Chennai at an estimated cost of Rs. 27.21.701/-
- The SFC recommended the proposal for continuation of Swasthya Rakshan Programme for 4th year.

2.3. Scientific Advisory Committee

The Scientific Advisory Committee (SAC) of the Council consists of the following:

• Dr. MA Waheed, Hyderabad : Chairperson

Dr. Yasmeen Shamsi, New Delhi : Member
 Hakim Syed Imamuddin Ahmed, Chennai : Member

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Prof. Mushtaque Ahmed, Hyderabad
Prof. S Shakir Jamil, New Delhi
Prof. Alauddin Ahmad, Patna
Dr. Anurag Srivastava, New Delhi
Dr. Ruchika Kaul Ghanekar, Pune
Member
Member
Member

• Prof. Subhash Padhye, Pune : Member

Director General, CCRUM : Member Secretary

ring the reporting period the SAC met on February 27 2019 Important

During the reporting period, the SAC met on February 27, 2019. Important recommendations of the committee are as follows:

- The SAC recommended annual action plan for research programmes, i.e. Survey and Cultivation of Medicinal Plants, Drug Standardization, Literary Research and Clinical Research.
- The SAC recommended the proposals for toxicological studies on Qurṣ-i Dīdān, Iṭrīfal Muqawwī Dimīgh, Khamīrah Gāozabān Sādah, Iṭrīfal Zamānī, Jawārish Anārian and Ma'jūn 'Ushbah.
- The SAC recommended the proposal for translation of some classical books Anīs al-Muʻālijīn (Urdu translation), Kitāb al-Aghdhiyah (English translation), Mīzān al-Ṭib (English translation), Taqwīm al-Abdān fī-Tadbīr al-Insān (Urdu translation) and Tajwīz-i Jalīl (English translation) for the year 2019-2020.
- The SAC recommended extension of Swasthya Rakshan Program and Integration of Unani Medicine in NPCDCS for 2019–2020.
- The SAC recommended revised proposal for upgradation of Unani Pharmacy at CRIUM, Hyderabad.
- The SAC gave its in-principle nod to the collaborative research project submitted by NIPER, Hyderabad.

2.3.1. 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. At the end of the reporting period, the composition of these sub-committees was as follows:

Clinical Research Sub-committee

Prof. S Shakir Jamil, New Delhi
Prof. Mir Yousuf Ali, Hyderabad
Prof. M Anwar, Aligarh
Prof. D S Arya, New Delhi
Dr. Kashif Hanif, Lucknow
Prof. K M Y Amin, Aligarh
Prof. V Srinivas, New Delhi
Chairperson
Member
Member
Member
Member
Member
Member
Member
Member

DDG / AD (U), CCRUM
 : Member Secretary

Member



Drug Standardization Sub-committee

Prof. Mohd Ali, New Delhi Chairperson

 Prof. Amir Azam, New Delhi Member Dr. Rajeev Kumar Sharma, Ghaziabad Member

 Prof. Naeem A Khan, Aligarh Member

Prof. M A Jafri, New Delhi Member

Prof. Abdul Wadood, Bangalore Member Dr. Shamshad Ahmad, Ghaziabad Member

DDG / AD (U), CCRUM Member Secretary

Literary Research Sub-committee

 Hakim Wasim Ahmad, Lucknow Chairperson

 Hakim F R Misbahi, New Delhi Member Hakim Abdul Hannan, New Delhi Member Hakim K A S Azmi, New Delhi Member Dr. M Raziul Islam, New Delhi Member

Dr. Mohammad Akram, University of Delhi DDG / AD (U), CCRUM Member Secretary

Survey and Cultivation of Medicinal Plants Sub-committee

 Prof. Wazahat Hussain, Aligarh Chairperson

 Dr. Y S Bedi, Jammu Member Hakim Shamsul Afaq, Aligarh Member Prof. Shahid Ansari, New Delhi Member Dr. S J Hussain, Hyderabad Member Member

Dr. Veena Gupta, New Delhi Dr. R D Girach, Hyderabad Member

DDG / AD (U), CCRUM Member Secretary

Claim of Cure Sub-committee

 Hakim Syed Imamuddin Ahmed, Chennai Chairperson

 Prof. Khalid Zaman Khan, Aligarh Member Prof. Asim Ali Khan, New Delhi Member Member Prof. B S Usmani, Mumbai Prof. M M W Amin, Aligarh Member

Prof. M Akhtar Siddiqui, New Delhi Member

Prof. Ashhar Qadeer, Aligarh Member

DDG / AD (U), CCRUM Member Secretary



2.4. Institutional Ethics Committee

It is mandatory that all the proposals on biomedical research involving human participants are approved by a duly constituted Institutional Ethics Committee (IEC) to protect their welfare and rights. At the end of the reporting period, there were 14 Institutional Ethics Committees 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.

Central Research Institute of Unani Medicine (CRIUM), 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

Smt. Chandana Pal, Apollo Hospitals, Hyderabad
 Hafiz Mohammed Ajaz Ahmed, Imam
 Member

• In-charge, CRIUM, Hyderabad : Member Secretary

Member

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, Assistant Solicitor General of India, : Member Lucknow Bench of Allahabad 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

Member

Dr. P Elango, Ramachandra Medical College & Research Institute, Chennai

Dr. R Ilavarasan, Assistant Director, CSM Drug Research : Institute of Ayurveda, Chennai

Member

Dr. Chand Usmani, Principal, Government Unani Medical:

Member

College, Chennai

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

Member

College, Chennai

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 Rakhangi, Mumbai

Member

In-charge, RRIUM, Mumbai

Member Secretary

Regional Research Institute of Unani Medicine (RRIUM), Srinagar

Dr. Zahoor Ahmad Wafai, Head, Department of Clinical Sher-i-Kashmir Institute Pharmacology, Medical Sciences, Srinagar

Chairperson

Prof. Mohammad Afzal Zargar, Registrar, Central University : Member of Kashmir, Srinagar



 Prof. Farhan Jalees Ahmad, Department of Phamaceutics, : Member Jamia Hamdard, New Delhi

 Prof. S M Afzal Qadri, Central University of Kashmir, : Member Ganderbal, Jammu & Kashmir

• Dr. Mohammad Iqbal, Dean, Kashmir Tibbia College, Member Srinagar

 Prof. Peerzada Mohammad Amin, Head, Department of : Member Socialogy, University of Kashmir, Srinagar

 Shri Mohammad Farooq Rathar, Junior Assistant, : Member Department of Biochemistry, University of Kashmir, Srinagr

• 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 : Chairperson Tibbiya College, Aligarh Muslim University, Aligarh

 Prof. M Athar Ansari, Department of Community Medicine, : Member Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh

 Prof. MMW Amin, Chairman, Department of Ilmul Amraz, : Member Ajmal Khan Tibbiya College, Aligarh Muslim University, Aligarh

 Dr. Nasreen Noor, Department of Gynaecology, Jawaharlal : Member Nehru Medical College, Aligarh Muslim University, Aligarh

 Prof. A Mannan, Department of Moalajat, Ajmal Khan : Member Tibbiya College, Aligarh Muslim University, Aligarh

Shri Zakiuddin Khairuwala, Advocate, Civil Court, Aligarh : Member
 Dr. M Laiq Ali Khan, President, Hakim Ajmal Khan : Member Foundation, Kasganj

• Mufti Suhaib Ahmad Khan, Theologian, Madrasa Tameer- : Member e-Millat, Aligarh

• 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 : Chairperson Institute of Medical Sciences & Research, New Delhi

 Prof. Surender Singh, Department of Pharmacology, AIIMS, Member New Delhi

 Dr. K K Sharma, Former Head, Department of : Member Pharmacology, Guru Teg Bahadur Hospital, New Delhi



Dr. Mohammad Maaz, Jamia Hamdard, New Delhi : Member

Prof. Aftab Ahmad, Department of Ilmul Advia, Jamia : Member

Hamdard, New Delhi

• 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 : Chairperson

Pharmacology, R G Kar Medical College, Kolkata

Prof. Anwarul Haq, Head, Department of Ilaj bit Tadbeer, : Member

The Calcutta Unani Medical College & Hospital, Kolkata

• Dr. Hakimuddin Akhtar, Consultant Physician, BM Birla : Member

Heart Research Centre, Kolkata

• Shri Haider Ali, President, Hawrah Health Awareness : Member

Mission, Kolkata

Shri Md. Salamuddin, Kolkata : Member

Shri Saptarishi Sanyal, Social Worker, Kolkata : Member

• In-charge, RRIUM, Kolkata : Member Secretary

Regional Research Institute of Unani Medicine (RRIUM), Patna

• Prof. Alauddin Ahmad, Former Vice-Chancellor, Jamia : Chairperson

Hamdard, New Delhi

• Dr. Rajesh Kumar, Asstistant Professor, Department of : Member

Microbiology, Nalanda Medical College, Patna

• Shri Mohd. Shamim Akhtar, Department of Pathology, : Member

Government Tibbi College, Patna

Dr. Md. Israrul Haque, Cardiologist, Indira Gandhi Institute : Member

of Medical Sciences, Patna

• Shri Md. Imteyazuddin Azad, Advocate, Patna : Member

Dr. Haroon Rasheed, Programme Manager for Rural: Member

Development, Government of Bihar

• Shri Khawaja Abdul Bari, Former Principal, Madarsa : Member

Islamia Shamshul Hoda, Patna

• Shri Sandip Kumar, Social Worker, Patna : Member

In-charge, RRIUM, Patna
 : Member Secretary

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Regional Research Institute of Unani Medicine (RRIUM), Bhadrak

 Prof. Debashish Hota, Head, Department of Pharmacology, : Chairperson AIIMS, Bhubaneswar

 Dr. Dhirendra Kumar Roy, Mediccal Director, Institute of : Member Medical Sciences & SUM Hospital, Bhubaneshwar

 Dr. Jhasaketan Mohanty, Former Sr. Medicine Specialist, : Member District Headquarters Hospital, Bhadrak

 Dr. Sayed Mozammil Ali, Medical Officer (Unani), : Member Government Unani Dispensary, Balasore

Shri Shaikh Zulfiqar Ali, Advocate, Bhadrak District Court : Member
 Shri SM Farooque, Secretary, Fellowship (NGO), Bhadrak : Member

• In-charge, RRIUM, Bhadrak : Member Secretary

Member

Regional Research Centre (RRC), Silchar

Shri Basant Kumar Nayak, Bhadrak

• Dr. Pinaki Chakravarty, Associate Professor, Department of : Chairperson Pharmacology, Silchar Medical College & Hospital, Silchar

 Dr. Riturag Thakuria, Assistant Professor, Department of : Member Medicine, Silchar Medical College and Hospital, Silchar

• Dr. Suhel Uddin, Consultant, New Life Line Hospital, : Member Karimganj

 Shri Ramizur Rahman Barlaskar, Advocate, Silchar Bar : Member Association, Silchar

• Shri Lutfur Rahman Laskar, Secretary, Bank Sangha : Member (NGO), Neairgram, Cachar

 Maulana Ikramuddin Mazumder, Assistant Teacher, : Member Ghoniwala Hafizia Madarsa, Silchar

• Shri Nazrul Islam Barbhuiya, Silchar : Member

In-charge, RRC, Silchar
 : Member Secretary

Regional Research Centre (RRC), Allahabad

 Dr. Tariq Mahmood, Associate Professor, Moti Lal Nehru : Chairperson Medical College, Allahabad

 Dr. P K Sinha, Former Chief Medical Officer, Allahabad & : Member President, Vikalp Sewa Samiti, Allahabad

• Dr. Naeemuddin Ansari, Reader, State Unani Medical : Member College, Himmatganj, Allahabad

 Dr. Rakesh Kumar Chaurasia, Associate Professor, Moti : Member Lal Nehru Medical College, Allahabad



• Shri Farooq Ahmad Khan, Advocate, Allahabad High Court, : Member

Allahabad

• Prof. Pradeep Bhargava, Director, Govind Ballabh Pant : Member

Social Sciences Institute, Jhusi, Allahabad

Shri Anwar Azam Islahi, Allahabad : Member

Shri Mohammad Anees, Managing Director, Dulhan : Member

Palace, Allahabad

• In-charge, RRC, Allahabad : Member Secretary

Clinical Research Unit (CRU), Bhopal

• Dr. Arun Shrivastav, Superintendent of Hamidia Hospital, : Chairperson

Gandhi Medical College, Bhopal

• Dr. Syed Mohd Abbas Zaidi, Lecturer, Department of : Member

Moalajat, HSZH Government Unani Medical College,

Bhopal

• Dr. Anil Sejwar, Associate Professor, Gandhi Medical : Member

College, Bhopal

• Shri Abdul Karim Ansari, Eidgah Hills, Bhopal : Member

Shri Zafar Hassan, Khamgaon, Bhopal : Member

• Shri Mohd. Umar, Pari Park, Bhopal : Member

• In-charge, CRU, Bhopal : Member Secretary

Clinical Research Unit (CRU), Meerut

• Dr. Hira Lal Bhalla, Associate Professor, Subharti Medical : Chairperson

College, Meerut

• Dr. Rizwan, Unani Medical Officer, Meerut : Member

Dr. Anuradha Gupta, Cantonment General Hospital, : Member

Meerut

• Dr. Sabahatullah, Amroha : Member

• Shri Anis Khan, Advocate in Collectrate Compound, : Member

Meerut

• Shri Mohd Arif, Meerut : Member

Shri Mohd Imran, Meerut : Member

• Shri Sarfaraz Ahmad, Meerut : Member

In-charge, CRU, Meerut
 : Member Secretary

2.5. Organisational Set-Up

The Council has its Headquarters in New Delhi and a network of 23 centres functioning in different parts of the country. These centres are as follows:

Centre	Number
Central Research Institute of Unani Medicine	02
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
Clinical Research Pilot Project	01

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

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

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

Manipur

Clinical Research Pilot Project, Imphal

Odisha

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

Tamil Nadu

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

Telangana

• Central Research Institute of Unani Medicine (CRIUM), Hyderabad

Uttar Pradesh

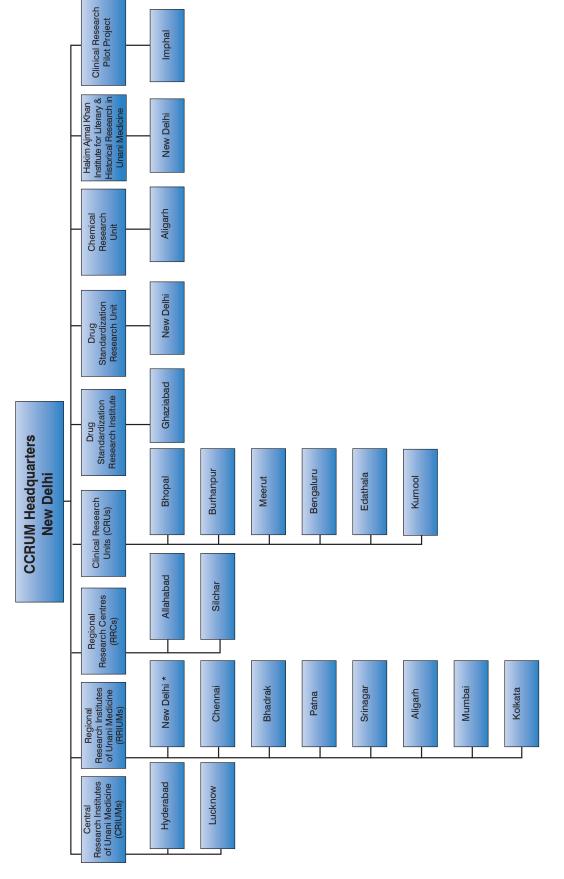
- Central Research Institute of Unani Medicine (CRIUM), Lucknow
- Regional Research Institute of Unani Medicine (RRIUM), Aligarh
- Drug Standardization Research Institute (DSRI), Ghaziabad
- Regional Research Centre (RRC), Allahabad
- Clinical Research Unit (CRU), Meerut
- Chemical Research Unit (Grant-in-aid),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

West Bengal

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

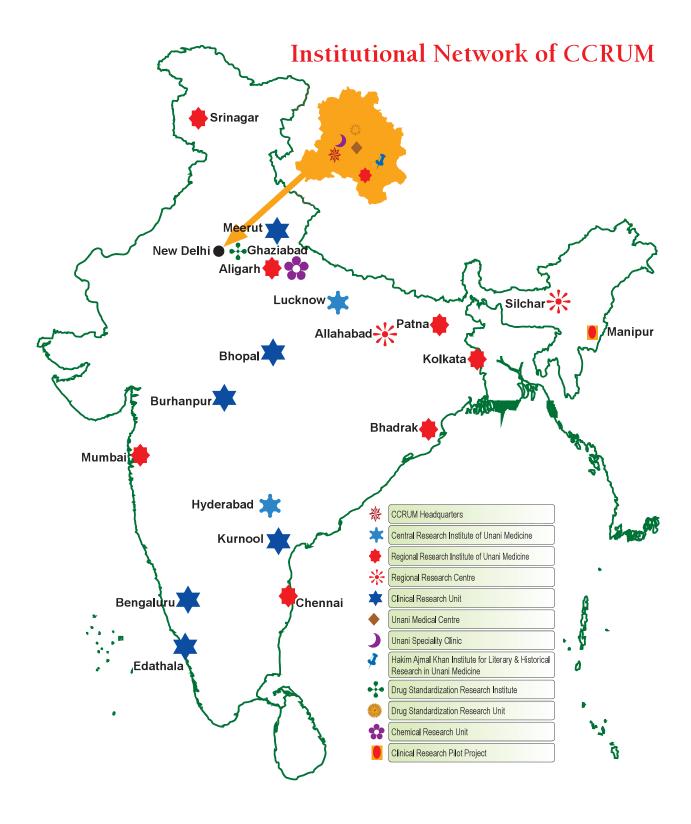


Organizational Set-up of the Council



* With two extension centres in New Delhi







Assistants **NDCs** LDCs Accountant (Internal Audit) Internal Audit Cell Accounts Officer Assistants UDCs LDCs Accounts Section Accountant Junior Administrative Officer Establish-ment Section Assistants UDCs LDCs Assistant Director (Administration) Organizational Structure at the Headquarters Administrative Officers Administra-tion Section Junior dministrative Officer Assistants UDCs LDCs Research Officer (Publication) Publication Section Senior Production Assistant Director General Assistant Editor Library & Information Centre Library & Information Officer Assistant Library & Information Officer Library & Information Assistant Statistical & Computer Section Research Officer (Statistics) Investigator Technical Section Deputy Director General Assistant Director (Botany) Research Officer (Botany) Botany Section Research Officer (Chemistry) Chemistry Section Assistant Director (Chemistry) Research Officer (Clinical Pharmacology) Clinical Section Assistant Director (Unani) Research Officers (Unani)

2.6. Budget (Actual Expenditure)

The centre-wise actual expenditure of the Council during 2018–19 was as follows:

S. No.	Name of State and Centre	Rupees in Thousand
1.	Andhra Pradesh	
	(i) CRU, Kurnool	4,574
2.	Assam (NER)	
	(i) CRU, Silchar	14,221
3.	Bihar	
	(i) RRIUM, Patna	42,150
4.	Karnataka	
	(i) CRU, Bengaluru	8,462
5.	Jammu & Kashmir	
	(i) RRIUM, Srinagar	62,756
6.	Kerala	
	(i) CRU, Alwaye	8,621
7.	Madhya Pradesh	
	(i) CRU, Burhanpur	9,262
	(ii) CRU, Bhopal	7,804
8.	Maharashtra	
	(i) RRIUM, Mumbai	29,243
9.	Manipur (NER)	
	(i) Clinical Research Pilot Project	1,690
10.	New Delhi	
	(i) HAKILHRUM, New Delhi	27,359
	(ii) RRIUM, New Delhi	80,009
	(iii) CCCBC, New Delhi	756
	(iv) Headquarters, New Delhi	123,523
	(v) DSRU, New Delhi	14,186
11.	Odisha	
	(i) RRIUM, Bhadrak	59,487
12.	Tamil Nadu	
	(i) RRIUM, Chennai	78,906
13.	Telangana	
	(i) CRIUM, Hyderabad	146,552
14.	Uttar Pradesh	



S. No.	Name of State and Centre	Rupees in Thousand
	(i) DSRI, Ghaziabad	16,088
	(ii) CRIUM, Lucknow	91,148
	(iii) RRC, Allahabad	13,760
	(iv) RRIUM, Aligarh	65,645
	(v) CRU, Meerut	14,649
15.	West Bengal	
	(i) RRIUM, Kolkata	18,330
16.	Other Expenditure	
	(i) Pension Fund Transfer	95,000
	(ii) Contribution to NPS	19,242
	(iii) CGHS Contribution	663
	(iv) Seminar/Workshop	2,292
	(v) Health Mela	1,149
	(vi) Training Programme	267
	(vii) Arogya	531
	(viii) EMR	228
	(ix) Short Term Research Projects	5,755
	(x) UPC	42
	(xi) DLIS	180
	(xii) Health Camps	556
	(xiii) Ethical Committee	128
	(xiv) Advance for Construction of Building	154,000
	(xv) Swasthya Rakshan Programme	19,574
	(xvi) Publication (Priced)	96
	(xvii) National Conference on Unani Day	972
	(xviii) Hindi Pakhwada	1,149
	(xix) Unani Academic Courses	35,372
	(xx) NPCDCS	28,809
	(xxi) Swachchta Action Plan	3,093
	(xxii) Medical Advance	1,170
	(xxiii) Advance to Government Servants	1,050
	(xxiv) GIA to CRU, Aligarh	150
	(xxv) NABH Accreditation	368
	Grand Total S. No. 1 to 16	1,311,017



3. TECHNICAL REPORT

3.1. Intramural Research

3.1.1. Centre-wise Activities

3.1.1. Centre-wise Activities				
CENTRE	ACTIVITIES			
Central Research Institute of Unani Medicine (CRIUM), Hyderabad	 Survey and Cultivation of Medicinal Plants Programme Drug Standardization Research Programme Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Validation of Regimen Therapies Validation of Fundamentals Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme School Health Programme Swasthya Rakshan Programme 			
Central Research Institute of Unani Medicine (CRIUM), Lucknow	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Validation of Regimen Therapies Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme School Health Programme Swasthya Rakshan Programme Integration of Unani Medicine in NPCDCS 			
Regional Research Institute of Unani Medicine (RRIUM), Chennai	 Survey and Cultivation of Medicinal Plants Programme Drug Standardization Research Programme Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Validation of Regimen Therapies Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme School Health Programme Swasthya Rakshan Programme 			



CENTRE	ACTIVITIES			
Regional Research Institute of Unani Medicine (RRIUM), Bhadrak	 Survey and Cultivation of Medicinal Plants Programme Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Validation of Regimen Therapies Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme School Health Programme 			
Regional Research Institute of Unani Medicine (RRIUM), Patna	 Swasthya Rakshan Programme Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Validation of Regimen Therapies Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme School Health Programme Swasthya Rakshan Programme 			
Regional Research Institute of Unani Medicine (RRIUM), Aligarh	 Survey and Cultivation of Medicinal Plants Programme Drug Standardization Research Programme Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme Swasthya Rakshan Programme 			
Regional Research Institute of Unani Medicine (RRIUM), Mumbai	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Validation of Regimen Therapies Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme School Health Programme Swasthya Rakshan Programme 			



CENTRE	ACTIVITIES		
Regional Research Institute of Unani Medicine (RRIUM), Srinagar	 Survey and Cultivation of Medicinal Plants Programme Drug Standardization Research Programme Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Pharmacological Research Programme Validation of Regimen Therapies Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme School Health Programme Swasthya Rakshan Programme 		
Regional Research Institute of Unani Medicine (RRIUM), Kolkata	·		
Regional Research Institute of Unani Medicine (RRIUM), New Delhi	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Validation of Regimen Therapies Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme Unani Speciality Clinics at Allopathic Hospitals Swasthya Rakshan Programme 		
Regional Research Centre (RRC), Allahabad	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme School Health Programme Swasthya Rakshan Programme 		
Regional Research Centre (RRC), Silchar	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs 		



CENTRE	ACTIVITIES			
	 Research-oriented Healthcare General Outpatient Department (GOPD) Programme Swasthya Rakshan Programme 			
Clinical Research Unit (CRU), Bengaluru	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Research-oriented Healthcare General Outpatient Department (GOPD) Programme 			
Clinical Research Unit (CRU), Meerut	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Research-oriented Healthcare General Outpatient Department (GOPD) Programme 			
Clinical Research Unit (CRU), Bhopal	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Research-oriented Healthcare General Outpatient Department (GOPD) Programme 			
Clinical Research Unit (CRU), Burhanpur	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Research-oriented Healthcare General Outpatient Department (GOPD) Programme Mobile Clinical Research Programme School Health Programme 			
Clinical Research Unit (CRU), Edathala	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Research-oriented Healthcare General Outpatient Department (GOPD) Programme 			
Clinical Research Unit (CRU), Kurnool	 Clinical Research Programme Validation of Unani Pharmacopoeial Drugs Validation of Unani Pharmacopoeial Fastacting Drugs Research-oriented Healthcare General Outpatient Department (GOPD) Programme 			

CENTRE	ACTIVITIES	
Drug Standardization Research Unit (DSRU), New Delhi	Drug Standardization Research Programme	
Drug Standardization Research Institute (DSRI), Ghaziabad	Drug Standardization Research Programme	
Hakim Ajmal Khan Institute for Literary & Historical Research in Unani Medicine (HAKILHRIUM), New Delhi	 Literary Research Programme Research-oriented Healthcare General Outpatient Department (GOPD) Programme 	
Chemical Research Unit (CRU) (Grant-in-aid), Aligarh	 Chemical Investigation of Unani Medicinal Plants 	

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:

- Central Research Institute of Unani Medicine, 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 Viluppuram Forest Division, Gudalur Forest Division and Dindigul Forest Division of Tamil Nadu; Upper Yamuna Forest Division and Haridwar Forest Division of Uttarakhand; Hyderabad, Medak,

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Eluru, Etunagaram, Bhupalpally and Mulugu Forest Divisions of Telangana; and Andhrapradesh, Pulwama, Ganderbal and Beerwah Forest Divisions of Jammu & Kashmir. As a result of the survey tours conducted, 1,773 botanical specimens were collected and 476 plant species identified.

Herbarium

The plant specimens collected from the study areas, including previous collection, were mounted on herbarium sheets. During the reporting period, 857 such herbarium sheets were prepared and information pertaining to plant's botanical name, family, local name, Unani name (wherever available), date of collection, brief morphological features and medicinal / other uses were recorded on each herbarium sheet. Besides, 180 new index cards were compiled.

The survey team members collected 472 saplings of important medicinal species for plantation in the nurseries attached to the institutes.

The survey teams also collected 171 kg of raw drugs and sent them to the pharmacy section of CRIUM, Hyderabad for preparation of Unani formulations.

Digitization of Herbarium Specimens

Under this activity, 376 numbers of herbarium sheets were digitized by the Council's research centres at Hyderabad, Chennai and Aligarh.

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, 181 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 took up cultivation of some important medicinal plants used in Unani medicines. These include *Atrilāl* (*Ammi majus* L.), *Afsantīn* (*Artimisia absinthium* L.), *Bābchī* (*Psoralea corylifolia* L.), *Gulnār Fārsī* (*Punica granatum* L. abortive var.), *Gurmārbūti* (*Gymnema sylvestre* (Retz.) R Br. ex Sm.), *Khatmī* (*Althaea officinalis* L.), *Khulanjān* (*Alpinia galanga* Willd.), *Unṣul* (*Urgenia indica* Kunth.), *Suddāb* (*Ruta graveolens* L.), *Nagdon* (*Artemisia nilagirica* (Clarke) Pamp), *Dirmānā Turkī* (*Artemisia maritima* L.), *Jadwār* (*Delphimium denudatum* Wall.ex Hook.f. & Thoms), *Asgandh* (*Withania somnifera* (L). Dunal), *Ajwāin Khurāsāni* (*Hyoscyamus niger* L.), etc. As a result of the field-scale cultivation, 57 kg of raw drugs were obtained at Chennai and Srinagar and supplied to the pharmacy section of CRIUM, Hyderabad 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 160 common species in its *Ibn al-Bayṭar* Herbal Garden at CRIUM, 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.), Asl al-Sūs (Glycyrrhiza glabra L.), Asrol (Rauvolfia serpentina (L.) Benth. ex Kurz.), Bijāsar (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 nigrum L.), Marorphalī (Helicteres isora L.), Muqil (Commiphora mukul (Hook ex Stocks) Engl.), Pālas (Butea monosperma (Lam.) Taub.), Qinnāb (Cannabis sativa L.), Qurţūm (Carthamus tinctorius L.), Rasan (Inula racemosa C.B. Clarke), Sadābahār (Catharanthus roseus (L.) G. Don), Şandal Surkh (Pterocarpus santalinus L. f.), Satāwar (Asparagus racemosus Willd.), Suddāb (Ruta graveolens L.), Raiḥān (Ocimum sanctum L.), Turbud (Ipomoea turpethum R. Br.), 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 and Scientific Body, PCIM&H through the following research centres:

- Drug Standardization Research Institute (DSRI), Ghaziabad
- Central Research Institute of Unani Medicine (CRIUM), 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 manufacture of the following 40 Unani formulations were developed and their pharmacopoeial standards were evaluated:



S. No.	Formulation	S. No.	Formulation	
1	Banādiq al-Buzūr	21	Kuḥl-i Yāsmīn	
2	Dawā' al-Kurkum	22	Maʻjūn Nishāṭ Angez	
3	Ḥabb-i Ayārij	23	Maʻjūn Punbā Dānā	
4	Ḥabb-i Dabba Aṭfāl	24	Qurṣ-i Anjabār	
5	Ḥabb-i Fālij	25	Qurṣ-i Dīdān	
6	Ḥabb-i Ghāfith	26	Qurṣ-i -Gulnār	
7	Ḥabb-i Ḥaml	27	Qurṣ-i Kāfūr	
8	Ḥabb-i Hindī Qābiḍ	28	Qurṣ-i Kaknaj	
9	Ḥabb-i Khabth al-Ḥadīd	29	Qurṣ-i Mulayyin	
10	Ḥabb-i Mudirr-i Baul	30	Qurṣ-i Shadnaj	
11	Ḥabb-i Surfah Qawī	31	Qurṣ-i Dhayābīṭus Khāṣ	
12	Ḥabb-i Тар-i Balghamī	32	Qurṣ-i Dhayābīṭus Sādah	
13	lṭrīfal Shāhtarah	33	Raughan-i Azarāqī	
14	lṭrīfal Ghudadī	34	Sharbat Buzūrī Muʻtadil	
15	lṭrīfal Mulayyin	35	Sharbat-i Anār Shīrīnౖ	
16	lṭrīfal Saghīr	36	Shiyāf-i Abyaḍ	
17	Jawārish Falāfilī	37	Safūf-i Āmlah	
18	Khamīrah Khāş	38	Safūf-i Muqliyathā	
19	Kuḥl Chiknī Dawā'	39	Safūf-i Dhayābīṭus Sādah	
20	Kuḥl-i Ṣadaf	40	Safūf-i Qula'	

Development of Pharmacopoeial Standards of Single Drugs

Under the programme, pharmacopoeial standards of the following 33 single drugs were developed:

S. N.	Drug	Botanical / English Name	Part Studied
1	Suddāb	Ruta graveolens L.	Aerial part
2	Suranjān	Colchicum luteum Baker	Rhizome
3	Shīsham	Dalbergia sissoo DC.	Stem bark
4	Sumbul al-Tīb	Nardostachys jatamansi (D.Don) DC	Rhizome
5	Marjān Sokhtah	Corallium rubrum Linnaeus	Corals
6	Momiyāyī	Herbo-mineral	
7	Maghz-i Tarbūz	Citrullus vulgaris Schrad.	Kernel
8	Rub al-Sūs	Glycyrrhsiza glabra L.	Dried extract of roots
9	Maghz-i Tukhm-i Kharbūzah	Cucumis melo L.	Kernel
10	Shakar Tegāl	Cocoon of Tegal fly	
11	Ghunchah-i Yāsmīn	Jasminum grandiflorum L.	Flower bud
12	Kaf-i Dariyā		Mineral
13	Gerū	Silicates of Alumina & Iron oxide	Mineral
14	Tukhm-i Khurfah	Portulaca oleracea L.	Seeds



S. N.	Drug	Botanical / English Name	Part Studied
15	Āb-i Anār Shīrīnౖ	Punica granatum L.	Decoction
16	Anzarūt	Astragalus sarcacola Dymock	Gum
17	Satt-i Gilo	<i>Tinospora cordifolia</i> (Wild) Miers ex Hook f. & Thoms	Starch
18	Maghz-i Tukhm-i Samandarphal	Barringtonia acutangula L. (Gaertn)	Kernel
19	Maghz-i Tukhm-i Rīthā	Sapindus mukorossi Gaertn	Kernel
20	Maghz-i Tukhm-i Balelah	Terminalia bellerica Roxb	Kernel
21	Maghz-i Tukhm-i Khirnī	Manilkara kauki (L.) Dubard	Kernel
22	Āb Lemū	Citrus aurantiifolia (Christm.) Swingle	Decoction
23	Sakbīnaj	Ferula persica Willd.	Oleo-gum resin
24	Shagūfa-i Izkhar	Cymbospogon jwarancusa Schult	Inflorescence
25	Farfiyūn	Euphorbia resinifera Beq	Resin
26	Ustukhuddūs	Lavendula stoechos L.	Inflorescence
27	Saqmuniyā	Convovulus scammonia L.	Resin
28	Gulnār (Flower)	Punica granatum L.	Flower
29	Gil-i Armānī	Aluminium silicate	Powder
30	Aqāqiyā	Acacia nilotica L. Wild ex. Del	Extract of pods
31	Tūt Siyāh	Morus idica L.	Fruit
32	Barg-i Babūl	Acacia arabica Willd.	Leaf
33	Tukhm-i Khatmī	Althea officinalis L.	Seeds

Development of NFUM and UPI

The Council as the Secretariat for the Unani Pharmacopoeia Committee (UPC) organized meetings of UPC and Task Force Committee to finalize the format for revising National Formulary of Unani Medicine (NFUM) and Unani Pharmacopoeia of India (UPI). During the reporting period, the Council published volume IV of UPI, Part-II consisting of 50 monographs on compound formulations. The revision of NFUM, Part-I to VI and UPI, Part-I, Vol. I to VI in accordance with the format provided by the Pharmacopoeia Commission of Indian Medicine and Homoeopathy (PCIM&H) continued. At the end of the reporting period, revision of NFUM, Part-IV comprising 166 formulations was completed, whereas 30 monographs of UPI, Part-I, Vol. I and 20 monographs of UPI, Part-I, Vol. III were revised.

Analysis of ASU Drugs

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

S. N.	Name of the samples	Source of the Samples
1.	Ayapodi Elagam	National Institute of Siddha, Chennai
2.	Merugulli thailam	
3.	Citramutti nei	



S. N.	Name of the samples	Source of the Samples	
4.	Kumari ilakam (25 ⁰ C)		
5.	Kumari ilakam (40°C)	Siddha Central Research Institute Chennai	
6.	Puliyarai nei (25°C)		
7.	Puliyarai nei (40ºC)	- Onemai	
8.	Vilvali ilakam (25°C)		
9.	Vilvali ilakam (40°C)		
10.	Ingi ilakam (25°C)		
11.	Ingi ilakam (40°C)		
12.	Civanar vempuk kulithailam (25°C)		
13.	Civanar vempuk kulithailam (40°C)		
14.	Cirakac curanam		
15.	Coded sample PEF	National Institute of Siddha, Chennai	
16.	Coded sample SPS		
17.	Coded sample PEFF		
18.	Coded sample PW		
19.	Coded sample C+D, I+D, S+D	Bharathi Women's College, Chennai	
20.	Coded sample C+LD, I+LD, S+LD	Bharathi Women's College, Chennai	
21.	Chundai vatral churanam	National Institute of Siddha, Chennai	
22.	Coded sample VN/VNAU/AU	University of Madras, Chennai	
23.	Fiya original soap	- ALQASWA Pharmaceuticals	
24.	Fiya multhanimetty soap		
25.	Fiya sandal soap	ALQASWA FIIaimaceuticais	
26.	Fiya rose soap	1	
27.	Grape seed Herbal Juice	GJ Foods, Tondairpet, Chennai	
28.	Coded sample B	Occurred Nillian Institute of	
29.	Coded sample G	Swamy Ramananda Nithiya Institute of Pharmaceutical Science, Telangana	
30.	Coded sample Y		
31.	Coded sample Ag nanoparticles	University of Madras, Chennai	
32.	Chirattai Thailam	Siddha Central Research Institute, Chennai	
33.	Coded sample CG	Vels Institute of Science and Technology, Chennai	
34.	Code No:AKN0036	Vels Institute of Science and Technology, Chennai	
35.	Coded sample A	Sree Balaji Medical College and Hospital,	
36.	Coded sample M	Chennai	



3.1.2.3. Clinical Research Programme

Preclinical Studies

Preclinical safety and pharmacological studies on classical forms and 50% hydroalcoholic extract of Unani formulations including collaborative studies were carried out at the Central Research Institute of Unani Medicine, Hyderabad and Regional Research Institute of Unani Medicine, Srinagar. Summary of the studies undertaken is as under:

Acute oral toxicity study of classical form and hydro-alcoholic extract of *Maʻjūn Māsik al-Bawl* in rats

The study conducted at CRIUM, Hyderabad was designed to evaluate acute oral toxicity potential of both classical form and 50% hydro-alcoholic extract of *Maʻjūn Māsik al-Bawl* in Sprague Dawley rats. Considering the low acute toxicity potential, the limit test as per OECD-425 was conducted at the dose of 2000 mg/kg body weight. Animals were weighed, observed for lethality and toxic signs and symptoms for 14 days post-treatment. As no lethality was observed following treatment with *Maʻjūn Māsik al-Bawl* classical as well as extract in three consecutive animals respectively, dosing to further animals was stopped. Blood samples were collected on day 15 for haematological and biochemical investigation from all the three animals. Animals were sacrificed on day 15 and their necropsy was performed. No treatment related gross pathological abnormality was observed. Biochemical and haematological parameters were found within normal limits. Under the given condition, no toxic signs and symptoms or mortality was observed at the dose of 2000 mg/kg body weight for both classical and hydro-alcoholic extract of *Maʻjūn Māsik al-Bawl*. Therefore, oral LD50 of *Maʻjūn Māsik al-Bawl* in the female Sprague-Dawley strain rat was estimated to be greater than 2,000 mg/kg body weight.

Acute oral toxicity study of Khamīrah Gā'uzabān 'Ambarī Jadwār 'Ūd Ṣalīb Wālā in rats

The study designed to evaluate acute oral toxicity potential of *Khamīrah Gā'uzabā*n '*Ambarī Jadwār 'Ud Ṣalīb Wālā* (KGAJOS) in Wistar rats was conducted at CRIUM, Hyderabad. Considering the low acute toxicity potential, the limit test as per OECD-425 was conducted at the dose of 2000 mg/kg body weight. Rats were weighed, observed for lethality and toxic signs and symptoms for 14 days post-treatment. As no lethality was observed following treatment with KGAJOS in three consecutive animals, dosing to further animals was stopped. Blood samples were collected on day 15 for haematological and biochemical investigation from all the three animals of each formulation. Animals were sacrificed on day 15 and their necropsy was performed. No treatment related gross pathological abnormality was observed. Biochemical and haematological parameters were found within normal limits. Under the given conditions, no toxic signs and symptoms or mortality was observed at the dose of 2000 mg/kg bw of KGAJOS. Therefore, oral LD50 of the KGAJOS in the female Wistar rats was estimated to be greater than 2,000 mg/kg body weight.

Acute oral toxicity study of classical form and hydro-alcoholic extract of *Damawī* in rats

The study designed to evaluate acute oral toxicity potential of both classical form and 50% hydro-alcoholic extract of *Damawī* in Sprague Dawley rats was conducted at CRIUM, Hyderabad. Considering the low acute toxicity potential, the limit test as per OECD-425 was conducted at the dose of 2000 mg/kg body weight. Animals were weighed, observed for lethality and toxic signs & symptoms for 14 days post-treatment. As no lethality was observed following treatment with *Damawī* classical as well as extract in three consecutive



animals respectively, dosing to further animals was stopped. Blood samples were collected on day 15 for haematological and biochemical investigation from all the three animals. Animals were sacrificed on day 15 and necropsy was performed. No treatment related gross pathological abnormality was observed. Biochemical and haematological parameters were found within normal limits. Under the given conditions, no toxic signs and symptoms or mortality was observed at the dose of 2000 mg/kg bw for both classical and 50% hydroalcoholic extract of *Damawī*. Therefore, oral LD50 of *Damawī* in the female Sprague-Dawley strain rat was estimated to be greater than 2,000 mg/kg body weight.

Antiepileptic and antidepressant activity of classical form and hydro alcoholic extract of *Maʻjūn Najāḥ* in experimental animals

The study to evaluate the antiepileptic and antidepressant activity of *Maʿjūn Najāḥ* (MN) classical form and 50% hydro-ethanolic extract in experimental animals was conducted at CRIUM, Hyderabad.

The antiepileptic activity was evaluated using Maximal Electroshock (MES) - Induced Convulsion in SD rats. The animals were divided into six groups of eight animals each. Group I was normal control, Group II was positive control treated with Diazepam (3 mg/kg, p.o.). Group III & IV were given MN classical at the dose of 500 and 1000 mg/kg bw per day, respectively, consecutively for seven days. Group V & VI were treated with 50% hydro-alcoholic extract at the dose level of 170 and 340 mg/kg bw per day, respectively, for seven days. The second model used for screening of antiepileptic activity was Pentylenetetrazole (PTZ) induced convulsion in mice. Swiss albino mice were divided into six groups of eight animals each. Treatment was same as mentioned above except administration of PTZ 65 mg/kg bw intra-peritoneally 45 minutes after oral administration of vehicle and test formulation (MN) and 30 minutes after administration of standard (Phenytoin; 25 mg/kg i.p.).

The antidepressant activity was evaluated using Forced Swim Test model in rats. Rats were divided into six groups of six animals each. Group I served as control. Group II was positive control which received Imipramine (20 mg/kg, p.o.). Group III and IV were test dose groups for classical form of MN which were administered at the doses of 500 and 1000 mg/kg bw of MN per day consecutively for two weeks. Group V and VI were treated with 50% hydro-alcoholic extract at dose levels of 170 and 340 mg/kg bw per day respectively, for two weeks.

The MN classical and extract at tested dose levels showed reduction in Tonic Hind Limb Extension (THLE) and seizures score as compared to control group. However, the reduction was not found statistically significant. The results found in FST model indicated statistically significant reduction (***P<0.1) in immobility duration in all treatment group except extract low dose group (170 mg/kg bw) as compared to control.

The finding of the study showed that both classical and extract forms of MN do not possess significant antiepileptic property. MN showed promising antidepressant activity at all tested dose levels for both classical and extract in experimental animals except low dose extract.

Nephroprotective evaluation of coded Unani formulation UNIM-N-2000 in experimentally induced renal toxicity in rats

The study conducted at CRIUM, Hyderabd was designed to evaluate the nephroprotective potential of UNIM-N-2000 against cisplatin-induced renal toxicity in rats by measuring



different renal and inflammatory biomarkers as well as to assess the histopathological alterations in kidney.

A total of 48 male Wistar rats were randomly divided into six groups as control, cisplatin control and experimental groups with eight rats in each group. The classical formulation (300 and 600 mg/kg bw) and its extract (35 and 70 mg/kg bw) at two dose levels were evaluated. The body weight and feed intake of all the animals were recorded at weekly intervals throughout study duration. At the end of the experiment, blood samples were collected for estimation of serum biomarkers (BUN, creatinine and Uric acid). After necropsy, left kidney tissue homogenate was prepared for the estimation of inflammatory markers like TNF- α , IL-1 β and Kim-1. Urine sample was collected for the estimation of micro-albumin level. Additionally, relative organ weight was calculated and right kidney tissues were subjected to histopathological examination.

The analysis of raw data revealed no statistically significant difference in body weight, feed intake and relative organ weight of all drug treated animals in comparison to animals of control group. Liver function markers (ALT, AST and ALP) were raised following cisplatin injury, but effect was not statistically significant. There was statistically significant increase in kidney function parameters (BUN and creatinine) in all the treatment groups, except UNIM-N-2000 classical at high dose. The kidney function parameters (BUN, creatinine) raised by cisplatin administration were expected to be reduced following treatment with UNIM-N-2000, but present data shows that the coded formulation (classical or extract) was unable to reverse these parameters in rats. Intoxication with cisplatin resulted significant alterations in serum electrolyte levels. Treatment with classical or extract was not able to reverse the electrolyte impairment caused by cisplatin. The estimation of cytokines revealed that there was no significant reduction of Kim-1, although a reduction was observed in TNF- α , IL-1 β and urine micro-albumin level following treatment with UNIM-N-2000. Histopathology reports of kidney were awaited.

The findings of the study were not sufficient to conclude that UNIM-N-2000 possesses potential nephroprotective activity against cisplatin-induced renal damage in rats. No significant protective effect was observed on primary serum biomarkers BUN and creatinine. Additionally, there was no significant reduction of Kim-1 levels, a specific kidney injury marker although there was reduction in TNF- α , IL-1 β and urine micro-albumin levels. Histopathology reports of kidney will further clarify the picture.

Nephroprotective evaluation of coded Unani formulation UNIM-N-2002 in experimentally induced renal toxicity in rats

The study conducted at CRIUM, Hydeabad was designed to evaluate the nephroprotective potential of UNIM-N-2002 against cisplatin induced renal toxicity in rats by estimating different renal and inflammatory biomarkers as well as to assess the histopathological alterations in kidney.

A total of 48 male Wistar rats were randomly divided into six groups including control, cisplatin control and experimental groups (n=8). The classical formulation (300 and 600 mg/kg bw) and its 50% hydro-alcoholic extract (50 and 100 mg/kg bw) at two dose levels were evaluated. At the end of the experiment, blood samples were collected for estimation of serum biomarkers (BUN, creatinine and Uric acid). Additionally, left kidney tissue homogenate was prepared for the estimation of inflammatory markers TNF- α , IL-1 β and Kim-1. Urine sample was collected for the estimation of micro-albumin level. Body weight and feed intake were recorded weekly throughout study duration. After necropsy, relative



organ weight was calculated and kidney tissues were subjected to histopathological examination.

No statistically significant difference was observed in body weight and feed intake. Relative kidney weight of all drug treated animals did not show any significant alteration except a significant reduction at extract low dose as compared to cisplatin control group. Serum creatinine and BUN increased significantly in cisplatin control as compared to normal control. There was an increase in mean value of BUN and creatinine in treatment groups except slight reduction of mean BUN value in animals treated with extract compared to cisplatin control. No significant changes was observed in liver function as compared to normal control. Serum concentration of potassium was reduced in most of drug treated groups as well as in cisplatin control group as compared to normal control. There was significant reduction of chloride level in animals treated with classical low dose (300 mg/kg bw) as compared to cisplatin control animals. No significant alteration in calcium level was observed as compared to cisplatin control. Decrease in electrolyte levels especially in chloride and potassium due to cisplatin intoxication was not reversed by treatment with classical or extract of UNIM-N-2002 at any dose. There was a pattern of inhibition of raised levels of TNF-α and IL-1ß following treatment with UNIM-N-2002 classical as well as extract (up to different extent), suggesting inhibitory effect on inflammatory changes induced by cisplatin. The urine micro-albumin level showed highly significant reduction in all treatment groups as compared to cisplatin control. However, no statistically significant attenuation of Kim-1 (as specific biomarker for acute kidney damage) was observed as compared to cisplatin control which was expected to be reduced by nephroprotective agents. Histopathology reports of kidney were awaited.

It may be concluded that UNIM-N-2002 may have ameliorative effect on pro-inflammatory markers in cisplatin-induced kidney damage in rats but no significant nephroprotective effect was observed as the conventional biomarkers (BUN, creatinine) were not normalized. Histopathology reports of kidney will further reveal more evidence regarding the effect of UNIM-N-2002 in this model.

Nephroprotective evaluation of coded Unani formulation UNIM-N-2003 in experimentally induced renal toxicity in rats

The study conducted at CRIUM, Hyderabad was designed to evaluate the nephroprotective potential of UNIM-N-2003 against cisplatin induced renal toxicity in rats by estimating different renal and inflammatory biomarkers as well as to assess the histopathological alterations in kidney.

A total of 48 male Wistar rats were randomly divided into six groups including control, cisplatin control and experimental groups of eight rats in each group. The classical formulation (300 and 600 mg/kg bw) and its extract (50 and 100 mg/kg bw) at two dose levels were evaluated. At the end of the experiment, blood samples were collected for estimation of serum biomarkers (BUN, creatinine and Uric acid). Additionally, left kidney tissue homogenate was prepared for the estimation of inflammatory markers TNF- α , IL-1 β and Kim-1. Urine sample was collected for the estimation of micro-albumin level. The body weight and feed intake of all animals were recorded weekly throughout study duration. After necropsy, relative organ weight was calculated and tissues were subjected to histopathological examination.

No statistically significant difference in body weight and feed consumption was observed. Relative organ weight of all drug treated animals did not show significant alteration except



significant reduction in kidney weight at both dose levels of extract as compared to cisplatin control group. No significant changes observed in liver function as compared to control. Total protein significantly reduced by tested classical dose while albumin showed significant reduction in animals treated with extract at both test doses as compared to cisplatin control. There was statistically significant increase (p<0.001) in blood urea nitrogen and creatinine in all groups subjected to cisplatin intoxication as compared to normal control. Treatment with UNIM-N-2003 resulted to decrease these biomarkers but not significantly except low dose of extract in BUN in comparison to cisplatin control. Treatment with UNIM-N-2003 did not normalize the electrolyte imbalance caused by cisplatin. The estimation of cytokines revealed significant (p<0.001) reduction in TNF-α level in animals treated with both classical and extract of UNIM-N-2003 at both low and high dose. IL-1β was significantly reduced at classical low and high dose groups as compared to cisplatin control animals. The urine micro-albumin level measured showed highly significant (p<0.001) reduction in all treatment groups as compared to cisplatin control. However, no significant alterations was observed in Kim-1 (as specific biomarker for acute kidney damage) level as compared to cisplatin control. Histopathology reports of kidney were awaited.

The findings of the study were not found enough to conclude that UNIM-N-2003 possesses nephroprotective activity against cisplatin induced renal damage in rats. No significant effect was observed on primary serum biomarkers BUN and creatinine. Additionally, there was no significant reduction of Kim-1, a specific kidney injury marker, although a decrease was observed in proinflammatory cytokines TNF- α , IL-1 β or urine micro-albumin level.

Sub-chronic (90-day repeated dose) toxicity study of UNIM-D-2000 in Wistar albino rats

Sub-chronic (90-days repeated dose) oral toxicity study of UNIM-D-2000 was carried out at the dose of 1000 mg/kg of body weight in both male and female Wistar albino rats at RRIUM, Srinagar. The rats were randomly divided into four groups, each consisting of six rats of either sex. Group I and II (normal control) were orally given distilled water (vehicle). Group III and IV were orally administered UNIM-D-2000 daily for 90 days. The rats were observed carefully for any behavioral and neurological changes for next 24 hours after the administration of the drug. The physiological parameters such as water intake, feed consumption and body weight were recorded weekly. The rats were sacrificed on 91st day after overnight fasting. Blood was collected from dorsal vena cava after opening the abdomen for haematological and biochemical analysis. The rats were dissected and organs were observed for any morphological changes. Tissue and organ samples were collected for histological studies. Results showed that the drug UNIM-D-2000 mg /kg of body weight had no drug related adverse effects. Therefore, the drug may be considered safe for oral consumption.

Sub-chronic (90-day repeated dose) toxicity study of 50% hydro-alcoholic extract of UNIM-D-2000 in Wistar albino rats

Sub-chronic (90-day repeated dose) oral toxicity study of 50% hydro-alcoholic extract of UNIM-D-2000 was carried out at the dose level of 1000 mg/ kg of body weight in both male and female Wistar albino rats at RRIUM, Srinagar. The rats were randomly divided into four groups, each consisting of six rats of either sex. Group I and II were orally given distilled water (vehicle). Group III and IV were orally administered 50% hydro-alcoholic extract of UNIM-D-2000 daily for 90 days. The rats were observed carefully for any behavioral and neurological changes for next 24 hours after the administration of the drug. The



physiological parameters such as water intake, feed consumption and body weight gain were recorded weekly. The rats were sacrificed on 91st day after overnight fasting. Blood was collected from dorsal vena cava after opening the abdomen for haematological and biochemical analysis. The rats were dissected and organs were observed for any morphological changes. Tissue and organ samples were collected for histological studies.

The drug in the given form when administered daily for a period of 90 days to Wistar albino rats at the dose of 1000 mg/ kg of bodyweight was found to have no adverse effects. Therefore, it can be safely said that the drug extract may be considered safe for oral consumption.

Sub-chronic (90-day repeated dose) toxicity study of drug UNIM-M-2000 in Wistar albino rats

Sub-chronic (90-day repeated dose) oral toxicity study of UNIM-M-2000 was conducted at the dose level of 1000 mg/ kg body weight in both male and female Wistar albino rats at RRIUM, Srinagar. The rats were randomly divided into four groups, each consisting of six rats of either sex. Group I and II were orally given water (vehicle). Group III and IV were orally administered UNIM-M-2000 once with at the dose level of 1000 mg/ kg body weight. The animals were weighed initially and at weekly intervals. The effect of UNIM-M-2000 on water intake and feed consumption was monitored and recorded weekly. The animals were observed carefully for any behavioral and neurological changes for 24 hours after drug administration, thereafter twice daily and sacrificed after 90 days. Blood was collected from dorsal vena cava upon cutting the abdomen by scissor for hematological and biochemical analysis. The rats were dissected and organs were observed for any morphological changes, thereafter tissues / organ were collected for histological studies.

The drug UNIM-M-2000 when administered daily for a period of 90 days to Wistar albino rats at the dose of 1000 mg/ kg of body weight was found to have no drug related adverse effect. Therefore, the drug may be considered as safe for oral consumption.

Sub-chronic (90-day repeated dose) toxicity study of 50% hydro-alcoholic extract of UNIM-M-2000 in Wistar albino rats

Sub-chronic (90-day repeated dose) oral toxicity study of 50% hydro-alcoholic extract of UNIM-M-2000 was carried out at the dose level of 1000 mg/kg of body weight in both male and female Wistar albino rats at RRIUM, Srinagar. The rats were randomly divided into four groups, each consisting of six rats of either sex. Group I and II were orally given water (vehicle). Group III and IV orally administered 50% hydro-alcoholic extract of UNIM-M-2000 once at the dose of 1000 mg/ kg body weight. The animals were weighed initially and at weekly intervals. The effect of 50% hydro-alcoholic extract of UNIM-M-2000 on water intake and feed consumption was monitored and recorded weekly. Animals were observed carefully for any behavioral and neurological changes for 24 hours after drug administration, thereafter twice daily and sacrificed after 90 days. Blood was collected from dorsal vena cava upon cutting the abdomen by scissor for hematological and biochemical analysis. The rats were dissected and organs were observed for any morphological changes. Tissue and organ samples were collected for histological studies.

The drug in the given form when administered daily for a period of 90 days to albino Wistar rats at the dose of 1000 mg/ kg of bodyweight was found to have no adverse effect. Therefore, the drug may be considered as safe for oral consumption.



Anti-pyretic activity of 50% hydro-alcoholic extract of UNIM-M-2000 in Wistar albino rats

A study to investigate anti-pyretic activity of 50% hydro-alcoholic extract of UNIM-M-2000 in Wistar albino rats against the Brewer's yeast induced pyrexia was conducted at RRIUM, Srinagar. Twelve groups with six animals in each group of either sex were used in the study. Pyrexia was induced by injecting 15% with Brewer's yeast suspension (subcutaneously) at the dose level of 10 ml/ kg bodyweight. After 18 hours of induction, the rectal temperature of the rats was recorded and the rats that showed rectal temperature greater than 38° C were considered. The rats were then treated with normal saline (0.9%), reference drug and test extracts orally at different dose levels i.e. 100, 200 and 500 mg/ kg bodyweight. After treatment, the rectal temperature of all the rats was recorded up to 4 hours at an interval of 1 hour. The higher dose of 50% hydro-alcoholic extract of UNIM-M-2000 showed anti-pyretic activity when compared with the negative control.

The 50% hydro-alcoholic extract of UNIM-M-2000 at the dose level of 100 and 200mg / kg bodyweight did not show statistically significant result when compared with reference control group (Paracetomol treated group at the dose level of 150 mg/kg bodyweight) in both male and female rats. However, 50% hydro-alcoholic extract of UNIM-M-2000 at the dose of 500 mg/kg bodyweight showed reduction in the yeast elevated rectal temperature in both male and female rats.

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:

- Central Research Institute of Unani Medicine (CRIUM), 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
Central Research Institute of Unani Medicine (CRIUM), Hyderabad	Baraṣ (Vitiligo), Dhayābīṭus Sukkarī Qism-i Thānī (Diabetes Mellitus Type-II), Daghṭ al-Dam Qawī Lāzimī (Essential Hypertension), Nazlah Muzmin (Chronic Rhinosinusitis), Nisyān (Amnesia), Duʿf al-Dimāgh (Cerebrasthenia), Ḥaṣāt al-Kulyah (Nephrolithiasis), Khafaqān (Palpitation), Kathrat al- Ṭamth (Heavy Menstrual Bleeding), Dīq al-Nafas (Bronchial Asthma), Lithah Dāmiyah (Bleeding Gums), Sayalān al-Raḥim (Leucorrhoea), Sahar (Insomnia), Duʿf al-Ishtihāʾ (Anorexia), Suʿāl Yābis (Dry Cough), Duʿf al-Miʿdah (Functional Dyspepsia) and Iḥtibās al-Ṭamth (Amenorrhoea)
Central Research Institute of Unani Medicine (CRIUM), Lucknow	Dhayābīṭus Sukkarī Qism-i Thānī (Diabetes Mellitus Type-II), Siman Mufriṭ (Obesity), Baraṣ (Vitiligo), Sū' al-Qinya (Anaemia), Dīdān al-Am'ā' (Helminthiasis), Sayalān al-Raḥim (Leucorrhoea), Nisyān (Amnesia), Khafaqān (Palpitation), Nazlah Muzmin (Chronic Rhinosinusitis), Dīq al-Nafas (Bronchial Asthma), Sur'at al-Inzāl (Premature Ejaculation), Nazlah (Common Cold), Du'f al-Dimāgh (Cerebrasthenia), Sahar (Insomnia), Ḥummā (Fever), Iḥtibās al-Ṭamth (Amenorrhoea), Du'f al-Ishtihā' (Anorexia) and Kathrat al-Ṭamth (Heavy Menstrual Bleeding)
Regional Research Institute of Unani Medicine (RRIUM), Chennai	Baraş (Vitiligo), Şudā' (Headache), Dhayābīṭus Sukkarī Qism-i Thānī (Diabetes Mellitus Type-II), Ḥaṣāt al-Kulyah (Nephrolithiasis), Khafaqān (Palpitation), Bawāsīr 'Umya (Non Bleeding Piles), Khushūnat al-Ḥalaq (Sore Throat), Du'f al-Ishtihā' (Anorexia), Sayalān al-Raḥim (Leucorrhoea), Kathrat al-Ṭamth (Heavy Menstrual Bleeding), Ḥummā (Fever) and Qubā' (Dermatophytosis)
Regional Research Institute of Unani Medicine (RRIUM), Bhadrak	Jarab (Scabies), Buthūr al-Jild (Macules / Pustules), Bawāsīr Dāmiya (Bleeding Piles), Du'f al-Ishtihā' (Anorexia), Khushūnat al-Ḥalaq (Sore Throat), Zaḥīr (Dysentery), Waja' al-Mafāṣil (Rheumatoid Arthritis), Du'f al-Mi'dah (Functional Dyspepsia) and Sur'at al-Inzāl (Premature Ejaculation)
Regional Research Institute of Unani Medicine (RRIUM), Patna	Sayalān al-Raḥim (Leucorrhoea), Jarab (Scabies), Du'f al-Ishtihā' (Anorexia), Nazlah (Common Cold), Khafaqān (Palpitation), Dīq al-Nafas (Bronchial Asthma), Sū' al-Qinya (Anaemia), Nazlah Muzmin (Chronic Rhinosinusitis), Qubā' (Dermatophytosis) and Niqris (Gout)
Regional Research Institute of Unani Medicine (RRIUM), Aligarh	Baraş (Vitiligo), Dhayābīṭus Sukkarī Qism-i Thānī (Diabetes Mellitus Type-II), Daghṭ al-Dam Qawī Lāzimī (Essential Hypertension), Sayalān al-Raḥim (Leucorrhoea), Duʿf al-Ishtihā' (Anorexia), Khafaqān (Palpitation), Sū' al-Qinya (Anaemia), Waja' al-Mafāṣil (Rheumatoid Arthritis), Nazlah Muzmin (Chronic Rhinosinusitis), Siman Mufriṭ (Obesity), Lithah Dāmiyah (Bleeding



Centre	Diseases
	Gums), <i>Kathrat al- Ṭamth</i> (Heavy Menstrual Bleeding), <i>Suʻāl Yābis</i> (Dry Cough), <i>Sahar</i> (Insomnia), <i>Ghathayān</i> (Nausea), <i>Dīq al-Nafas</i> (Bronchial Asthma) and <i>Duʻf al-Miʻdah</i> (Functional Dyspepsia)
Regional Research Institute of Unani Medicine (RRIUM), Mumbai	Paghṭ al-Dam Qawī Lāzimī (Essential Hypertension), Wajaʻ al-Mafāṣil (Rheumatoid Arthritis), Puʻf al-Dimāgh (Cerebrasthenia), Wajaʻ al-Asnān (Toothache), Bawāsīr 'Umya (Non-Bleeding Piles), Siman Mufriṭ (Obesity), Kathrat al-Ṭamth (Heavy Menstrual Bleeding), Puʻf al-Ishtihā' (Anorexia), Ḥaṣāt al-Kulya (Nephrolithiasis), Sūʾ al-Qinya (Anaemia), Nisyān (Amnesia), Ihtibās al-Ṭamth (Amenorrhoea), Niqris (Gout) and Qubāʻ (Dermatophytosis)
Regional Research Institute of Unani Medicine (RRIUM), Srinagar	Baraș (Vitiligo), Daghț al-Dam Qawī Lāzimī (Essential Hypertension), Haṣāt al-Kulyah (Nephrolithiasis), Jarab (Scabies), Kathrat al- Ṭamth (Heavy Menstrual Bleeding), Nazlah Muzmin (Chronic Rhinosinusitis), Khafaqān (Palpitation), Wajaʻ al-Mafāṣil (Rheumatoid Arthritis), Dīq al-Nafas (Bronchial Asthma), Duʻf al-Ishtihā' (Anorexia), Duʻf al-Miʻdah (Functional Dyspepsia) and Hummā (Fever)
Regional Research Institute of Unani Medicine (RRIUM), Kolkata	Bawāsīr Dāmiya (Bleeding Piles), Dīdān al-Am'ā' (Helminthiasis), Nazlah Muzmin (Chronic Rhinosinusitis), Su'āl Yābis (Dry Cough), Khushūnat al-Ḥalaq (Sore Throat), Su'āl Raṭab (Productive Cough) and Du'f al-Ishtihā' (Anorexia)
Regional Research Institute of Unani Medicine (RRIUM), New Delhi	Baraṣ (Vitiligo), Dhayābīṭus Sukkarī Qism-i Thānī (Diabetes Mellitus Type-II), Daghṭ al-Dam Qawī Lāzimī (Essential Hypertension), Zaḥīr (Dysentery), Suʻāl Yābis (Dry Cough), Sūʾ al-Qinya (Anaemia), Ḥaṣāt al-Kulyah (Nephrolithiasis), Sayalān al-Raḥim (Leucorrhoea), Khafaqān (Palpitation), Duʻf al-Ishtihāʾ (Anorexia), Nazlah Muzmin (Chronic Rhinosinusitis), Wajaʿ al-Mafāṣil (Rheumatoid Arthritis), Sahar (Insomnia), Buthūr al-Jild (Macules / Pustules) and Kathrat al-Ṭamth (Heavy Menstrual Bleeding)
Regional Research Centre (RRC), Allahabad	Dhayābīṭus Sukkarī Qism-i Thānī (Diabetes Mellitus Type-II), Ḥaṣāt al-Kulyah (Nephrolithiasis), Khafaqān (Palpitation), Ishāl (Diarrhoea), Dīq al-Nafas (Bronchial Asthma), Jarab (Scabies), Bawāsīr 'Umya (Non-Bleeding Piles), Zaḥīr (Dysentery), Su'āl (Cough), Nazlah (Common Cold) and Niqris (Gout)
Regional Research Centre (RRC), Silchar	Nazlah (Common Cold), Wajaʻ al-Mafāṣil (Rheumatoid Arthritis), Ghathayān (Nausea) and Buthūr al-Jild (Macules / Pustules)
Clinical Research Unit (CRU), Bengaluru	Dhayābīṭus Sukkarī Qism-i Thānī (Diabetes Mellitus Type-II), Sū' al-Qinya (Anaemia), Du'f al-Ishtihā' (Anorexia), Waram al-Kabid (Hepatitis), Waja' al-Mafāṣil (Rheumatoid Arthritis), Nazlah (Common Cold) and Waja' al-Asnān (Toothache)
Clinical Research Unit (CRU), Meerut	 Du'f al-Ishtihā' (Anorexia), Zaḥīr (Dysentery), Dīq al-Nafas (Bronchial Asthma), Nazlah Muzmin (Chronic Rhinosinusitis), Nazlah (Common Cold), Sur'at al-Inzāl (Premature Ejaculation), Sū' al-Qinya (Anaemia) and Khafaqān (Palpitation)
Clinical Research Unit (CRU), Bhopal	Haṣāt al-Kulyah (Nephrolithiasis), Sahar (Insomnia), Suʻāl (Cough), Şudāʻ (Headache), Zaḥīr (Dysentery), Dīdān al-Amʻā' (Helminthiasis), Duʻf al-Ishtihā' (Anorexia) and Nazlah (Common Cold)



Centre	Diseases
Clinical Research Unit (CRU), Burhanpur	Niqris (Gout), Suʻāl Yābis (Dry Cough), Waram al-Kabid (Hepatitis), Suʻāl (Cough), Surʻat al-Inzāl (Premature Ejaculation), Nazlah (Common Cold), Duʻf al-Ishtihā' (Anorexia) and Ṣudāʻ (Headache)
Clinical Research Unit (CRU), Kerala	Sahar (Insomnia), Nazlah (Common Cold), Surʻat al-Inzāl (Premature Ejaculation) and Duʻf al-Ishtihā' (Anorexia)
Clinical Research Unit (CRU), Kurnool	Du'f al-Ishtihā' (Anorexia), Bawāsīr Dāmiya (Bleeding Piles), Zaḥīr (Dysentery), Lithah Dāmiyah (Bleeding Gums), Ghathayān (Nausea), Waram al-Kabid (Hepatitis) and Waja' al-Asnān (Toothache)

Clinical Studies on *Baraş* (Vitiligo)

Clinical studies on *Baraş* (Vitiligo) continued at the Central Research Institute of Unani Medicine (CRIUM), Hyderabad. During the reporting period, the following studies were conducted:

Evaluation of therapeutic efficacy of a combination of coded Unani drugs UNIM-001 and UNIM-003 in *Baraş* (Vitiligo) patients

Therapeutic efficacy of a combination of two coded Unani drugs, UNIM-001 and UNIM-003, was evaluated in 1,011 patients of *Baraş* (Vitiligo). The drug UNIM-001 was given in the dose of two tablets (500 mg each) twice daily with water one hour after meal. Besides, paste of UNIM-003 was applied locally on the affected parts early in the morning followed by sun exposure for 10-15 minutes. The paste was washed off after 30 minutes of the application. Treatment was given for a period of 24 months.

During the reporting period, 34 new patients were registered, whereas 1,383 continued from the previous year bringing the total patients studied to 1,417. Out of them, 318 patients completed the study. Out of completed patients, three (0.9%) patients showed 100% re-pigmentation, one (0.3%) patient showed 91-99% re-pigmentation, 19 (6.0%) showed 71-90% re-pigmentation, 33 (10.4%) showed 51-70% re-pigmentation whereas 24 (7.6%) showed no response to treatment. A total of 410 patients dropped out of the study and 689 patients were under study. So far, 3,387 patients have completed the study. The drugs showed significant therapeutic effects in arresting the exacerbation in the existing size of the patches and appearance of new patches, besides regimenting the de-pigmented patches to a variable degree from 50 to 99% depending upon the chronicity of the disease and the part of the body affected. No drug intolerance/ adverse effects were reported.

Evaluation of therapeutic efficacy of a combination of coded Unani drugs UNIM-004 and UNIM-005 in *Baraş* (Vitiligo) patients

Therapeutic efficacy of a combination of two coded Unani drugs, UNIM-004 and UNIM-005, was evaluated in 4,371 patients of *Baraṣ* (Vitiligo) at CRIUM, Hyderabad. The drug UNIM-004 was given in the dose of two tablets (500 mg each) twice daily with water one hour after meal. Besides, paste of UNIM-005 (powder) prepared by mixing one part of drug with five parts of water was applied locally on the affected parts early in the morning and then the affected parts were exposed to sunlight for 10-15 minutes. The paste was washed off after 30 minutes of application. Treatment was given for a period of 24 months

During the reporting period, 127 new patients were registered, whereas 4,312 patients continued from the previous year, bringing the total patients studied to 4,439. Out of them, 953 patients completed the study. Out of the completed cases, five (0.4%) showed 100%



repigmentation, three (0.2%) showed 91-99% repigmentation, 23 (1.9%) showed 71-90% repigmentation, 48 (5.2%) showed 51-70% repigmentation, 57 (7.9%) showed 41-50% repigmentation, 738 (78.8%) showed ≤40% regimentation, whereas 79 (5.6%) patients showed no response to treatment. A total of 1,524 patients dropped out of the study and 1,962 patients were under study. So far, 6,261 patients have completed the study.

No drug intolerance / adverse effects were reported. However, itching and blister formation were reported in some patients with sensitive skin. It was managed by diluting the concentration of the paste and applying coconut oil on the affected parts.

Evaluation of therapeutic efficacy of *Mundij-Mushil* drugs (UNIM-040 + UNIM-041 + UNIM-042) in *Baraş* (Vitiligo) patients

Therapeutic efficacy of *Munḍij-Mushil* drugs (UNIM-040 + UNIM-041 + UNIM-042) was evaluated in the patients of *Baraṣ* (Vitiligo). The *Munḍij* drugs were given till the appearance of *Nuḍij* in urine followed by *Mushil* and *Tabrīd* drugs for six days alternately.

During the reporting period, 79 new patients were registered, whereas six patients continued from the previous year, bringing the total patients studied to 85. Out of them, 69 patients completed the study. In these patients, *Nuḍj* appeared in urine in 2-3 weeks of the treatment. There was definite sign of repigmentation either in the form of islands of pigmentation or perilesional pigmentation or both. No drug intolerance / side effect was reported. After the completion of *Munḍij-Mushil* therapy, the patients were given oral and local drugs. Ten patients dropped out of the study whereas six patients were under study.

Multi-centric Randomized Controlled Trials

A multi-centric, single blind, randomized, parallel group, controlled study to compare the efficacy and safety of coded Unani formulations UNIM-001 + UNIM-003 with Psoralen in the treatment of *Baraṣ* (Vitiligo)

A multi-centric clinical study to compare the efficacy and safety of coded Unani formulations UNIM-001 + UNIM-003 with Psoralen was carried out in the patients of *Baraş* (Vitiligo) at CRIUM, Hyderabad; and RRIUMs, Aligarh, Chennai, New Delhi and Srinagar. The patients were divided into two groups. Group-I received UNIM-001 orally in the dose of two tablets (800 mg each) twice daily one hour after meal and UNIM-003 for local application on the affected area, whereas group-II received two tablets (10 mg each) of Psoralen orally twice daily and Psoralen in lotion form for local application on the affected area. The total treatment duration was eight months.

During the reporting period, 61 new patients were registered, whereas 76 patients continued from the previous year, bringing the total to 137 patients. Out of them, 51 patients completed the study. Out of the completed cases, 9 (18%) patients were relieved, 31 (60%) partially relieved and 11 (22%) showed no response. A total of 40 patients dropped out of the study, whereas 46 patients were under study. The test drugs were found well-tolerated and no adverse effect was observed.

A multi-centric, single blind, randomized, parallel group study to compare the efficacy and safety of coded Unani formulation UNIM-221 with Metformin in the patients of *Dhayābīṭus Sukkarī Qism-i Thānī* (Diabetes Mellitus Type-II)

A multi-centric clinical study to compare the efficacy and safety of a coded Unani formulation UNIM-221 with Metformin was carried out in the patients of *Dhayābīṭus Sukkarī Qism-i Thānī* (Diabetes Mellitus Type-II) at CRIUMs, Hyderabad and Lucknow; and



RRIUMs, Aligarh and New Delhi. The patients were divided into two groups; group-I received UNIM-221 in the dose of 10 gm twice daily half an hour before meals, while group-II received anti-diabetic drug Metformin 500 mg twice daily. The total treatment duration was 12 weeks.

During the reporting period, 30 new patients were registered, whereas six patients continued from the previous year, bringing the total to 36 patients. Out of them, 11 patients completed the study. Of the completed cases, two (18%) patients were relieved, eight (72%) partially relieved and one (9%) showed no response. A total of 20 patients dropped out of the study and five patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

A multi-centric, single blind, randomized, parallel group study to compare the efficacy and safety of coded Unani formulation UNIM-904 with Amlodipine in the patients of <code>Daght</code> al-Dam <code>Qawī Lāzimī</code> (Essential Hypertension)

A multi-centric clinical study to compare the efficacy and safety of a coded Unani formulation UNIM-904 with Amlodipine was carried out in the patients of <code>Daght</code> al-Dam <code>Qawī Lāzimī</code> (Essential Hypertension) at CRIUM, Hyderabad; and RRIUMs, Aligarh, Srinagar, Mumbai and New Delhi. The patients were divided into two groups; group-I received UNIM-904 (granules) in the dose of five gm twice daily half an hour before meals, while group-II received standard anti-hypertensive drug Amlodipine 5 mg once daily before breakfast. The total treatment duration was 12 weeks.

During the reporting period, 32 new patients were registered, whereas two patients continued from the previous year, bringing the total to 34 patients. Out of them, 14 patients completed the study. Of the completed cases, five (36%) patients were relieved and nine (64%) partially relieved. Two patients dropped out of the study, whereas 18 patients were under study. The test drug was found well-tolerated and no adverse effect was observed.

Validation of Unani Pharmacopoeial Drugs

Clinical validation of a Unani pharmacopoeial formulation *Qurṣ-i Dīdān* in *Dīdān al-Amʿāʾ* (Helminthiasis)

A study on validation of a Unani pharmacopoeial formulation *Qurṣ-i Dīdān* in the patients of *Dīdān al-Am'ā'* (Helminthiasis) was carried out at CRIUM, Lucknow; and RRIUMs, Bhadrak and Kolkata. The patients received *Qurṣ-i Dīdān* in the dose of one tablet (250 mg) orally twice daily before meals for two weeks.

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

Clinical validation of Unani pharmacopoeial formulations *Iţrīfal Shāhtarah* and *Marham Khārish Jadīd* in *Jarab* (Scabies)

A study on validation of Unani pharmacopoeial formulations *Iṭrīfal Shāhtara* and *Marham Khārish Jadīd* in the patients of *Jarab* (Scabies) was carried out at RRIUMs, Bhadrak and Srinagar; and CRU, Bhopal. The patients received *Iṭrīfal Shāhtara* in the dose of six gm orally twice daily after meal along with local application of *Marham Khārish Jadīd* for two weeks. The patients were advised to wash the affected area with *Āb-i Nīm* before applying *Marham*.



During the reporting period, 69 patients were studied, of which 42 completed the study. Out of the completed cases, 15 (36%) were relieved, 22 (52%) partially relieved and five (12%) showed no response. No patient was under study and 27 dropped out of the study. The test drugs were found well-tolerated and no adverse effect was observed.

Clinical validation of a Unani pharmacopoeial formulation *Maʻjūn Chobchīnī* in *Jarab* (Scabies)

A study on validation of a Unani pharmacopoeial formulation *Maʻjūn Chobchīnī* in the patients of *Jarab* (Scabies) was carried out at RRIUMs, Bhadrak and Patna; and RRC Allahabad. The patients received *Maʻjūn Chobchīnī* in the dose of five gm orally twice daily after meal for four weeks.

During the reporting period, 80 patients were studied; of which 35 patients completed the study. Out of the completed cases, 12 (34%) were relieved, 17 (49%) partially relieved and six (17%) showed no response. Three patients were under study and 42 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-i Dhayābīṭus Khās* in *Dhayābīṭus Sukkarī Qism-i Thānī* (Diabetes Mellitus Type-II)

A study on validation of a Unani pharmacopoeial formulation *Qurṣ-i Dhayābīṭus Khās* in the patients of *Dhayābīṭus Sukkarī Qism-i Thānī* (Diabetes Mellitus Type-II) was carried out at CRIUM, Hyderabad; RRIUM, Chennai; RRC, Allahabad; and CRU, Bengaluru. The patients received *Qurṣ-i Dhayābīṭus Khās* in the dose of two tablets orally twice daily half an hour before meals for 12 weeks.

During the reporting period, 57 patients were studied, of which 36 completed the study. Out of the completed cases, seven (19%) were relieved, 24 (67%) partially relieved and five (14%) patients showed no response. Two patients were under study and 19 dropped out of the study. The test drug was found well-tolerated and no adverse effect was observed.

Clinical validation of Unani pharmacopoeial formulations *Maʻjūn Suranjān* and *Ḥabb-i Azarāqī* in *Nigris* (Gout)

A study on validation of Unani pharmacopoeial formulations *Maʻjūn Suranjān* and *Ḥabb-i Azarāqī* in the patients of *Niqris* (Gout) was carried out at CRIUM, Lucknow; RRIUMs, Aligarh and Chennai; and CRU, Burhanpur. The patients received *Maʻjūn Suranjān* five gm and *Ḥabb-i Azarāqī* one pill twice daily after meal for eight weeks.

During the reporting period, 20 patients were studied; of which 14 completed the study. Out of the completed cases, nine (64%) patients were relieved and five (36%) partially relieved. One patient was under study and five patients dropped out of the study. The test drugs were found well-tolerated and no adverse effect was observed.

Clinical validation of a Unani pharmacopoeial formulation *Safūf Ḥajr al-Yahūd* in *Ḥaṣāt al-Kulyah* (Nephrolithiasis)

A study on validation of a Unani pharmacopoeial formulation *Safūf Ḥajr al-Yahūd* in the patients of *Ḥaṣāt al-Kulyah* (Nephrolithiasis) was carried out at CRIUM, Hyderabad; and RRIUMs, Chennai, New Delhi and Srinagar. The patients received *Safūf Ḥajr al-Yahūd* five gm orally twice daily for eight weeks.

During the reporting period, 76 patients were studied, of which 42 completed the study. Out of the completed cases, 10 (24%) patients were relieved, 20 (48%) partially relieved and 12



(28%) showed no response. Nine patients were under study and 25 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 *Ḥabb-i Tursh Mushtahī* in *Du'f al-Ishtihā*' (Anorexia)

A study on validation of a Unani pharmacopoeial formulation $\underline{Habb-i}$ Tursh Mushtahī in the patients of \underline{Duf} al-Ishtihā' (Anorexia) was carried out at RRIUMs, Mumbai, Srinagar and Aligarh. The patients received $\underline{Habb-i}$ Tursh Mushtahī one pill (250 mg) orally thrice daily for two weeks.

During the reporting period, 40 patients were studied, of which 26 completed the study. Out of the completed cases, 23 (88%) patients were relieved and three (12%) partially relieved. No patient was under study and 14 dropped out of the study. The test drug was found well-tolerated and no adverse effect was observed.

Clinical validation of Unani pharmacopoeial formulations *Safūf Patthar Phorī* and *Sharbat Bazūrī Mu'tadil* in *Ḥaṣāt al-Kulyah* (Nephrolithiasis)

A study on validation of Unani pharmacopoeial formulations *Safūf Patthar Phorī* and *Sharbat Bazūrī Mu'tadil* in the patients of *Ḥaṣāt al-Kulyah* (Nephrolithiasis) was carried out at RRC, Allahabad; and CRU Bhopal. The patients received *Safūf Patthar Phorī* three gm and *Sharbat Bazūri Mu'tadil* 25 ml orally twice daily for eight weeks.

During the reporting period, 35 patients were studied, of which 16 completed the study. Out of the completed cases, three (19%) were relieved and 13 (81%) partially relieved. No patient was under study and 19 dropped out of the study. The test drugs were found well-tolerated and no adverse effect was observed.

Clinical validation of a Unani pharmacopoeial formulation *Sharbat-i Belgirī* in *Zaḥīr* (Dysentery)

A study on validation of a Unani pharmacopoeial formulation *Sharbat-i Belgirī* in the patients of *Zaḥīr* (Dysentery) was carried out at RRIUM, New Delhi; and CRUs, Meerut and Bhopal. The patients received *Sharbat-i Belgirī* 25 ml orally twice daily for two weeks.

During the reporting period, two patients were studied but none of them completed the trail and got dropped out.

Clinical validation of a Unani pharmacopoeial formulation *Damawī* in *Sū' al-Qinya* (Anaemia)

A study on validation of a Unani pharmacopoeial formulation $Damaw\bar{\iota}$ in the patients of $S\bar{\iota}$ al-Qinya (Anaemia) was carried out at CRIUM, Lucknow; and RRIUMs, New Delhi and Aligarh. The patients received $Damaw\bar{\iota}$ two tablets once daily for eight weeks.

During the reporting period, 142 patients were studied, of which 62 completed the study. Out of the completed cases, seven (11%) were relieved, 48 (77%) partially relieved and seven (12%) showed no response. A total of 26 patients were under study and 54 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 *lţrīfal Muqawwi Dimāgh* in *Nisyān* (Amnesia)

A study on validation of a Unani pharmacopoeial formulation *Iṭrīfal Muqawwi Dimāgh* in the patients of *Nisyān* (Amnesia) was carried out at CRIUMs, Hyderabad and Lucknow; and



RRIUM, Mumbai. The patients received *lṭrīfal Muqawwi Dimāgh* five gm orally twice daily for eight weeks.

During the reporting period, 51 patients were studied; of which 26 completed the study. Out of the completed cases, no patients were relieved, 20 (77%) patients were partially relieved and six (23%) showed no response. At the end of the reporting period, 19 patients were under study and six 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 *Maʻjūn Supārī Pāk* in *Sayalān al-Raḥīm* (Leucorrhoea)

A study on validation of a Unani pharmacopoeial formulation *Maʻjūn Supārī Pāk* in the patients of *Sayalān al-Raḥīm* (Leucorrhoea) was carried out at CRIUM, Hyderabad; and RRIUMs, Patna and Aligarh. The patients received *Maʻjūn Supārī Pāk* seven gm twice daily for eight weeks.

During the reporting period, 100 patients were studied, of which 59 patients completed the study. Out of the completed cases, 52 (88%) were relieved and seven (12%) partially relieved. No patient was under study, whereas 41 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 *Ḥabb-i Asgand* in *Wajaʻ al-Mafāṣil* (Rheumatoid Arthritis)

A study on validation of a Unani pharmacopoeial formulation <code>Ḥabb-i</code> Asgand in Waja' al-Mafāṣil (Rheumatoid Arthritis) was carried out at RRIUMs, New Delhi, Mumbai and Aligarh; and CRU, Bengaluru. The patients received <code>Ḥabb-i</code> Asgand one pill twice daily for six weeks.

During the reporting period, 129 patients were studied, of which 71 completed the study. Out of the completed cases, 35 (49%) were relieved, 31 (44%) partially relieved and five (07%) showed no response. A total of 13 patients were under study and 45 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 *Ḥabb-i Bawāsīr Dāmiya* in *Bawāsīr* (Piles)

A study on validation of a Unani pharmacopoeial formulation *Ḥabb-i Bawāsīr Dāmiya* in the patients of *Bawāsīr* (Piles) was carried out at RRIUMs, Bhadrak and Kolkata; and CRU, Kurnool. The patients received *Ḥabb-i Bawāsīr Dāmiya* one pill twice daily for two weeks.

During the reporting period, 33 patients were studied, of which 22 completed the study. Out of the completed cases, eight (36%) patients were relieved, 12 (55%) partially relieved and two (09%) showed no response. No patient was under study and 11 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 Hābis al-Dam* in *Kathrat al- Tamth* (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 CRIUM, Hyderabad; and RRIUMs, Aligarh, Chennai and Srinagar. The patients received *Safūf Hābis al-Dam* 2.5 gm 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, 97 patients were studied, of which 55 completed the study. Out of the completed cases, 39 (71%) were relieved, 10 (18%) partially relieved and six (11%) showed no response. Total 18 patients were under study and 24 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 Shāhī in Khafaqān* (Palpitation)

A study on validation of a Unani pharmacopoeial formulation *Jawārish Shāhī* in *Khafaqān* (Palpitation) was carried out at CRIUM Lucknow; and RRIUMs, Aligarh and Srinagar. The patients received *Jawārish Shāhī* five gm orally twice daily for two weeks.

During the reporting period, 130 patients were studied, of which 80 completed the study. Out of the completed cases, 56 (70%) were relieved, 22 (28%) partially relieved and two (2%) showed no response. Seven patients were under study and 43 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 *Khamīrah Ṣandal Sāda* in *Khafaqān* (Palpitation)

A study on validation of a Unani pharmacopoeial formulation *Khamīrah Ṣandal Sāda* in the patients of *Khafaqān* (Palpitation) was carried out at CRIUM, Hyderabad; RRIUM, New Delhi; and CRU, Meerut. The patients received *Khamīrah Ṣandal Sāda* five gm twice daily for two weeks.

During the reporting period, 155 patients were studied, of which 134 completed the study. Out of the completed cases, 38 (28%) patients were relieved, 71 (53%) partially relieved and 25 (19%) showed no response. No patient was under study whereas 21 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 *La'ūq-i Bādām* in *Khushūnat al-Halaq* (Sore Throat)

A study on validation of a Unani pharmacopoeial formulation *La'ūq-i Bādām* in the patients of *Khushūnat al-Ḥalaq* (Sore Throat) was carried out at RRIUMs, Bhadrak, Chennai and Kolkata. The patients received *La'ūq-i Bādām* five gm twice daily for two weeks.

During the reporting period, 97 patients were studied, of which 89 completed the study. Out of the completed cases, 78 (88%) patients were relieved, seven (08%) partially relieved and four (04%) showed no response. No patient was under study whereas 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 *lţrīfal Ustukhuddūs* in *Nazlah Muzmin* (Chronic Rhinosinusitis)

A study on validation of a Unani pharmacopoeial formulation *lţrīfal Ustukhuddūs* in the patients of *Nazlah Muzmin* (Chronic Rhinosinusitis) was carried out at CRIUMs, Hyderabad and Lucknow; and RRIUM, Srinagar. The patients received *lţrīfal Ustukhuddūs* seven gm twice daily for six weeks.

During the reporting period, 123 patients were studied, of which 76 completed the study. Out of the completed cases, 26 (34%) patients were relieved and 50 (66%) partially relieved. A total of 15 patients were under study and 32 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 *Sharbat-i Ṣadr* in *Suʻāl* (Cough)

A study on validation of a Unani pharmacopoeial formulation *Sharbat-i Ṣadr* in the patients of *Suʻāl* (Cough) was carried out at RRIUM Kolkata; and CRU, Burhanpur. The patients received *Sharbat-i Ṣadr* 10 ml thrice daily for two weeks.

During the reporting period, 79 patients were studied, of which 69 completed the study. Out of the completed cases, 15 (22%) patients were relieved, 35 (51%) partially relieved and 19 (27%) showed no response. No patient was under study whereas 10 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 *Maʻjūn Dabīd al-Ward* in *Waram al-Kabid* (Hepatitis)

A study on validation of a Unani pharmacopoeial formulation *Maʻjūn Dabīd al-Ward* in the patients of *Waram al-Kabid* (Hepatitis) was carried out at CRUs, Burhanpur and Kurnool. The patients received *Maʻjūn Dabīd al-Ward* five gm twice daily for six weeks.

During the reporting period, 16 patients were studied and all of them completed the study. Out of the completed cases, one (06%) patient was relieved, 11 (69%) partially relieved and four (25%) showed no response. The test drug was found well-tolerated and no adverse effect was observed.

Clinical validation of a Unani pharmacopoeial formulation *La'ūq-i Katān* in *D̄īq al-Nafas* (Bronchial Asthma)

A study on validation of a Unani pharmacopoeial formulation $La'\bar{u}q$ -i $Kat\bar{a}\underline{n}$ in the patients of $D\bar{i}q$ al-Nafas (Bronchial Asthma) was carried out at CRIUM, Lucknow; RRC, Allahabad; and CRU, Meerut. The patients received $La'\bar{u}q$ -i $Kat\bar{a}\underline{n}$ five gm twice daily for two weeks.

During the reporting period, 139 patients were studied, of which 119 completed the study. Out of the completed cases, 26 (22%) patients were relieved, 67 (56%) partially relieved and 26 (22%) showed no response. Four patients were under study and 16 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 *Khamīrah Gā'uzabān Sāda* in *Duf al-Dimāgh* (Cerebrasthenia)

A study on validation of a Unani pharmacopoeial formulation *Khamīrah Gā'uzabān Sāda* in the patients of *Du'f al-Dimāgh* (Cerebrasthenia) was carried out at CRIUMs, Hyderabad and Lucknow; and RRIUM, Mumbai. The patients received *Khamīrah Gā'uzabān Sāda* five gm twice daily for six weeks.

During the reporting period, 68 patients were studied, of which 36 completed the study. Out of the completed cases, no patient was relieved, 12 (33%) were partially relieved and 24 (67%) showed no response. A total of 16 patients were under study and 16 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 *Ḥabb-i Hiltīt* in *Ḍuʿf al-Ishtihā*' (Anorexia)

A study on validation of a Unani pharmacopoeial formulation <code>Ḥabb-i</code> Hiltīt in the patients of <code>Duf al-Ishtihā</code> (Anorexia) was carried out at RRIUMs, Chennai, Patna and New Delhi. The patients received <code>Ḥabb-i</code> Hiltīt one pill twice daily for two weeks.

During the reporting period, 29 patients were studied, of which 26 completed the study. Out of the completed cases, 14 (54%) patients were relieved and 12 (46%) partially relieved.



One patient was under study and two 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 *lţrīfal Faulādi* in *Sū' al-Qinya* (Anaemia)

A study on validation of a Unani pharmacopoeial formulation $ltr\bar{l}fal$ Faulādi in the patients of $S\bar{u}$ ' al-Qinya (Anaemia) was carried out at RRIUM, Patna; and CRUs, Meerut and Bangalore. The patients received $ltr\bar{l}fal$ Faulādi seven grams twice daily for six weeks.

During the reporting period, 101 patients were studied, of which 90 completed the study. Out of the completed cases, 25 (28%) patients were relieved, 46 (51%) partially relieved and 19 (21%) showed no response. One patient was under study and 10 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 *Ḥabb-i Tinkār* in *Ḍuʿf al-Ishtihā*' (Anorexia)

A study on validation of a Unani pharmacopoeial formulation <code>Ḥabb-i Tinkār</code> in the patients of <code>Duf al-Ishtihā</code> (Anorexia) was carried out at CRIUMs, Hyderabad, Lucknow; and CRU, Bengaluru. The patients received <code>Ḥabb-i Tinkār</code> two pills (250 mg each) twice daily for two weeks.

During the reporting period, 83 patients were studied, of which 51 completed the study. Out of the completed cases, 40 (78%) patients were relieved, 10 (20%) partially relieved and one (02%) showed no response. Two were under study and 30 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 *Ḥabb-i Suranjān* in *Waja' al-Mafāṣil* (Rheumatoid Arthritis)

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

During the reporting period, 62 patients were studied, of which 33 completed the study. Out of the completed cases, seven (21%) were relieved, 24 (73%) partially relieved and two (06%) showed no response. A total of 14 patients were under study and 15 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 *lṭrīfal Mulayyin* in Ṣudā' Muzmin (Chronic Headache)

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

During the reporting period, 98 patients were studied, of which 82 completed the study. Out of the completed cases, 41 (50%) patients were relieved, 25 (30%) partially relieved and 16 (20%) showed no response. Four patients were under study and 12 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 *Ḥabb-i Bawāsīr 'Umya* in *Bawāsīr 'Umya* (Non-Bleeding Piles)

A study on validation of a Unani pharmacopoeial formulation <code>Ḥabb-i</code> <code>Bawāsīr</code> 'Umya in the patients of <code>Bawāsīr</code> 'Umya (Non-Bleeding Piles) was carried out at RRIUM, New Delhi and Mumbai; and RRC, Allahabad. The patients received <code>Ḥabb-i</code> <code>Bawāsīr</code> 'Umya one pill (250 mg) twice daily for two weeks.

During the reporting period, 96 patients were studied, of which 77 completed the study. Out of the completed cases, 23 (30%) patients were relieved, 26 (34%) partially relieved and 28 (36%) showed no response. Three patients were under study and 16 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 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* seven grams twice daily for six weeks.

During the reporting period, 70 patients were studied, of which 50 completed the study. Out of the completed cases, 16 (32%) were relieved, 27 (54%) partially relieved and seven (14%) showed no response. Three 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 *Qurṣ-i Ḥābis* in *Kathrat al-Ṭamth* (Menorrhagia)

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

During the reporting period, 24 patients were studied, of which seven completed the study. Out of the completed cases, two (29%) patients were relieved and five (71%) partially relieved. A total of 17 patients were under study and no patient 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 Bisbāsah* in *Siman Mufriţ* (Central Obesity)

A study on validation of a Unani pharmacopoeial formulation *Jawārish Bisbāsah* in the patients of *Siman Mufriţ* (Central obesity) was carried out at CRIUM, Lucknow; RRIUM, Aligarh and Mumbai. The patients received *Jawārish Bisbāsah* 7 gm twice daily for eight weeks.

During the reporting period, 194 patients were studied, of which 131 completed the study. Out of the completed cases, 39 (30%) patients were relieved, 68 (52%) partially relieved and 24 (18%) showed no response. A total of 13 patients were under study and 50 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 *Maʻjūn-i Piyāz* in *Surʻat al-Inzāl* (Premature Ejaculation)

A study on validation of a Unani pharmacopoeial formulation *Maʻjūn-i Piyāz* in the patients of *Surʻat al-Inzāl* (Premature Ejaculation) was carried out at CRIUM, Lucknow; and CRUs,



Meerut and Burhanpur. The patients received *Maʻjūn-i Piyāz* 7 grams twice daily for two weeks.

During the reporting period, 90 patients were studied, of which 81 completed the study. Out of the completed cases, 17 (21%) were relieved, 51 (63%) partially relieved and 13 (16%) showed no response. Two patients were under study and seven 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 *Khamīrah Ābresham Sādah* in *Khafaqān* (Palpitation)

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

During the reporting period, 112 patients were studied, of which 94 completed the study. Out of the completed cases, 77 (82%) patients were relieved, 14 (15%) partially relieved and three (3%) showed no response. Five patients were under study and 13 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 Zanjabīl* in *Du'f al-Ishtihā*' (Anorexia)

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

During the reporting period, 182 patients were studied, of which 131completed the study. Out of the completed cases, 18 (14%) patients were relieved and 99 (76%) partially relieved whereas 14 (10%) showed no response. Fourteen patients were under study and 37 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 *lţrīfal Zamānī* in *Nazlah Muzmin* (Chronic Rhinosinusitis)

A study on validation of a Unani pharmacopoeial formulation *lţrīfal Zamānī* in the patients of *Nazlah Muzmin* (Chronic Rhinosinusitis) was carried out at RRIUMs, Aligarh, New Delhi and Kolkata; and CRU, Meerut. The patients received *lţrīfal Zamānī* 7 grams at bed time for six weeks.

During the reporting period, 169 patients were studied, of which 119 completed the study. Out of the completed cases, 26 (22%) patients were relieved and 69 (58%) partially relieved whereas 24 (20%) showed no response. Ten patients were under study and 40 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 *Ḥabb-i Mudir* in the patients of *Ihtibās al-Ṭamth* (Amenorrhoea)

A study on validation of a Unani pharmacopoeial formulation <u>Ḥabb-i Mudir</u> was conducted in the patients of *Ihtibās al-Ṭamth* (Amenorrhoea) at CRIUMs, Hyderabad and Lucknow; and RRIUM, Mumbai. The study drug <u>Ḥabb-i Mudir</u> was given 2 Tab (500mg) thrice daily for 5 days each month for three consecutive months.



During the reporting period, 15 patients were studied. None of the patients has completed the trial so far.

Clinical validation of a Unani pharmacopoeial formulation *Sharbat-i Khāksī* in *Ḥumma* (Fever)

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

During the reporting period, two patients were studied and both of them completed the study. Out of the completed cases, two (100%) were partially relieved. The test drug was found well-tolerated and no adverse effect was observed.

Clinical validation of a Unani pharmacopoeial formulation *Ḥabb-i Muṣaffī Khūn* in *Buthūr al-Jild* (Skin Eruptions)

A study fon validation of a Unani pharmacopoeial formulation <code>Ḥabb-i Muṣaffī Khūn</code> in the patients of <code>Buthūr al-Jild</code> (Skin Eruptions) was carried out at RRIUMs, New Delhi and Bhadrak; and RRC, Silchar. The patients received <code>Ḥabb-i Muṣaffī Khūn</code> one pill (250 mg) twice daily for two weeks.

During the reporting period, six patients were studied, of which two completed the study. Out of the completed cases, one (50%) patients relieved and one (50%) partially relieved. Four patients were under study and no patient 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 *lţrīfal Kishnīzī* in *Nazlah Muzmin* (Chronic Rhinosinusitis)

A study on validation of a Unani pharmacopoeial formulation *lţrīfal Kishnīzī* in the patients of *Nazlah Muzmin* (Chronic Rhinosinusitis) was carried out at RRIUM, Kolkata, Patna; and CRU, Meerut. The patients received *lţrīfal Kishnīzī* 10 gm twice daily for four weeks.

During the reporting period, 19 patients were studied, of which 10 completed the study. Out of the completed cases, two (20%) patients were relieved, six (60%) partially relieved and two (20%) showed no response. Three patients were under study and six 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 Pudīnah* in *Du'f al-Ishtihā'* (Anorexia)

A study on validation of a Unani pharmacopoeial formulation *Jawārish Pudīnah* in the patients of *Du'f al-Ishtihā'* (Anorexia) was carried out at RRIUM, Kolkata; and CRUs, Meerut, Kurnool and Bhopal. The patients received *Jawārish Pudīnah* 5 grams twice daily for two weeks.

During the reporting period, 16 patients were studied, of which 14 completed the study. Out of the completed cases, nine (64%) patients were relieved and five (36%) partially relieved. No patient was under study and two dropped out of the study. The test drug was found well-tolerated and no adverse effect was observed.

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 the various clinical centres of the Council.

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

Clinical validation of a Unani pharmacopoeial formulation *Rawghan Labūb Ṣabā* in the patients of *Sahar* (Insomnia)

Clinical validation of a Unani pharmacopoeial formulation *Rawghan Labūb Ṣabā* was conducted in the patients of *Sahar* (Insomnia) at CRIUMs, Hyderabad and Lucknow; and RRIUM, New Delhi. The study drug *Rawghan Labūb Ṣabā* was applied locally on scalp at bedtime once a day for seven days.

During the reporting period, 137 patients were studied, of which 112 completed the study. Out of the completed cases, 40 (36%) patients were relieved and 61 (54%) partially relieved, whereas eight (10%) showed no response. Three patients were under study and 22 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 *Ḥabb-i Surfa* in the patients of *Surfa* (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, 84 patients were studied, of which 73 completed the study. Out of the completed cases, 11 (15%) were relieved and 44 (60%) partially relieved, whereas 18 (25%) showed no response. No patient was under study and 11 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 *La'ūq Sapistān* in the patients of *Nazlah* (Common Cold)

Clinical validation of a Unani pharmacopoeial formulation $La'\bar{u}q$ $Sapist\bar{a}\underline{n}$ in the patients of Nazlah (Common Cold) was conducted at CRIUM, Lucknow; CRUs, Bhopal, Kerala, Meerut; and RRC, Silchar. The study drug $La'\bar{u}q$ $Sapist\bar{a}\underline{n}$ was given orally in the dose of five gm twice daily for seven days.

During the reporting period, three patients were studied, of which two completed the study. Out of the completed cases, two (100%) patients were relieved. One patient 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 *Rawghan-i Kāhu* in *Sahar* (Insomnia)

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

During the reporting period, 65 patients were studied, of which 55 completed the study. Out of the completed cases, 33 (60%) were relieved and 15 (27%) partially relieved, whereas seven (13%) showed no response. No patient was under study and 10 patients were 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 *Khamīrah Banafshā* in *Suʻāl Yābis* (Dry Cough)

Clinical validation of a Unani pharmacopoeial formulation *Khamīrah Banafshā* was conducted in the patients of *Suʻāl Yābis* (Dry Cough) at CRIUM, Hyderabad; and RRIUMs, Aligarh and New Delhi. The study drug *Khamīrah Banafshā* was given orally in the dose of seven grams twice daily for seven days.

During the reporting period, 120 patients were studied, of which 94 completed the study. Out of the completed cases, 15 (16%) were relieved and 45 (48%) were partially relieved, whereas 34 (36%) showed no response. A total of 18 patients dropped out of the study and eight 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 *Lithah Dāmiyah* (Bleeding Gums)

Clinical validation of a Unani pharmacopoeial formulation *Sanūn Mukhrij-i Ruṭūbat* was conducted in the patients of *Lithah Dāmiyah* (Bleeding Gums) at CRIUM, Hyderabad; RRIUM, Aligarh; and CRU, Kurnool. The study drug *Sanūn Mukhrij-i Ruṭūbat* in the dose of one gram was applied locally on the gums twice a day for seven days.

During the reporting period, 50 patients were studied, of which 47 completed the study. Out of the completed cases, 19 (40%) patients were relieved and 24 (51%) partially relieved, whereas four (09%) patients showed no response. Three patients dropped out of the study and no patients 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 Khayarshambar* in *Nazlah* (Common Cold)

Clinical validation of a Unani pharmacopoeial formulation *La'ūq Khayarshambar* was conducted in the patients of *Nazlah* (Common Cold) at CRIUM, Lucknow; RRIUM, Patna; and CRU, Kerala. The study drug *La'ūq Khayarshambar* in the dose of 10 grams twice daily was given for seven days.

During the reporting period, 64 patients were studied, of which 44 completed the study. Out of the completed cases, 29 (66%) were relieved and 10 (23%) partially relieved, whereas five (11%) showed no response. Nineteen 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.

New Studies

Besides the above, the following studies under validation of Unani pharmacopoeial fast-acting drugs were allotted / initiated during the reporting period:

- Clinical validation of Unani pharmacopoeial formulation Jawārish Pudīnah Wilāyatī in Sū' al-Haḍm (Dyspepsia)
- Clinical validation of Unani pharmacopoeial formulation *La'ūq D̄īq al-Nafas* in *D̄īq al-Nafas* (Bronchial Asthma)
- Clinical validation of Unani pharmacopoeial formulation Sayalānī in Sayalān al-Raḥim (Leucorrhoea)
- Clinical validation of Unani pharmacopoeial formulation Ma'jūn Najāḥ in Mālinkhūliyā (Mixed Anxiety Depressive Disorder)



- Clinical validation of Unani pharmacopoeial formulation Ḥabb 'Irq al-Nasā' in Waja' al-Mafāṣil (Rheumatoid Arthritis)
- Clinical validation of Unani pharmacopoeial formulation *Safūf Dhayābīṭus Dūlābī* in *Dhayābīṭus Sukkarī* (Diabetus Mellitus)
- Clinical validation of Unani pharmacopoeial formulation *Maʻjūn Khabth al-Ḥadīd* in *Sūʾ al-Qiniyah* (Anaemia)
- Clinical validation of Unani pharmacopoeial formulation *Khamīrah Ābresham Shīrah* 'Unnāb Wālā in Khafaqān (Palpitation)
- Clinical validation of Unani pharmacopoeial formulation Malerian in Ḥumma Ijāmiyah (Malaria)
- Clinical validation of Unani pharmacopoeial formulation *Ḥabb-i Jadwār Kuchak* in *Du'f al-Dimāgh* (Cerebroasthenia)

Validation of Regimen Therapies

Apart from pharmacotherapy, Unani Medicine also offers '*llāj bi'l-Tadbīr* (Regimen Therapy), such as *Ḥijāmah* (Cupping), *Ta'līq al-'Alaq* (Leeching), *Dalk* (Massage), *ḤammāmYābis* (Sauna), *Ḥammām al-Bukhār* (Steam Bath), etc. for certain disease conditions. During the reporting period, various regimen therapy procedures were performed in a total of 12,472 patients with different diseases. These patients showed significant therapeutic effects in subsiding the signs and symptoms of the diseases.

Hijāmah bilā-Sharṭ (Dry Cupping) was performed in 4,130 patients with different diseases, including Taḥajjur al-Mafāṣil (Osteoarthritis), 'Irq al-Nasā (Sciatica), Taḥajjur Mafāṣil al-'Unuq (Cervical Spondylosis), Taḥajjur Mafāṣil al-Ṣahr (Lumbar Spondylosis), Katif Mujammad (Frozen Shoulder), Waja' al-Ṣahr (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), Ḥuzn (Depression), etc. at CRIUMs, Hyderabad and Lucknow; and RRIUMs, Chennai, Bhadrak, Patna, New Delhi, Aligarh and Srinagar.

Hijāmah bi'l-Sharṭ (Wet Cupping) was performed in 878 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 RRIUMs, Chennai, Patna, New Delhi and Srinagar.

Hijāmah bi'l-Nār (Fire Cupping) was performed in 2,327 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 CRIUM, Lucknow; and RRIUMs, Srinagar and New Delhi.

Hijāmah Muzliqah (Moving Cupping) was performed in 2,067 patients with different diseases, including Waja' al-Ṣahr (Backache) and Katif Mujammad (Frozen Shoulder) at RRIUMs, Chennai and New Delhi.

Taʻliq al-ʻAlaq (Leeching) was performed in 10 patients with different diseases, including Dawālī (Varicose Veins), Takhaththur al-Dam (Deep Vein Thrombosis), Qadam Dhayābīṭusiyya (Diabetic Foot), Khaṣar-wa-Taṣqīʻ (Frostbite), Taḥajjur al-Mafāṣil



(Osteoarthritis), *Katif Mujammad* (Frozen Shoulder), *Nār Fārsī* (Eczema) and *Dā' al-Tha'lab* (Alopecia) at RRIUM, Srinagar.

Ḥammām al-Bukhār (Steam Bath) was performed in 779 patients with different diseases, including Waja' al-Katif (Upper Back Pain), Buthūr al-Jild (Macules / Papules / Pustules), Qūbā (Ringworm), Siman Mufriṭ (Obesity) and Bafā (Dandruff) at RRIUMs, Chennai, Srinagar and New Delhi.

Dalk Mu'tadil (Moderate Massage) was performed in 1,467 patients with different diseases, including Wajaʻ al-Mafāṣil (Rheumatoid Arthritis), Taḥajjur al-Mafāṣil (Osteoarthritis), Taḥajjur Mafāṣil al-'Unuq (Cervical Spondylosis), Katif Mujammad (Frozen Shoulder), Wajaʻ al-Ṣahr (Backache), Wajaʻ al-Katif (Shoulder Pain) and Wajaʻ al-'Aqib (Achillodynia) at RRIUM, New Delhi.

Naṭūl (Fomentation) was performed in 51 patients of *Waja' al-Mafāṣil* (Rheumatoid Arthritis) at RRIUM, Srinagar.

Inkibāb (Vaporisation) was performed in 234 patients of Waja' al-Mafāṣil (Rheumatoid Arthritis) and Waja' al-Katif (Frozen Shoulder) at RRIUMs, Chennai, Srinagar and New Delhi.

Mundij-Mushil therapy was performed in 42 patients of Baraş (Vitiligo) at RRIUM, New Delhi.

Faṣd (Venesection) was performed in four patients of Dawālī (Varicose Veins), Takhaththur al-Dam (Deep Vein Thrombosis) at RRIUMs, Srinagar and Bhadrak.

Takmīd (Fomentation) was performed in 483 patients of *Waja' al-Mafāṣil* (Rheumatoid Arthritis), *Taḥajjur al-Mafāṣil* (Osteoarthritis), *Siman Mufriṭ* (Obesity), *Katif Mujammad* (Frozen Shoulder) at RRIUMs, Srinagar and New Delhi.

Validation of Fundamentals

Theory of Akhlāt 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 CRIUM, Hyderabad. The project 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, Şafrāwī, Sawdāwī and other related diseases were carried out; and healthy volunteers served as control. Pharmacogenomic studies of Unani formulations in Vitiligo were also conducted. The studies carried out in each participant included determination of dominant temperament by Ajnās-i 'Asharah and special CRF on assessment of temperament, genetic marker studies in relation to temperament, studies of biochemical, physiological and pathological parameters, and pulse wave analysis and its component study in relation to the temperament. During the reporting period, the following studies were carried out in 90 healthy volunteers of which 18 were Damawī, 11 Balghamī, 17 Ṣafrāwī and 44 Sawdāwī. Apart from it, 26 vitiligo patients were enrolled for the pharmacogenomics study. So far, 1,365 healthy subjects and patients completed the studies. The 1st part of the project is an observational study; the subjects are being



analyzed for dominant temperament according to *Ajnās-i 'Ashara*. In the second part; the subjects and patients are then divided and referred for genetic marker studies, biochemical, physiological, pathological and pulse wave analysis studies.

Genetic studies on theory of Humours with special reference to Diabetes Mellitus

During the reporting period, compilation of genetic studies on the theory of Humours with special reference to Diabetes Mellitus was completed. Apart from the above, primers were designed, standardized and polymorphism studies for GSTT1 and GSTM1 (drug metabolizing genes) to see genotype frequency in patients suffering from Diabetes Mellitus using gene tool software was also carried out.

Drug metabolizing genes GSTT1 and GSTM1 were studied in 100 Diabetes Mellitus and 100 healthy controls of *Damawī* temperament in relation to *Damawī* healthy volunteers. The results have been analyzed. In case of GSTT1, genotype frequency H/H was 80% in the patients of Diabetes and that of control was 90%, whereas in case of Null it was 20% in the patients and 10% in the healthy controls. In case of GSTM1, the genotype frequency in H/H was 62% in patients while 80% in controls whereas Null was 38% in patients and 20 % in controls.

Molecular biology work (polymorphism studies) on CYP3 gene has been completed on a sample size of 100 patients. The biochemical, physiological and pathological parameters were in the physiological range. The correlation of the Pulse tracings with the temperament was sometimes concordant while at times it was discordant. Inferences have been drawn as per the results.

Genetic studies on theory of Humours with special reference to Vitiligo

During the reporting period, compilation of technical report on Vitiligo was undertaken and is under process. Some statistical evaluation is awaited. Molecular biology work (Polymorphism Studies) on GSTT1 and GSTM1 was completed. Molecular biology work on CYP3 gene (Polymorphism Studies) has been completed. The biochemical, physiological and pathological parameters were in the physiological range. The correlation of the Pulse tracings with the temperament was sometimes concordant while at times it was discordant. Inferences have been drawn as per the results.

Genetic studies on theory of Humours with special reference to Hepatitis and other *Ṣafrāwī* related diseases

Molecular biology (genomics) work is in process. The standards of CYP3 gene primers were checked. Performed PCR (polymerase chain reaction) in CYP3 gene along with RFLP (Restriction fragment length polymorphism) for (n=100) samples. In molecular biology studies, drug metabolizing genes GSTT1 and GSTM1 were studied to see the genotype frequency of the two genes in the patients along with controls using gene tool software. In GSTM1 H/H was 51% in relation to controls whereas in Null it was 49%. In GSTT1 H/H was 69% in relation to controls and Null was 31% in relation to controls. The standards of CYP3 gene polymorphism studies were completed. CYP3 gene polymorphism is being done on 100 \$\infty\$afr\tank{a}\tilde{w}\tilde{v}\$ patients. Results are in the process of analysis. The biochemical, physiological and pathological parameters were in the physiological range. The correlation of the Pulse tracings with the temperament was sometimes concordant while at times it was discordant. Inferences have been drawn as per the results.



Genetic studies on theory of Humours with special reference to healthy volunteers

Ninety healthy volunteers were enrolled of which 18 were *Damawī*, 11 were *Balghamī*, 17 were *Ṣafrāwī* and 44 were *Sawdāwī*. DNA isolation for samples was done. Polymorphism studies on drug metabolizing genes GSTT1 and GSTM1 were completed. Results of the Drug metabolizing genes GSTT1 and GSTM1 have been analyzed on healthy volunteers. Checked for the standards of CYP3 gene primer. Performed PCR (polymerase chain reaction) in CYP3 gene polymorphism studies being carried out on 531 healthy subjects and 400 patients. Final results will be analyzed on completion of the project. The biochemical, physiological and pathological parameters were in the physiological range. The correlation of the Pulse tracings with the temperament was sometimes concordant while at times it was discordant. Inferences have been drawn as per the results.

Pharmacogenomics of Unani formulations in Vitiligo

Blood samples have been collected in paxgene blood RNA tubes from 95 (26 samples during the reporting period) Vitiligo patients and 30 controls for the pharmacogenomic studies. Serum samples from the patients and controls were also collected and stored at -80°c to assess other biological parameters in the protocol. Isolated the RNA from vitiligo patient's whole blood samples and healthy volunteer's samples by using Paxgene blood RNA isolation kit. Qualitative check for isolated RNA by agarose gel electrophoresis quantitative check by Nano-drop reading using Multi mode reader. Converted the isolated RNA in to cDNA by using reverse transcriptase enzyme. The converted cDNA samples were subjected to expression studies by using RT-PCR. Expression studies were completed for 26 vitiligo patients' samples for NLRP1 gene and MIF gene by using GAPDH as an internal control. The biochemical parameters were analysed, TNF α was also analyzed as a biomarker. Final results will only be analyzed after completion of 100 Vitiligo patients.

Clinical Assessment of *Mizāj* (Temperament)

During the reporting period, assessment of temperament of 845 patients attending the OPD of CRIUM, Hyderabad was done. These included the patients of *Baraṣ* (Vitiligo), *Sayalān al-Raḥim* (Leucorrhoea), *Dhayābīṭus Sukkarī* (Diabetes Mellitus), *Duʿf al-Dimāgh* (Cerebroasthenia), *Kathrat al-Ṭamth* (Heavy Menstrual Bleeding), *Sahar* (Insomnia) *Khafaqān* (Palpitation), *Nisyān* (Amnesia), *Iltihāb al-Kabid* (Asymptomatic Hepatitis B healthy carriers), *Daghṭ al-Dam Qawī Lāzimī* (Essential Hypertension), *Ḥaṣāt al-Kulyah* (Nephrolithiasis), *Taḥajjur al-Mafāṣil* (Osteoarthritis) *Nazlah Muzmin* (Chronic Rhinosinusitis), *Wajaʿ al-Mafāṣil* (Rheumatoid Arthritis), *Duʿf al-Istihāʾ* (Anorexia) and *Suʿāl* (Cough). Of the 845 cases, 402 were *Damawī*, 349 *Balghamī*, 81 *Ṣafrāwī* and 13 *Sawdāwī*. The CRIUM has completed assessment of Temperament in 27,590 patients till 31st March 2019.

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 <code>Balghamī</code> temperament were more susceptible to <code>Baraṣ</code> (Vitiligo) followed by <code>Damawī</code>, <code>Ṣafrāwī</code> and <code>Sawdāwī</code> temperaments. Similarly, persons of <code>Damawī</code> temperament were more susceptible to <code>Nazlah Muzmin</code> (Chronic Rhinosinusitis), followed by <code>Balghamī</code> and <code>Ṣafrāwī</code> temperament. The persons of <code>Ṣafrāwī</code> temperament were susceptible to <code>Suʻāl</code> (Cough) followed by <code>Balghamī</code> temperament.



It was also observed that the persons with <code>Balghamī</code> temperament were more susceptible than others to <code>Nisyān</code> (Amnesia), <code>Sayalān al-Raḥim</code> (Leucorrhoea), <code>Kathrat al-Ṭamth</code> (Heavy Menstrual Bleeding), <code>Duf al-Dimāgh</code> (Cerebroasthenia) and <code>Sahar</code> (Insomnia). The people of <code>Damawī</code> temperament were more susceptible to <code>Dhayābīṭus Sukkarī</code> (Diabetes Mellitus), <code>Daghṭ al-Dam Qawī Lāzimī</code> (Essential Hypertension), <code>Haṣāt al-Kulyah</code> (Nephrolithiasis), <code>Khafaqān</code> (Palpitation), <code>Nazlah Muzmin</code> (Chronic Rhinosinusitis), <code>Wajaʻ al-Mafāṣil</code> (Rheumatoid Arthritis), <code>Duf al-Istihā</code> (Anorexia) and <code>Taḥajjur al-Mafāṣil</code> (Osteoarthritis), whereas the persons with <code>Ṣafrāwī</code> temperament were more susceptible to <code>Iltihāb al-Kabid</code> (Asymptomatic Hepatitis B healthy carriers).

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 Central Research Institutes of Unani Medicine (CRIUMs), Hyderabad and 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; Clinical Research Pilot Project, Manipur; 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 4,02,070 patients comprising 3,43,688 patients in GOPDs, 27,366 in Geriatric OPDs, 8,962 in RCH / MCH OPDs, and 22,054 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 Central Research Institutes of Unani Medicine (CRIUMs), Hyderabad and Lucknow; Regional Research Institutes of Unani Medicine (RRIUMs), Chennai, Bhadrak, Patna, Mumbai, New Delhi and Srinagar; Regional Research Centre (RRC), Allahabad; and Clinical Research Unit (CRU), Burhanpur. During the reporting period, 18 rural pockets / urban slums covering over 1.50 lakh population was covered. A total of 14,813 patients were treated with Unani pharmacopoeial formulations in 508 mobile visits made to these pockets. Predominant diseases as observed were Cough, Skin Infections, Fever, Joint Pain, Osteoarthritis, Leucorrhoea, Rheumatoid Arthritis, Piles, etc.

3.1.2.4. Literary Research Programme

Under the Literary Research Programme, Urdu translation of Arabic book *Manāfi' al-Aghdhiyah wa-Daf'u Maḍārrihā* was published during the reporting period. *Manāfi' al-Aghdhiyah wa-Daf'u Maḍārrihā*, authored by the legendary medieval physician, *Muhammad b. Zakariyya Rāzī* (d. 926 AD), is regarded as an original work on diet and dietetics in Arabic. The book provides detailed account of hundreds of dietary substances and their relationship with human health. The harmful effects of various diets along with their remedial measures have also been described in the book.

The Council was also able to publish Urdu translation of Persian book *Qarābādīn-i Jalalī*, an important Unani pharmacopoeia authored by *Jalaluddin Amrohvi*, a great Unani physician of medieval India. The book covers description of more than 1000 tested Unani formulations; most of them are still in use. Owing to its importance and relevance, *Qarābādīn-i Jalalī* occupies a place in the list of books included in 'The Drugs and Cosmetics Act, 1940'

Under the programme of reprinting rare books, *Kitāb al-Murshid aw al-Fuṣūl* (Arabic) and *Intikhāb-i Jalīl* (Urdu) were reprinted. *Kitāb al-Murshid aw al-Fuṣūl* is a general treatise on medical aphorisms authored by *Zakariyya Rāzī*. The book provides short introduction to basic principles of *Ṭib* (Medicine). *Intikhāb-i Jalīl* is a book on clinical practice comprising tested Unani prescriptions. Around 800 prescriptions effective in diseases of different body systems have been described. The book is authored by *Hakim Jalil Ahmed Ansari*, a legendary Unani scholar of twentieth century.

Besides, Urdu translation of Arabic books; Al-Masā'il fi'l-Ṭib li'l-Muta'allimīn and Al-Mughnī fī Tadbīr al-Amrāḍ wa Ma'rifat al-'llal wa al-Amrāḍ continued. Urdu translation of two classical Persian texts; Kitāb al-Abniyah 'an Haqā'iq al-Adviyah and Riyāḍ al-Adviyah also continued. For the purpose of rendering Unani wisdom in international languages, translation of Persian book Qarābādīn-i Jalalī into English language was started.

The work on the monographs; Mental Health and Mental Diseases in Unani Medicine and Standard Unani Treatment Guidelines for *Ḥummayāt* (Fevers) continued.

During the reporting period, information on the topics of $S\bar{u}'$ al-Qinyah (Anaemia with hypoproteineamia), Kalaf (Melasma) and $Q\bar{u}b\bar{a}$ (Ring worm) were compiled. Information from Unani System of Medicine on drug abuse and tobacco consumption were also compiled in response to directives from Ministry of AYUSH.

Besides, inputs for incorporation in the Unani module for AYUSH- Hospital Management Information System (A-HMIS) were also provided. This particularly included information on regimen therapy, dietary management and general advices to the patients.



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 adopted 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 at the Central Research Institute of Unani Medicine, Hyderabad:

Evaluation of therapeutic efficacy and safety of coded Unani drugs PTH-1, PTH-2 and PTH-3 in asymptomatic hepatitis B carriers

A pilot study to evaluate the safety and efficacy of coded Unani drugs PTH-1, PTH-2 and PTH-3 was conducted in asymptomatic hepatitis B carriers. The patients were divided into three groups. In group-I, the patients received PTH-1 (two capsules of 500 mg each) thrice daily after meal. In group-III, the patients received PTH-2 (two capsules of 500 mg each) thrice daily after meal. In group-III, the patients received PTH-3 (two capsules of 500 mg each) thrice daily after meal. The duration of treatment was six months.

During the reporting period, no new patient was registered in group-I. Since inception of the study, a total of 23 cases were registered. Out of them, 11 patients have completed the study and 12 patients dropped out of the study. Out of the completed cases, one responded whereas 10 did not respond to the treatment.

In group-II, one new patient was registered, whereas one patient continued from the previous year. Both the patients completed the study. Out of them, one patient responded to the treatment and showed significant reduction in viral load, whereas the other showed no response to the treatment.

In group-III, six new patients were registered, whereas six patients continued from the previous year, bringing the total to 12 patients. Out of them, three patients completed the study and showed no response to treatment. Six patients dropped out of the study, whereas three patients were under study. So far, 11 patients have completed the study.

The test drugs were found well-tolerated and no adverse effect was observed.

Single centre, randomized, single blind, parallel group, comparative study to evaluate the efficacy and safety of coded Unani drugs PTA-2 + PTA-4 and PTA-3 + PTA-4 in Osteoarthritis – A pilot study

A pilot clinical study to compare the efficacy and safety of coded Unani drugs PTA-2 + PTA-4 and PTA-3 + PTA-4 in the patients of osteoarthritis was carried out. The patients were divided into two groups. Group-I received PTA-2 (one tablet of 500 mg) thrice daily after meal and PTA-4 (oil form) for local application on the affected parts. Group-II received PTA-3 (one tablet of 500 mg) thrice daily after meal and PTA-4 (oil form) for local application on the affected parts. The duration of treatment was 12 weeks.

During the reporting period, six new patients were registered in group-I, whereas one patient continued from the previous year bringing the total to seven patients. Out of them, one patient completed the study that showed significant response to treatment. Six patients were under study. So far, 20 patients have completed the study.

In group-II, five new patients were registered, whereas one patient continued from the previous year bringing the total patients studied to six. Out of them, one patient completed the study and showed significant response to treatment. Five patients were under study. So



far, 21 patients have completed the study. The test drugs were found well-tolerated and no adverse effect was observed.

Evaluation and study of the effect of Unani formulation(s) - UNIM-001 and UNIM-003 on various biomarkers in the patients with *Baraş* (Vitiligo)

The study aimed to establish any potential biomarkers in Vitiligo patients and to evaluate the effect of the tested Unani formulations on these biomarkers. The study was conducted in the patients of Vitiligo and healthy volunteers (control). The patients received coded Unani drugs UNIM-001 (two tablets of 800 mg each) orally twice daily and UNIM-003 for local application. The duration of treatment was eight months. The patients were followed-up clinically every two weeks, whereas biomarker analysis was done at baseline, after four months and eight months.

During the reporting period, estimation of anti-TPO was carried out by enzyme linked immunosorbent assay (ELISA) on 34 healthy volunteers and 34 vitiligo patients.

The project was completed with expression studies on 4 genes and 5 Serum bio levels. Expression studies were carried out in NLRF1, FOXP3, MIF and IL22 genes.

Estimation of biolevels included serum lipid peroxidise (MDA), estimation of Serum total antioxidant levels, estimation of serum IL-22 levels and estimation of IL-2 levels at baseline, on the 4th and the 8th month.

Bench work has been completed and compilation of the research work is in process.

Evaluation of anti-inflammatory activity of Unani formulation(s) – UNIM-301 and UNIM-302: An *in-vitro* and *in-vivo* study

An *in-vitro* and *in-vivo* study to evaluate the anti-inflammatory activity of coded Unani drugs – UNIM-301 and UNIM-302 was carried out at CRIUM, Hyderabad. The *in-vitro* study aimed to explore the cellular and molecular mechanism of both the drugs being used for the treatment of arthritis in order to create evidence-based data and pave the way for acceptance of these drugs globally. Further, an *in-vivo* study aimed to evaluate the safety and efficacy and anti-inflammatory activity of UNIM-301.

In-vitro study: The aqueous (AQ), hydro-ethanolic (HE) and methanolic (ME) extracts from both the drugs were lyophilized and used for the study. Antioxidant activities measured by FRAP methods of two Unani formulation extracts were performed. The procedure for cell line maintenance, passaging and cryopreservation was standardized. Cell proliferation assay (MTT assay) of UNIM-302 extracts (AQ, HE, ME) with different concentration was performed on RAW 264.7 cell lines. The amount of Nitric oxide determination and scavenging activity of all the three extracts (AQ, HE, ME) of both drugs (UNIM-301 & UNIM-302) with different concentrations (from 0.1-1000 b/ml) were measured. The level of intracellular reactive oxygen species (ROS) was measured in RAW macrophage cells treated with all three extracts of both drugs with different concentrations (from 0.1-1000 b/ml) along with LPS 1μg. In nitric oxide determination, drug acted in the dose dependent manner. In intracellular ROS determination, all three extracts of both drugs with different concentrations (0.1 to 1000 μg) significantly inhibited LPS stimulation and reduced production of ROS in RAW cells.

In-vivo study: An *in-vivo* study to evaluate the safety and efficacy (anti-inflammatory activity) of coded Unani drug – UNIM-301 was continued.



Effect of Unani formulation(s) used for treatment of *Baraş* (Vitiligo) on melanocytes: An *in-vitro* and *in-vivo* study

An *in-vitro* and *in-vivo* study to evaluate the effect of coded Unani drugs – UNIM-001, UNIM-003, UNIM-004 and UNIM-005 on melanocytes was carried out at CRIUM, Hyderabad.

In-vitro study: The aqueous (AQ), hydro-ethanolic (HE) and methanolic (ME) extracts from all the four drugs were prepared and used for *in-vitro* assays, including both cell free and cell based assays. Melanin content estimation was performed with all the four drugs by using three solvents (Aqueous, Hydro-ethanol and Methanol) and α -MSH was taken as positive control. Methanolic extracts of UNIM-004 and UNIM-005 elicited better increase in the level of melanin content with respect to control and positive control.

Melanin assay was further followed by Tyrosinase enzyme activity, which is the key regulator enzyme for melanin production. B16F10 cells were treated with all the four drugs by using three solvents (Aqueous, Hydro-ethanol and Methanol) and α -MSH was taken as positive control. Methanolic extracts of UNIM-004 and UNIM-005 elicited better increase in the level of Tyrosinase enzyme production with respect to control (22-35%) as well as positive control (04-18%). Cyclic AMP signaling pathway levels were estimated by using cAMP assay kit and followed according to kit manual.

In-vivo study: An *in-vivo* study to evaluate the safety of UNIM-001 and UNIM-004 continued.

Immunological study on Unani pharmacopoeial drugs – *Maʻjūn Jogrāj Gūgal* and *Rawghan Mālkanganī* to validate their anti-inflammatory and anti-arthritic property in cases of *Wajaʻal-Mafasil* (Rheumatoid Arthritis)

The study aimed to establish the effect of Unani pharmacopoeial formulations on the level of certain immunological markers such as IL-1 β , IL-17, IL-11, IL-6, TNF- α ,CRP which are involved in cases of *Wajaʻ al-Mafāṣil* (Rheumatoid Arthritis). The study is being conducted at CRIUM, Hyderabad. The duration of the study is three years. The study drug *Maʻjūn Jogrāj Gūgal* was given 7gm orally alongwith local application of the oil *Rawghan Mālkanganī* for a period of 84 days. The patients are being clinically assessed fortnightly. Immunological marker analysis is being done at baseline and at the end of the study. So far, 12 samples of completed cases (pre and post treatment) have been estimated for immunological markers including IL-1 β , IL-17, IL-11, IL-6, TNF- α and HsCRP. The study was in progress.

3.3. Collaborative Research

Investigation on pharmacodynamic and pharmacokinetic interaction of Unani plants *Tinospora cordifolia* and *Eugenia jambolana* with hypoglycaemic drug

A preclinical study to determine pharmacokinetic and pharmacodynamic interactions of *Tinospora cordifolia* (TC) and *Eugenia jambolana* (EJ) with oral hypoglycaemic drug (Metformin) was carried out at Shobhaben Pratapbhai Patel School of Pharmacy & Technology Management (SPPSPTM), SVKM's NMIMS, Mumbai.

Aqueous extracts of TC and EJ were prepared by maceration and standardized with berberine and ellagic acid respectively. TC aqueous extract (400 mg/kg, p.o.) was administered with Metformin (MET) (90mg/kg, p.o.), Sitagliptin (SITA) (10 mg/kg, p.o.) and Glibenclamide (GLB) (1mg/kg, p.o.) for a period of 28 days in streptozotocin induced



diabetic rats. Thereafter blood was withdrawn over a period of 24 hours for determination of drug concentration using HPLC-ESI-MS/MS. The pharmacokinetic parameters of MET, SITA and GLB were calculated in the treated animals. Pharmacodynamic interactions were estimated by determining fasting blood glucose (FBG), oral glucose tolerance test (OGTT), liver function tests (ALT and AST), kidney function test (BUN), lipid parameters (total cholesterol and triglycerides), food intake, water intake and urine output. In addition, histopathological examination of pancreatic cells was carried out to assess any significant damage at the cellular level. Similar studies were carried out with aqueous extract of *Eugenia jambolana* (400 mg/kg, p.o.) and its co-administration with MET (90mg/kg, p.o.), SITA (10 mg/kg, p.o.) and GLB (1mg/kg, p.o.).

No significant pharmacokinetic interaction was observed in the aqueous extract of TC and the three oral hypoglycaemics. However, a significant improvement was observed in glycemic control and the conditions associated with diabetes mellitus. In addition, no incidences of hypoglycaemia were observed. The result showed that co-administration of aqueous extract of TC potentially enhanced anti-diabetic effects of Metformin, sitagliptin and glibenclamide by significantly reducing the fasting blood glucose when compared to the groups treated only with hypoglycaemic drugs or only extract. The combination also exhibited significant improvements in the comorbidities associated with diabetes as indicated by recovery of damage to the pancreatic islets.

The extract of EJ exhibited significant pharmacokinetic interactions by showing reduction in Cmax and AUC of MET, SITA and GLB. Despite low plasma levels of these drugs in presence of EJ, the combinations exhibited enhanced glycemic control and significant improvement in comorbidities associated with diabetes involving improvements in lipid profile, liver damage markers, kidney damage markers, food and water intake and urine output.

A randomised clinical trial to study the effects of *Safūf Muhazzil* with *'Arq-i Zīrah* and Orlistat on biomarkers of obesity

A randomised controlled clinical trial (RCT) to compare and evaluate the safety and efficacy of allopathic therapy (Orlistat) and Unani formulation *Safūf Muhazzil* with *'Arq-i Zīrah* in the patients of obesity was conducted at Department of Medicine, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh.

The duration of study is three years wherein patients attending Medicine OPD with BMI range 25-40 kg/m^2 and age group of 18-60 years are included. Patients with thyroid dysfunction, diabetes mellitus, renal and hepatic impairment and pregnant and lactating mothers are excluded from the study. Informed written consent is obtained from all patients.

During the reporting period, 51 patients between 18-60 years of age with BMI of 25-40 kg/m² falling in the category of overweight, as well as in class-I and class-II obesity were included in the study. After baseline investigations, the patients were randomly allocated into two study groups. In group-I, 26 patients were registered and given 6 gm of *Safūf Muhazzil* with 40 ml of '*Arq-i Zīra* in morning and evening. In group-II, 25 patients were registered and given Orlistat in the dose of 120 mg orally twice a day. The duration of treatment was two months in each group. Two patients dropped out of the study and 49 patients were under study.



Double blind placebo controlled randomized study on Autism in children using a Unani herbal neuro-restorative supplement and standard rehabilitation therapies

A randomized, double blind, placebo controlled study was conducted to evaluate the efficacy and safety of a Unani neuro-restorative supplement on the core symptoms of Autism at Foundation for Spastics & Mentally Handicapped Persons (FSMHP)-UDAAN for the Disabled, New Delhi. Seventy patients were registered in the study and randomly allocated to test and placebo groups of 35 each. Of them, six subjects dropped out from the test group and 13 dropped out from the control group, whereas 29 in the test group and 22 in the control group completed the study. All laboratory investigations were performed twice; at baseline and after three months i.e. at the end of the trial.

The children were also assessed clinically for psychiatric parameters using internationally approved scales for Autism i.e., Childhood Autism Rating Scale (CARS), Vineland Social Maturity Scale (VSMS), and Autism Treatment Evaluation Checklist (ATEC) at baseline and on each follow up.

CARS score was significantly reduced after therapy in the test group, (mean score before therapy=35.21 \pm 3.25, after 3 months of therapy =31.44 \pm 2.85, p < 0.001). There was no significant change in the placebo group (mean score before placebo intervention=33.56 \pm 2.86 after intervention=32.76 \pm 3.31, P= 0.1418). ATEC score was significantly decreased after therapy in the test group, (mean score before therapy=72.13 \pm 23.13, after 3 months of therapy =37.68 \pm 16.62, p <.001). There was no significant change in the placebo group (mean score before placebo intervention =71.13 \pm 16.20, after intervention=69.90 \pm 22.02, p =0.3604). VSMS (IQ) score was significantly increased after therapy in the test group, (mean score before therapy=50.23 \pm 17.34, after 3 months of therapy = 64.27 \pm 16.62, p < 0.001). There was no significant change in the placebo group (mean score before placebo intervention = 51.13 \pm 21.02, after intervention = 51.80 \pm 24.52, p= 0.8838).

No adverse effect was observed during the clinical study or reported by any of the patients/ parents. No significant change was observed in any of the lab parameters evaluated for the purpose.

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 analyze metabolites present in them for their stability and pharmacokinetic profile.

During the reporting period, HPTLC analysis resulted in detection of a total of 01, 07, 10, 10, 05 and 06 metabolites at 254 nm whereas 03, 06, 10, 10, 05, and 09 metabolites at 540 nm after derivatization in 'Araq-i 'Ajīb, 'Araq-i Birinjasif, 'Araq-i Ajwāin, 'Araq-i Bādiyān, 'Araq-i Gulāb and 'Araq-i Gājar respectively.

Out of many compounds identified in different 'Araqiyāt using GC-MS camphor, menthol and thymol in 'Araq-i 'Ajīb; fenchone, camphor and anethole in 'Araq-i Birinjasif; p-cymene, γ-terpene and thymol in Araq-i Ajwāin; thymol in 'Araq-i Gājar; phenyl ethyl alcohol and myristinic acid in 'Araq-i Gulāb; fenchone, estragole and anethole in 'Araq-i Bādiyān as major contributing compounds.



The stability analysis of these 'Araqiyāt at room temperature and in cold condition at 2- 4 °C up to 3 months using HPTLC and GC-MS did not show any significant change in the content of major metabolites.

The study proved that 'Araqiyāt can be stored at room temperature in sealed and air tight containers for up to 3 months without any significant change in their chemical and biological profile.

Comparison of clinical efficacy and safety of Unani therapy in the form of systemic UNIM-004 and topical UNIM-005 and conventional allopathic therapy in the form of PUVASOL and topical Mometasone cream in the treatment of clinically stable vitiligo

A randomized controlled clinical trial (RCT) to compare and evaluate the safety and efficacy of conventional allopathic therapy (oral PUVASOL and topical Mometasone) and coded Unani formulations - UNIM-004 (oral) + UNIM-005 (topical) with UVA in the patients with clinically stable vitiligo was conducted at Department of Dermatology, AIIMS, New Delhi. Patients of clinically stable vitiligo aged above 18 years with body surface involvement (BSA) of >2% were included in the study. Exclusion criteria were pregnancy, lactation, significant cardiac/ pulmonary/ hepato-renal dysfunction and segmental/ lip-tip/ universal vitiligo.

After baseline investigations, the patients were randomly allocated to one of the two study groups using block randomization method. In group-I (test group), the patients were given Unani formulations - UNIM-004 two tablets (500 mg each) orally twice daily an hour after meal for 23 consecutive days followed by a gap of 5 days to circumvent side effects and UNIM-005 (lotion) on alternate days followed by sun exposure. In group-II (control group), the patients were given 8-Methoxypsoralen (8-MOP) in the dose of 20-40 mg (according to body weight) after meal on alternate days followed by (2 hours later) sun exposure. The duration of treatment was 36 weeks in each group. Response was assessed by change in pre-specified outcome measures (VASI, PGA, IGA, colour match, *Mizāj* assessment, DLQI, VIS-22) at 4, 8, 12, 20, 28, 36 weeks.

During the reporting period, 58 patients were registered; 29 patients in each group. Of them, 12 patients in group-I and six patients in group-II dropped out of the study. Forty patients were under study.

Evaluation of *Aftīmūn* (*Cuscuta reflexa* Roxb.) plant and seeds on different human cancer (*Saratān*) cell lines

A study on evaluation of *Aftīmūn* (*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 plant was collected from Deoband locality of Saharanpur in UP and the genus and species of the medicinal plant were authenticated. The specimen of the plant was deposited to repository.

The dried powder of seeds and stem (100 g) of the plant was taken in Soxhlet apparatus with 500 ml of MeOH: Water (50:50), (Methanol, Water, Acetonitrile (ACN), Acetone and Ethyl acetate) respectively and separately. With each solvent, extraction was carried out for 15 hours. The extract was dried in rotary evaporator and stored in a refrigerator. Cell lines were grown in anticancer lab carefully. Cell culture media was changed from time to time to get maximum growth of cell lines.



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 two experimental models of paracetamol induced and antitubercular therapy (ATT) induced hepatotoxicity were standardized. Wistar albino rats (180-250g) were used for standardization of hepatotoxicity. In the pilot study, animals were divided into three groups i.e. (i) control, (ii) disease control and (iii) positive control (Silymarin). Paracetamol was administered at the dose of 2 g/kg p.o. daily for 14 days. In another model, liver damage was induced by ATT. The combination of Rifampicin (31 mg/kg) + Isoniazid (62 mg/kg) + Pyrazinamide (133 mg/kg) was administered orally for 28 days. The blood samples were collected after 14 days in paracetamol treated and after 28 days in ATT treated animals to assess the hepatotoxicity by analyzing the biochemical markers of hepatic injury such as serum bilirubin, SGOT, SGPT, alkaline phosphatase, total protein. The animals were sacrificed and liver tissue was collected for histopathological studies for evaluation of oxidative stress markers.

The results showed that paracetamol and ATT treatment significantly increased the markers of oxidative stress i.e. enhanced MDA and reduced GSH levels. The biochemical parameters were not increased significantly. Histopathological examination of rat liver showed changes of inflammation, degeneration and necrosis as compared to normal hepatic architecture seen in control rats. Administration of silymarin reversed the histological changes induced by either paracetamol or ATT treatment in separate groups.

Redesigning of dosage form of *Maʻjūn Dabīd al-Ward* and *Maʻjūn-i Falāsifa* into tablet form along with their physico-chemical and pharmacological evaluations

The study was aimed to redesign the classical dosage form of *Maʻjūn Dabīd al-Ward* and *Maʻjūn-i Falāsifa* into tablet form for better compliance and to make sugar free formulations with improved stability and efficacy. The study was carried out at Department of Saidla, Faculty of Unani Medicine, Aligarh Muslim University, Aligarh.

The comparative evaluation of the antioxidant and hepatoprotective effect of *Maʿjūn Dabīd al-Ward* and its redesigned form against carbon tetrachloride induced liver injury was carried out. Maʿjūn-i Dabīd al-Ward at the dose of 1166.67 mg/kg p.o., tablet (powder) at the dose of 324.33 mg/kg p.o., tablet (aqueous extract) at the dose of 143.97 mg/kg p.o. and tablet (hydro-alcoholic extract) at the dose of 179.109 mg/kg, p.o. were administered after carbon-tetrachloride (CCl4; 2 ml/kg, i.p. once only) intoxication in different groups of Wistar rats. Biochemical parameters (SGPT, SGOT, alkaline phosphate, serum bilirubin, total proteins, glutathione, lipid peroxidation, histopathology of liver tissues and ascorbic acid content (urine) for the comparative evaluation of the efficacy of *Maʿjūn Dabīd al-Ward* and its redesigned dosage form were observed.

The comparative assessment of neuropharmacological actions of *Maʻjūn-i Falāsifa* and its redesigned form was done at the dose of 1166.67 mg/kg p.o., tablet (powder) at the dose of 303.33 mg/kg p.o., tablet (aqueous extract) at the dose of 291.35 mg/kg p.o. and tablet (hydro-alchohol extrct) at the dose of 303.27 mg/kg p.o. The neuropharmacological activity of *Maʻjūn-i Falāsifa* and the redesigned form was tested via series of tests for CNS viz.



phenobarbitone narcosis potentiation test, rota rod test, supramaximal electric shock test, test for analgesia, condition avoidance test and test for motor activity. The evaluation of learning memory and behaviour via Elevated Plus Maze test, Radial Maze test and Y-Maze test was under progress.

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.

Dawā' al-Kurkum is a compound Unani formulation which consists of seven drugs. Raw materials of these drugs were purchased from local market of Delhi and authenticated by National Institute of Science Communication and Information Resources (NISCAIR), New Delhi. Aqueous ethanolic extract of these drugs was prepared. The quantitative estimation of standards for each of the drug was done in the prepared extract through HPTLC analysis. For *in-vitro* cell culture analysis, HepG2 cells were grown and propagated in the laboratory of Amity University. The filtered extract was dried at low temperature (< 45°C) under reduced pressure on rotatory evaporator and lyophilizer. The powdered extract was then suspended in DMSO (100mg/ml) for further analysis. The HepG2 cells were treated with different concentrations of the drug to see its cytotoxic activity, taking 0.5% DMSO as control. The cytotoxic potential of the drug was evaluated using MTT Survival Assay.

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.:

- Clinical Validation of Unani Pharmacopoeial Formulations in *Waja' al-Mafāṣil* (Rheumatoid Arthritis)
- Qarābādīn-i Jalalī (Urdu)
- Manāfi' al-Aghdhiyah wa-Daf'u Maḍārrihā
- Kitāb al-Murshid aw al-Fuṣūl (Arabic)
- Intikhāb-i Jalīl
- National Unani Morbidity Codes (NUMC–V.1.0) (Hindi)
- CCRUM Annual Report 2017-18 (English)
- CCRUM Annual Report 2017-18 (Hindi)
- Souvenir 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-1
- Hippocratic Journal of Unani Medicine, Volume-12, Number-4
- Hippocratic Journal of Unani Medicine, Volume-12, Number-3
- Hippocratic Journal of Unani Medicine, Volume-12, Number-2
- CCRUM Newsletter (Oct-Dec 2018)
- CCRUM Newsletter (Jul-Sep 2018)



- CCRUM Newsletter (Apr-Jun 2018)
- CCRUM Newsletter (Jan-Mar 2018)
- CCRUM Newsletter (Oct-Dec 2017)
- CCRUM Newsletter (Special Issue on Unani Day 2018)

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:

- Ahmad F, Salam M, Tariq M, Siddiqui ZH, Khan MA and Naime M (2019). Interrelation between Eosinophilia and Temperament in Cases of Nazlah-e-Muzmin (Chronic Rhinosinusitis), European Journal of Pharmaceutical and Medical Research, 5(4): 231-232.
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- Arif M and Ansari AP (2018). Otomycosis Treated with Nufookh (Insufflation)
 Therapy in Unani System of Medicine: A Case Report, International Journal of Unani
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- Ashraf K, Jameel M and Mujeeb M (2018). Evaluation of Pharmacognostical Variations in Eight Accession of Curcuma longa L., International Journal of Green Pharmacy, 12 (4): 267-273.
- Ashraf SS, Islam N, Arsheed I, Sheeraz M, Quraishi HA and Rather SA (2019). *Artemisia absinthium* L. (Afsanteen): A Review, *World Journal of Pharmacy and Pharmaceutical Sciences*, 8(1): 1421-1427.
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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, this programme continued at CRIUMs, Hyderabad and Lucknow; RRIUMs, Chennai, Bhadrak, Patna, Mumbai and Srinagar; RRC, Allahabad; and CRU, Burhanpur. The Council's physicians visited 16 schools that were adopted under the School Health Programme particularly those falling in the pockets adopted under Mobile Clinical Research Programme. A total of 7,362 school children were covered under this programme. Out of them, health check up of 3,597 children was conducted; and 3,424 children suffering from different ailments were treated in 192 visits made to these schools. With a view to educate the children on healthy living, 95 lectures were delivered on preventive and promotive health aspects. The most common diseases found among them included Cold & Cough, Dental Cavities, Tonsillitis, Helminthiasis, Skin Infections, Otorrhoea and Conjunctivitis.

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. 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, 24,328 patients were treated at Unani Medical Centre in Dr. RML Hospital and 17,866 patients at Unani Speciality Centre in DDU Hospital, New Delhi. A large number of patients visiting the centres were suffering from chronic diseases. Counseling 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, 10 health camps were organized and 2,136 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, 2,01,977 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 *Sayalān al-Raḥim* (Leucorrhoea) and *Sū' al-Qinya* (Anaemia) also continued.



3.5.5. Activities in the North-Eastern Region

The two centres of the Council in the North-Eastern Region – Regional Research Centre, Silchar and Clinical Research Pilot Project, Manipur continued Research/ GOPD Programmes. During the reporting period, 8,089 patients were treated. The most commonly occurring diseases were Ḥummā (Fever), Sayalān al-Raḥim (Leucorrhoea), Sū' al-Haḍm (Dyspepsia), Ḥummā Ijāmiya (Malaria), Ishāl (Diarrhea), Zaḥīr (Dysentery) and Wajaʻ al-Mafāṣil (Rheumatoid Arthritis). The patients were treated with Unani pharmacopoeial drugs.

3.5.6. Mobile Healthcare Program under Schedule Caste Sub-Plan (SCSP) and Tribal Sub Plan (TSP)

The CCRUM runs Mobile Healthcare Program under Schedule Caste Sub-Plan (SCSP) and Tribal Sub Plan (TSP) at selected institutes / centres to extend healthcare services to the SC and ST population at their doorstep. The program aims to to screen / examine the SC and 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 SC and ST population have been identified for undertaking the program at each centre. During the reporting period, 6,90,836 total population including 2,27,013 SC population were covered under SCSP whereas 54,442 total population including 41,138 ST population were covered under TSP. A total of 30,831 and 2,886 individuals benefited in SCSP and TSP respectively.

3.6. Swasthya Rakshan Programme

On the lines of 'Swachh Bharat Abhiyan' (Clean India Mission) initiated by the Government of India to accomplish the vision of 'Clean India', the Ministry of AYUSH initiated Swasthya Rakshan Programme (SRP) through its national institutes and research councils to protect and promote health. The main objective of the programme is to provide AYUSH treatment and organize camps for screening and early diagnosis of diseases in rural areas. It also aims to create health awareness through health education and distribution of IEC material in local languages for better outreach and compliance.

The CCRUM initiated this programme during 2015–2016 through its 12 institutes / centres: Central Research Institutes of Unani Medicine (CRIUMs), Hyderabad, Lucknow; Regional Research Institutes of Unani Medicine (RRIUMs), Delhi, Mumbai, Kolkata, Chennai, Srinagar, Patna, Aligarh and Bhadrak; and Regional Research Centres (RRCs), Allahabad and Silchar. Five villages predominantly populated by underprivileged and weaker sections nearer to each institute / centre were identified for undertaking the programme.

The programme is undertaken by a team of six personnel comprising two doctors at each centre / institute. The team runs weekly OPD clinic in each village where screening of the visitors is conducted and healthy individuals are made aware of the disease prevention and health promoting measures and importance of hygiene and sanitation, whereas the diseased individuals are provided proper treatment along with awareness services. The team also conducts household survey of the village in order to record health data of the inhabitants. Besides, community awareness programme on sanitation and nutrition is also



organized through health camps for educating the villagers on strategies for prevention of disease and improving health.

During the reporting period, 72,774 individuals were screened, of which 63,328 were treated with Unani medicines. The number of OPD attendance including 64,589 follow-ups reached 130,793. Most of the patients had joint diseases followed by gastrointestinal disorders and respiratory diseases. The healthy individuals were made aware of strategies for prevention of disease and improving health. As much as 986 health camps were also organized that benefited 50,403 individuals through health screening, awareness lectures and distribution of health literature.

3.7. 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.

During the reporting period, 1,89,684 patients were screened. A total of 1,18,176 patients were treated with Unani medicine for different aliments. Of them, 2,048 individuals were enrolled in high risk group of Diabetes Mellitus and 3,210 as diseased, whereas 2,610 were enrolled in high risk group of Hypertension and 4,576 as diseased. Similarly, 63 persons were enrolled in high risk group of Hyperlipidaemia and 47 as diseased. Besides, 696 health camps were organized that benefitted 15,119 individuals through health screening, awareness lectures and distribution of disease specific health literature. A total of 80,755 persons attended the Yoga class.

3.8. 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) and doctoral (PhD) programmes in Unani Medicine.

Postgraduate Programme

The postgraduate programme (MD) in Unani Medicine is running at Central Research Institute of Unani Medicine (CRIUM), Hyderabad and Regional Research Institute of Unani Medicine, Srinagar in affiliation with Kaloji Narayana Rao University of Health Sciences, Warangal (Telangana) and University of Kashmir, Srinagar respectively. Twenty eight



students were admitted during the reporting period with intake capacity of 07 students in each discipline of *Muʻālajāt* (Medicine) and *'Ilm al-Adwiyah* (Pharmacology) at both the institutes.

The students were trained through a structured academic schedule comprising theory classes, hands-on practical classes, bedside teaching, and dissertation projects. 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 of 1st and 2nd Batches were engaged in their thesis 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 system of 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 Local Area Network (LAN). The Centre provided its services to the readers through e-Granthalaya Library Software that controls the Online Public Access Catalogue (OPAC), circulation of books, etc. A total of 201 books including 67 purchased and 134 complimentary books were acquired. Besides, 164 e-Books and 02 CD's were also added in the collection of the library.

A total number of 2313 books were in circulation including 14 books that were circulated through Inter-Library Loan Service to the sister councils and DELNET's members libraries. The library subscribed 3638 issues of daily newspapers and 187 issues of popular magazines. In addition, 155 issues of journals were also received out of which 32 were in Hindi language. The LIC carried out physical processing of 220 books and barcoding of 1,329 books during the year.

The LIC provided spiral binding and photocopying, and reference services to the readers. Comb or thermal binding of 207 items and photocopying of 25,14 pages were carried out. Besides, long and short range reference service was provided through WhatsApp and email to the researchers and allied staff members of the Council. A Facebook page was also created and maintained during the year with an objective of facilitating the researchers with reference services and recent updates.

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, 6,765 news clippings were collected, of which 3,540 important ones were sent to Assistant Director (Unani) whereas over 1,962 were displayed on the library notice board.

The LIC continued a digitization project and successfully scanned 3,20,301 pages of old and rare manuscripts, books and journals pertaining to Unani Medicine. The library is also developing a Digital Repository in DSpace software for the benefit of Unani fraternity at global level. Under this initiative, 1,260 digitized books were uploaded in the digital repository. Data of 220 new additions in the library were also uploaded on e-Granthalaya cloud database.

The LIC continued the project for developing database of articles and papers authored by the CCRUM's researchers and other allied staff members published in national and international peer-reviewed journals and popular magazines or presented at different national and international platforms. Under this initiative, bibliographical details of more than 702 papers were collected and categorized as under:

•	Papers published in international peer-reviewed journals (English)	81
•	Papers published in national journals (English)	232
•	Papers published in national journals (Urdu)	153
•	Papers presented in seminars / conferences	236



Besides, 99 full-text papers were also collected.

The Centre continued institutional membership of British Council Library, Medical Library Association of India, American Resource Centre and Developing Library Network (DELNET) during the year.

During the reporting period, 819 member and guest researchers visited the LIC to access its resources. Besides, the following four international guests visited the LIC:

- Dr. Mojtaba, Mashhad, Iran
- Hakim M. A. Wahab Khan, Bahubal, Habigonj, Bangladesh
- Maulana Al-Haj Bashir Ahmed, Bahubal, Habigonj, Bangladesh
- · Mohd Safruddin Ahmed, Bahubal, Habigoni, Bangladesh

4.2. Organization of Conference, Seminar, etc.

4.2.1. Inauguration of MD in Unani Medicine at RRIUM, Srinagar

Hon'ble Minister of State (Independent Charge) for AYUSH, Government of India, Shri Shripad Yesso Naik and Hon'ble Minister of State (Independent Charge), Ministry of Development of North East Region, Dr. Jitendra Singh formally inaugurated postgraduate (MD) program in Unani Medicine at the CCRUM's Regional Research Institute of Unani Medicine (RRIUM), Srinagar on April 17, 2018.

Speaking on the occasion, Shri Shripad Yesso Naik highlighted the importance of Unani system of medicine in the country and its potential in terms of promotive, preventive, curative and rehabilitative healthcare.

In his speech, Dr. Jitendra Singh, Hon'ble Minister of State (Independent Charge), Ministry of Development of North East Region, Minister of State, Prime Minister's Office, Ministry of Personnel, Public Grievances and Pensions, Department of Atomic Energy & Department of Space, Government of India appreciated the initiative of launching MD program in Unani Medicine saying that it would definitely help the state to produce able teachers, researchers and medical officers to serve the state more efficiently.

Shri Bali Bhagat, Hon'ble Minister of Health & Medical Education, Government of Jammu & Kashmir appreciated the research work being carried out at the RRIUM, Srinagar and made a special mention of the effects of Regimen Therapy in treatment of different diseases particularly *Waja' al-Mafāṣil* (Rheumatoid Arthritis).

In her address, Ms. Asiea Naqash, Hon'ble Minister of State for Health & Medical Education, Social Welfare, Housing and Urban Development, Government of Jammu & Kashmir expressed her gratitude to the Ministry of AYUSH, Government of India for introducing the course in Srinagar.

Prof. Khurshid Iqbal Andrabi, Vice Chancellor, University of Kashmir; Dr. Syed Abid Rasheed Shah, Deputy Commissioner, Srinagar; Shri Roshan Jaggi, Joint Secretary, Ministry of AYUSH, Government of India; Dr. Anil Khurana, Director General, CCRUM; Dr. Seema Akbar, Assistant Director Incharge, RRIUM; Shri RU Choudhury, Assistant Director (Administration), CCRUM; Dr. Abdul Raheem, Research Officer (Unani) Scientist-IV, CCRUM; and Dr. Pawan Kumar, Research Officer (Pathology) Scientist-IV, CCRUM were also present on the occasion.

The postgraduate (MD) program in two disciplines of Unani Medicine – *Muʻālajāt* (Medicine) and *'Ilm al-Adviya* (Pharmacology) – with seven seats each is undergoing at the



RRIUM, Srinagar in affiliation with the University of Kashmir since academic session 2016–2017. However, the formal inauguration could not take place at that time due to unavoidable circumstances.

4.2.2. Brainstorming Session on Popularizing Unani Medicine

The CCRUM organized a brainstorming session (BSS) on formulating strategy for popularizing Unani Medicine in masses at its headquarters on June 20, 2018. The BSS had Dr. Mohammad Khalid Siddiqui, former Director General, CCRUM and Prof. YK Gupta, All India Institute of Medical Sciences, New Delhi as resource persons.

In his introductory remarks, Prof. Asim Ali Khan, Director General, CCRUM briefed about the functioning and achievements of the Council and presented an overview of the facilities and infrastructure available at different institutes / centres of the CCRUM. He stressed on developing collaborations with different healthcare and research institutions for popularizing Unani Medicine in masses.

Speaking on formulating strategy for popularizing Unani Medicine, Prof. YK Gupta emphasized the need to develop medicines for such health issues for which very few medicines are available in the market. He also suggested developing medicines for general purposes and collaborating with many organizations rather than focusing on one or two.

Speaking on the occasion, Dr. Mohammad Khalid Siddiqui urged to prioritize areas for research and development. He laid emphasis on identification of 4-5 diseases for Regimen Therapy and proper documentation of the data of different classical techniques.

The BSS concluded with vote of thanks by Prof. Asim Ali Khan. All the researchers at the CCRUM headquarters attended the BSS.

4.2.3. Workshop on Research Methodology

The CCRUM organized a one-day Workshop on Research Methodology at its headquarters in New Delhi on June 27, 2018. The workshop aimed at enhancing the capacity of participants and sensitizing them with the principles and techniques of research.

Prof. Ahmed Kamal, Pro-Vice Chancellor, Jamia Hamdard and Dr. Vijay Kumar, Senior Cardiologist and Incharge of Transcatheter Aortic Valve Replacement Programme, Fortis Escorts Heart Institute, Delhi were the resource persons for the workshop.

In his introductory address, Prof. Asim Ali Khan, Director General, CCRUM emphasized that in order to conduct research, it is essential for researchers to update their skills from time to time and be well versed in research methodology. Prof. Khan further said that the CCRUM would be focusing on improving the quality and quantity of research and development activities in Unani Medicine in the coming years.

Prof. Ahmed Kamal shared his knowledge and expertise on 'Development of new anticancer agents based on natural products scaffolds' and highlighted key aspects related to the topic. He stressed the need for development of drugs to treat emerging diseases.

Workshop on Research Methodology The Central Council for Research in Unani Medicine (CCRUM) organized a one-day Workshop on Research Methodology at its headquarters in New Delhi on June 27, 2018. The workshop aimed at enhancing the capacity of participants and sensitizing them with the principles and techniques of research.

In this workshop, Dr. Vijay Kumar delivered a comprehensive lecture on 'Percutaneous valve therapy – An overview of transcatheter aortic valve replacement' and enlightened the



participants with his indepth knowledge on the subject. Emphasizing the need for validation studies and generating scientific evidence, he said that claims could not last long if they are not supported by convincing evidences. He noted that due to various reasons alternative medicine could not take its seat that it deserves which is unfortunate.

The workshop concluded with vote of thanks proposed by Shri RU Choudhury, Assistant Director (Administration), CCRUM. More than 100 participants including researchers, scientists and PG scholars of All India Institute of Medical Sciences, Vallabhbhai Patel Chest Institute, Jamia Millia Islamia, A & U Tibbia College, Jamia Hamdard and Amity University besides researchers from the CCRUM benefited from the workshop.

4.2.4. Training on *Ḥijāmah* (Cupping)

The CRIUM, Lucknow organized two training programs on *Ḥijāmah* (Cupping) in April and June 2018 to develop skills of physicians in the application of this ancient therapy.

During both the programs, Dr. MA Khan, Deputy Director, CRIUM, Lucknow delivered a lecture on history of '*llāj bi'l-Tadbīr* in Unani Medicine and various forms of *Ḥijāmah*. He also touched upon recent advances in cupping procedure and stressed to adopt them for the betterment of mankind.

During the training sessions, theoretical and practical knowledge of cupping procedure was imparted to the participants. Hands-on training through live demonstration of cupping was also provided.

Dr. L Swasthicharan, Chief Medical Officer, Directorate General of Health Services, Ministry of Health and Family Welfare presided over the certificate distribution function for the training organized in April 2018 and handed over certificates to the participants. Dr. Jamal Akhtar, Research Officer (Unani), CCRUM and Nodal Officer of the Institute was present on the occasion and addressed the participants.

4.2.5. National Seminar on Intellectual Property Rights

The CCRUM organized a one-day 'National Seminar on Intellectual Property Rights (IPRs)' at the Central Research Institute of Unani Medicine (CRIUM), Hyderabad on August 30, 2018. The seminar urged the need to protect the traditional knowledge and intellectual properties of Unani System of Medicine through national/ international patenting.

The seminar had two technical sessions for nine invited talks, besides inaugural and wrap-up sessions. Eminent experts from the Indian Patent Office (IPO) and the National Biodiversity Authority (NBA) deliberated various aspects of IPRs and related issues. The seminar attracted over 200 delegates comprising medical scientists, academicians, researchers and postgraduate students of Unani Medicine. The occasion also witnessed signing of Memorandum of Understanding between the CCRUM and the National Institute of Pharmaceutical Education and Research (NIPER), Hyderabad to promote collaborative pharmaceutical research and development in Unani Medicine. Appreciation awards to postgraduate students of CRIUM, Hyderabad were also distributed on the occasion.

Inaugural Session

In his inaugural speech, Shri Pramod Kumar Pathak, Additional Secretary to the Government of India, Ministry of AYUSH highlighted the importance of IPRs for a scientific organization and appreciated the efforts of the CCRUM in obtaining patents. He urged to take lead at global level on the issues related to protection of traditional knowledge.



In his welcome address, Prof. Asim Ali Khan, Director General, CCRUM informed that 15 patents have been granted to the CCRUM by the IPO and measures are being taken to further strengthen the intellectual property related activities.

Dr. Shashi Bala Singh, Director, NIPER emphasized that there is a lot of potential in traditional systems of medicine and expressed her willingness to explore meaningful collaboration in the field of Unani Medicine.

Dr. KS Kardam, Senior Joint Controller of Patents & Designs, IPO, New Delhi urged the Council to evolve an IP strategy for inventors and make efforts for obtaining patents at global level.

The inaugural session concluded with the vote of thanks proposed by Prof. Munawwar Husain Kazmi, Deputy Director In- Charge, CRIUM, Hyderabad.

Technical Session-I

The first technical session was chaired by Padma Shri Dr. MA Waheed, Chairman, Scientific Advisory Committee, CCRUM. The session began with an invited talk delivered by Dr. KS Kardam on 'Overview of IPR management and commercialization'. He enlightened the audience with his deep knowledge on intellectual property rights and related issues.

The next lecture was delivered by Shri K Chitrarasu, Advisor (Law), NBA, Chennai on 'Provisions relating to applying for IPR in Biological Diversity Act, 2002 and rules thereunder'. The third invited talk was delivered by Shri CM Gaind, formerly Chief (IPR), National Research Development Corporation (NRDC) on 'IP licensing: Myths and lessons'. He shed light on how to bring an invention into production and marketing. The last lecture was delivered by Shri VK Jain, Senior Manager, NRDC on 'Patenting system in India'.

Technical Session-II

The second session was chaired by Prof. Mushtaq Ahmad, former Director, CRIUM, Hyderabad. The session began with an invited talk delivered by Shri SK Pangasa, Ex-Assistant Controller of Patents & Designs, IPO, New Delhi on 'Disclosure of invention for patent protection'. He explained about advantages and disadvantages of patenting, documents required for filing patent application, advantages of provisional specification, etc.

The next lecture was delivered by Dr. Narendran Thiruthy, Technical Officer, NBA, Chennai on 'Biodiversity law – An interface with patent procedure'. He said that documentation of traditional knowledge through Traditional Knowledge Digital Library (TKDL) and People's Biodiversity Registers (PBR) is a pioneer initiative of India to prevent misappropriation of the country's traditional medicinal knowledge.

The third invited talk was delivered by Shri K Chitrarasu, Advisor (Law), NBA, Chennai on 'NBA related issues in reference to patent'. He said that the NBA is mandated to implement provisions of the BD Act in the country.

The fourth invited talk was delivered by Shri CM Gaind on 'Copyright registration in India', while the last lecture was delivered by Shri SK Pangasa on 'Third party representation and post-grant opposition in the new perspective'.

Wrap-up Session

The seminar concluded with wrap up session addressed by the Co-chairs, Dr. Ghazala Javed, Research Officer (Unani) Scientist-IV and Dr. Pawan Kumar, Research Officer



(Pathology) Scientist-IV. Prof. Mushtaq Ahmad congratulated the CCRUM for selecting a very contemporary theme for the seminar.

4.2.6. Training for GDMOs

The CRIUM, Hyderabad imparted two-day training under the 3rd Foundation Training Programme (FTP) for General Duty Medical Officers (GDMOs) of Central Health Services (CHS) organized by the National Institute of Health and Family Welfare (NIHFW), New Delhi during September 24-25, 2018 at Hyderabad.

The training programme aimed to provide exposure to the newly recruited medical officers and orient them with the holistic approach to wellness through AYUSH systems. A total of 12 medical officers from different parts of the country along with two observers from NIHFW, New Delhi participated in the programme.

The programme had an opening session, two technical sessions and a closing session. In the opening session, Dr. Munawwar Husain Kazmi, Deputy Director Incharge, CRIUM, Hyderabad emphasized effective integration of AYUSH systems into conventional medicine.

In the technical sessions, lectures on introduction of Unani Medicine, Unani pharmacology, functioning of CRIUM, Hyderabad, *'Ilāj bi'l-Tadbīr*, and management of Baras. (Vitiligo) in Unani Medicine were delivered by Dr. Qamar Uddin, Dr. Javed Inam Siddiqui, Dr. Mohammad Nawab and Dr. Munawwar Husain Kazmi. The trainees actively participated in the sessions and showed keen interest in knowing about humoral theory, temperament and the strength areas of Unani Medicine.

4.2.7. National Seminar on Intellectual Property Rights

The CCRUM in collaboration with the National Medicinal Plants Board (NMPB) organized a two-day National Seminar on Intellectual Property Rights at the Regional Research Institute of Unani Medicine (RRIUM), Srinagar during November 30–December 01, 2018. The seminar highlighted the importance of protecting traditional knowledge and significance of property rights and patents for a scientific organization.

The seminar was inaugurated by Shri Pramod Kumar Pathak, Additional Secretary, Ministry of AYUSH, Government of India in the presence of Prof. Talat Ahmad, Vice Chancellor, University of Kashmir, Dr. Abdul Kabir Dar, Commissioner, Food Safety, Government of Jammu & Kashmir, Dr. Mohammad Tahir, Advisor (Unani), Ministry of AYUSH, Dr. Mukhtar Ahmad Qasmi, Joint Advisor (Unani), Ministry of AYUSH and Prof. Asim Ali Khan, Director General, CCRUM.

Addressing the inaugural session, Shri Pramod Kumar Pathak emphasized the need for conducting innovative research in Unani Medicine and other traditional systems of medicine. He appreciated the CCRUM for obtaining 17 patents related to the development of certain novel and therapeutic compositions and SCAR primers.

Speaking on the occasion, Prof. Talat Ahmad, Vice Chancellor, University of Kashmir said that Unani Medicine is a cultural and empirical inheritance and stressed the need for modernizing the system in order to keep its relevance intact. He urged the stakeholders for upgrading Unani System of Medicine through effective collaboration with different relevant fields so that a meaningful research is undertaken for the overall benefit of mankind. He assured that the University of Kashmir would be happy to be a partner in any collaboration which is aimed at undertaking research in Unani Medicine.



Highlighting the importance of intellectual properties and patents, Dr. Abdul Kabir Dar said that dealing with patents is a serious business and appreciated the CCRUM for its achievements in this area.

Earlier in his welcome address, Prof. Asim Ali Khan shed light on overall working and achievements of the Council and its research institutes. Underscoring the progress in the area of patenting, he informed that the CCRUM has been awarded 17 patents and another 30 applications are in pipeline with the Indian Patent Office (IPO).

During the technical sessions, experts from the IPO, New Delhi and Department of Pharmaceutical Sciences, University of Kashmir shed light on various aspects of IPR and related issues. Shri Subrat Sahu and Ms. Sudha Javeria from IPO, New Delhi delivered lectures on 'Patenting of Biotechnology Invention', 'Basics of Patent Specification Drafting', 'Traditional Knowledge Protection and Biotech Guidelines and Benefit Sharing', and 'Prior Art Search for Patent Application on TKDL Database and other Databases'. Dr. Mohammad Ishaq Geer, Department of Pharmaceutical Sciences, University of Kashmir delivered informative talks on 'Balancing between IPR and Equitable Access to Medicine' and 'Medicalization of the Society and Socialization of the Medicine'. The sessions were chaired by Dr. Mukhtar Ahmad Qasmi, Dr. Shajrul Amin, Coordinator, Clinical Biochemistry, University of Kashmir and Dr. Rabia Hamid, Coordinator, Nanotechnology, University of Kashmir. Dr. Naquibul Islam from RRIUM, Srinagar and Dr. Abdul Raheem, Dr. Pawan Kumar and Dr. Usama Akram from the CCRUM headquarters co-chaired the sessions. The seminar concluded with vote of thanks proposed by Dr. Seema Akbar, Assistant Director Incharge, RRIUM, Srinagar. The seminar was successful in realizing its objective of sensitizing and training the participants in IPR management, technology transfer and commercialization of patents.

4.2.8. Interactive Session on Propagation of Unani Medicine

The CCRUM organized an Interactive Session with Padma Shri Prof. Hakim Syed Zillur Rahman at its headquarters on December 5, 2018. The session aimed to formulate strategy for the propagation and promotion of Unani System of Medicine and development of literature related to the system.

In his introductory remarks, Prof. Asim Ali Khan, Director General, CCRUM emphasized the fact that Unani System of Medicine is not only a medical heritage but a complete science which has been evolved gradually by scholars belonging to different cultures and religions in different parts of the world. He pointed out that this fact gave a global touch to Unani System of Medicine and enriched its treasure by imbibing all the wisdom of great minds of different times. He further said that India is the world leader in Unani Medicine today and emphasized that this leadership needs to be conveyed to all the stakeholders at global level by every possible means.

Prof. Syed Zillur Rahman, an eminent Unani scholar and authority on history of Unani Medicine, discussed in detail the caravan of Unani Medicine and the great contributions made by the Unani scholars in different spans of time. He informed that Unani Medicine is known in the modern world by almost 18 names that happen to be a hindrance in the propagation of Unani Medicine at global level. He urged the need for making a consensus over the name of 'Unani' for all the similar systems of medicine. Unani System of Medicine is the only system of medicine that has a continuous, authentic and well-written history since ancient times, Prof. Rahman added. He further elaborated that the roots of Unani



Medicine could be traced back to ancient Egypt and Babylon. Speaking about the history of Unani Medicine in India, he informed that the system was introduced during the eighth century AD, and soon got rooted in the country as an indigenous system of medicine. Prof. Rahman acknowledged the Council's contributions in preserving classical literature of Unani Medicine through translation and reproduction. He urged to have collaborations with central Asian countries.

In the light of the discussions, the participants agreed upon the development of a brief document comprising all the basic information related to Unani System of Medicine in English. In his concluding remarks, Prof. Asim Ali Khan extended his gratitude to the eminent expert and Council's officers for fruitful discussions.

4.2.9. Unani Day Celebrations and National Conference

The CCRUM celebrated Unani Day on February 11 in a grand manner and organized a host of events at the prestigious Vigyan Bhawan in the heart of the national capital during February 11–12, 2019.

The celebrations included organization of a two-day National Conference on Unani Medicine, a ceremony for distribution of AYUSH Awards for Unani Medicine, release of various publications of the CCRUM and exhibition of Unani drug manufacturers and promoters of health tourism in addition to launching 50-day countdown and organizing public talks, marathons, writathon, quiz competitions, public health talks, workshops, etc. at the headquarters and peripheral institutes spread across the country during the countdown period.

National Conference

The conference was themed on 'Unani Medicine for Public Health' and emphasized the need for integration and synergy of all medical systems to address the health challenges the world is facing today. The conference elaborated the contributions and potentials of Unani Medicine in public health and highlighted that Unani Medicine has effective treatment for many diseases that are not effectively treated in other medical systems. With the presence of experts, luminaries, scholars of Unani Medicine, the conference provided a platform for healthy discussion, brain storming of ideas and creation of better avenues in further utilizing the strength of Unani Medicine in public health issues. Besides inaugural and valedictory sessions, the conference had a panel discussion, keynote addresses and eight scientific sessions. About 1300 delegates, resource persons, academicians, researchers and industry representatives participated in the conference.

Inaugural Session

The conference was inaugurated by Dr. Najma Heptulla, Hon'ble Governor of Manipur in the presence of Shri Mukhtar Abbas Naqvi, Hon'ble Union Minister for Minority Affairs, Shri Shripad Yesso Naik, Hon'ble Union Minister of State (IC) for AYUSH, Dr. Jitendra Singh, Hon'ble Union Minister of State (IC), Ministry of Development of North Eastern Region, Vaidya Rajesh Kotecha, Secretary to the Government of India, Ministry of AYUSH, Shri Pramod Kumar Pathak, Additional Secretary, Ministry of AYUSH, Government of India, Prof. Dr. Seyed Ehtesham Hasnain, Vice-Chancellor, Jamia Hamdard, New Delhi, Dr. Mohd Tahir, Advisor (Unani), Ministry of AYUSH, Government of India and Prof. Asim Ali Khan, Director General, CCRUM.

Inaugurating the conference, Dr. Najma Heptulla said that Unani Medicine can offer the right solution for many health challenges we are facing due to lack of treatment of many



diseases and paucity of resources. She attributed the success of Unani Medicine to its accessibility, affordability and holistic approach towards healthy living. She urged the Unani fraternity to progress and evolve with the changing times, adapt to new techniques of health research and contribute new approaches to health management. She informed that Manipur has the treasure of over 500 medicinal plants and invited the medical scientists to visit the State for research. Paying tribute to Hakim Ajmal Khan, whose birth anniversary is celebrated as Unani Day on 11th February every year, she attributed him as humane, versatile genius, intensely committed, articulate and a remarkable combination of honesty, high idealism and professional skill.

Highlighting the strengths of Unani Medicine and other AYUSH systems in his address, Shri Mukhtar Abbas Naqvi said that the AYUSH systems are golden key to health and wellbeing and India is the strongest hub of Traditional Medicine which is one of the reasons medical tourism is flourishing in the country. He stressed the integration of Unani Medicine in mainstream healthcare in line with the government policies and initiatives for mainstreaming of AYUSH in national healthcare.

Speaking on the occasion, Dr. Jitendra Singh elaborated the present day threats to public health and how capable Unani Medicine has been in aptly maintaining public health. He also expressed his hope that Unani Medicine and other AYUSH systems will come forth to combat the current public health issues. Dr. Singh, who has many other portfolios including Minister of State for Prime Minister's Office, termed Unani Medicine as an asset to the healthcare delivery system and traditional knowledge. He stressed the need for a holistic and synergetic pattern of treatment in which no system overwrites the other.

Addressing the conference, Shri Shripad Yesso Naik enlightened the audience on concrete steps taken by the Ministry of AYUSH to promote Unani Medicine in national public healthcare system through regulation of research and integration of quality products, practices and practitioners into the health system. 'Our efforts are focused to tap the real potential of AYUSH systems in imparting preventive, promotive and holistic healthcare to the people', he added.

Speaking on the occasion, Vaidya Rajesh Kotecha urged to adapt Information Technology and informed about the steps taken by the Ministry of AYUSH in the form of National AYUSH Morbidity and Standardized Terminologies Electronic Portal (NAMASTE - Portal), initiative for incorporation of AYUSH Morbidity Codes in WHO – ICD 11, AYUSH Grid, use of Social Media and A-HMIS. He made announcement for allotment of land and allocation of Rs. 340 crore for National Institute of Unani Medicine to be setup in Ghaziabad. He applauded the research endeavors of the CCRUM and its crucial contribution to public health and Unani Medicine.

Earlier in his welcome address, Prof. Asim Ali Khan, Director General, CCRUM said that the Government of India is making concerted efforts to promote and propagate Unani Medicine and other AYUSH systems and has created a separate ministry. He extended his gratitude to the Hon'be Minister of AYUSH for considering the upgradation of Central Research Institute of Unani Medicine (CRIUM), Hyderabad to National Institute of Unani Medicine for Skin Diseases, upgradation of Regional Research Centre, Silchar to Regional Research Institute of Unani Medicine and upgradation of pharmacy of CRIUM, Hyderabad. He also thanked the Minister for facilitating the establishment of an Extension Centre for Research in Pattayam, Kerala. He informed that land for establishment of National Institute for Research in Unani Medicine for NCDs has been allotted by the State Government in



Haryana. He further informed that the CCRUM has signed MoUs with South Africa, Iran, Tajikistan and Bangladesh.

To mark the occasion, Prof. Dr. Seyed Ehtesham Hasnain, Vice-Chancellor, Jamia Hamdard, New Delhi and Prof. Asim Ali Khan, Director General, CCRUM exchanged MoU for scientific collaboration between their institutions.

The inaugural function concluded with the vote of thanks proposed by Dr. Mohd Tahir, Advisor (Unani), Ministry of AYUSH, Government of India.

Panel Discussion

The Panel Discussion Session was focused on 'Challenges in Market Development for Unani Medicine – An Interface between Academia, Industry and Researchers'. Dr. G N Qazi, Director General, Hamdard Institute of Medical Sciences and Research, Jamia Hamdard, New Delhi was moderator of the session, whereas Prof. S Shakir Jamil, Jamia Hamdard, New Delhi, Prof. K M Y Amin, Aligarh Muslim University, Aligarh, Prof. M A Jafri, Jamia Hamdard, New Delhi, Shri Arunabha Pradhan, National Research Development Corporation, New Delhi, Vaidya Devendra Triguna, President, Association of Manufacturers of Ayurvedic Medicine, New Delhi, Dr. Syed Farooq, President, Himalaya Drug Company, Shri Pradeep Multani, Chairman, Multani Pharmaceuticals Ltd., Dr. Deepika Gunawant, Sr. Consultant, Max Multi Specialty Centre, New Delhi and Hakim Mohsin Dehlvi, General Secretary, Unani Drug Manufacturers Association, New Delhi participated as the panelists. Dr. Amanullah, Research Officer (Unani) Scientist – III, Dr. Tamanna Nazli, Research Officer (Unani) and Dr. Shagufta Parveen, Research Associate (Unani) at the CCRUM were the rapporteurs.

Dr. G N Qazi appreciated the contributions of the Ministry of AYUSH, Council for Scientific and Industrial Research and Department of Science and Technology for furtherance of the Indian systems of medicine during the last few years. He noted that development of new drug is a challenge but it needs to be turned into opportunity. He advocated that Indian systems of medicine must be commercialized and not personalized.

Hakim Mohsin Dehlvi highlighted issues related to grant of patent and renewal of industry license due to lack of toxicity studies and requested the CCRUM to join hands with industries for toxicological studies.

Dr. Deepika Gunawant raised the issue of quality and accentuated that integrity and simplicity of the drug must be maintained.

Shri Pradeep Multani suggested that undergraduate students should join industries for some duration to build confidence in their system of medicine.

Prof. K M Y Amin underscored the need for keeping into consideration the principles of Unani Medicine while conducting validation studies or creating innovation. He asked the CCRUM to develop a cell in order to coordinate innovative studies and check that principles of Unani Medicine remain intact in the innovation process.

Vaidya Devendra Triguna laid emphasis on exclusive practice of AYUSH systems rather than mixing them with the modern medicine. He also suggested that colleges of the AYUSH systems should focus on producing confident and qualified physicians.

Dr. Syed Farooq accentuated the role of Unani Medicine in providing healthcare and put emphasis on exploring the possibilities of new research in Traditional Medicine.



Shri Arunabha Pradhan suggested that clinical trials must be done to prove the safety and efficacy of Unani Medicine in order to enable marketing of Unani drugs.

Prof. S Shakir Jamil emphasized that batch to batch variation in the manufacturing affects the efficacy of Unani drugs and termed it as one of the most common challenges in the marketing of Unani drugs. Prof. M A Jafri suggested that industries, researchers and academia must join hands together to address the challenges in the way of developing Unani Medicine.

Keynote Addresses

The Keynote Address Session was themed on 'Unani Medicine for Public Health'. It had three eminent speakers - Prof. T C James, Research Fellow, Research and Information System for Developing Countries, New Delhi, Dr. Sungchol Kim, Regional Advisor for Traditional Medicine, WHO South-East Asia Regional Office, New Delhi and Prof. A Venkat Raman, Faculty of Management Studies, University of Delhi - South Campus, New Delhi. Dr. Nighat Anjum, Research Officer (Unani) Scientist-III, Dr. Usama Akram, Research Officer (Unani) and Dr. Fauzia Basheer, Research Associate (Unani) at the CCRUM were the rapporteurs of the session.

Delivering his presentation on 'Sustainable Development Goals (SDGs) for Public Health', Prof. T C James emphasized that health facilities should be easily accessible to the common man. He acknowledged that Traditional Medicine is providing affordable medical facility as compared to modern medicine particularly in rural areas. He underscored the need to address concerns related to quality of drugs, services and standards of Traditional Medicine. He emphasized that Traditional Medicine can facilitate and hasten the achievement of SDGs.

Speaking on 'Emerging Health Concerns towards Achieving the Goals of WHO Traditional Medicine Strategy', Dr. Sungchol Kim said that the Southeast Asian countries are facing shortage of human resources due to emerging health challenges which is creating a hurdle in achieving the target of providing access to quality health services. He emphasized to strengthen the bond between modern medicine and Traditional Medicine so that universal health can be promoted. He put emphasis on conducting randomized clinical trials in Traditional Medicine to increase its acceptability at global level.

Prof. A Venkat Raman delivered his presentation on 'Health Systems in India – Opportunities and Challenges' and highlighted the challenges of health financing, shortage of human resources, role of private sector, lack of leadership, poor infrastructure, low quality standards and disruption of medical system. He urged that AYUSH systems should come forward to address the health challenges.

Scientific Session - I

The first scientific session was held on 'Integration of Unani Medicine in Healthcare Delivery System' on February 12, 2019. The session was chaired by Dr. Ravi Mehrotra, Director, Institute of Cytology and Preventive Oncology, Noida and co-chaired by Dr. Munawwar Hussain Kazmi, Deputy Director Incharge, Central Research Institute of Unani Medicine, Hyderabad and Dr. Haseeb Alam Lari, Research Officer Incharge, Regional Research Institute of Unani Medicine, Mumbai.

Delivering his presentation on the 'Role of Pharmacology for Integration of Modern Medicine & Unani' in the session, Prof. K M Y Amin, AMU, Aligarh suggested integration of Unani Medicine for all chronic and nonemergency medical conditions and emphasized the



use of Unani drugs as adjuvant along with chemotherapeutic agents. He appreciated the holistic action of Unani treatment and underscored the need of creating awareness among mainstream specialists and general public about Unani treatment.

Prof. Jugal Kishore, Department of Community Medicine, VMMC & Safdarjung Hospital, New Delhi delivered his presentation on 'Challenges and Way forward in Integrating Unani Medicine in Public Health'. Prof. Kishore mentioned lack of acceptance of Unani Medicine by the modern medicine, lack of scientific validation, standardization, pharmacokinetic studies, quality and regulatory aspects as certain challenges before Unani Medicine and suggested revision of Unani text with critical outlook, revalidation of Unani fundamentals, integration with the faculty of medical colleges and creation of scientific evidences.

Dr. Zaki Ahmad Siddiqui, Research Officer (Unani) Scientist–IV, Dr. Mahe Alam, Research Officer (Unani) and Dr. Shah Alam, Research Associate (Unani) at the CCRUM were rapporteurs of the session.

Scientific Session - II

The Scientific Session – II was themed on 'Management of Chronic Diseases in Unani Medicine'. The session was chaired by Prof. Saud Ali Khan, Principal, Ajmal Khan Tibbiya College, AMU, Aligarh, Prof. M M Wamiq Amin, Faculty of Unani Medicine, AMU, Aligarh and Prof. Syed Mahtab Ali, Jamia Hamdard, New Delhi. Dr. M A Khan, Deputy Director Incharge, Central Research Institute of Unani Medicine, Lucknow and Dr. Shagufta Parveen, Deputy Director Incharge, Regional Research Institute of Unani Medicine, New Delhi co-chaired the session.

Prof. M Anwar, Prof. Tanzeel Ahmad and Prof. Asia Sultana from Faculty of Unani Medicine, AMU, Aligarh, Dr. Majid Ahmed Talikoti, Batra Hospital, New Delhi and Dr. Mohd Abbas Zaidi, Hakim Syed Ziaul Hasan Government Unani Medical College, Bhopal delivered their presentations. The topics included 'Regimenal Therapies – A Panacea for Treatment of Musculoskeletal Disorders', 'Controlling Hypertension with Unani Medicine', 'Regimenal Intervention of Low Backache in Women', 'Scope of Traditional Medicine in Combating Cancer Challenges' and 'Strategies for Scientific Validation of Regimenal Therapies'.

Dr. Jamal Akhtar, Research Officer (Unani) Scientist-III, Dr. Mustehasan, Research Officer (Unani) Scientist-II and Dr. Zeba Afrin, Research Associate (Unani) at the CCRUM were rapporteurs of the session.

Scientific Session - III

'Emerging Research Trends in Unani Medicine' was the theme of the Scientific Session–III. It was chaired by Dr. Ahmad Kamal, Pro-Vice Chancellor, Jamia Hamdard, New Delhi and Prof. R K Khar, Principal, BS Anangpuria Institute of Pharmacy, Faridabad and co-chaired by Dr. Seema Akbar, Assistant Director Incharge, Regional Research Institute of Unani Medicine, Srinagar and Dr. N Zaheer, Research Officer Incharge, Regional Research Institute of Unani Medicine, Chennai.

The speakers of the session included Prof. S M Arif Zaidi, Jamia Hamdard, New Delhi, Dr. Ruchika Kaul Ghanekar, Bharati Vidyapeeth University, Pune, Prof. Raka Jain, AllMS, New Delhi, Dr. Alpana Sharma, AllMS, New Delhi and Dr. Zeeshan Fatima, Amity University, Haryana. Their presentations were focused on 'Management of Non-Healing Ulcers through Unani Approaches', 'Exploring the Potential of Plant Based Medicines in Cancer', 'Role of *Delphinium denudatum* (*Jadwār*) in Nicotine Addiction', 'Potential of Unani



Medicine in Cancer' and 'Evaluation of Anti-Mycobacterial Potential of Unani Drugs *Qurs-e-Sartan Kafoori* and *Sharbat-e-Ejaz* - A Mechanistic Approach'.

Dr. Pradeep Kumar, Research Officer (Pathology) Scientist-IV, Dr. Mokhtar Alam, Research Officer (Botany) and Dr. Sofia Nousheen, Research Associate (Unani) at the CCRUM were rapporteurs of the session.

Scientific Session - IV

The Scientific Session – IV was themed on 'Unani Medicine for Geriatric Care'. It was chaired by Dr. Mukhtar Ahmad Qasmi, Joint Adviser (Unani), Ministry of AYUSH, Prof. Surender Singh, AIIMS, New Delhi and Dr. Mushtaq Ahmad, Member, Scientific Advisory Committee, CCRUM, New Delhi and co-chaired by Dr. Khalid M Siddiqui, Former Deputy Director General, CCRUM, New Delhi and Dr. B D Khan, Faculty of Unani Medicine, AMU, Aligarh.

There were four speakers in the session. Prof. S Raisuddin, Jamia Hamdard, New Delhi, Dr. HS Rehan, Lady Hardinge Medical College, New Delhi and Prof. Ashhar Qadeer, Faculty of Unani Medicine, AMU, Aligarh. Prof. Mohd Akhtar Siddiqui, Jamia Hamdard was represented by his colleague Dr. Sadiya Nikhat.

The topics of the session included 'Strategies to Improve Quality of Life in the Elderly through Unani Medicine', 'Adverse Reactions of Herbal Products—Reporting & Mitigation', 'Strategies for the Management of Dyslipidemia' and 'Elderly Health and its Maintenance through the *Asbāb-e-Fa'iliah* (Coefficient Factors)'.

Dr. Bilal Ahmad, Research Officer (Unani) Scientist-III, Dr. Nikhat Shaikh, Research Officer (Unani) and Dr. Shamim Ahmad, Research Associate (Unani) at the CCRUM were rapporteurs of the session.

Scientific Session - V

The Scientific Session–V was based on 'Public Health Programmes'. It was chaired by Dr. S Venkatesh, Director General of Health Services, New Delhi and Prof. Ehsan Ali Khan, Jamia Hamdard, New Delhi and co-chaired by Dr. Younis Iftikhar Munshi, Research Officer Incharge, Regional Research Institute of Unani Medicine, Kolkata and Dr. Hakimuddin, Research Officer Incharge, Regional Research Institute of Unani Medicine, Bhadrak.

Dr. Shashi Bala Singh, Director, National Institute of Pharmaceutical Education and Research, Hyderabad, Dr. PR Sodani, Dean (Training), Indian Institute of Health Management Research, Jaipur, Dr. N Ravichandran, Dr. Shibu John and Dr. Sakhi John, Jamia Hamdard, New Delhi were speakers of the session. They delivered their presentations on 'Pharmaceutical Management: Roles and Responsibilities towards Public Health Programmes', 'Management of Health Programmes', 'Leadership and Strategic Management in Healthcare' and 'Health Information System as a Tool for Monitoring and Evaluation of Public Health with Reference to Unani System of Medicine'.

Dr. Asma Sattar, Research Officer (Chemistry) Scientist-III, Dr. Shaista Urooj, Research Officer (Unani) and Dr. Saad Ahmed, Consultant (Unani) at the CCRUM were rapporteurs of the session.

Scientific Session - VI

The Scientific Session – VI was dedicated for presentation on 'Quality Control in Traditional Medicine'. It was chaired by Prof. YK Gupta, President, AIIMS, Bhopal, Dr. O P Agarwal, Former Deputy Director General, Indian Council of Medical Research, New Delhi and Prof.



Naeem Ahmad Khan, Faculty of Unani Medicine, AMU, Aligarh. Dr. M Ishtiyaq Alam, Research Officer Incharge, Regional Research Institute of Unani Medicine, Patna and Dr. Mohaamad Fazil, Research Officer Incharge, Hakim Ajmal Khan Institute for Literary & Historical Research in Unani Medicine, New Delhi co-chaired the session.

Prof. Vd. K Rama Chandra Reddy, Director, Pharmacopoeia Commission of Indian Medicine and Homoeopathy, Ghaziabad, Dr. SJS Flora, Director, National Institute of Pharmaceutical Education and Research, Raebareli, Prof. Farhan Jalees, Jamia Hamdard, New Delhi, Dr. Manish Pande and Dr. Vandana Siroha, Quality Council of India, New Delhi delivered their presentations on 'Role of PCIM&H in Quality Control and Standardization of ASU & H Drugs', 'Quality Control of Herbal Drugs: Advancements and Challenges', 'Development of Drugs and Commercialization of Local/Folklore Knowledge', 'Ensuring Quality of Raw Material' and 'Certification and Accreditation of AYUSH Healthcare Providers' respectively.

Dr. RP Meena, Research Officer (Chemistry) Scientist - III, Dr. Farah Ahmed, Research Officer (Unani) and Dr. Anju, Research Associate (Unani) at the CCRUM were rapporteurs of the session.

Scientific Session - VII

The Scientific Session – VII centred on 'Way Forward for Globalization of Unani Medicine'. It was chaired by Prof. Md. Abdul Mannan, Vice Chancellor, Hamdard University, Bangladesh, Prof. A K Azad Khan, Dean, Faculty of Ayurvedic and Unani Medicine, Hamdard University, Bangladesh, Prof. Mohammad Zahid Ashraf, Department of Biotechnology, Jamia Millia Islamia, New Delhi and Ms. Umedakhon Yuldasheva, Dean of Faculty of Pharmacy, Avicenna Tajik State Medical University, Dushanbe, Tajikistan.

Padma Shri Dr. M A Waheed, Chairman, Scientific Advisory Committee, CCRUM, New Delhi delivered his presentation on 'Globalisation of Unani Medicine - Need of the Era', whereas Shri S Murali Krishna, Joint Director, Pharmexcil, Hyderabad on 'Strategies for Capturing International Market'.

Dr. Abdul Raheem, Research Officer (Unani) Scientist-IV, Dr. Neelam Quddusi, Research Officer (Unani) Scientist-III and Dr. Rukshanda Taiyab, Technical Officer (Unani) at the CCRUM were rapporteurs of the session.

Scientific Session - VIII

The Scientific Session – VIII was themed on 'Unani Medicine for Mother and Child Healthcare'. It was chaired by Prof. Khalid Zaman Khan, Dean, Faculty of Unani Medicine, AMU, Aligarh, Prof. Junaid Siddiqui and Dr. Mohammad Akram, Jamia Hamdard, New Delhi. Dr. Sarfaraz Ahmad, Deputy Director Incharge, Regional Research Institute of Unani Medicine, Aligarh co-chaired the session.

Prof. S Nafees Bano, Principal, Hakim Syed Ziaul Hasan Government Unani Medical College, Bhopal, Prof. Suhail Fatima and Dr. Zeenat Iqbal, Jamia Hamdard, New Delhi delivered their presentations on 'Potential of Unani Medicine in Children with Special Needs', 'Management of Pelvic Inflammatory Diseases with Unani Medicine' and 'Nano Appended Approaches of Intravaginal Drug Delivery: Harnessing the Potential of Unani Formulations'.

Dr. Salim Siddiqui, Research Officer (Unani) Scientist-IV, Dr. Azma, Research Officer (Unani) and Dr. Nusrat Jahan, Research Associate (Unani) at the CCRUM were rapporteurs of the session.



Valedictory Session

The two-day National Conference on Unani Medicine concluded on February 12, 2019 highlighting the need for integration and synergy of all medical systems to counter the health challenges.

Addressing the valedictory session, Shri Pramod Kumar Pathak, Additional Secretary, Ministry of AYUSH, Government of India appreciated the CCRUM for organizing such a successful conference and congratulated the recipients of AYUSH Awards for Unani Medicine.

In his address, Prof. Talat Ahmad, Vice Chancellor, University of Kashmir, Srinagar emphasized the need for modernization of Unani Medicine and other traditional systems of medicine keeping their principles and basics intact.

Speaking on the occasion, Prof. Akhtarul Wasey, President, Maulana Azad University, Jhodpur said that with the largest infrastructure for teaching, research and practice, India is undoubtedly the world leader in Unani Medicine. He urged the Ministry of AYUSH and the Government of India to upgrade Ayurvedic & Unani Tibbia College to a full-fledged university.

Padma Shri Prof. Hakim Syed Zillur Rahman urged to maintain the principles and identities of different systems of medicine and preserve our medical legacy. Paying tribute to Hakim Ajmal Khan, he said that he was an unmatched and genius personality and a symbol of unity in diversity.

Padma Shri Dr. M A Waheed laid emphasis on validation of traditional systems of medicine on scientific parameters for globalization of Unani Medicine.

Earlier in his wrap-up remarks, Prof. Asim Ali Khan, Director General, CCRUM summed up the two-day proceedings. The conference concluded with vote of thanks proposed by Dr. Mohd Tahir, Advisor (Unani), Ministry of AYUSH.

AYUSH Awards for Unani Medicine

The inaugural session of the National Conference on Unani Medicine also accommodated the ceremony for conferment of AYUSH Awards for Unani Medicine. Various Unani scientists and experts were honored in recognition of their contributions to research, teaching and practice of Unani Medicine. The Best Research Paper Awards were presented to Dr. Arshiya Sultana, Associate Professor, National Institute of Unani Medicine, Bangalore for Clinical Research and Dr. Noman Anwar, Research Officer (Unani), Regional Research Institute of Unani Medicine, Chennai for Drug Research in Unani Medicine. The awards comprised a citation, a shawl and a cash award of Rs. 50,000 each. The Young Scientist Awards were conferred on Dr. Jamal Akhtar, Research Officer (Unani) Scientist-III, CCRUM for Clinical Research and Dr. Nasreen Jahan, Associate Professor, National Institute of Unani Medicine, Bangalore for Drug Research in Unani Medicine. The awards comprised a citation, a shawl and a cash award of Rs. 100,000 each. The Best Teacher Awards were presented to Prof. Tanzeel Ahmad, Aligarh Muslim University, Aligarh for Clinical Research, Prof. Mohd Aslam, Jamia Hamdard, New Delhi for Drug Research and Prof. Khalid Zaman Khan, Aligarh Muslim University, Aligarh for Literary Research in Unani Medicine. The awards comprised a citation, a shawl and a cash award of Rs. 200,000 each. The Lifetime Achievement Awards were conferred on Prof. Naeem Ahmad Khan, AMU, Aligarh and Prof. M A Jafri, Jamia Hamdard, New Delhi for



Best Academician and Best Researcher in Unani Medicine respectively. The awards comprised a citation, a shawl and a cash award of Rs. 200,000 each.

Release of CCRUM Publications

During the inaugural function of National Conference on Unani Medicine, the dignitaries released the Conference Souvenir and four other publications brought out by the CCRUM. Unani Pharmacopoeia of India (UPI) Part-II, Vol-IV is the official document for standards of 50 Unani formulations. The work was carried out by the CCRUM under supervision of Unani Pharmacopoeia Committee and Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H), whereas 'Clinical Validation of Unani Formulations in Waja' al-Mafāṣil (Rheumatoid Arthritis)' is the outcome of validation studies on five Unani formulations safe and effective in Waja'al-Mafāṣil. The fourth publication is Urdu translation of 'Manāfi' al Aghdhiyah wa-Daf'u Mad.ārrihā', an original Arabic work on diet and dietetics by Muhammad ibn Zakariyya Rāzī (d. 926 AD). The fifth released book is Urdu translation of Persian book, 'Intikhāb-i Jalīl' which comprises 800 prescriptions effective in diseases of different body systems authored by Jalil Ahmed Ansari, a legendary Hakim of twentieth century.

4.2.10. Workshop on Emerging Health Challenges

Hakim Ajmal Khan Institute for Literary & Historical Research in Unani Medicine (HAKILHRUM) organized a one-day 'Workshop on Emerging Health Challenges and Role of Unani Medicine' at Jamia Millia Islamia, New Delhi on January 31, 2019. The workshop was organized as a pre-activity ahead of Unani Day which falls on 11th February.

Addressing the workshop, Prof. Asim Ali Khan, Director General, CCRUM briefed the activities and achievements of the CCRUM in the area of research and development and urged to explore the potentials of Unani Medicine in preventing and treating emerging health diseases.

Present as the chief guest, Prof. Prem Kapoor, Head, Department of Medicine, Hamdard Institute of Medical Sciences and Research (HIMSAR), Jamia Hamdard, New Delhi delivered a lecture on 'Recent Trends in the Management of HIV/AIDS: An Emerging Health Problem'. He presented recent advancements made in global healthcare to control, prevent and manage AIDS.

Delivering talk on 'Cancer in Unani Medicine and Future Prospects', Dr. Ahmad Sayeed,

Research Officer (Unani) Scientist-III, HAKILHRUM briefed on the contributions made by Unani physicians in the prevention and treatment of cancer. Citing references from Unani literature and clinical studies, he suggested Unani regimens for the management of cancer.

Earlier in his welcome address, Dr. Mohammad Fazil, Research Officer Incharge, HAKILHRUM highlighted the importance of classical literature of Unani Medicine and its relevance in the current health scenario.

The workshop concluded with vote of thanks proposed by Dr. Amanullah, Research Officer (Unani) Scientist – III, CCRUM. About 150 delegates from Jamia Millia Islamia, Jamia Hamdard and Ayurvedic and Unani Tibbia College participated in the workshop.



4.2.11. Workshops on Cupping Therapy

The RRIUM, Srinagar and RRIUM, Chennai organized one-day Workshops on *Ḥijāmah* (Cupping Therapy) as pre-events ahead of National Conference on Unani Medicine during February 11–12, 2019.

In her introductory remarks during the workshop in Srinagar on January 28, Dr. Seema Akbar, Assistant Director Incharge, RRIUM, Srinagar highlighted the benefits of *Ḥijāmah* in curing various diseases and urged the participants to master its techniques.

The experts delivered PowerPoint presentations on different aspects of Hijāmah and demonstrated its various methods and types.

During the workshop, 50 participants from two Unani medical colleges were given lectures and hands-on training of this unique regimen therapy. The workshop proved a learning opportunity for them and they appreciated the initiative of the RRIUM, Srinagar.

The workshop organized at Chennai on February 2, 2019 was inaugurated by Dr. R Ilavarasan, Assistant Director Incharge, Captain Srinivasa Murthy Regional Ayurveda Drug Development Institute, Chennai. During the workshop, three lectures on different aspects of Hijāmah were delivered by Dr. N Zaheer Ahmed, Research Officer Incharge, RRIUM, Chennai, Dr. U Md. Qaisar Rabee, Assistant Medical Officer, Primary Health Centre, Ervadi, Tamil Nadu and Dr. Noman Anwar, Research Officer (Unani), RRIUM, Chennai. Handson training was imparted to 26 Unani practitioners in the afternoon session. The participants were felicitated with the certificate of participation.

The Central Research Institute of Unani Medicine (CRIUM), Lucknow also organized a training program on *Hijāmah* (Cupping) in March 2019 to develop skills of physicians in the application of this effective technique having diversified benefits.

During the training sessions, theoretical and practical knowledge of cupping procedure was imparted to the participants. Hands-on training through live demonstration of cupping was also provided.

4.3. Participation in Conference / Seminar / Workshop, etc.

4.3.1. National Consultative Meet on Intra-AYUSH Collaboration

Researchers of CCRUM participated in the two-day 'National Consultative Meet on Intra-AYUSH Collaboration' organized by the Central Council for Research in Ayurvedic Sciences (CCRAS) during April 28–29, 2018 in New Delhi. The meet aimed at assessing the core strengths of AYUSH systems and formulating strategies for intra-AYUSH collaborations in order to promote medical pluralism and ensure effective interface among the systems.

Inaugurating the meet, Shri Shripad Yesso Naik, Hon'ble Minister of State (IC) for AYUSH highlighted the achievements of different research councils under the Ministry of AYUSH and core strengths of different Indian systems of medicine.

Speaking on the occasion, Vaidya Rajesh Kotecha, Secretary, Ministry of AYUSH highlighted key provisions of National Health Policy 2017 and emphasized the need for integration and mainstreaming of AYUSH systems.

During the technical sessions, core achievements of AYUSH research councils were presented by researchers of respective councils. The achievements of the Central Council for Research in Unani Medicine (CCRUM) in its research programs *viz.* preclinical



research, clinical research, literary research, survey and cultivation of medicinal plants and drug standardization were presented by Dr. Ghazala Javed, Dr. Jamal Akhtar, Dr. Nighat Anjum, Dr. Amanullah and Dr. Rampratap Meena. In one of the technical sessions, potential areas for intra- AYUSH collaborations were also discussed. Speaking about the objective, concept, key benefits and possible areas of intra-AYUSH collaborations, Dr. Ghazala Javed from the CCRUM opined that an archive, a physical as well as digital library and an online learning and resource system integrating all the AYUSH systems may be developed in collaboration. Dr. Anil Khurana, Deputy Director General, Central Council for Research in Homoeopathy emphasized the functional integration and establishment of polyclinics of AYUSH systems.

The meet also had a panel discussion on development of strategies on intra-AYUSH collaborations. The panellists recommended including brief introduction of AYUSH systems in final year curriculum of undergraduate courses, sensitizing AYUSH professionals with areas of strengths of each AYUSH system, setting up a center for comparative philosophy of AYUSH systems and modern medicine, establishing AYUSH clinics in national institutes of other systems, setting up an intra-AYUSH collaboration cell, expanding integration of AYUSH in NPCDCS, etc.

Addressing the valedictory session, Prof. Asim Ali Khan, Director General, CCRUM appreciated the move to organize such a meet and urged to adopt integrated approach for promotion of different AYUSH systems and complement each other in better healthcare delivery to the mankind.

The meet also witnessed felicitation of Prof. Asim Ali Khan for assuming the charge as the Director General, CCRUM the previous day, conferring of CCRAS Awards and release of various publications brought out by different research councils. Hindi version of National Unani Morbidity Codes and special issue of the CCRUM Newsletter published by the CCRUM were also released during the inaugural session. The meet was attended by researchers, academicians, policymakers and practitioners of AYUSH systems.

4.3.2. Workshops on Content Development Strategy for Social Media

Officers from the CCRUM and its subordinate institutes participated in Workshops on Content Development Strategy for Social Media, Level I & II held in Mumbai, Hyderabad and Chennai during April–June 2018. The workshops aimed to impart training to AYUSH professionals in order to exploit the potentials of social media platforms in better outreach and effective propagation of research activities and services under the Ministry of AYUSH, Government of India.

The level I workshops covered various topics including digital marketing, understanding the core of content, various types and formats of content and content auditing and evaluation. The level II workshops focused on practical aspects and included hands-on training of various tools of social media.

The workshops held in Chennai were organized by the Central Council for Research in Siddha and the National Institute of Siddha during May 25–26 and July 6–7, 2018. The level I workshop at Chennai was inaugurated by Prof. Asim Ali Khan, Director General, CCRUM. He appreciated the efforts of the Ministry of AYUSH and highlighted the importance of social media in promoting and propagating AYUSH systems.

The workshops held in Mumbai were organized by RRA Podar Central Ayurveda Research Institute for Cancer during April 6–7 and May 4–5, 2018, whereas the workshops held in



Hyderabad were organized by the National Institute of Indian Medical Heritage during April 9–10 and May 7–8, 2018. Dr. Ghazala Javed, Research Officer (Unani) Scientist- IV, CCRUM coordinated all the workshops.

4.3.3. Training on NAMASTE – Portal

The Central Council for Research in Ayurvedic Sciences (CCRAS) organized a two-day training program for documentation of information on National AYUSH Morbidity and Standardized Terminologies Electronic Portal (NAMASTE – Portal) during 10–11 September 2018 in New Delhi. The program aimed at training of 74 nominated AYUSH professionals including those from the CCRUM with a view to make them master trainers in future.

Inaugurating the training program, Vaidya Rajesh Kotecha, Secretary to the Government of India, Ministry of AYUSH stressed to take forward the documentation of morbidity statistics across all healthcare setups in the country in a sustainable manner. He urged the trainees to take measures for capacity building of stakeholders in different states.

Speaking on the occasion, Prof. Asim Ali Khan, Director General, CCRUM emphasized the importance of standardized Unani terminologies and their usage in NAMASTE – Portal. He informed the august gathering that the editors of relevant journals have been requested to make use of standard Unani medical terminologies and coding of diseases for authors mandatory.

The training was split in different general and system specific sessions. In the general training sessions, the trainees were sensitized with the aims and objectives and basic knowhow of the portal. Whereas, handson training on the application and methods of data documentation specific to Ayurveda, Siddha and Unani systems of medicine was given in parallel sessions. The training session specific to Unani Medicine was conducted by Dr. Ghazala Javed, Dr. Bilal Ahmad and Dr. Neelam Quddusi. Dr. Javed Inam Siddiqui from the Central Research Institute of Unani Medicine, Hyderabad, Dr. Mohd Afsahul Kalam from the Regional Research Institute of Unani Medicine, Srinagar, Dr. Mohd Tariq from the Central Research Institute of Unani Medicine, Lucknow and Dr. Ahmad Sayeed from the Hakim Ajmal Khan Institute for Literary and Historical Research in Unani Medicine, Delhi participated as Unani professionals in the two-day training program.

NAMASTE – Portal is an initiative of the Ministry of AYUSH, Government of India launched in October 2017 with the objective of recording the quantum of health services provided by AYUSH systems nation-wide and implementing electronic health record system effectively in all public / private / academic organizations in a progressive manner.

4.3.4. Workshop on Advanced Social Media Insights

Officers of the CCRUM participated in the Workshop on Advanced Social Media Insights organized by the Central Council for Research in Ayurvedic Sciences (CCRAS) in New Delhi on December 22, 2018. The workshop aimed to train AYUSH professionals for employing the potentials of social media platforms in promotion of AYUSH systems.

In his inaugural address, Shri PN Ranjit Kumar, Joint Secretary, Ministry of AYUSH, Government of India highlighted the need to address negative propagation about the AYUSH systems through social media. In his keynote address on the occasion, Shri KG Suresh, Director General, Indian Institute of Mass Communication (IIMC), New Delhi



asserted that the goal of social media for AYUSH systems should be to bring about attitudinal change and remove negativity about the systems.

During the technical session, Dr. Anubhuti Yadav, Head, Department of New Media and Course Director of Advertising and Public Relations Course, IIMC delivered lecture on various aspects related to social media like understanding target audience, misinformation / disinformation and verification of facts and content creation. She also imparted hands-on training of different audio-visual tools for creating effective contents.

Based on the learning in the previous workshops, Dr. Tamanna Nazli, Research Officer (Unani), CCRUM delivered a PowerPoint presentation. Technical part of the workshop was coordinated by Dr. Ghazala Javed, Research Officer (Unani) Scientist - IV, CCRUM.

4.3.5. International Conference on Diet and Nutrition

The CCRUM participated in the Second International NIN Centenary Conference on 'Aligning Food Systems for Healthy Diet and Improved Nutrition' held at ICMR-National Institute of Nutrition (NIN), Hyderabad during November 11- 13, 2018.

The conference aimed at envisaging policies to enhance the biodiversity, quality and safety of foods for sustainable, balanced, diversified, nutritious and healthy diets; so that the nutrition is improved and noncommunicable diseases (NCDs) are prevented. Over 670 participants from 27 countries participated in the conference and shared their knowledge and experiences on sustainable healthy food systems to improve the nutritional status and health of all population groups and address dietary gaps.

The conference had an opening session, eight plenary sessions, five sessions for electronic (e)-poster presentation and a valedictory session. The conference also had a Young People Unique Idea (YPUI) session with the aim to look for extraordinary young people with a unique perspective for sustainable solution to any form of malnutrition prevailing in the world today. One national and three international scientists aged <35 years with exceptionally good ideas were chosen who presented their idea at the conference.

In the inaugural session, Dr. R Hemalatha, Director, NIN, Hyderabad delivered her welcome address; and Shri T Longvah, Scientist G, NIN, Hyderabad delivered introductory address. The inaugural address was delivered by Dr. Rajesh Kumar, Joint Secretary, Ministry of Women and Child Development, Government of India. Smt. M Ann Tutwiler, Director General, Bioversity International, Rome, Italy delivered an inaugural keynote address.

On day 1, a panel discussion on 'Aligning Food System for Healthy Diets and Improved Nutrition' was organized which was chaired by Dr. Rajesh Kumar, Joint Secretary, Ministry of Women and Child Development, Government of India.

In a plenary session on 'Agro- Biodiversity for Nutrition and Healthy Diets', Dr. Qamar Uddin, Research Officer (Unani) and Head, Department of Moalajat, Central Research Institute of Unani Medicine (CRIUM), Hyderabad made an e-poster presentation on 'Role of Diet and Nutrition in the Causation, Prevention and Management of Cancer'. Besides, Dr. Mohammad Nawab, Research Officer (Unani) and Reader, Moalajat; and Dr. Javed Inam Siddiqui, Research Officer (Unani) and Lecturer, Ilmul Advia, CRIUM, Hyderabad participated in the event on behalf of the CCRUM.



During the three-day conference, over 30 international and 35 national speakers renowned in the field of nutrition presented their research papers whereas 173 national and 28 international participants presented their e-posters.

4.3.6. Training on Pharmacovigilance for AYUSH Drugs

Researchers from the CCRUM participated in the two-day Training Program on Pharmacovigilance for AYUSH Drugs held in Ghaziabad during March 19–20, 2019.

The program was organized by the All India Institute of Ayurveda (AIIA), New Delhi in collaboration with Indian Pharmacopoeia Commission (IPC), Ghaziabad. It highlighted the importance and mechanism of pharmacovigilance in AYUSH systems.

On day I, four lectures were delivered by experts on 'Introduction and Concept of AYUSH Pharmacovigilance', 'Basic Terminology & Methods Used in Pharmacovigilance', 'Building an Effective Pharmacovigilance Communication System for AYUSH Products' and 'Challenges and Lessons Learnt from Pharmacovigilance Program of India (PvPI) - A Way Forward for AYUSH Program'.

While 'Functioning as a Peripheral Center in Monitoring the Safety of AYUSH Products', 'Vision of WHO: How They are Looking Towards the Traditional System of Medicine', 'Surveillance of Misleading Advertisement of AYUSH Drugs' and 'Application of Information Technology in AYUSH Pharmacovigilance' were the titles of the lectures delivered on day II. The workshop concluded with vote of thanks proposed by Dr. Galib, Associate Professor, AIIA.

Dr. Anwarul Islam, Dr. Mohammad Nafees Khan, Dr. Shaikh Nikhat Parveen, Dr. Javed Inam Siddiqui, Dr. Noman Anwar and Dr. Shamim Rathore from different institutes of the CCRUM participated in the training and benefitted.

4.3.7. Industry Consultation on Global Promotion of Indian Systems of Medicine

The CCRUM participated in Industry Consultation on Global Promotion of Indian Systems of Medicine organized by The Forum on Indian Traditional Medicine (FITM) organized by the Forum on Indian Traditional Medicine (FITM) in New Delhi on May 18, 2018 with the objective of facilitating an effective dialogue between the private sector and government, addressing challenges in implementing specific regulations/measures and providing a roadmap for successful global promotion of Indian Systems of Medicine (ISM).

The consultation meet had four sessions to address various issues which were themed on 'Emerging global vision on ISMs: Domestic preparedness, norm setting and impediments', 'International manufacturing standards and quality assurance', 'Value chain integrity of herbal products' and 'Marketing strategies for ISM products and services'. Vaidya Rajesh Kotecha, Secretary, Shri Pramod Kumar Pathak, Joint Secretary, Dr. Manoj Nesari and Dr. DC Katoch, Advisors (Ayurveda), Ministry of AYUSH, Government of India chaired different sessions. Prof. Asim Ali Khan, Director General and Dr. Ghazala Javed, Research Officer (Unani) Scientist – IV, CCRUM participated in the deliberations.

The meet started with the welcome remarks delivered by Prof. Sachin Chaturvedi, Director General, Research and Information System for Developing Countries (RIS) and 'Overview of vision for Indian systems of medicine' was presented by Shri Rajeev Kher, former Commerce Secretary to the Government of India and Dr. Akash Taneja, Joint Director General, Foreign Trade, Directorate General of Foreign Trade. The meet had participation from industry, academia and different ministries.



The FITM is a forum established by the Ministry of AYUSH, Government of India at RIS for allrelated actors to come together to contribute to pragmatic policy making and strategies for promotion of ISM.

4.3.8. IT Training for AYUSH Professionals

The Ministry of AYUSH, Government of India under its flagship initiative organized three-month extensive IT training for AYUSH professionals in collaboration with the Centre for Advanced Computing (C-DAC), Pune. The training aimed at equipping the participants with IT skills to harness the potentials of Information Technology in the development and propagation of AYUSH systems.

Three CCRUM researchers – Dr. Shaikh Nikhat, RRIUM, Mumbai, Dr. Mohammad Zakir, CRIUM, Hyderabad and Dr. Sheeraz Mushtaque, RRIUM, Srinagar participated in the training and benefited. Dr. Haseeb Ansari and Dr. Wasim Ahmad, National Institute of Unani Medicine (NIUM), Bengaluru also attended the training.

The training comprised theoretical as well as practical sessions. The topics covered in the training included Electronic Health Record Development, Introduction of Medical Record, Introduction of Classification and Terminologies, International Classification of Diseases, SNOMED CT (Systematized Nomenclature of Medicine – Clinical Terms) and National AYUSH Morbidity and Standardized Terminologies Electronic Portal (NAMASTE - Portal), Electronic Health Record, Electronic Medical Record, Health Informatics, Health Management Information System, Bioinformatics, HPC Computers, HTML Programming, Cloud Computing, Fundamentals of Digital Signal Processing Tools, Artificial Intelligence, Mobile Application, DRONE Technology, etc.

As a part of the training, the participants submitted project works. The Unani team submitted three projects entitled 'UniSoft - A Web Based Clinical Decision Support System', '*Mabhas-e-Mizaj* – A Desktop Based Application for Mizaj Diagnosis' and 'e-Advia – Unani Encyclopedia for Pharmacology'.

4.3.9. National Seminar on Amraz-e-Jild wa Tazeeniyat

The Department of Amraz-e-Jild wa Zohrawiya, Faculty of Unani Medicine, Aligarh Muslim University, Aligarh organized National Seminar on *Amraz-e-Jild wa Tazeeniyat* (Unani Dermatology & Cosmetology) on March 16, 2019 at Aligarh. It was inaugurated by Prof. Asim Ali Khan, Director General, Central Council for Research in Unani Medicine.

Speaking on the occasion as the chief guest, Prof. Asim Ali Khan said that skin disorders can be severe, genetic, minor and even life-threatening and there are effective Unani treatments available for all of them. He further informed that Unani Medicine is very helpful in removing acne, pimples and scars and is beneficial in the treatment and management of other acute skin diseases.

Prof. Mohammad Hanif Beg, Pro Vice Chancellor, Aligarh Muslim University said that due to lifestyle problems, people are suffering from skin diseases as they are not xposed to enough of sunlight leading to Vitamin D deficiencies.

Dr. Suresh Arora, Prof. Khalid Zaman Khan, Prof. Saud Ali Khan and Prof. Shagufta Aleem also addressed the inaugural function.

The seminar provided an ample platform to teachers, researchers, students and practitioners of Unani Medicine to upgrade their knowledge and skills about the subject.



4.3.10. Training for Women AYUSH Professionals

The All India Institute of Ayurveda (AllA) organized a two-day training for women AYUSH professionals under the Rising Stars programme.

Aimed at fostering holistic skill development among promising women AYUSH professionals, the training was organized in collaboration with Indian Institute of Management - Kozhikode in New Delhi during October 30–31, 2018. It was attended by 30 professionals including three from the CCRUM – Dr. Naheed Parveen, Assistant Director (Unani), Dr. Shagufta Parveen, Deputy Director (Unani) and Dr. Ghazala Javed, Research Officer (Unani) Scientist - IV.

Issues pertaining to gaining self-awareness, shaping future considering the changing world and improving decision making skills were some of the areas discussed during the programme.

4.4. Training Programme

The Council, with a view to develop and update their knowledge and skills, provides its medical and non-medical staff the opportunities to attend various training programmes, workshops, etc. During the reporting period, they participated in the following programmes:

- National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018), B. B. Dikshit Central Library, All India Institute of Medical Sciences (AIIMS), New Delhi, 17 April 2018.
- National Convention on Knowledge, Library & Information Networking (NACLIN-2018) on Managing Strategies and Technologies for Advancing Scope and Services of Libraries, Developing Library Network (DELNET), New Delhi, Visakhapatnam, 4-6 October 2018.
- Use of Data Mining & Big Data Management in Libraries: New Challenging Approaches, Developing Library Network (DELNET), New Delhi, 18 February 2019.
- International Conference on Intellectual Property Rights: Digital Transformation, Fr. Agnel College of Arts & Commerce, Pilar, Goa; J K Business School, Gurugram; and SDPA, New Delhi, Panaji, Goa, 27-29 March 2019.
- Workshop on Stadler Seminar Series: 2018 Edition, Anton Paar & Department of Chemistry, SRM Institute of Science & Technology, Chennai, 24 August 2018.
- National Workshop on Ensuring Quality Research in Chemistry, Department of Chemistry, Chemistry Division, School of Advanced Sciences (SAS), Vellore Institute of Technology (VIT), Chennai, 12-13 October 2018.
- Seminar on Solutions for Complex Applications by Advanced Ion Chromatography and Sample Preparation Techniques, Thermo Fisher Scientific, Chennai, 24 October 2018.
- Training Programme on State of Art Analytical Equipment (TPSAE-2019), Division of Applied Sciences & Humanities, Madras Institute of Technology-, Chennai, 1-2 March 2019.
- 90th Regulatory Capacity Building Training Programme on Quality Control / Regulatory Enforcement for ASU Drugs, PLIM, Ghaziabad, 24-28 September 2018.
- Global Agricultural Festival 2018, Swami Samarth Krushi Vikas V Sanshodhan Charitable Trust, Nashik, 25-29 April 2018.



- National Conference on New Horizons in Applied Plant Sciences and its Impact on Human Welfare - 2018, Anwarul Uloom College of Osmania University, Institute of Forest Biodiversity (Under, ICFRE), Dulapally and Department of Botany, Osmania University, Hyderabad, 30-31 October 2018.
- International Seminar on Recent Advances and Need of Research in Unani Medicine, Sathya Unani Group, Hyderabad, 14 October 2018.
- Workshop on Social Media Content Development for AYUSH Professionals, Level-II,
 National Institute of Indian Medical Heritage (NIIMH), Hyederabad, 7-8 May 2018.
- Workshop on Content Development Strategy for Social Media, Level-I, Siddha Central Research Institute, Chennai, 25–26 May 2018.
- Workshop on Content Development Strategy for Social Media, Level-II, Siddha Central Research Institute, Chennai, 6–7 July 2018.
- International Conference on Phytomedicine (ICPM), Department of Botany, Bharathiar University, Coimbatore, Tamil Nadu, 29-31 August 2018.
- Training-cum Workshop on Content Development Strategy for Social Media, Level-III, National Institute of Siddha, Chennai, 31 August and 1 November 2018.
- Training Pogramme on Documentation of Information into National AYUSH Morbidity and Standardized Terminologies Electronic Portal (NAMASTE Portal), Central Council for Research in Ayurvedic Sciences (CCRAS), 10-11 September 2018.
- World Conference on Access to Medical Products Achieving the SDGs 2030, WHO Panel Discussion (Promoting Health and Wellness to Traditional Medicine, New Delhi, 9-11 October 2018.
- Training Programme on Rising Star for Women Executives, AlIA, New Delhi, 30-31 October 2018.
- Workshop on Content Development Strategy for Social Media, Level-III, CCRAS, New Delhi, 22 December 2018.
- 6th World Congress on Nanomedical Sciences (ISNSCON-2018), Jamia Hamdard and CCRUM, New Delhi, 7 January 2019.
- Workshop-cum Symposium on Holistic Approach for Stress Management through Unani Medicine, Department of Ilaj Bit Tadbeer, AKTC, AMU, Aligarh, 23 March 2019.
- National Seminar on Medicinal Plants Used in Homoeopathic System Cultivation, Standardization and Quality Control in India, Central Council for Research in Homoeopathy, Ooty, Tamil Nadu, 23-24 March 2019.

4.5. 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 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 system of 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 Agriculture Festival	Nashik (Maharashtra)	25–29 April 2018
2.	Yogshala Expo	New Delhi (Delhi)	4–6 May 2018
3.	Global Exhibition on Services	Mumbai (Maharashtra)	15–18 May 2019
4.	Jaipur Yoga Mahotsav	Jaipur (Rajasthan)	21–23 July 2018
5.	National Symposium on Nutraceuticals	New Delhi (Delhi)	25 July 2018
6.	AYUSH Natural World Expo	Panaji (Goa)	2–4 August 2018
7.	Vision Maharashtra	Pune (Maharashtra)	3–5 August 2018
8.	2nd Wellness India	New Delhi (Delhi)	20–22 August 2018
9.	AAHAR Chennai	Chennai (Tamil Nadu)	23–25 August 2018
10.	Shining Maharashtra	Solapur (Maharashtra)	26–28 September 2018
11.	Ayurveda Day	Bhopal (Maharashtra)	27–29 September 2018
12.	India International Science Festival (IISF) – 2018	Lucknow (UP)	5–8 October 2018
13.	UDMA Day	New Delhi (Delhi)	11-14 October 2018
14.	Punjab Health & Wellness Expo	Phagwara (Punjab)	12-14 October 2018
15.	MTNL Perfect Health Mela	New Delhi (Delhi)	23–27 October 2018
16.	AYUSH India Expo	Ahmedabad (Gujarat)	19–21 October 2018
17.	Swadeshi Mela	New Delhi (Delhi)	24–29 October 2018
18.	Bihar Scientific Literacy cum Health & Wellness Expo	Buxer (Bihar)	29–31 October 2018
19.	Rise in Jammu & Kashmir	Jammu (Jammu & Kashmir)	1–3 November 2018
20.	State Level Arogya Fair	Bathinda (Punjab)	17–19 November 2018
21.	Ayurveda Parv	Puri (Odisha)	23–25 November 2018
22.	International Arogya during 8 th World Ayurveda Congress	Ahmedabad (Gujarat)	14–17 December 2018
23.	Punjab International Trade Expo 2018	Amritsar (Punjab)	6–10 December 2018



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S. N.	Name of Event	Place	Duration
24.	National Arogya Fair	Bangalore (Karnataka)	5–9 December 2018
25.	10 th East Himalayan Expo	Shillong (Meghalaya)	10-17 December 2018
26.	State Level Arogya Fair	Imphal East (Manipur)	6–9 December 2018
27.	15 th PBD Convention-2019	Varanasi (UP)	21–23 January 2019
28.	Indian Science Congress- Pride of India Expo 2018	Jalandhar (Punjab)	3–7 January 2019
29.	State Level Arogya Fair 2019	Jorethang (Sikkim)	14-16 January 2019
30.	Ayurveda Parv	Kanpur (UP)	19–20 January 2019
31.	State Arogya Fair	Haridwar (Uttarakhand)	8–11 February 2019
32.	State Arogya Fair	Trivendrum (Kerala)	15–18 February 2019
33.	State Arogya Fair	Hyderabad (Telangana)	15–17 February 2019
34.	State AYUSH Health Fair	Ajmer (Rajasthan)	21–24 February 2019
35.	State Arogya Fair	Kolkata (West Bengal)	1–3 March 2019
36.	Ujjwal Uttarakhand	Udhamnagar (Uttarakhand)	2–4 March 2019

4.6. 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 14th 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 inaugurated on September 13, 2018. In the inaugural function, Prof. Asim Ali Khan, Director General, CCRUM stressed the need to increase use of Hindi in official as well as personal works and encouraged everyone to participate with zeal in the competitions and activities of Hindi Pakhwada. He urged that efforts for promotion of Hindi should not end with the conclusion of the Pakhwada but must continue throughout the year.

Addressing the function, Shri Ramanand Meena, Deputy Secretary, Ministry of AYUSH, Government of India said that instead of just passing orders we should take pride in using Hindi which is our mother tongue. Speaking on the occasion, Shri K C Bhatt, Assistant Director (Official Language), Ministry of AYUSH, Government of India said that we need to comply with the rules and provisions of the act for Hindi language and use it in dayto- day working.

Dr. Jamal Akhtar, Research Officer (Unani) and Incharge, Hindi Section, CCRUM presented progress report with regard to the targets assigned for the year. Shri RU Choudhury, Assistant Director (Administration) proposed vote of thanks.



The Pakhwada concluded on September 25, 2018 but the prize distribution function was held on October 5, 2018. Speaking on the occasion, Shri Syed Saud Akhtar, Registrar, Jamia Hamdard, New Delhi emphasized that greater promotion of Hindi language needs sincere efforts at each level. Prof. Asim Ali Khan appreciated efforts of the officials involved in successful organization of the Pakhwada.

During the function, officials with high score in sectionwise review of the quantum of work carried out in Hindi at the headquarters were awarded. The winners of various competitions organized to promote the language were also awarded. The competitions included Hindi Dictation, Hindi Translation, Hindi Note Writing, Hindi Debate, Hindi Poetry, Hindi Vocabulary and Hindi Essay Writing.

Hindi Pakhwada was also celebrated in various institutes / centres of the Council spread in different parts of the country and various competitions and activities similar to the headquarters were organized.

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, making the website bilingual, 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.

4.7. Promotions

- Shri Iqbal Ali Khan was promoted as Assistant at CRIUM, Hyderabad on October 29, 2018.
- Shri Mulla Mohd. labal was promoted as Assistant at RRIUM, Bhadrak on November 01, 2018.
- Smt. Shamshad Fatima was promoted as Assistant at RRIUM, Chennai on October 26, 2018.
- Shri G P Meena was promoted as Assistant at RRIUM, New Delhi on October 29, 2018.

4.8. Retirements

- Shri Rafi Ahmad Driver at RRIUM, Patna retired on superannuation on 30 April 2018.
- Shri Syed Mohammad Nadeem, Compounder at RRIUM, Bhadrak retired on superannuation on 30 April 2018.
- Smt. Shunila Kathrin Jeremy, Sister Incharge at RRIUM, Patna retired on superannuation on 31 May 2018.
- Shri Ghulam Mohammad Bhatt, Field Attendant at RRIUM, Srinagar retired on superannuation on 30 June 2018.
- Shri Akhlaq Ahmad, Messenger at CCRUM Headquarters, retired on superannuation on 31 July 2018.

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- Shri Syed Tajuddin Ahmad, Pharmacy Attendant at RRIUM, Bhadrak retired on superannuation on 31 July 2018.
- Shri Zaheer Anwar Ali, Research Officer (Botany) at RRIUM, Aligarh retired on superannuation on 31 July 2018.
- Shri Rafiullah Khan, Lab Attendant at RRIUM, Chennai retired on superannuation on 31 August 2018.
- Shri Qamruddin, Junior Administrative Officer at RRIUM, New Delhi retired on superannuation on 31 August 2018.
- Dr. K.L. Bandopadhyay, Assistant Director (Pathalogy) at RRIUM, Kolkata retired on superannuation on 31 August 2018.
- Shri S.K. Ziaur Rahman, Cook at RRIUM, Patna retired on superannuation on 30 September 2018.
- Shri A Jagdev Prasad, Attendant at CRIUM, Lucknow retired on superannuation on 30 September 2018.
- Shri Ataullah Mustafa Ansari, Driver at RRIUM, Patna retired on superannuation on 30 November 2018.
- Shri A.R. Mohammad John, Compounder at RRIUM, Chennai retired on superannuation on 30 November 2018.
- Shri Netrapal, Daftari at CCRUM Headquarters retired on superannuation on 31 December 2018.
- Shri Sibghatullah, Radiographer at RRIUM, Patna retired on superannuation on 31 December 2018.
- Shri Mazhar Ali, Field Attendant at RRIUM, Chennai retired on superannuation on 31 December 2018.
- Shri Mohammad Saleem, Pharmacist at RRIUM, Patna retired on superannuation on 31 January 2019.
- Shri Kalimuddin Khan, Lab Technician at RRIUM, Bhadrak retired on superannuation on 31 January 2019.
- Smt. P. Suryakala, Labourer at CRIUM, Hyderabad retired on superannuation on 28 February 2019.
- Shri Mohammad Niyaz, Messenger at RRIUM, Patna retired on superannuation on 31 March 2019.
- Shri Lakshmi Narayan, Field Attendant at RRIUM, Chennai retired on superannuation on 31 March 2019.
- Shri Sajid Khan, Driver at CCRUM Headquarters retired on superannuation on 31 March 2019.

4.9. Deaths

- Shri Sabir Ali, Ward Boy at RRIUM Aligarh died in harness on 30 September 2018.
- Dr. Kunal Sajwan, Research Officer (Chemistry) at DSRI, Ghaziabad died in harness on 20 October 2018.



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 2019

We have audited the attached Balance Sheet of Central Council for Research in Unani Medicine (Council) as at 31 March 2019, 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 transaction 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. Current Liabilities



A.1.1.1 Council has shown capitalized expenditure of ₹15.40 crore. However, as per sanction letters of Ministry of AYUSH (Ministry), Council has received Grant-in-aid of ₹18.00 crore for creation of capital assets. Therefore, there is an unutilized grant of ₹2.60 crore with the Council which has not been shown in Current Liabilities. This resulted in understatement of Current Liabilities and overstatement of Capital Fund by ₹2.60 crore.

B. General

- B.1. The Schedules forming part of Annual Accounts have not been prepared as per the Format approved by Ministry of Finance. This observation was made in previous audit report but no remedial action was taken by the Council.
- B.2. The provisions for retirement benefits as required in the common format of accounts for the central autonomous bodies were not made on actuarial basis. This observation was also made during the previous year audit.
- B.3. The rates of depreciation adopted by the Council have not been disclosed in the Significant Accounting Policies. The fact needs to be disclosed in Annual Accounts.

C. Grants-in-aid

(i) Health Account

The Council had received grants-in-aid of ₹130.50 crore during 2018-2019. The Council had unspent balance of ₹0.83 crore for the year 2017-18 and had internal receipts of ₹3.27 crore from its own resources. Thus, out of available amount of ₹134.60 crore, the Council could utilize a sum of ₹131.09 crore leaving unspent balance of ₹3.51 crore as on 31.03.2019.

(ii) Specific Project Account

The Council received Grants of \ref{thmu} 0.55 crore for specific projects from various agencies, in addition to unspent balance of previous year \ref{thmu} 2.45 crore. The Council had its own receipts of \ref{thmu} 0.21 crore. The Council utilized \ref{thmu} 0.93 crore leaving an unutilized balance of \ref{thmu} 2.28 crore as on 31.03.2019.

- (v) Subject to our observations in the preceding paragrahs, 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:





- In so far as it relates to the Balance Sheet, of the state of affairs of a. the Central Council for Research in Unani Medicine as at 31 March 2019; and
- In so far as it relates to Income & Expenditure Account of the b. surplus for the year ended on that date.

For and on behalf of C&AG of India

02 I 2028

Place: New Delhi **Director General of Audit Date: January 02, 2020**

(Central Expenditure)



ANNEXURE-I

1. Adequacy of internal audit system

The internal audit of the Council was conducted upto 2012-2015 by the Ministry of Health & Family Welfare.

2. Adequacy of internal control system

- a) Internal control system was not adequate as risk assessment was not done by the management. Furhter, 12 paras pertaining to the period 2006-08 to 2011-14 were outstanding for settlement.
- b) Confirmation from the bank of following investment was not obtained

(Amount in ₹)

Name of Bank	Particulars of Investment	Date of Investment	Amount
Punjab National Bank	PNB Gilt Ltd. (8.2% Gol)	17.08.2010	3,36,00,000
-do-	-do-	04.08.2010	1,32,00,000
	Total		4,68,00,000

c) Expenditure control register and contracts register were not maintained by Regional Research Institute of Unani Medicine, Bhadrak, Odisha.

3. System of physical verification of fixed assets

The physical verification of fixed assets was conducted up to 2018-19.

4. System of physical verification of inventory

The physical verification of Books and Publications was conducted up to 2013-14. The physical verification of stationery and consumables, etc. was conducted up to 2018-19.

5. Regularity in payment of statutory dues

No payment over six months in respect of statutory dues were outstanding as on 31.03.2019.

5.2. Audited Statement of Accounts

Index of the Annual Accounts for the Year 2018–2019

S. No.	Name of the Accounts	Page No.	Schedules at Page No.
1.	Receipt & Payment Account	118–119	122–149
2.	Income & Expenditure Account	120	150–151
3.	Balance Sheet	121	152–157
4.	Notes on Accounts	158	-



Receipt & Payment A/c for the Year Ending 31st March 2019

Previous Year	86,67,85,981.00	12,25,26,307.00	1	14,50,42,740.00	11,55,000.00	41,86,023.00	8,32,59,789.00	38,74,75,459.00	64,81,118.00	15,25,00,000.00	9,84,370.00	10,81,10,170.00	4,48,108.00			17,80,05,585.00
Current Year	83,79,52,592.00	10,29,36,510.00		6,72,96,862.00	10,50,000.00	33,29,617.00	10,30,79,588.00	27,19,85,303.00	76,42,161.00	15,40,00,000,00	96,548.00	12,44,98,141.00	1,72,077.00	3,41,621.00	1	21,47,50,289.00
Payments	Establishment Expenses	Administrative Expenses	Other Expenses	(i) Material & Supplies	(ii)) Advance to Govt. Servants	(iii) Outstanding Advances	(iv) Other Charges	Investments (Out of Own Funds)	Fixed Assets	Work in Progress	7. Publication (Priced)	Remittance of Recoveries	Amount to be Received from Concerned A/c, Institutes	-op-	Undisbursed Amount Disbursed	Other Misc. Payments/ Transfers
S. S.	-	2.	ю.					4.	5.	9	7.	œ	9.		10.	17.
Previous Year		4,36,868.00	5,50,49,899.00	1	1	1,33,93,00000.00	ı	1,33,44,945.00	7,65,108.00	1,71,59,184.00	14,36,00,000.00		10,87,54,465.00	2,55,458.00	4,43,30,391.00	37,83,82,279.00
Current Year		4,40,855.00	8,94,71,974.00	1		1,31,05,50,000.00		1,48,21,251.00	10,76,154.00	2,65,39,658.00	9,50,00,000.00		12,25,34,068.00	2,89,551.00	6,53,10,717.00	25,02,21,919.00
Receipts	Opening Balance	(i) Cash in Hand	(ii) Cash at Bank	Total Opening Balance	GIA Received	(i) From Government of India	(ii) From Other Sources	Bank Interest	Interest on Refundable Advances	Other Receipts (H)	Pension Fund Receipt	By Adjustment of Advances Pertaining to Previous Years	Recoveries for Remittance	Sale of Publications (Priced)	Recovery of Subscription & Advances	Investment Received
s S	<u>_</u>				2.			3.	4.	5.	9.	7.	8.	9.	10.	11.

(Prof. Asim Ali Khan) Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant

> Consultant (Accounts) (Syed Asif Mian)

Director General



Receipt & Payment A/c for the Year Ending 31st March 2019

ar				14.00			92.00	74.00		3.00
Previous Year				4,60,144.00			4,40,855.00	8,94,71,974.00		2,14,73,33,623.00
Current Year				4,04,74,546.00				7,01,46,477.00	7,05,92,331.45	2,00,01,98,187.00
Payments		Amount Remitted by Decentralized Institutes now Contra Against Recovery to Headquarters, New Delhi as Already Taken Receipt in Previous Year		Amount Payable Paid	NPS Amount Transferred to NPS Trustee Bank A/c	Closing Balance	Cash in Hand 4,45,855.00	Cash at Bank 7,01,46,477.00	Cash Book	Total Rs.
S. N.		12.		13.	14.	15.				
Previous Year	20,910,388.00	42,02,528.00	1050.00	10,29,460.00	1,45,26,529.00	30,80,298.00	22,04,773.00			2,14,73,33,623.00
Current Year	2,08,95,668.00	2,61,244.00	ı	95,470.00	ı	4,94,915.00	21,27,352.00		67,391.00	2,00,01,98,187.00
Receipts	Amount Receivable Received	Refund Advances Pertaining to Previous Years	Security Deposit Receivable Received	Security Deposit	In Transit in Previous Year Received	Payable to other A/c's	Recovery of Refundable Advances	LIC for Disbursement	Amount Received to be Contra Against Remittance by Decentralized Institutes as Already Taken Receipts in Previous Year	Total Rs.
S. N.	12.	13.	14.	15.	16.	17.	18.	19.	20.	

(Syed Asif Mian) (Mohammad Parvez) (Devanand) (R U (R U ocounts) Accountant Administrative Officer Assistant E

(R U Choudhury) Assistant Director (Admn.)

dhury) (Prof. Asim Ali Khan) or (Admn.) Director General

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Income & Expenditure A/c for the Year Ending 31st March 2019

S. N.	S. N. Expenditure	Current Year	Previous Year	S. N.	S. N. Income	Current Year	Previous Year
←.	Establishment Expenditure	1,00,83,45,407.00	.00 1,15,31,57,530.00	7.	GIA	1,45,50,00,000.00	1,33,93,00,000
2.	Administrative Expenditure	10,30,93,145.00	12,68,82,705.00	2.	Other Income	3,26,88,582.00	2,23,81,815.00
3.	Material & Supplies	9,66,24,912.00	17,30,78,818.00				
4.	Other Charges	9,92,74,590.00	8,63,26,415.00	3.	Less: Capitalized Expenditure	(-)16,15,83,928.00 (-)15,57,63,841.00	(-)15,57,63,841.00
5.	Depreciation	1,84,36,810.00	1,65,05,584.00	4	Excess of Expenditure over Income	2100.00	35,00,33,078.00
9.	Balance Being Excess of Income over Expenditure	3,31,890.00					
	Total Rs.	1,32,61,06,754.00 1,55,59,51,052.00	1,55,59,51,052.00		Total Rs.	1,32,61,06,754.00 1,55,59,51,052.00	1,55,59,51,052.00

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant

> (Syed Asif Mian) Consultant (Accounts)



Balance Sheet as on 31st March 2019

ω̈Ż	Liabilities	Schedule No.	Current Year	Previous Year	s z	Assets	Schedule No.	Current Year	Previous Year
-	Capital Fund	(S/1)	1,02,57,15,494.00	87,79,91,665.00	1.	Fixed Assets	(8/3)	1,20,83,00,726.00 1,07,93,43,496.00	1,07,93,43,496.00
2.	Current Liabilities	(S/2)	1,02,11,94,462.00	87,70,49,339.00 2.		Investments (Others)	(S/2C)	48,19,49,928.00	46,01,86,544.00
ა.	Earmarked / Endowment Fund	S/3(A)	2,27,90,241.00	2,44,72,677.00 3.	3.	Current Assets			
						(I) Loans & Advances	& (S/5B)	30,88,57,211.00	15,00,70,812.00
						(ii) Bank/Cash Balance: 47,80,20,90.90 2,27,90,240.55	(S/5A)	7,05,92,332.00	8,99,12,829.00
	Total		2,06,97,00,197.00	1,77,95,13,681.00		Total		2,06,97,00,197.00 1,77,95,13,681.00	1,77,95,13,681.00

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant

(Syed Asif Mian) Consultant (Accounts)



တ်		Opening	ng Balance	GIA	A	Bank Interest	erest
ż		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(1)		(2)	?)	(3)	
1.	Health Scheme A/c			1,30,50,00,000.00			
	(a) Cash-in-Hand (Imprest)	4,36,867.60	4,36,867.60		1,33,93,00,000.00	53,97,937.67	44,60,522.79
	(b) Cash-in-Hand	3,987.15					
	(Other than Imprest)						
	(c) Cash-at-Bank	79,07,846.43	27,46,609.49				
	Total S. No. 1	83,48,701.18	31,83,477.09	1,30,50,00,000.00	1,33,93,00,000.00	53,97,937.67	44,60,522.79
2.	Other Specific Accounts						
	(i) IPR	-	-	3,50,000.00	-		
	(ii) Herb Garden A/c	39,140.00	37,695.00			1387.00	1,445.00
	(iii) Pub. Of Text Books A/c	55,435.00	53,387.00			1966.00	2,048.00
	(iv) UPS A/c	46,704.82	44,868.82			_	1,836.00
	(v) DSOP	2,14,784.05	20,69,74.05			7503.00	7,810.00
	(vi) AIIUM A/c	33,14,201.00	22,28,369.00			1,17,528.00	10,85,832.00
	(vii) Digitalization of Manuscript A/c	123.00	119.00			1.00	4.00
	(viii) National Conference on Unani Day	1	-	52,00,000.00		49,171.00	
	(ix) WHO A/c	2223.00	2,141.00			79.00	82.00
	(x) International Events, Conference A/c	709,529.00	6,83,334.00			35,210.00	26,195.00
	(xi) DST A/c	40,31,453.00	51,25,385.00			40254.00 +736840.00	1,69,258.00

(Prof. Asim Ali Khan) Director General

(R U Choudhury) Assistant Director (Admn.)

(Devanand) Administrative Officer

(Mohammad Parvez) Accountant

(Syed Asif Mian) Consultant (Accounts)

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(Prof. Asim Ali Khan) Director General

Schedule of Receipts for the Year Ending 31st March 2019

တ်		Opening	Opening Balance	GIA	А	Bank Interest	erest
ż		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
			1)	(2)	2)	(3)	
	(xii) CRISM A/c	1,55,61,970.00	1,49,56,591.00			5,92,440.00	60,5379.00
	(xiii) South African A/c	4,97,113.68	4,78,760.68			17,628.00	18,353.00
	Total S. No. 2	2,44,72,676.55	2,38,17,624.55	55,50,000.00		16,00,007.00	19,18,242.00
3.	(i) NPS A/c	18,75,124.81	4,28,959.81			1,30,412.00	11,09,420.00
	(ii) CPF/GPF A/c	83,02,928.14	63,18,133.96			51,37,740.00	52,03,880.00
	(iii) GIS A/c	12,08,324.84	6,46,281.84			81,353.00	80,409.00
	(iv) Pension Fund A/c	4,57,05,073.13	2,10,92,289.13			24,73,801.00	5,72,471.00
	Total S. No. 3	5,70,91,450.92	2,84,85,664.74	ı		78,23,306.00	69,66,180.00
	Grand Total S. No. 1 to 3	8,99,12,828.65		5,54,86,766.38 1,31,05,50,000.00 1,33,93,00,000.00	1,33,93,00,000.00	1,48,21,250.67 1,33,44,944.79	1,33,44,944.79

 (Mohammad Parvez)
 (Devanand)
 (R U Choudhury)

 Accountant
 Administrative Officer
 Assistant Director (Admn.)

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(Syed Asif Mian) Consultant (Accounts)



izi	Head	Miscellaneous Receipts	aneous lipts	Intelest on Reluit Advances	Interest on Refundable Advances	By Adjustment of Advances Pertaining to Previous Years	ot Advances revious Years
		Current Year	Previous Year	Current Year Previous Year	Previous Year	Current Year	Previous Year
		(4)		(5)		(9)	
1.	Health Scheme A/c	2,58,57,548.21	1,71,59,184.50	10,76,154.00	7,65,108.00	67,391.00	
	Total S. No. 1	2,58,57,548.21	1,71,59,184.50	10,76,154.00	7,65,108.00	67,391.00	
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) Digitalization of Manuscript 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						

(Prof. Asim Ali Khan) Director General

(R U Choudhury) Assistant Director (Admn.)

(Devanand) Administrative Officer

(Mohammad Parvez) Accountant

(Syed Asif Mian) Consultant (Accounts)



o z	Head	Miscellaneous Receipts	neous ipts	Interest on Refundable Advances	Refundable nces	By Adjustment of Advances Pertaining to Previous Years	of Advances evious Years
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(4)		(5)		(9)	
	(xv) DST A/c						
	(xvi) CRISM A/c						
	(xvii) National Conference on Unani Day	5,04,250.00					
	Total S. No. 2	5,04,250.00					
Э.	(i) NPS A/c						
	(ii) CPF/GPF A/c	1,04,462.00					
	(iii) GIS A/c						
	(iv) Pension Fund A/c	73,398.00					
	Total S. No. 3	1,77,860.00					
	Grand Total S. No. 1 to 3	2,65,39,658.21	1,71,59,184.50	10,76,154.00	7,65,108.00	67,391.00	

Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant

(Prof. Asim Ali Khan) Director General

Consultant (Accounts) (Syed Asif Mian)



Current Year Previous Year	S. S.	I. Head	Recoveries o Adva	Recoveries of Refundable Advances	Sale of Council's Publications	ouncil's ations	Recoveries for Remittance	r Remittance
Health Scheme A/C			Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
Health Scheme A/c 21,27,352.00 22,04,773.00 2,89,551.00 2,55,458.00 11,75,73,207.00 Other Specific Accounts 21,27,352.00 22,04,773.00 2,89,551.00 2,55,458.00 11,77,59,847.00 (i) ROTP A/c (ii) Herb Garden A/c (iii) Pub. of Text Books A/c (iv) Expecific Accounts (iv) Expecific Ac			(1)	(8)		6)	
Other Specific Accounts 21,27,352.00 22,04,773.00 2,89,551.00 2,55,458.00 11,77,59,847.00 Other Specific Accounts (i) ROTP A/c (ii) Herb Garden A/c (iii) Pub. of Text Books A/c (iv) Experiment A/c (iv) DS A/c I (iv) DS	-		21,27,352.00	22,04,773.00	2,89,551.00	2,55,458.00	11,75,73,207.00	10,35,67,821.00
		Total S. No. 1	21,27,352.00	22,04,773.00	2,89,551.00	2,55,458.00	11,77,59,847.00	10,35,67,821.00
(i) ROTP A/c (ii) Herb Garden A/c (iii) Pub. of Text Books A/c (iii) Pub. of Text Books A/c (iv) UPS A/c I (iv) UPS A/c I (vi) DSOP (vii) EMR (viii) EMR (vii) Digitalization of Manuscript A/c (viii) Digitalization of Manuscript A/c (viii) Digitalization of Manuscript A/c (viii) Digitalization of Manuscript A/c (xi) WHO A/c (xi) WHO B A/c (xi) UPS A/c II (xi) UPS A/c II (xii) LOST A/c (xiii) Donation A/c (xii) Donation A/c (xiii) Donation A/c (xiv) International Events, Conference	2	Other Specific Accounts						
(ii) Herb Garden A/c (ii) Herb Garden A/c (iii) Pub. of Text Books A/c (iv) UPS A/c I (iv) UPS A/c I (v) Seminar A/c (vi) DSOP (vi) EMR (vii) EMR (vii) EMR (viii) Digitalization of Manuscript A/c (viii) EMP A/c (ix) WHO A/c (ix) WHO A/c (xi) UPS A/c II (xi) UPS A/c II (xii) ICST A/c (xiii) Donation A/c (xiii) Donation A/c (xiv) International Events, Conference A/c (xiv) International Events, Conference		(i) ROTP A/c						
(iii) Pub. of Text Books A/c (iv) UPS A/c I (iv) UPS A/c I (v) Seminar A/c (vi) DSOP (viii) EMIR (viii) Digitalization of Manuscript A/c (viii) Digitalization of Manuscript A/c (viii) Digitalization of Manuscript A/c (viii) Digitalization of Manuscript A/c (xi) WHOB A/c (xi) WHOB A/c (xi) UPS A/c II (xi) UPS A/c II (xii) ICST A/c (xii) Donation A/c (xiii) Donation B Vortenational Events, Conference A/c (xiv) International Events		(ii) Herb Garden A/c						
(iv) UPS A/c I (v) Seminar A/c (vi) DSOP (vii) DSOP (viii) Digitalization of Manuscript A/c (ix) WHO A/c (ix) WHO A/c (ix) WHO B A/c (x) NMPB A/c (ix) WHO B A/c (xi) UPS A/c II (xii) ICST A/c (xii) LCST A/c (xiii) Donation A/c (xiii) Donation A/c (xiii) Donation B Volumenational Events, Conference A/c		(iii) Pub. of Text Books A/c						
(vi) DsOP (vi) DsOP (vii) DsOP (viii) EMR (viii) Digitalization of Manuscript A/c (xiii) Digitalization of Manuscript A/c (ix) WHO A/c (xi) WHD B A/c (xi) UPS A/c II (xii) LCST A/c (xiii) LCST A/c (xiii) Lonation A/c (xiii) Donation A/c (xiii) Conference (xiv) International Events, Conference (xiv) International Events, Conference		(iv) UPS A/c I						
(vij) DSOP (vij) EMR (viij) EMR (viij) EMR (viij) EMR (viij) Digitalization of Manuscript A/c (ix) WHO B A/c (ix) WHO BA/C (ix) WHO BA/C (ix) WHO BA/C (ix) WHO BA/C (ix) WHO BA/C </td <td></td> <td>(v) Seminar A/c</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		(v) Seminar A/c						
(viii) Digitalization of Manuscript A/c (viii) Digitalization of Manuscript A/c (x) WHO A/c (x) WHO A/c (x) WHD B A/c		(vi) DSOP						
(viii) Digitalization of Manuscript A/c (ix) WHO B A/c		(vii) EMR						
(ix) WHO A/c (x) NMPB A/c (x) NMPB A/c (xi) UPS A/c II (xi) UPS A/c II (xii) Donation A/c (xii) Donation A/c (xiii) Donation A/c (xiv) International Events, Conference A/c		(viii) Digitalization of Manuscript A/c						
(x) NMPB A/c (xi) UPS A/c II (xii) UPS A/c II (xii) LCST A/c (xiii) Donation A/c (xiii) Donation A/c (xiv) International Events, Conference A/c		(ix) WHO A/c						
(xi) UPS A/c II (xii) ICST A/c (xiii) Donation A/c (xiii) Donation A/c (xiii) Donation A/c (xiv) International Events, Conference A/c (xiv) International Events, Conference (xiv) International Events, Conference		(x) NMPB A/c						
(xii) ICST A/c (xiii) Donation A/c (xiv) International Events, Conference A/c		(xi) UPS A/c II						
(xiii) Donation A/c (xiv) International Events, Conference A/c		(xii) ICST A/c						
(xiv) International Events, Conference A/c		(xiii) Donation A/c						
		(xiv) International Events, Conference A/c						

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)



(Prof. Asim Ali Khan) Director General

Schedule of Receipts for the Year Ending 31st March 2019

S. S.	Head	Recoveries o	Recoveries of Refundable Advances	Sale of Council's Publications	Souncil's ations	Recoveries for Remittance	or Remittance
		Current Year	Previous Year Current Year	Current Year	Previous Year	Current Year	Previous Year
			(7)	(8)	(2)	(6)	(6
	(xv) DST A/c						
	(xvi) CRISM A/c						
	(xvii) National Conference on Unani Day					11,322.00	
	Total S. No. 2					11,322.00	
3.	(i) NPS A/c						
	(ii) CPF/GPF A/c						
	(iii) GIS A/c						
	(iv) Pension Fund A/c					47,62,899.00	48,83,425.00 12,000.00 2,91,219.00
	Total S. No. 3					47,62,899.00	51,86,644.00
	Grand Total S. No. 1 to 3	21,27,352.00		2,89,551.00	2,55,458.00	22,04,773.00 2,89,551.00 2,55,458.00 12,25,34,068.00 10,87,54,465.00	10,87,54,465.00

Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)

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		,			Previous Year		
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(1	(10)	(11)	1)	(12)	2)
1. He	Health Scheme A/c			400.00			
				2,15,172.00		3,91,070.00	
				45,672.00		(+)49,118.00	
ĭ	Total S. No. 1			2,61,244.00		4,40,188.00	
2. Q	Other Specific Accounts						
(<u>i</u>)	(i) ROTP A/c						
(ii)	(ii) Herb Garden A/c						
iii)	(iii) Pub. Of Text Book A/c						
<u>:</u>	(iv) UPS A/c I						
<u>S</u>	(v) Seminar A/c						
ڪ	(vi) DSOP						
ڪ	(vii) EMR						
ڪ	(viii) Digitalization of Manuscript						
ž)	(ix) WHO A/c						
Š	(x) NMPB A/c						
Š	(xi) UPS A/c II						
Š	(xii) ICST A/c						
×	(xiii) Donation A/c						

Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)

(Prof. Asim Ali Khan) Director General



		Recovery of Subsc	of Subscription/Advances	Refund of Advances Previous Year	Refund of Advances Paid in Previous Year	Receivable Amount Received	ount Received
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(10)	((11)	1)	(12)	2)
Σö	(xiv) International Events, Conference A/c						
Ś	(xv) DST A/c						
×	(xvi) CRISM A/c						
٤'n	(xvii) National Conference on Unani Day						
٦ <u>۲</u>	Total S. No. 2	ı	ı	1	ı	ı	ı
3. (i)	(i) NPS A/c	17,95,595.00	3,46,430.00 (-) 1,849.00				1,49,609.00
(II)	(ii) CPF/GPF A/c					1,64,21,537.00	1,83,25,008.26 1,18,090.00
		6,05,64,710.00	4,14,82,970.00				
		20,40,250.00	16,58,350.00				
III)	(iii) GIS A/c	9,10,162.00	8,44,490.00			28,61,467.00	4,93,304.00
(iv	(iv) Pension Fund A/c					11,72,476.00	17,68,218.00
							300.00
Tc	Total S. No. 3	6,53,10,717.00	4,43,30,391.00			2,04,55,480.00	2,08,54,529.26
Ö	Grand Total S. No. 1 to 3	6,53,10,717.00	4,43,30,391.00	2,61,244.00		2,08,95,668.00	2,09,10,388.26

Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)

(R U Choudhury)

Assistant Director (Admn.)

(Prof. Asim Ali Khan) Director General



и́г	Head Head	Security Deposit Lying with the Council	t Lying with the ncil	In Transit Ar	In Transit Amount Received	Security Deposit of Others F	Security Deposit of the Council with Others Received
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(13)	3)		(14)	1)	(15)
_	1. Health Scheme A/c	50,000.00					
		(+)45,470.00	10,29,460.00		81,529.00		
					1,44,00,000.00		
	TDS				45,000.00		
	Total S. No. 1	95,470.00	10,29,460.00		1,45,26,529.00		
W	2. Other Specific Accounts						
	(i) ROTP A/c						
	(ii) Herb Garden A/c						
	(iii) Pub. of Textbook A/c						
	(iv) UPS A/c I						
	(v) Seminar A/c						
	(vi) DSOP A/c						
	(vii) EMR A/c						
	(viii) Digitalization of Manuscript A/c						
	(ix) WHO A/c						
	(x) NMPB A/c						
	(xi) UPS A/c II						
	(xii) ICST a/c						
	-/pS	-/pS	-/pS		-/pS		Sd/-
		(Mohammad Parvez)	(Devanand)		(R U Choudhury)		(Prof. Asim Ali Khan)
	Consultant (Accounts)	Accountant	Administrative Officer		Assistant Director (Admn.)		Director General



(xii) Donation A/c Current Year Previous Year (xiv) International Events, Conference A/c (xiv) International Events, Conference A/c (xiv) DST A/c (xvi) CRISM A/c (xvi) CRISM A/c (xvii) CICISM A/c (xvii) CICISM A/c (ii) CPF/GPF A/c (iii) CPF/GPF A/c (iii) GIS A/c (iii) GIS A/c (iv) Pension Fund A/c (iv) Pension Fund A/c Total S. No. 3 95,470.00 Grand Total S. No. 1 to 3 95,470.00 10,29,460.0c	s z	Head	Security Deposit Lying with the Council	t Lying with the ncil	In Transit Amount Received	unt Received	Security Deposit of the Council with Others Received	the Council with sceived
(xiii) Donation A/c (xiv) International Events, (xiv) International Events, (xiv) International Events, Conference A/c (xv) DST A/c (xvi) DST A/c (xvii) CICISM A/c (xvii) CICISM A/c (xviii) CICISM A/c (iv) NPS A/c (ii) CPF/GPF A/c (iii) GIS A/c (iii) GIS A/c (iv) Pension Fund A/c (iv) Pension Fund A/c Total S. No. 3 Grand Total S. No. 1 to 3			Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
(xiii) Donation A/c (xiv) International Events, Conference A/c (xv) DST A/c (xvi) CRISM A/c (xvii) CICISM A/c Total S. No. 2 (i) NPS A/c (ii) CPF/GPF A/c (iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3 Grand Total S. No. 1 to 3 95,470.00			(13	3)	(14)	1)	(15))
(xiv) International Events, Conference A/c (xv) DST A/c (xvi) CRISM A/c Total S. No. 2 (i) NPS A/c (ii) CPF/GPF A/c (iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3 Grand Total S. No. 1 to 3 95,470.00		(xiii) Donation A/c						
(xv) DST A/c (xvii) CRISM A/c (xvii) CICISM A/c Total S. No. 2 (i) NPS A/c (ii) CPF/GPF A/c (iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3 Grand Total S. No. 1 to 3 95,470.00		(xiv) International Events, Conference A/c						
(xvi) CRISM A/c (xvii) CICISM A/c Total S. No. 2 (i) NPS A/c (ii) CPF/GPF A/c (iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3 Grand Total S. No. 1 to 3 95,470.00		(xv) DST A/c						
(xvii) CICISM A/c Total S. No. 2 (i) NPS A/c (ii) CPF/GPF A/c (iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3 Grand Total S. No. 1 to 3 95,470.00		(xvi) CRISM A/c						
Total S. No. 2 (i) NPS A/c (ii) CPF/GPF A/c (iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3 Grand Total S. No. 1 to 3 95,470.00		(xvii) CICISM A/c						
(i) NPS A/c (ii) CPF/GPF A/c (iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3 Grand Total S. No. 1 to 3 95,470.00		Total S. No. 2						
95,470.00	رى	(i) NPS A/c						
95,470.00		(ii) CPF/GPF A/c						
95,470.00		(iii) GIS A/c						
95,470.00		(iv) Pension Fund A/c						
95,470.00		Total S. No. 3						
		Grand Total S. No. 1 to 3	95,470.00	10,29,460.00		1,45,26,529.00		

-/pS	(R U Choudhury) (Prof. Asim Ali Khe	
-/pS	(Devanand)	Administration Officer
-/ps	(Mohammad Parvez)	1000V
-/pS	(Syed Asif Mian)	(atai.1000 / tactl.1000)





S. N.	Head	Payable A	e Amount	Investmen	Investment Received	LIC Amount fo	LIC Amount for Disbursement
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(16)		1)	(17)) ·	(18)
	Conference A/c						
	(xv) DST A/c						
	(xvi) CRISM A/c						
	(xvii) CICISM A/c						
	Total S. No. 2						
3.	(i) NPS A/c				20,00,000.00		
	(ii) CPF/GPF A/c			19,51,28,196.477	35,49,60,597.11		
	(iii) GIS A/c			1,47,21,718.00	65,00,000.00		
	(iv) Pension Fund A/c			4,03,72,005.00	1,49,21,682.00		
	Total S. No. 3			25,02,21,919.47	37,83,82,279.11		
	Grand Total S. No. 1 to 3	4,94,915.00	30,80,298.00	25,02,21,919.47	37,83,82,279.11		

Sd/-	(Prof. Asim Ali Khan)	Director General
Sd/-	(R U Choudhury)	Assistant Director (Admn.)
Sd/-	(Devanand)	Administrative Officer
Sd/-	(Mohammad Parvez)	Accountant
-/pS	(Syed Asif Mian)	Consultant (Accounts)



ഗ z	Head	Pension Fund Transfe Account	Transfer from Health Account	Amount Rece Against R Decentraliz Already Tak Previ	Amount Received to be Contra Against Remittance by Decentralized Institutes as Already Taken Receipts in Previous Year	Total R	Total Receipts
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(19)			(20)	(2	(21)
-	Health Scheme A/c					1,46,72,16,299.06	1,49,37,92,068.38
	Total S. No. 1					1,46,72,16,299.06 3,50,000.00	1,49,37,92,068.38
2	Other Specific Accounts						
	(i) IPR A/c					ı	ı
	(ii) Herb Garden A/c					40,527.00	39,140.00
	(iii) Pub. of Textbook A/c					57,401.00	55,435.00
	(iv) UPS A/c I					46,704.82	46,704.82
	(v) DSOP					222,287.05	2,14,784.05
	(vi) AIIUM A/c					34,31,729.00	33,14,201.00
	(vii) Digitalization of Manuscript A/c					124.00	123.00
	(viii) WHO A/c					2302.00	2223.00
	(ix) International Events, Conference A/c					7,44,739.00	7,09,529.00
	(x) National Conference on Unani day					57,64,743.00	1
	(xi) DST A/c					48,08,547.00	52,94,643.00
	-/pS	-/pS	-/pS		-/pS		-/ps
O	(Syed Asif Mian) (I Consultant (Accounts)	(Mohammad Parvez) Accountant	(Devanand) Administrative Officer	and) re Officer	(R U Choudhury) Assistant Director (Admn.)	_	(Prof. Asim Ali Khan) Director General

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ω̈ z̈	Head	Pension Fund Transfer from Health Account		Amount Receiv Against Re Decentralize Already Take	Amount Received to be Contra Against Remittance by Decentralized Institutes as Already Taken Receipts in Previous Year	Total R	Total Receipts
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(19	19)	(4)	(20)	(21)	1)
	(xii) CRISM A/c					1,61,54,410.00	1,55,61,970.00
	(xiii) South Asian a/c					5,14,741.68	497113.68
	Total S. No. 2					3,21,38,255.55	2,57,35,866.55
3.	(i) NPS A/c					38,01,131.81	40,32,569.81
	(ii) CPF/GPF A/c					28,76,99,823.14	42,80,67,029.33
	(iii) GIS A/c					1,97,83,024.84	85,64,484.84
	(iv) Pension Fund A/c	9,50,00,000.00	14,36,00,000.00			18,95,59,652.60	18,71,41,604.13
	Total S. No. 3	9,50,00,000.00	14,36,00,000.00			50,08,43,632.39	62,78,05,688.11
	Grand Total S. No. 1 to 3	9,50,00,000.00	14,36,00,000.00			2,00,01,98,187.00	2,00,01,98,187.00 2,14,73,33,623.04

Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant

(Syed Asif Mian)
Consultant (Accounts)

udhury) (Prof. / tor (Admn.) Direc

(Prof. Asim Ali Khan) Director General



s S	. Name of the Scheme	Establishme	Establishment Expenses	Administrativ	Administrative Expenses	Material & Su	Material & Supplies Expenses
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(1)		(2)	(;		(3)
-	Health Scheme A/c	83,76,28,922.00	86,60,67,752.00	10,27,96,567.00	12,21,76,082.20	6,72,96,861.94	14,48,48,004.00
	Total S. No. 1	83,76,28,922.00	86,60,67,752.00	10,27,96,567.00	12,21,76,082.20	6,72,96,861.94	14,48,48,004.00
2.	Other Specific Accounts						
	(i) ROTP A/c						
	(ii) Herb Garden A/c						
	(iii) Pub. of Textbook A/c						
	(iv) UPS A/c I						
	(v) Seminar A/c						
	(vi) DSOP A/c						
	(vii) EMR A/c						
	(viii) Digitization of Manuscript A/c			124.00			
	(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						
	(xv) DST A/c	3,23,670.00	7,18,229.00	1,39,819.00	3,50,225.00		1,94,736.00
	-/pS	-/ps	-/ps		-/ps		-/ps
ပိ	(Syed Asif Mian) (M Consultant (Accounts)	(Mohammad Parvez) Accountant	(Devanand) Administrative Officer		(R U Choudhury) Assistant Director (Admn.)		(Prof. Asim Ali Khan) Director General



s. S.	Name of the Scheme	Establishme	Establishment Expenses	Administrative Expenses	re Expenses	Material & Supplies Expenses	olies Expenses
		Current Year	Previous Year	Current Year	Current Year Previous Year	Current Year	Previous Year
		(£)		(2)	<u>~</u>	(2)	
	(xvi) CRISM A/c						
	(xvii) CICISM a/c						
	(xviii) South African A/c						
	Total S. No. 2	3,23,670.00	7,18,229.00	1,39,943.00	3,50,225.00		1,94,736.00
3	(i) NPS A/c						
	(ii) GPF A/c						
	(iii) GIS A/c						
	(iv) Pension Fund A/c						
	Total S. No.3						
	Total S. No. 1 to 3	83,79,52,592.00	$86,67,85,981.00 \big 10,29,36,510.00 \big 12,25,26,307.20$	10,29,36,510.00	12,25,26,307.20	6,72,96,861.94	14,50,42,740.00

Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)

(Prof. Asim Ali Khan) Director General



S. N.	Name of the Scheme	Ass	Assets	Publicatio	Publications (Priced)	Advances to Government Servants	rnment Servants
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		7)	(4)		(5)	(9)	
-	Health Scheme A/c	73,91,480.00	64,81,118.00	96,548.00	9,84,370.00	10,50,000.00	11,55,000.00
	Total S. No. 1	73,91,480.00	64,81,118.00	96,548.00	9,84,370.00	10,50,000.00	11,55,000.00
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) Seminar 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						
	(xv) DST A/c	2,50,681.00					

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)



S. N.	Name of the Scheme	Ass	Assets	Publicatio	Publications (Priced)	Advances to Government Servants	nment Servants
		Current Year	rear Previous Year Current Year Previous Year	Current Year	Previous Year	Current Year	Previous Year
			(4)	3	(5)	(9)	
	(xvi) CRISM A/c						
	(xvii) CICISM A/c						
	(xviii) South African A/c						
	Total S. No. 2	2,50,681.00					
3.	(i) NPS A/c						
	(ii) GPF A/c						
	(iii) GIS A/c						
	(iv) Pension Fund A/c						
	Total S. No. 3						
	Total S. No. 1 to 3	76,42,161.00	64,81,118.00	96,548.00	9,84,370.00	10,50,000.00	11,55,000.00

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)



Schedule of Payments for the Year Ending 31st March 2019

s S	. Name of the Scheme	Outstandin	Outstanding Advances	Other Charges	narges	Works in Progress	Progress
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
)	(7)	(8)		(6)))
-	Health Scheme A/c	12,15,883.00	26,93,424.00	N.R. (+) 1,92,448.00	8,32,59,789.00		
		18,66,319.00	14,91,403.00	Rec. 9,78,42,176.24			
			1196.00			15,40,00,000.00	15,25,00,000.00
	Total S. No. 1	30,82,202.00	41,86,023.00	9,80,34,624.24	8,32,59,789.00	15,40,00,000.00	15,25,00,000.00
2.	Other Specific Accounts						
	(i) IPR			3,47,648.00			
	(ii) Herb Garden A/c						
	(iii) Pub. of Textbook A/c						
	(iv) UPS A/c I						
	(v) AIIUM 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						
	Sd/-	Sd/-	-/ps		Sd/-		Sd/-
	(Syed Asif Mian) (Moham	(Mohammad Parvez)	(Devanand)		(R U Choudhury)		(Prof. Asim Ali Khan)

Director General

Assistant Director (Admn.)

Administrative Officer

Accountant

Consultant (Accounts)



s S	Name of the Scheme	Outstanding	Outstanding Advances	Other Charges	narges	Works in Progress	Progress
		Current Year Previous Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(7)		(8)		(6)	
	(xiii) Donation A/c						
	(xiv) International Events, Conference A/c						
	(xv) DST A/c						
	(xvi) CRISM A/c						
	(xvii) National Conference on Unani Day	2,47,415.00		46,97,316.00			
	(xviii) South African A/c						
	Total S. No. 2	2,47,415.00		50,44,964.00	1		
8.	(i) NPS A/c						
	(ii) GPF A/c						
	(iii) GIS A/c						
	(iv) Pension Fund A/c						
	Total S. No. 3						
	Total S. No. 1 to 3	33,29,617.00	41,86,023.00	10,30,79,588.24	8,32,59,789.00	15,40,00,000.00	15,25,00,000.00

Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)

(R U Choudhury)

Assistant Director (Admn.)

(Prof. Asim Ali Khan) Director General



+		Adjusted	Adjusted			Disbursed	ırsed
		Current Year	Previous Year	Current Year	Previous Year	Current Year Previous Year	Previous Year
		(10)		(11)	1)	(12)	2)
 	Health Scheme A/c	1,72,076.90		11,95,37,280.00	10,32,14,745.00		
T				1,86,460.00			
	Total S. No. 1	1,72,076.90		11,97,23,920.00	10,32,14,745.00		
2.	Other Specific Accounts						
i)	(i) ROTP A/c						
i)	(ii) Herb Garden A/c						
i)	(iii) Pub. of Textbook A/c						
i)	(iv) UPS A/c I						
٥	(v) Seminar A/c						
٥	(vi) DSOP A/c						
٥	(vii) EMR A/c						
∠ ₹	(viii) Digitization of Manuscript A/c						
i)	(ix) WHO A/c						
٥	(x) NMPB A/c						
٥	(xi) UPS A/c II						
()	(xii) ICSJ A/c						
()	(xiii) Donation A/c						
()	(xiv) International Events						

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)



Conference A/c (xv) DST A/c (xvi) CRISM A/c (xvii) National Conference on Unani Day (xviii) South African A/c Total S. No. 2 3. (i) NPS A/c (ii) GPF A/c (iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3		Excess Faid to be a	Excess Paid to be Received / Adjusted	Remittance of Recoveries	f Recoveries	Un-disbursed Amount Disbursed
		Current Year	Previous Year	Current Year	Previous Year	Current Year Previous Year
		(10)		(11)	(1	(12)
				ı		
	ence on			11,322.00		
	/c					
				11,322.00		
(ii) GPF A/c (iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3						
(iii) GIS A/c (iv) Pension Fund A/c Total S. No. 3						
(iv) Pension Fund A/c Total S. No. 3						
Total S. No. 3				47,62,899.00	48,83,425.00	
Total S. No. 3					12,000.00	
				47,62,899.00	48,95,425.00	
Total S. No. 1 to 3		1,72,076.90		12,44,98,141.00	10,81,10,170.00	

Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant

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

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



s S	Name of the Scheme	Amount F	Amount Receivable	Investm	Investments A/c	Received from LIC Disbursed	LIC Disbursed
		Current Year	Current Year Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(1	(13)	(1)	(14)	(15)	5)
-	Health Scheme A/c	3,41,621.00	4,40,188.00				
	Total S. No. 1	3,41,621.00	4,40,188.00				
2.	Other Specific Accounts						
	(i) ROTP A/c						
	(ii) Herb Garden A/c						
	(iii) Pub. of Textbook A/c						
	(iv) UPS A/c I						
	(v) Seminar 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						
	(xv) DST A/c						

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)



s S	Name of the Scheme	Amount R	Amount Receivable	Investments A/c	ents A/c	Received from LIC Disbursed
		Current Year	Surrent Year Previous Year	Current Year	Previous Year	Current Year Previous Year
		(13)	3)	(14)	4)	(15)
	(xvi) CRISM A/c					
	(xvii) CICISM A/c					
	(xviii) South African A/c				1	
	Total S. No. 2					
_.	(i) NPS A/c				21,57,445.00	
	(ii) GPF A/c			21,11,04,774.47	36,38,26,506.93	
	(iii) GIS A/c		7,920.00	1,76,07,432.00	48,54,252.00	
	(iv) Pension Fund A/c			4,32,73,097.00	4,32,73,097.00 1,66,37,255.00	
	Total S. No. 3		7,920.00	7,920.00 27,19,85,303.47 38,74,75,458.93	38,74,75,458.93	
	Grand Total S. No. 1 to 3	3,41,621.00	4,48,108.00	27,19,85,303.47	38,74,75,458.93	

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)



ńż	Name of the Scheme	Amount Payable Paid/Adjusted	ayable usted	Other Misc. Pay	Other Misc. Payments/Transfer	NPS Subscription & Contribution Transferred to NPS Trustee Bank A/c	า & Contribution Trustee Bank A/ด
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(16)		(1	(17)	(18)	3)
-	Health Scheme A/c	90,000,00	1,24,671.00		2,625.00		
		7,32,000.00			3000.00		
		3,96,52,546.00					
	Total S. No. 1	4,04,74,546.00	1,24,671.00		5,625.00		
2.	Other Specific Accounts						
	(i) ROTP A/c						
	(ii) Herb Garden A/c						
	(iii) Pub. Of Textbook A/c						
	(iv) UPS A/c I						
	(v) Seminar 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						

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)

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	Name of the Scheme	Amount Pa Paid/Adju	nt Payable /Adjusted	Other Misc. Payments/Transfer	ments/Transfer	NPS Subscription	NPS Subscription & Contribution Transferred to NPS Trustee Bank A/c
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(16)		(17)	()	(1	(18)
<u> </u>	(xv) DST A/c			(1,42,117 + 25,11,725 + 6,76,178)			
<u>`</u>	(xvi) CRISM A/c						
<u>``</u>	(xvii) CICISM A/c						
<u>(`</u>	(xviii) South African A/c						
	Total S. No. 2			33,30,020.00			
ニ	(i) NPS A/c						
)	(ii) GPF A/c			19,41,000.00	7,16,000.00		
Ĩ	-op-			4,63,64,063.00	4,29,19,300.00		
ĩ	-op-			2,01,41,169.00	1,16,49,257.00		
Ĩ	-op-			13,29,404.00	6,53,037.26		
)	(iii) GIS A/c			16,64,978.00	3.87.643.00		
				+178.00			
)	(iv) Pension Fund A/c		3,35,473.00	13,95,07,918.00	52,645.00 (-)54421.00		
					11,95,70,154.00		
	Total S. No. 3		3,35,473.00	21,14,20,269.00	17,79,99,960.26		
Ċ	Grand Total S. No. 3	4,04,74,546.00	4,60,144.00	21,47,50,289.00	17,80,05,585.26		

		i i	= = = = = = = = = = = = = = = = = = =	
(Syed Asir Man)	(Monammad Parvez)	(Devanand)	(K O Choudhury)	(Prof. Asim All Kna
Consultant (Accounts)	Accountant	Administrative Officer	Assistant Director (Admn.)	Director General



z		Institutes now Contr to Headquarters, Nk Taken Receipt i	Institutes now Contra Against Recovery to Headquarters, New Delhi as Already Taken Receipt in Previous Year				ymens
		Current Year	Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(19)	9)	(20)))	(21)	1)
1.	Health Scheme A/c			3,51,26,929.98	83,48,701.18	1,46,72,16,299.06	1,49,37,92,068.38
	Total S. No. 1			3,5126,929.98	83,48,701.18	1,46,72,16,299.06	1,49,37,92,068.38
2.	Other Specific Accounts						
	(i) Herb Garden A/c			40,527.00	39140.00	40,527.00	39,140.00
	(ii) Pub. of Textbook A/c			57,401.00	55.435.00	57,401.00	55,435.00
	(iii) UPS A/c I			46,704.82	46,704.82	46,704.82	46,704.82
	(iv) DSOP A/c			2,22,287.05	2,14,784.05	2,22,287.05	2,14,784.05
	(v) AIIUM A/c			34,31,729.00	33,14,201.00	34,31,729.00	33,14,201.00
	(vi) Digitization of Manuscript A/c			I	123.00	124.00	123.00
	(vii) WHO A/c			2302.00	2223.00	2302.00	2223.00
	(viii) International Events, Conference A/c			7,44,739.00	7,09,529.00	7,44,739.00	7,09,529.00
	(ix) IPR			2352.00	1	3,50,000.00	
	(x) DST A/c			7,64,357.00	40,31,453.00	48,08,547.00	52,94,643.00
	(xi) CRISM A/c			1,61,54,410.00	1,55,61,970.00	1,61,54,410.00	1,55,61,970.00
	(xii) South African A/c			5,14,741.68	4,97,113.68	5,14,741.68	4,97,113.68
	(xiii) National Conference			8,08,690.00		57,64,743.00	

(Prof. Asim Ali Khan) Director General

(R U Choudhury) Assistant Director (Admn.)

(Devanand) Administrative Officer

(Mohammad Parvez) Accountant

(Syed Asif Mian) Consultant (Accounts)

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oʻ zʻ	Name of the Scheme	Amount Remitted by Decentralised Institutes now Contra Against Recovery to Headquarters, New Delhi as Already Taken Receipt in Previous Year	Closing Balance y	3alance	Total Payments	yments
		Current Year Previous Year	Current Year	Previous Year	Current Year	Previous Year
		(19)	(20)	0)	(21)	1)
	on Unani day					
	Total S. No. 2		2,27,90,240.55	2,27,90,240.55 2,44,72,676.55	3,21,38,255.55	2,57,35,866.55
3.	(i) NPS A/c		38,01,131.81	18,75,124.81	38,01,131.81	40,32,569.81
	(ii) GPF A/c		68,19,413.14	83,02,928.14	28,76,99,823.14	42,80,67,029.33
	(iii) GIS A/c		38,877.84	12,08,324.84	1,97,83,024.84	85,64,484.84
	(iv) Pension Fund A/c		20,15,738.13	20,15,738.13 4,57,05,073.13	18,95,59,652.60	18,71,41,604.13
	Total S. No. 3		1,26,75,160.92	1,26,75,160.92 5,70,91,450.92	50,08,43,632.39	62,78,05,688.11
	Grand Total S. No. 1 to 3		7,05,92,331.45	8,99,12,828.65	2,00,01,98,187.00	2,14,73,33,623.04

Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant

(Syed Asif Mian)

Consultant (Accounts)



Schedule of Income for the Year Ending 31st March 2019

S. N.		Grant-in-Aid	Miscellaneous Receipts	Capital Expenditure
.	Health A/c	1,30,50,00,000.00	53,97,937.67 (+)10,76,154.00 (+) 2,89,551.00	73,91,480.00 (+) 1,92,448.00
		15,00,00,000.00	2,58,57,548.21 (+) 67,391.00	15,40,00,000.00 (+) 2,14,531.00 exp.
	Grand Total	1,45,50,00,000.00	3,26,88,581.88	16,17,98,459.00

(Prof. Asim Ali Khan) Director General Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)



(Prof. Asim Ali Khan) Director General

Schedule of Expenditure for the Year Ending 31st March 2019

oʻ zʻ		Depreciation	Establishment Administrative Expenses Expenses	Administrative Expenses	Material & Supplies	Other Charges	Total Expenditure	Excess of Income over Expenditure	Excess of Expenditure over Income
1. F	(A) Exps Payable								
+	Health A/c		17,02,42,763.00	1,29,519.00	2,93,28,050.00	46,071.00	19,97,46,403.00		
<u> </u>	Total Exps Payable								
2. H	Health A/c	51,79,968.00 (-) 1,00,626.00 40,31,204.00 (-) 8,209.00 18,15,912.00 (-) 2150.00	83,75,68,922.00 + 60,000.00 4,73,722.00	10,27,96,567.00 1,67,059.00	6,72,96,861.94 9,78,42,176.24 6,75,264.00 + 4,00,000.00	9,78,42,176.24 6,75,264.00 + 4,00,000.00			
		1,93,000.00 (-)302(+)35,83,161.00 (+)3,55,829.00 33,86,923.00				+ 96,548.00			
	Total	1,84,34,710.00	83,81,02,644.00	10,29,63,626.00	6,72,96,861.94 9,90,13,988.24	9,90,13,988.24	1,12,58,11,829.00	3,31,889.70	
3.	Total Health A/c	1,84,34,710.00	1,00,83,45,407.00	10,30,93,145.00	9,66,24,911.94 9,90,60,059.24	9,90,60,059.24	1,32,55,58,232.00		
ш.	FW A/c	900.00+657.00 + 543.00					543 + 1,557.00		2100.00
	Total FW A/c	2100.00					2100.00		
	Grand Total	1,84,36,810.00					1,32,55,60,332.00		
ш ш	Excess of Expenditure								
<u> </u>	over Income								

-/ps	(R U Choudhury)	Assistant Director (Admn.)
-/ps	(Devanand)	Administrative Officer
Sd/-	(Mohammad Parvez)	Accountant
Sd/-	(Syed Asif Mian)	Consultant (Accounts)



Schedule of Assets of Balance Sheet as on 31st March 2019

s. Z	Name of Schemes	Fixed Assets (S/3)	Excess of Expenditure over Income (S/4)	Current Assets (S/5A)	Current Assets (S/5B)	Investments (S/5C)	Total Assets
1.	Health A/c	1,20,82,81,832.00	50,87,31,889.13	3,51,26,929.98	26,04,24,592.55		2,02,56,61,886.66
2.	FW A/c	18,894.00	1,89,671.06		2,047.94		2,10,613.00
3.	NPS A/c			38,01,131.81	7,62,844.00	1,71,50,859.99	2,17,14,835.80
4	CPF/GPF A/c			68,19,413.14	33,852.98	38,96,53,289.16	
	-op-				51,68,633.00		
	-op-				3,10,27,469.54		43,27,02,657.82
	-op-						
	GIS A/c			38,877.84	9,77,904 + 180	1,76,07,432.00	
	-op-				7920 + 200		1,86,32,513.84
	-op-						
5.	Pension Fund A/c			20,15,738.13	1,04,51,567.00		
	-op-						
	-op-					5,75,38,347.00	7,00,05,652.13
	Total	1,20,83,00,726.00	50,89,21,560.19	4,78,02,090.90	30,88,57,211.01	48,19,49,928.15	30,88,57,211.01 48,19,49,928.15 2,56,89,28,159.25

Administrative Officer (Devanand) (Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)

(R U Choudhury)

Assistant Director (Admn.)



Schedule of Liabilities of Balance Sheet as on 31st March 2019

ഗ്മ്	Name of Schemes	Capital Fund (S/1)	Excess of Income over Expenditure (S/4)	Current Liabilities (S/2)	Total Liabilities
1.	Health A/c	1,53,44,43,531.71		Non-Recurring 2,14,531.00 Recurring 47,79,07,180.95	2,02,56,61,886.66
				47,81,21,711.95	
2.	FW A/c	1,93,523.00		17090.00	2,10,613.00
3.	NPS A/c			97,95,047.00	
	-op-			1,19,19,788.80	2,17,14,835.80
4.	CPF/GPF A/c			28,78,42,486.49	
	-op-			10,825.00	
	-op-			51,68,633.00	
	-op-			13,96,80,713.33	43,27,02,657.82
5.	GIS A/c			1,86,30,837.84 + 1026 + 650	1,86,32,513.84
	-op-				
	-op-				
6.	Pension Fund A/c			7,00,05,652.13	7,00,05,652.13
	Total	1,53,46,37,054.71			
	Excess of Income over Expenditure				
	Less: Excess of Expenditure over Income	(-) 50,89,21,560.19			
	Total	1,02,57,15,494.52		1,02,11,94,461.54	2,56,89,28,159.25

-/ps	(Prof. Asim Ali Khan)	Director General
Sd/-	(R U Choudhury)	Assistant Director (Admn.)
-/ps	(Devanand)	Administrative Officer
-/pS	(Mohammad Parvez)	Accountant
Sd/-	(Syed Asif Mian)	Consultant (Accounts)



Consolidated Schedule of Fixed Assets as on 31st March 2018

	Opening Balance as on	Addition	Gros	Gross Block	Less: \$ Publid	ess: Sale of Council's Publications (Priced)	ncil's sed)		Depreciation -	ation		Net Block	
01.04.18	8		Deductions	Total	Opening Balance as on on 01.04.18	Sale during the Year	Total	Opening Balance as on 01.04.18	noi3ibbs nO	snoitoubab nO	Total	As on 31.03.2019	As on 31.03.2018
Machinery & 11,70,5 Equipment	11,70,51,106.11	49,69,813.00	(-) 10,06,264.00	12,10,14,655.11				6,85,37,828.11	51,80,868.00	(-) 1,00,626.00	7,36,18,070.11	4,73,96,585.00	4,85,13,278.00
9,43,2	9,43,28,044.82		6,14,061.00 (-) 82,090.00	9,48,60,015.82				5,08,54,367.82	43,87,690.00	(-) 8,209.00	5,52,33,848.82	3,96,26,167.00	4,34,73,677.00
27,22	27,22,27,50.00	17,23,419.00	(-) 21,500.00	2,89,24,669.00				2,52,57,838.00	18,15,912.00	(-) 2150.00	2,70,71,600.00	18,53,069.00	19,64,912.00
27,8	27,85.336.00			27,85,336.00							•	27,85,336.00	27,85,336.00
89,80,2	7,147.000	89,80,27,147.000 15,40,00,000.00		1,05,20,27,147.00							•	105,2027,147.00	89,80,27,147.00
3,35,	3,35,27,911.00	4,91,166.00	(-) 1,895.00	3,40,17,182.00					3387656.00	-190.00	33,87,466.00	3,06,29,716.00	33,527,911.00
79,	79,27,707.69	•	(-) 3024.00	79,24,683.69				59,97,703.69	1,93,000.00	(-) 302.00	61,90,401.69	17,34282.00	19,30,004.00
13,43,	13,43,46,873.00			13,43,46,873.00				9,8515,288.00	35,83,161.00		10,20,98,449.00	3,22,48,424.00	3,58,31,585.00
Council's 1,59 Publications (Priced)	1,59,69441.50	96,548.00		1,60,65,989.50 26,79,795.50 2,89,551.00 29,69,346.50	26,79,795.50	2,89,551.00	29,69,346.50					1,30,96,643.00	1,32,89,646.00
13311	1331186317.12	161895007.00	11,14,773.00	1491966551.12		2679795.50 2,89,551.00 29,69,346.50	29,69,346.50	249163025.62	18548287.00	111477.00 2	111477.00 26,75,99,835.62	1221397369.00	1079343496.00
(-) 1,59	(-) 1,59,69,441.50	(-) 96,548.00		(-) 1,60,65,989.50 - 2679795.50	- 2679795.50	2,89,551.00 29,69,346.50	29,69,346.50					(-)1,30,96,643.00 (-)1,32,89,646.00	(-)1,32,89,646.00
1,31,52,	16,875.62	1,31,52,16,875.62 16,17,98,459.00	(-) 11,14,773.00	(-) 1,47,59,00,561.62 11,14,773.00	0	0	0	24,91,63,025.62	1,85,48,287.00	1,11,477.00	26,75,99,835.62	0 24,91,63,025,62 1,85,48,287.00 1,11,477.00 26,75,99,835,62 1,20,83,00,726,00 1,06,60,53,850.00	1,06,60,53,850.00

(Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)

(Devanand)

Administrative Officer

Assistant Director (Admn.) (R U Choudhury)



Schedule Forming Part of Balance Sheet as on 31st March 2019

(Schedille -3/A) Farmarked/Endowment Fillinds

					SCNE)	edule -	(Schedule -3/A) Earmarked/Endowment Funds	narked/	Endo	wment	Funds					
တ် z	Head	Herb Garden	Publication UPS A/c DSOP	UPS A/c	DSOP A/c	A/c Digitization	Unani Day	AIIUM A/c	WHO	PR	International	DST A/c	CRISM A/c	South	Total	al
		S S	Textbook		2	Manuscript A/c			2		Conference A/c		`		Current Year	Previous Year
		(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)	(13)	(14)	(15)
(a)	Opening Balance	39,140.00	55,435.00	55,435.00 46,704.82 2,14,78	2,14,784.05	123.00		33,14,201.00	2223.00	-	7,09,529.00	40,31,453.00	40,31,453.00 1,55,61,970.00	4,97,113.68	4,97,113.68 2,44,72,676.55	2,38,17,624.55
	Total (a)															
(q)	(b) Additions															
	Grant-in-Aid						52,00,000.00			3,50,000.00					55,50,000.00	
<u> </u>	Other Additions A/c of;															
	Bank Interest	1387.00	1966.00		7503.00	1.00	49,171.00	1,17,528.00	79.00		35,210.00	7,77,094.00	5,92,440.00	17,628.00	16,00,007.00	19,18,242.00
	From Health A/C															
	Recoveries for remittances						11,322.00								11,322.00	
	Receivable Received															
<u> </u>	Misc Receipts						504,250.00								5,04,250.00	
	Total (b)	1387.00	1966.00		7503.00	1.00	57,64,743.00	117,528.00	79.00	79.00 3,50,000.00	35,210.00	7,77,094.00	5,92,440.00	17,628.00	76,65,579.00	19,18,242.00
	Total (a+b)	40,527.00		46,704.82	57,401.00 46,704.82 2,22,287.05	124.00	57,64,743.00	34,31,729.00	2302.00	2302.00 3,50,000.00	7,44,739.00	48,08,547.00	1,61,54,410.00	5,14,741.68	48,08,547.00 1,61,54,410.00 5,14,741.68 3,21,38,255.55 2,57,35,866.55	2,57,35,866.55
<u>©</u>	Utilization / Expenditure															
	i) Capital Expenditure															
	Assets											2,50,681.00			2,50,681.00	
	Others															
	ii) Revenue Expenditure															
	Salaries / Wages / Allowances											3,23,670.00			3,23,670.00	7,18,229.00
	Other Administrative Expenditure					124.00	11,322.00 49,44,731.00			3,47,648.00		139,819.00 6,76,178.00			61,19,822.00	3,50,225.00

(Mohammad Parvez) Accountant Consultant (Accounts) (Syed Asif Mian)

Administrative Officer (Devanand)

Assistant Director (Admn.) (R U Choudhury)

(Prof. Asim Ali Khan)

Director General



Schedule Forming Part of Balance Sheet as on 31st March 2019

(Schedule -3/A) Earmarked/Endowment Funds

ω z	Head	Herb Garden Publication UPS A/c DSOP	Publication	UPS A/c		Digitization	Unani Day	Vo Digitization Unani Day AIIUM A/c WHO	WHO	IPR	a	DST A/c	DST A/c CRISM A/c		Total	al al
ż _		A/C	Textbook	-	2	or Manuscript A/c			Ac		Conference A/c			Airican Avc	Current Year	Previous Year
		(1)	(2)	(3)	(4)	(2)	(9)	(7)	(8)	(6)	(10)	(11)	(12)	(13)	(14)	(15)
	Material & Supplies															1,94,736.00
	Amount Payable Paid															
	Unspent Balance Refunded											1,42,117.00 25,11,725.00			26,53,842.00	,
	Temporary Transfer to Health A/c to be Received															
	Total (c)					124.00	124.00 49,56,053.00			3,47,648.00		40,44,190.00			93,48,015.00	93,48,015.00 12,63,190.00
	Net Balance (a+b (-) c)	40,527.00	57,401.00	46,704.82	40,527.00 57,401.00 46,704.82 2,22,287.05		808690.00	34,31,729.00	2302.00	2352.00	7,44,739.00	7,64,357.00	1,61,54,410.00	5,14,741.68	808690.00 34,31,729.00 2302.00 2352.00 7,44,739.00 7,64,357.00 1,61,54,410.00 5,14,741.68 2,27,90,240.55 2,44,72,676.55	2,44,72,676.55

Assistant Director (Admn.) (R U Choudhury) Administrative Officer (Devanand) (Mohammad Parvez) Accountant

Consultant (Accounts) (Syed Asif Mian)



Break-up of Closing Balance as on 31st March 2019

16601 68 19413.14 GPF A/C	Headquarters, New Delhi	Bank of India	16602	2,65,38,583.13 Health A/c
16640 16640 1,6		-op-	16601	68,19,413.14 GPF <i>A</i> /c
3988		-op-	16640	38,877.84 GIS A/c
da 8477 2 1 19612 2250 2225 226 2352.00 25291 25291 3654 6063 4 of 7704 88 entralized Institutes 2,21,867.60 2,18,987.15 Gaant Total 7,0 Grant Total 7,0		-op-	3988	1,61,54,410.00 CRISM A/c
ida 8477 2 19612 2352.00 2225 256 2526 2526 25291 266 6063 6063 6063 6063 4 of 7704 83 1088 3 1088 3 Total 6,2 8 entralized Institutes 2,21,867.60 2,18,987.15 7,0		-op-	11685	34,31,729.00 AIIUM A/c
19612 2225 2226 2226 25291 25291 3654 6063 190312 24656 c of 7704 Total 6,2 8 entralized Institutes 2,21,867.60 2,18,987.15 Grant Total 7,0		Bank of Baroda	8477	20,15738.13 Pension A/c
17450 2352.00 2225		Bank of India	19612	46,704.82 UPS Aligarh
2225		-op-	17450	2352.00+40,527.00 Herb Garden A/c
2226		-op-	2225	- Digitization of Manuscripts A/c
25291 3654 6063 6063 24656 60704		-op-	2226	57,401.00 Publication of Textbook
3654		-op-	25291	2,22,287.05 DSOP A/c
6063 190312 24656 4 of 7704 1088 Total 6,2 8 entralized Institutes 2,21,867.60 2,18,987.15 Grant Total 7,0		-op-	3654	7,44,739.00 International Events, Conferences
k of 7704 Cof 7704 Total 6,2 Entralized Institutes 2,21,867.60 2,18,987.15 Grant Total 7,0		-op-	8909	5,14,741.68 Unani Chair / South African A/c
k of 7704 1088 Total 6,2 entralized Institutes 2,21,867.60 2,18,987.15 Grant Total 7,0		-op-	190312	7,64,357.00 DST A/c
k of 7704 3 1088 3 Total 6,2 8 entralized Institutes 2,21,867.60 2,18,987.15 Grant Total 7,0		-op-	24656	2302.00 WHO A/c
1088 Total 6,		State Bank of India	7704	8,08,690.00 Conferences A/c
Total 6,2 entralized Institutes 2,21,867.60 2,18,987.15 Grant Total 7,0		-op-	1088	38,01,131.81 NPS A/c
entralized Institutes 2,21,867.60 2,18,987.15 Grant Total 7,0			Total	6,20,03,984.60
21,867.60 18,987.15 irant Total 7,0	Decentralized Institutes' Ba	ank Balances		81,42,492.10
2,21,867.60 2,18,987.15 Grant Total 7,0	Imprest – Headquarters, N	lew Delhi & Centrali	zed Institutes	2,21,867.60
2,18,987.15 Grant Total			2,21,867.60	2,23,987.15
	Decentralized Institutes		2,18,987.15	
			Grant Total	7,05,92,331.45

Administrative Officer (Devanand) (Mohammad Parvez) Accountant

Assistant Director (Admn.) (R U Choudhury)

(Prof. Asim Ali Khan) Director General

> Consultant (Accounts) (Syed Asif Mian)

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5.3. Notes on Accounts

- 1. Annual accounts of the Council for the year 2018–19 have been prepared on the new format as prescribed by the CGA and approved by the CAG of India since 2002–2003.
- 2. The Central Council for Research in Unani Medicine is fully financed through grant-inaid. Therefore, income tax is not applicable on the organization.
- 3. The said accounts prepared on accrual basis.
- 4. Schedule attached where necessary.
- 5. Depreciation has been charged on assets on diminishing balance method.
- 6. The construction work being 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 the Ministry of AYUSH, Government of India.
- 8. A schedule of investment prepared every year and given to audit which is duly reconciled with actual documents figure mentioning there the rate of interest duration, amount and name of Institutions, etc.
- 9. Retirement benefits are treated as per the Government of India 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 2018–19 has been approved by the competent authority i.e. Standing Finance Committee on September 16, 2019.

Sd/-Assistant Director (Admn.) CCRUM, New Delhi



APPENDIX-I

INSTITUTIONAL NETWORK OF CCRUM

1 Central Council for Research in Unani Medicine

61-65, Institutional Area, Opposite D Block, Janakpuri, New Delhi – 110 058

Phone: +91-11-28521981 Fax: +91-11-28522965

E-mail: unanimedicine@gmail.com

3 Central Research Institute of Unani Medicine

Basaha, Kursi Road, Lucknow – 226 026 Uttar Pradesh

Phone: +91-522-2361720

E-mail: crium lko@yahoo.co.in

5 Regional Research Institute of Unani Medicine

1, West Meda Church Street, Royapuram

Chennai – 600 013, Tamil Nadu Phone: +91-44-25955519

E-mail: rriumchennai@gmail.com

7 Regional Research Institute of Unani Medicine

Guzri, Patna City, Patna – 800 008, Bihar

Phone: +91-612-2631106 E-mail: rriumpatna@gmail.com

9 Regional Research Institute of Unani Medicine

JJ Hospital Compound, Byculla, Mumbai – 400 008, Maharashtra

Phone: +91-22-23718706

E-mail: rrium mumbai@gmail.com

11 Regional Research Institute of Unani Medicine

250A/29, GT Road (North), Liluah Howrah – 711 204, West Bengal

Phone: +91-33-26550108 E-mail: kolrrium@gmail.com

13 Drug Standardization Research Institute

PLIM, Sector–23, Kamla Nehru Nagar Ghaziabad – 201 002, Uttar Pradesh

Phone: +91-120-2783029 E-mail: dsriccrum@gmail.com

2 Central Research Institute of Unani Medicine

Opp. ESI Hospital, AG Colony Road Erragadda, Hyderabad – 500 038

Telangana

Phone: +91-40-23811551, 23810246 E-mail: criumhyderabad@gmail.com

4 Hakim Ajmal Khan Institute for Literary & Historical Research in Unani Medicine

Dr. MA Ansari Health Centre Jamia Millia Islamia, Okhla New Delhi – 110 025

E-mail: Iriumnew1986@gmail.com

6 Regional Research Institute of Unani Medicine

Chandbali Bypass Road, Near Rural Police Station, Bhadrak – 756 100, Odisha

Phone: +91-6784-240289

E-mail: rriumbdk unani@yahoo.co.in

8 Regional Research Institute of Unani Medicine

Post Box No. 70, AK Tibbiya College Hospital, Aligarh – 202 001, Uttar Pradesh

Phone: +91-571-2704781, 2701399 E-mail: rrium_aligarh@rediffmail.com

10 Regional Research Institute of Unani Medicine

University of Kashmir Campus, Hazrat Bal Srinagar – 190 006, Jammu & Kashmir

Phone: +91-194-2421604

E-mail: rrium.srinagar@gmail.com

12 Regional Research Institute of Unani Medicine

D-11/1, Abul Fazal Enclave, Jamia Nagar

New Delhi – 110 025

Phone: +91-11-26922759 E-mail: rriumdelhi@gmail.com

14 Regional Research Centre

B-501/4, GTB Nagar, Opp. Dulhan Palace Kareli, Allahabad – 211 016, Uttar Pradesh

Phone: +91-532-2551223

E-mail: rrcallahabad@gmail.com



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15 Regional Research Centre

SM Dev Civil Hospital, Silchar – 788 001

(Cachar) Assam Phone: +91-3843-267522

E-mail: crukxj522@gmail.com

17 Clinical Research Unit

Kurupatil Nina Memorial, Near Panchayat

Office, Edathala (N) Alweye – 683 564, Kerala

Phone: +91-484-2836006 E-mail: crukerala@gmail.com

19 Clinical Research Unit

Dr. Abdul Haq Unani Medical College 40/23 Park Road, Kurnool – 518 001

Andhra Pradesh

E-mail: cru.kurnool@gmail.com

21 Clinical Research Unit

Gandhi Medical College, Bhopal – 462 001, Madhya Pradesh

Phone: +91-755-2540590

E-mail: cruu incharge@yahoo.com

23 Chemical Research Unit

Department of Research in Unani Medicine, Near Office of Dean, Faculty of Science, Aligarh Muslim University Aligarh – 202 001, Uttar Pradesh

25 Unani Speciality Centre

(Extension Centre of RRIUM, New Delhi) Deen Dayal Upadhyay Hospital Ghantaghar, Harinagar New Delhi – 110 064

16 Drug Standardization Research Unit

61-65, Institutional Area, Opposite D Block

Janakpuri, New Delhi - 110 058

Phone: +91-11-28521981

E-Mail: dsru.newdelhi@gmail.com

18 Clinical Research Unit

National Institute of Unani Medicine Kotigepaliya, Magadi Main Road Bengaluru – 560 091, Karnataka

Phone: +91-80-25480863

E-mail: crubangalore2000@yahoo.com

20 Clinical Research Unit

Cantonment General Hospital, Soti Ganj Begumpul, Meerut – 250 001, Uttar

Pradesh

Phone: +91-9012843253 E-mail: doctormtk@gmail.com

22 Clinical Research Unit

SH Unani Tibbiya College, Ganpati Naka Burhanpur – 450 331, Madhya Pradesh

Phone: +91-7325-252250

E-mail: cruburhanpur@rediffmail.com

24 Unani Medical Centre

(Extension Centre of RRIUM, New Delhi)

Dr. Ram Manohar Lohia Hospital

New Delhi – 110 001

Phone: +91-11-23404594

26 Clinical Research Pilot Project

Ground Floor, Regional Research Institute of Homoeopathy, New Checkon Road (Opp. Tribal Colony), Imphal East– 795 001

Manipur



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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

Website: http://ccrum.res.in