

Regional Research Institute of Unani Medicine

Chennai

Activities & Achievements



Scan to get digital copy

Regional Research Institute of Unani Medicine, Chennai

Activities & Achievements



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: <https://ccrum.res.in>



Regional Research Institute of
Unani Medicine
CHENNAI
Activities & Achievements

Input provided by

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

Published by

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: <https://ccrum.res.in>

Printed at

HI-TECH GRAPHICS

F-28/3 Okhla Industrial Area-II

New Delhi-110020





Dr. N. Zaheer Ahmed
Director General, CCRUM

Foreword

Established in 1978, the Central Council for Research in Unani Medicine (CCRUM) stands as a pivotal autonomous research institution under the Ministry of Ayush, Government of India. Its fundamental mission revolves around the pursuit of research and development of Unani Medicine. With unwavering dedication, the CCRUM tirelessly endeavours to furnish Unani Medicine with a robust scientific foundation, rendering it not only palatable but also pertinent to the contemporary scientific landscape.

The canvas of CCRUM's work is expansive, spanning multidisciplinary domains including clinical research, drug standardization, comprehensive surveys and cultivation of medicinal plants, and literary explorations. This expansive endeavour is bolstered by a network comprising 23 institutes strategically located across the nation. Furthermore, the CCRUM fosters collaborative research both on a national and international scale, reinforcing its position as a beacon of research excellence.

Over time, the CCRUM has garnered remarkable achievements, carving out significant pathways in clinical research, revival of classical texts and manuscripts, standardization and quality assurance of Unani drugs, as well as sustainable cultivation and conservation of Unani medicinal plants.

Nestled within this dynamic tapestry is the Regional Research Institute of Unani Medicine (RRIUM), Chennai. A luminary

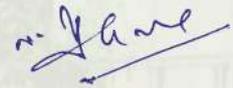


within the pantheon of CCRUM institutes, the RRIUM, Chennai, founded on July 6, 1979, occupies a pivotal role in the realization of CCRUM's objectives. Its geographic location in the heart of Chennai, Tamil Nadu, is matched only by its central role in advancing Unani Medicine.

Endowed with state-of-the-art infrastructure and healthcare facilities, the RRIUM, Chennai, has embraced a holistic approach. Beyond its steadfast engagement in multidisciplinary research in Unani Medicine, it has embarked on a journey to deliver quality healthcare through diverse avenues, including outpatient and inpatient services, mobile clinical research, and school health initiative. As a testament to its commitment, the RRIUM, Chennai has touched the lives of nearly 2.8 million patients, resonating with their well-being and satisfaction.

Spanning four decades of existence, the RRIUM, Chennai has risen to prominence as a flagship institution in the southern part of India. Its triumphs in the treatment of conditions such as filariasis, infective hepatitis, rheumatoid arthritis, and osteoarthritis have earned it a venerable national reputation. Notably, its endeavours have been rewarded with the prestigious NABH & NABL accreditations, reflecting the institute's steadfast commitment to safety, excellence, and compassionate care.

Within the pages of this publication, the illustrious journey of the RRIUM, Chennai, in the area of research and development of Unani Medicine, unfurls. This journey is a testament to the passion, dedication and indomitable spirit of the institute's personnel. As we embark on this enlightening narrative, my heartfelt wishes extend to the esteemed leadership and the entire staff of the RRIUM, Chennai.



Dr. N. Zaheer Ahmed
Director General, CCRUM



Preface

The Regional Research Institute of Unani Medicine, Chennai, stands as one of the foremost and oldest regional institutes under the Central Council for Research in Unani Medicine, Ministry of Ayush, Government of India. Since its inception in 1979, the institute has diligently pursued its primary objective of advancing scientific research and development across various facets of Unani Medicine.

Over the years, the institute has cultivated a robust research infrastructure and made significant strides in areas encompassing clinical research, drug standardization research, safety evaluation of Unani drugs, survey and cultivation of medicinal plants, as well as molecular and biological studies. In its four-decade journey, the institute has completed 64 clinical research studies, focusing on a wide array of diseases, including *Iltihāb-i-Kabid* (viral hepatitis), *Dā' al-Fīl* (filariasis), *Hudār* (rheumatoid arthritis), and other musculoskeletal disorders. It has also conducted numerous validation studies on pharmacopoeial formulations for common ailments such as *Nazla* (common cold), *Su'āl Raṭab* (productive cough), *Waram-i-Ḥalq* (pharyngitis), *Khafaqān* (palpitation), *Qulā'* (oral ulcer), *Niqris* (gout) among many others.

Within its expansive infrastructure, the institute houses a comprehensive general outpatient department (GOPD), a research outpatient department (ROPD), a 49-bed inpatient department (IPD), pathology and biochemistry laboratories, an X-Ray and ECG section, a *Ṣaidala* (pharmacy) section, an *Ilāj bi'l-Tadbīr* (regimenal therapy) unit, a *Ḥammām* (traditional bath house) block, a peripheral pharmacovigilance centre, and a mobile health care unit under the Scheduled Caste Sub Plan.

The drug standardization research unit (DSRU) plays a pivotal role in setting pharmacopoeial standards for both single and compound Unani drugs. It is also involved in the development of standard operating procedures (SOPs) for Unani compound formulations and conducts quality control studies by testing internal and external drug samples through its drug testing laboratory (DTL) approved by the Government of Tamil Nadu.



Dr. K. Kabiruddin Ahmed

Research Officer Incharge, RRIUM, Chennai



The survey of medicinal plants unit (SMPU) diligently explores the medicinal plant wealth found in forest areas across various districts of Tamil Nadu and neighbouring states. The unit collects folklore claims from diverse tribal communities residing in these regions and actively contributes to the conservation and propagation of endangered, vulnerable, rare, and threatened medicinal plants, especially those used in Unani Medicine. Additionally, the unit maintains a well-curated drug museum, a fully-equipped herbarium section, and a herbal garden.

The contributions of these units are reflected through technical reports, monographs, publications, and the presentation of scientific papers at various conferences, seminars, workshops, webinars, and other academic forums. Beyond research endeavours, the institute also actively organizes a range of health events, including health camps, public health awareness lectures, guest lectures, journal clubs, seminars, workshops, and webinars as part of its information, education, and communication (IEC) activities.

This extensive infrastructure, coupled with a team of competent professionals, is dedicated to providing healthcare services to the masses, disseminating health knowledge, and promoting Unani Medicine. Notably, the institute has recently attained NABH accreditation for its hospital services and NABL certification for its biochemistry lab. Furthermore, it has received several awards and prizes in recognition of its exceptional services and is actively pursuing NABL accreditation for its other medical and drug laboratories. The institute has also secured a license and GMP certification for the manufacturing of Unani formulations in its pharmacy section.

In closing, I extend my heartfelt gratitude to my predecessors, Director Generals, former Deputy Directors, and Incharges, with a special mention of Padmashri Prof. Hakim Syed Khaleefathullah, a stalwart of Unani Medicine, whose guidance has been instrumental in the institute's journey towards its objectives. I also acknowledge Dr. N. Zaheer Ahmed, Director General, CCRUM, New Delhi, for his invaluable guidance in steering the institute towards success. Lastly, my sincere thanks go out to all the dedicated officers and staff of the institute who continually strive to achieve our collective goals. Together, we aim to contribute meaningfully to the advancement of Unani Medicine and the well-being of community.

Dr. K. Kabiruddin Ahmed
Research Officer Incharge
RRIUM, Chennai

Contents

<i>Foreword</i>	iii
<i>Preface</i>	v
Introduction	1
Vision	2
Mission	2
Objectives	2
Infrastructure	3
Research Activities	4
Clinical Research Programme	4
Summary of Research Studies	7
Clinical Studies	7
Clinical Validation Studies	10
Randomized Controlled Trial (RCT)	16
IMR Projects	17
Collaborative Research Projects	19
Ongoing Research Projects	21
General OPD Programme	22
Mobile Clinical Research Programme	23
School Health Programme	24
'Ilāj bi 'l-Tadbīr (Regimenal Therapy)	25
Ḥammām Block (Traditional Bath House)	26
Pharmacy	27
Pathology and Biochemistry Laboratory	28
Drug Standardization Research Unit (DSRU)	28
Survey and Cultivation of Medicinal Plants Unit (SMPU)	29
Regional Raw Drug Repository (RRDR) – Southern Plateau Region	31
Pharmacovigilance Unit	32



IEC & Outreach Activities	33
National Seminars / Conference / Workshops / Training Programmes	33
Scientific Papers Presented / Published	37
Exhibitions / Health Camps / Arogya	37
Public Awareness Programmes	40
Pulse Polio Programme	40
COVID-19 Vaccination Programme	40
Achievements	42
Clinical Achievements	42
Drug Standardization	42
Survey and Cultivation of Medicinal Plants.....	42
Research Achievements	43
Developmental Achievements	43
Prizes and Awards	43
Accreditation with National / International Agencies	46
Brochures Brought-out by Institute.....	47
List of Deputy Directors / Heads of the Institute	49
List of Regular and Contractual Officers and Staff	49
Research Paper Publication by Scientists of the Institute	55
Clinical Research.....	55
Drug Standardization Research	61
Survey of Medicinal Plants	68
Institutional Network of CCRUM.....	72
Contact Details of CCRUM Institutes/Units.....	73





RRIUM, Chennai Main Building

Introduction

The Regional Research Institute of Unani Medicine, Chennai is one of the premier institutes functioning under the Central Council for Research in Unani Medicine, Ministry of Ayush; Government of India. The journey of RRIUM, Chennai began on July 6, 1979, with a clear mission to engage in rigorous scientific research across various facets of Unani Medicine. A significant milestone was reached when a new, fully-equipped building was inaugurated on February 17, 2004. Situated on a sprawling 3-acre campus, graciously provided by the Government of Tamil Nadu, the institute boasts a main building spanning 1750 sqm (G+2), a pharmacy block covering 550 sqm (G+1), and a dedicated *Hammām* block spanning 400 sqm.

The institute is home to a dedicated and skilled team of 83 individuals, comprising 28 regular and 55 contractual staff members. Over the years, the institute has meticulously cultivated a robust research infrastructure, achieving noteworthy prominence in critical areas such as clinical research, drug standardization research, safety evaluation of Unani drugs, survey and cultivation of medicinal plants, and comprehensive molecular and biological studies. Throughout the four-decade journey, it has earned recognition as a leading institution in the southern part of India, renowned for its ground-breaking research initiatives and



national acclaim for the effective treatment of conditions such as filariasis, infective hepatitis, and musculoskeletal disorders, including rheumatoid arthritis and osteoarthritis.

Vision

- To strive for excellence in the field of Unani Medicine through comprehensive research, ensuring the quality and affordability of products for prevention, management, and cure of various diseases.

Mission

- To transform RRIUM, Chennai into a centre of excellence for research and patient care in Unani Medicine. We aim to provide practical solutions to the health challenges of our country, contributing to a healthier India. We are committed to:
 - Conducting, implementing, and promoting high-quality Unani medical research on scientific principles for the benefit of society.
 - Offering safe, effective, and cost-efficient healthcare solutions through Unani Medicine.

Objectives

- To transform the institute into a dynamic and exemplary research organization, dedicated to conducting and coordinating scientific research in Unani Medicine. This transformation includes integrating the advantages of modern scientific knowledge and technology.
- To direct our research efforts towards addressing healthcare needs, with a primary goal of delivering high-quality healthcare services.
- To engage in advanced research concerning the standardization of Unani drugs and the development of standard operating procedures (SOPs) to ensure a consistent and standardized method for manufacturing Unani drugs.
- To embark on ethnobotanical surveys in forest divisions, with the aim of uncovering the wealth of medicinal plants and collecting specimens of rare, valuable, and essential medicinal plants for successful cultivation.
- To actively promote and popularize Unani Medicine, making it accessible and well-recognized.



Infrastructure

The institute has a robust infrastructure comprising the following departments/ sections:

- General out-patient department
- Biochemistry department
- Mobile clinical research unit (SCSP)
- Pharmacovigilance centre
- Botany department (survey of medicinal plants)
- Statistics section
- Pharmacy section
- Administrative section
- In-patient department (49-bedded)
- Pathology department
- 'Ilāj bi'l-Tadbīr (regimenal therapy) unit
- Chemistry department (drug standardisation)
- Radiology section
- Library section
- Dispensing section



Instrumentation Room



Phytochemistry Lab





Research Activities

The institute is engaged in three core areas of research, viz. clinical research, drug standardization research, and survey and cultivation of medicinal plants. Under the clinical research programme, the institute undertakes clinical trials on common diseases and chronic ailments having national priority, to establish the therapeutic values of Unani drugs. Besides, the institute runs public health programmes and organizes various health awareness events, seminars / conferences / webinars as part of information, education and communication activities.

Clinical Research Programme

The clinical research programme is dedicated to assessing the efficacy of Unani drugs and formulating therapeutically valuable remedies by integrating modern diagnostic techniques and aligning them with scientific criteria. The ultimate goal is to provide affordable and side-effect-free solutions for both common and chronic ailments. Since its inception, the institute has successfully completed 64 clinical research studies, with an additional 8 studies currently in progress. The primary objectives of the programme are as follows:

- ❑ To verify the claims and perceptions reported in classical literature of Unani Medicine in respect of the diseases and their remedies.
- ❑ To validate the assertions and insights documented in classical Unani Medicine literature pertaining to various diseases and their corresponding remedies.
- ❑ To harmonize traditional wisdom with contemporary scientific methodology to establish Unani Medicine as a viable alternative in healthcare delivery.
- ❑ To investigate the consistency and acceptability of Unani formulations, analyzing both their positive and adverse effects.
- ❑ To evaluate the safety and toxicity profiles of Unani drugs while also assessing their overall acceptance as a therapeutic approach.



In its four-decade journey, the institute has completed 64 clinical studies, focusing on a wide array of diseases as detailed in the table below:

S. N.	Disease	No. of Studies	Year	Sample Size	Response (%)
1.	<i>Dā' al-Fīl</i> (filariasis)	12	1982–2012	532	50–60%
2.	<i>Iltihāb al-Kabid Hād</i> (infective hepatitis)	11	1982–2012	1663	80–90%
3.	<i>Waja' al-Mafāšil</i> (rheumatoid arthritis)	5	1982–2008	1236	60–70%
4.	<i>Dhayābītus Sukkarī</i> (diabetes mellitus)	5	1981–2008	396	60–70%
5.	<i>Ḥummā Ajāmiyya</i> (malaria)	1	1980–1989	533	87%
6.	Immuno-modulator study	3	2004–2007	183	-
7.	Cosmeto therapeutic studies				
	1. <i>Šala'</i> (baldness)	1	2007–2009	62	35.5%
	2. <i>Hazāz</i> (dandruff)	1	2007–2008	84	72.5%
	3. <i>Shuqūq al-Atrāf wa'l-Wajh</i> (skin crack)	1	2007–2009	60	58.3%
8.	<i>Taḥajjur al-Mafāšil</i> (osteoarthritis)	1	2009–2015	168	70.2%
9.	<i>Nazla Hārr</i> (common cold)	1	2013–2015	128	91.4%
10.	<i>Waja' al-Mafāšil</i> (rheumatoid arthritis)	1	2011–2015	66	77.3%
11.	<i>Waja' al-Mafāšil</i> (joint pain)	1	2013–2014	97	98.9%
12.	<i>Su'āl Raṭab</i> (productive cough)	1	2013–2015	91	100%
13.	<i>Qulā'</i> (stomatitis)	1	2014–2016	92	89.2%
14.	<i>Šudā'</i> (headache)	1	2014–2016	90	94.4%
15.	<i>Waram-i-Halq</i> (pharyngitis)	1	2014–2016	51	98.0%
16.	<i>Niqris</i> (gout)	1	2015–2017	84	100%





S. N.	Disease	No. of Studies	Year	Sample Size	Response (%)
17.	<i>Waja ' al-Asnān</i> (toothache)	1	2015–2017	92	100%
18.	<i>Nisyān</i> (dementia)	1	2011–2017	100	91.1%
19.	<i>Haṣā al-Kulya</i> (nephrolithiasis)	1	2015–2017	79	49.7%
20.	<i>Sharā Muzmin</i> (chronic urticaria)	1	2015–2018	94	85.1%
21.	<i>Ḍu'f al-Ishtihā'</i> (anorexia)	1	2016–2017	78	96.1%
22.	<i>Dhayābīṭus Sukkarī Qism Thānī</i> (diabetes mellitus type II)	1	2015–2019	76	19.7%
23.	<i>Khushūnat-i-Ḥalq</i> (dryness of throat)	1	2016–2019	102	98.0%
24.	<i>Khafaqān</i> (palpitation)	1	2016–2020	84	96.4%
25.	<i>Ṣudā'</i> (headache)	1	2017–2020	86	84.9%
26.	<i>Bawāsīr 'Amyā'</i> (non-bleeding piles)	1	2017–2021	80	91.2%
27.	<i>Mālankhūliyā</i> (mixed anxiety depressive disorder)	1	2019–2023	76	77.6%
28.	<i>Baraṣ</i> (vitiligo)	1	2016–2019	29	10.3%
29.	<i>Farṭ Tashaḥḥum al-Kabid</i> (fatty liver disease)	1	2009–2014	30	73.3%
30.	<i>Waja ' al-Zahr</i> (non-specific low back pain)	1	2018–2020	31	96.8%
31.	<i>Waja ' al-Mafāṣil</i> (arthralgia)	1	2019–2022	58	93.1%



Summary of Research Studies

Clinical Studies

Clinical study on *Dā' al-Fīl* (filariasis): Clinical studies on *Dā' al-Fīl* (filariasis) were conducted with the objective of evaluating the therapeutic efficacy of 12 different Unani coded formulations. These formulations were tested on 532 cases during 1982–2012. These studies also aimed at evaluating the beneficial effects of *Mundij–Mushil* therapy in filariasis. Notably, a therapeutic response ranging from 50% to 60% was observed in acute cases.

Furthermore, the institute carried out double-blind clinical trials in collaboration with the Department of Medicine at Government General Hospital, Chennai, to compare the efficacy of Unani formulations with diethyl carbamazine in the treatment of filariasis.

Concurrently, research on the immunomodulatory effects of Unani drugs in filariasis cases was conducted in partnership with the Department of Microbiology at Dr. A. L. Mudaliar PG Institute of Basic Medical Sciences, Taramani, University of Madras, Chennai. The results of these studies were subsequently published in the form of a monograph.

Clinical studies on *Iltihāb al-Kabid Hād* (infective hepatitis): Clinical trials focusing on *Iltihāb al-Kabid Hād* (infective hepatitis) were conducted to evaluate the therapeutic efficacy of ten distinct Unani-coded formulations. Over the period spanning from 1982 to 2012, these formulations underwent testing on 1365 cases, with a remarkable therapeutic response ranging from 80% to 90%. The study results were disseminated through technical reports.

Additionally, a double-blind controlled trial was conducted, comparing a coded Unani drug, UNIM-105, with a standard drug, UNIM-106, involving 298 cases. The response to UNIM-105 was found to be on par with the control drug.

Furthermore, animal studies on UNIM-105 and UNIM-115, conducted in collaboration with the Department of Microbiology at Dr. A L Mudaliar PG Institute of Basic Medical Sciences, Taramani, University of Madras, Chennai, demonstrated significant hepatoprotective effects.

Clinical studies on *Waja' al-Mafāsil* (rheumatoid arthritis): Clinical trials focused on *Waja' al-Mafāsil* (rheumatoid arthritis) were carried out with the aim of assessing the therapeutic efficacy of four distinct Unani coded formulations. This comprehensive study spanned from 1982 to 2008, involving 1202 cases. Additionally, a preliminary screening study was



conducted, evaluating the efficacy of two coded Unani formulations in combination with *Mundij* and *Mushil* therapy in 34 patients with rheumatoid arthritis. Notably, these investigations revealed a therapeutic response ranging from 60% to 70%. The findings from these studies were subsequently published in the form of technical reports.

Clinical study on *Dhayābīṭus Sukkarī* (diabetes mellitus): Clinical trials addressing *Dhayābīṭus Sukkarī* (diabetes mellitus) were undertaken with the goal of assessing the therapeutic efficacy of five distinct Unani coded formulations in cases of non-insulin dependent diabetes. Over the span of 1981 to 2008, a total of 396 cases were included in this study. Notably, the study yielded a therapeutic response ranging from 60% to 70%, with outcomes varying depending on the stages of the disease.

Clinical study on *Hummā Ajāmiyya* (malaria): In addition to studying the efficacy of certain Unani drugs in 533 cases of *Hummā Ajāmiyya* (malaria), the institute, in collaboration with the Central Malaria Laboratory, Corporation of Chennai, conducted a therapeutic trial on 30 cases testing positive for malarial parasites. The objective of the study was to assess the efficacy of a coded Unani drug, UNIM-152 (HE-4), which exhibited an 87% therapeutic efficacy. Follow-up studies revealed no recurrence of symptoms.

Cosmeto-therapeutic studies: The institute conducted three cosmeto-therapeutic studies on various conditions:

Study on *Ṣala'* (baldness) with coded drug CT-12 and CT-13: The study aimed to evaluate the safety and efficacy of coded drugs CT-12 and CT-13 in treating baldness. The results indicated that 8.06% of cases experienced relief, 27.40% were partially relieved, and 64.50% showed no improvement.

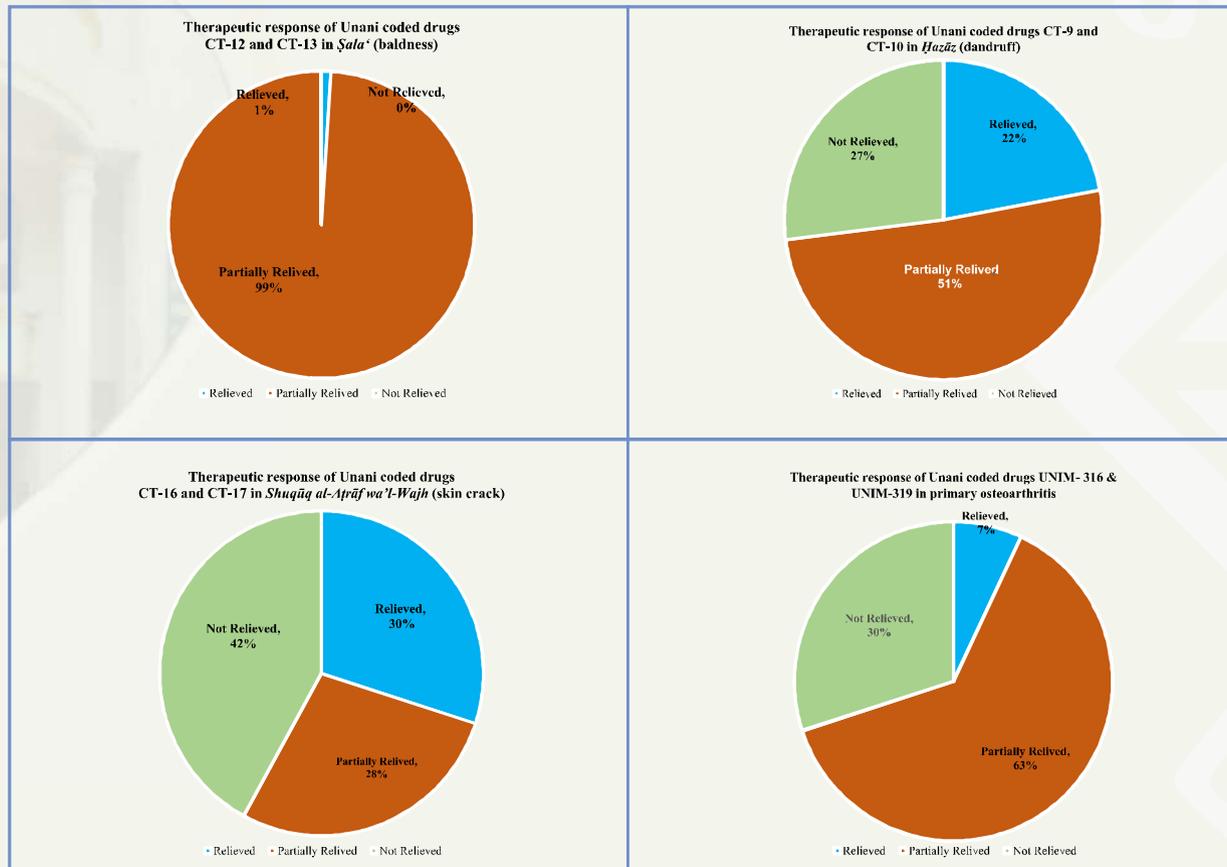
Study on *Hazāz* (dandruff) with coded drug CT-9 and CT-10: The study evaluated the safety and efficacy of coded drugs CT-9 and CT-10 in treating dandruff. The results showed that 21.4% of cases experienced relief, 51.10% were partially relieved, and 27.30% showed no improvement.

Study on *Shuqūq al-Aṭrāf wa'l-Wajh* (skin crack) with coded drug CT-16 and CT-17: The study aimed to evaluate the safety and efficacy of coded drugs CT-16 and CT-17 in treating skin cracks. The results indicated that 30% of cases experienced relief, 28.3% were partially relieved, and 41.7% showed no improvement.

These findings provide valuable insights into the therapeutic potential of Unani drugs for a range of health conditions and cosmetic concerns.



Preliminary study on primary osteoarthritis grade-I & II: A study focusing on primary osteoarthritis grade-I & II was conducted to evaluate the safety and efficacy of coded drugs UNIM-318 & UNIM-319 during 2009–2105. UNIM-318, a Unani coded drug in capsule form, was administered at a dosage of 2 capsules (500 mg each) thrice daily with water on an empty stomach for a duration of 90 days in patients with osteoarthritis in IPD setting. Simultaneously, UNIM-319, another Unani coded drug in oil form, was locally applied to the affected joint(s) at a dose of 10 ml once daily following hot dry fomentation. The results indicated that 7.14% cases were relieved, 63.10% partially relieved and 29.76% showed no improvement.



Clinical Validation Studies

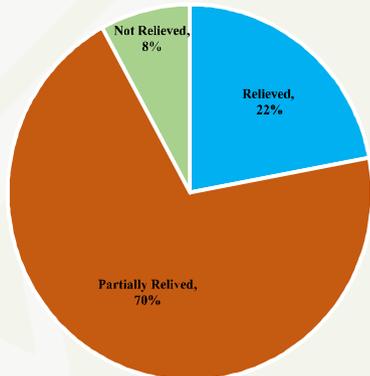
Clinical validation of Unani pharmacopoeial formulation *Habb-i-Shifā'* in *Nazla Hārr* (common cold): The study involved the administration of *Habb-i-Shifā'* for a period of 7 days, with results indicating relief in 21.87% of cases, partial relief in 69.53%, and no relief in 8.60% of cases.

Clinical validation of Unani pharmacopoeial formulations *Ma'jūn-i-Sūranjān*, *Safūf-i-Sūranjān* and *Rowghan-i-Sūranjān* in *Waja' al-Mafāṣil* (rheumatoid arthritis): The study evaluated the formulations over 12 weeks, with results showing relief in 15.15% of cases, partial relief in 62.12%, and no relief in 22.73%.

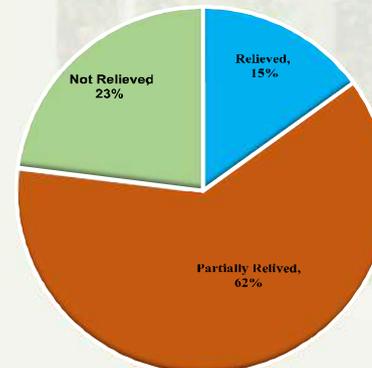
Clinical validation of Unani pharmacopoeial formulation *Habb-i-Sūranjān* and *Rowghan-i-Sūranjān* in *Waja' al-Mafāṣil* (joints pain): This study administered the formulations for 2 weeks and found complete relief in 47.4% of cases, relief in 51.4%, and partial relief in 1.2%. The study findings were published in the Journal of Drug Delivery and Therapeutics.

Clinical validation of Unani pharmacopoeial formulation *Sharbat Zūfā Murakkab* in patients of *Su'āl Raṭab* (productive cough): The study evaluated the efficacy of *Sharbat Zūfā Murakkab* for two weeks and reported complete relief in 72.5% of cases and relief in 27.5% of cases.

Therapeutic response of *Habb-i-Shifā'* in *Nazla Hārr* (common cold)



Therapeutic response of *Ma'jūn-i-Sūranjān*, *Safūf-i-Sūranjān* and *Rowghan-i-Sūranjān* in *Waja' al-Mafāṣil* (rheumatoid arthritis)

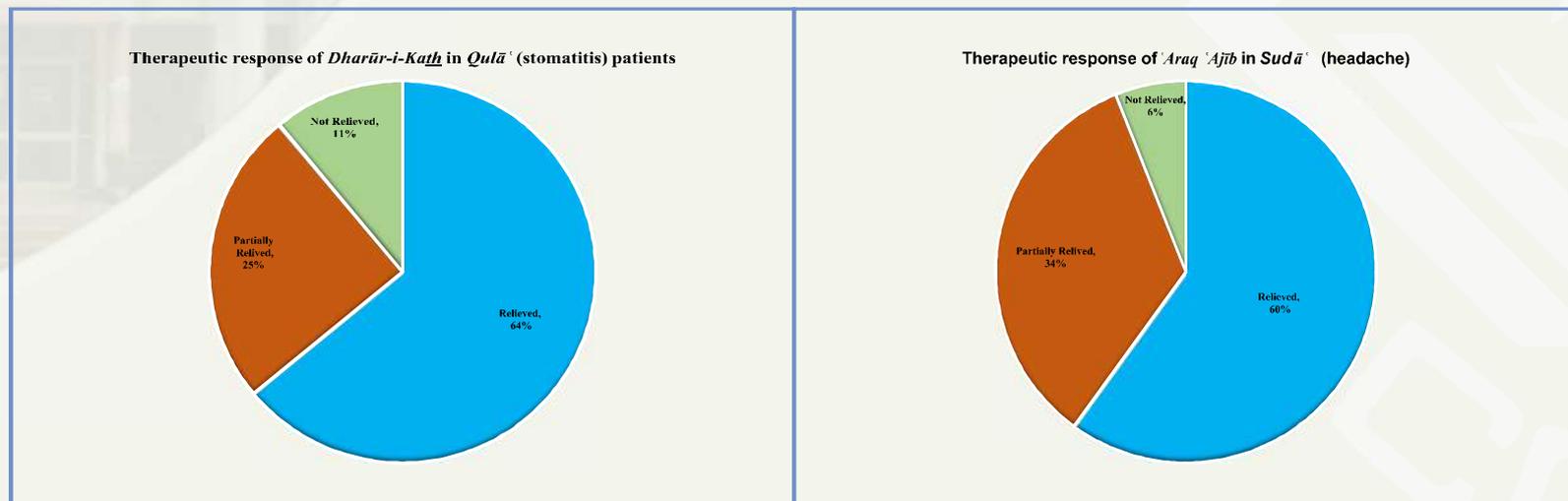


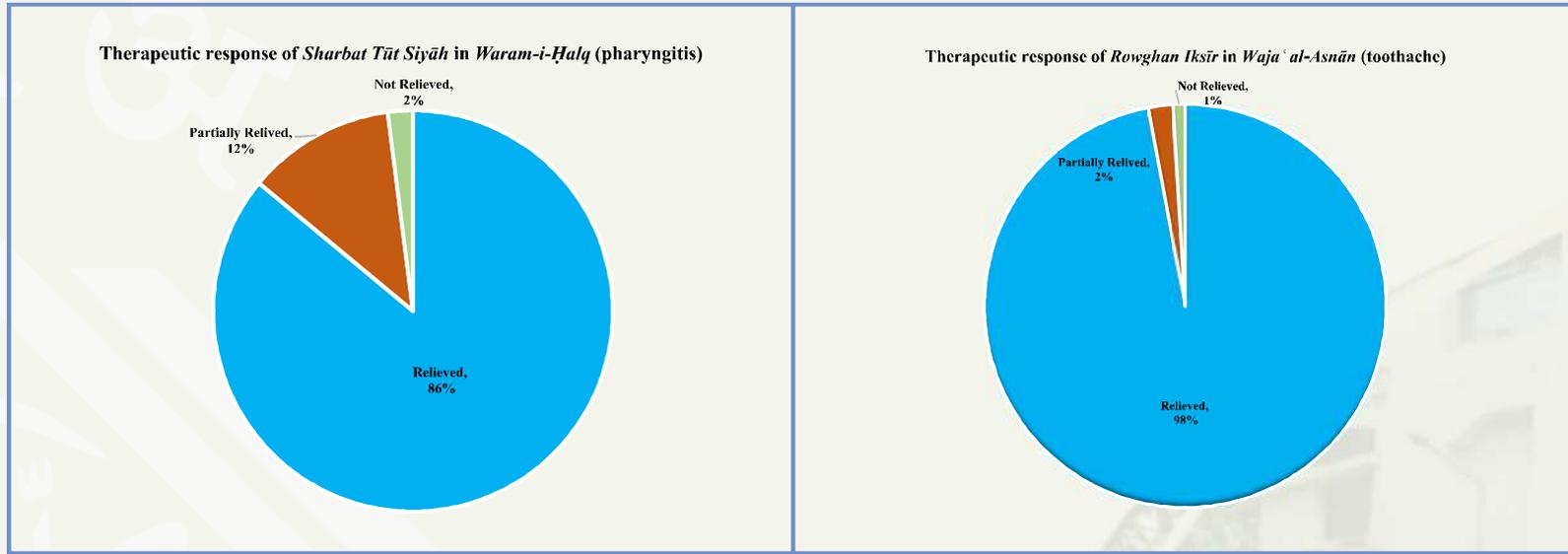
Clinical validation of Unani pharmacopoeial formulation *Dharūr-i-Kath* for symptomatic relief in patients of *Qulā* (stomatitis): The study involved the local application of *Dharūr-i-Kath* for 7 days. The results indicated relief in 64.13% of cases, partial relief in 25%, and no relief in 10.87% of cases.

Clinical validation of Unani pharmacopoeial formulation '*Araq Ajīb* for symptomatic relief in *Şudā* (headache): The study evaluated the efficacy of '*Araq Ajīb* for 7 days and reported relief in 60% of cases, partial relief in 34.44% and no relief in 5.56% of cases.

Clinical validation of Unani pharmacopoeial formulation *Sharbat Tūt Siyāh* in cases of *Waram-i-Ḥalq* (pharyngitis): The study involved the administration of *Sharbat Tūt Siyāh* at a dosage of 20 ml twice a day for a period of 7 days. Among the 51 cases included in the study, a significant 86.27% of patients reported complete relief from their symptoms, 11.76% experienced partial relief, and only 1.96% did not experience relief from their pharyngitis symptoms.

Clinical validation of Unani pharmacopoeial formulations *Ma jūn-i-Sūranjān* and *Ḥabb-i-Adharāqī* in *Niqris* (gout): The study evaluated *Ma jūn-i-Sūranjān* and *Ḥabb-i-Adharāqī* in *Niqris* (gout) cases for 8 weeks. The results were significant showing relief in 97.60% cases and partial relief in 2.40% cases.



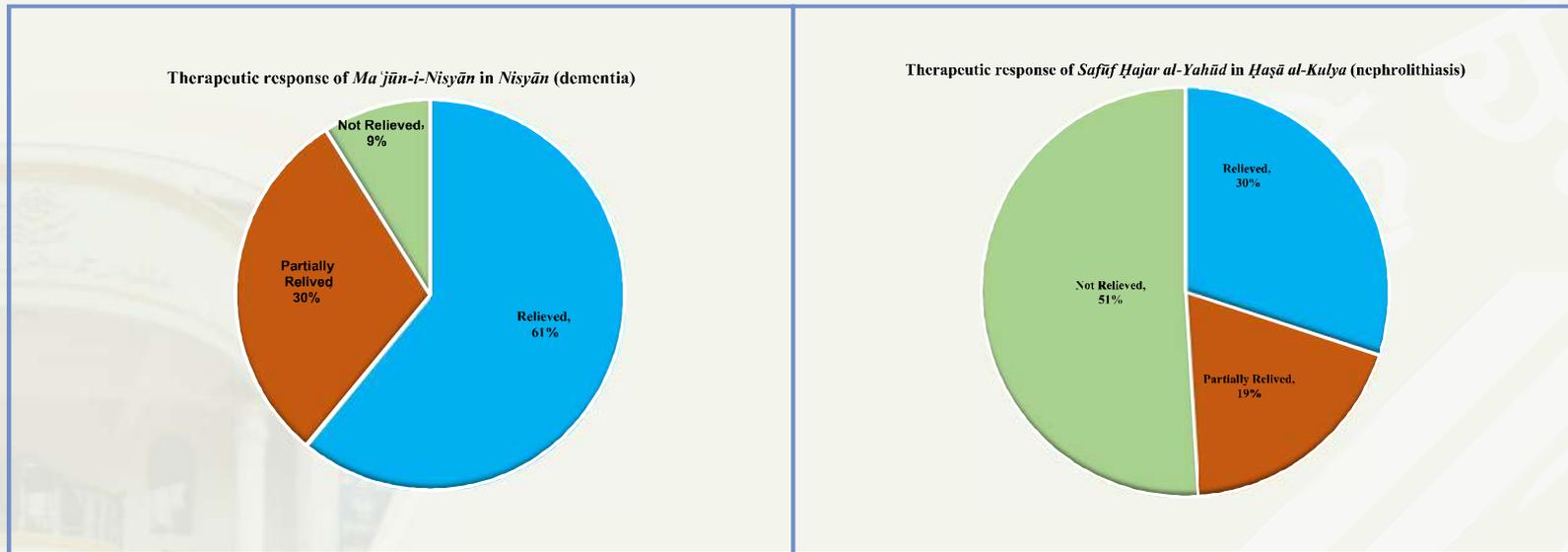


Clinical validation of Unani pharmacopoeial formulation *Rowghan Iksīr* for symptomatic relief in *Waja‘ al-Asnān* (toothache): A clinical validation study was conducted to assess the efficacy of Unani pharmacopoeial formulation *Rowghan Iksīr* for symptomatic relief in *Waja‘ al-Asnān* (toothache). A cotton swab soaked in *Rowghan Iksīr* was gently applied to the aching tooth for 7 days. Among 92 cases, an outstanding 97.82% of patients reported complete relief, while 2.18% experienced partial relief.

Clinical validation of Unani formulation *Ma‘jūn-i-Nisyān* in patients with *Nisyān* (dementia): In this validation study, the patients were given *Ma‘jūn-i-Nisyān* (7 g) orally once a day in the morning for 84 days. Out of 101 cases, 61.39% of patients were relieved, 29.70% experienced partial relief, and 8.91% did not experience relief.

Clinical validation of Unani pharmacopoeial formulation *Safūf Ḥajar al-Yahūd* in *Ḥaşā al-Kulya* (nephrolithiasis): The study involved the administration of *Safūf Ḥajar al-Yahūd* (5 g) to the patients of *Ḥaşā al-Kulya* (nephrolithiasis) twice a day for 8 weeks. Among 79 cases, 30.38% of patients reported relief, 18.98% experienced partial relief, and 50.64% did not experience relief. The study findings were published in the Journal of Complementary and Integrative Medicine.

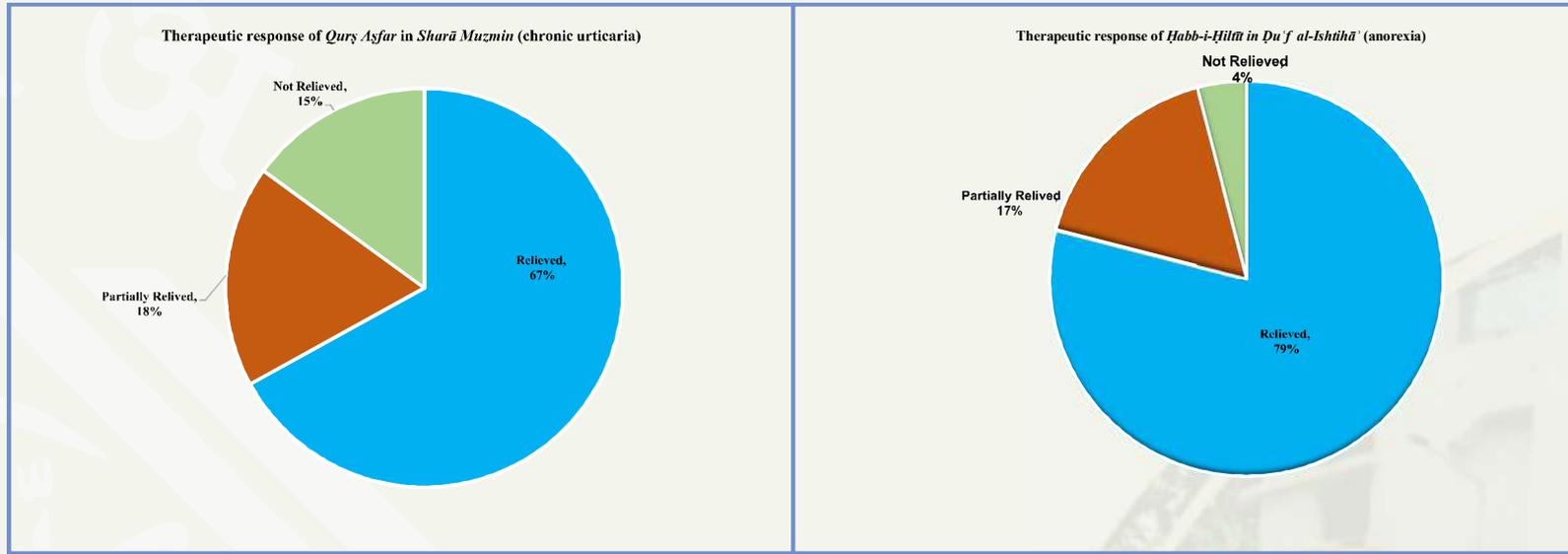




Clinical validation of Unani pharmacopoeial formulation *Qurṣ Aṣfar* for symptomatic relief in *Sharā Muzmin* (chronic urticaria): A clinical validation study was conducted on the Unani pharmacopoeial formulation *Qurṣ Aṣfar* to assess its effectiveness in providing symptomatic relief for *Sharā Muzmin*, also known as chronic urticaria, during the period from 2015 to 2018-19. In this study, participants were orally administered *Qurṣ Aṣfar* 775 mg twice a day with water for 14 days. The results of the study showed that out of 94 cases, 67.02% experienced complete relief, 18.08% experienced partial relief, and 14.89% did not experience any relief.

Clinical validation of Unani pharmacopoeial formulation *Habb-i-Hilūt* in cases of *Du'f al-Ishtihā'* (anorexia): The efficacy of Unani pharmacopoeial formulation *Habb-i-Hilūt* was evaluated in cases of *Du'f al-Ishtihā'* (anorexia) during June 2, 2016–December 11, 2017. The participants were given one pill of *Habb-i-Hilūt* 500 mg, orally with water twice a day, one hour after meals, for a period of 2 weeks. The results indicated that out of 78 cases, 79.44% experienced complete relief, 16.66% experienced partial relief, and 3.84% did not experience any relief. The findings of this study were later published in the Journal of Drug Delivery and Therapeutics.





Clinical validation of Unani pharmacopoeial formulation *Qurs-i-Dhayābīṭus Khāṣ* in *Dhayābīṭus Sukkarī Qism Thānī* (diabetes mellitus type 2): The clinical validation study was conducted on the Unani pharmacopoeial formulation *Qurs-i-Dhayābīṭus Khāṣ* during 2015–2020 to assess its efficacy in managing *Dhayābīṭus Sukkarī Qism Thānī* (diabetes mellitus type 2). The participants were given *Qurs-i-Dhayābīṭus Khāṣ* two tablets twice a day for a period of 12 weeks. The results showed that out of 76 cases, 19.73% experienced complete relief, and 80.26% experienced partial relief.

Clinical validation of Unani pharmacopoeial formulation *La 'ūq-i-Bādām* in cases of *Khushūnat-i-Ḥalq* (sore throat): The study on the validation of Unani pharmacopoeial formulation *La 'ūq-i-Bādām* was conducted to evaluate its efficacy in cases of *Khushūnat-i-Ḥalq* (sore throat) during 2016–2020. The study drug was given to the subjects orally on empty stomach in the dose of 7 g twice a day for 14 days, with instruction to not have food for at least 1 hr after medication. Out of 102 cases studied, 88.23% were relieved, 9.80% partially relieved and 1.96% were not relieved.

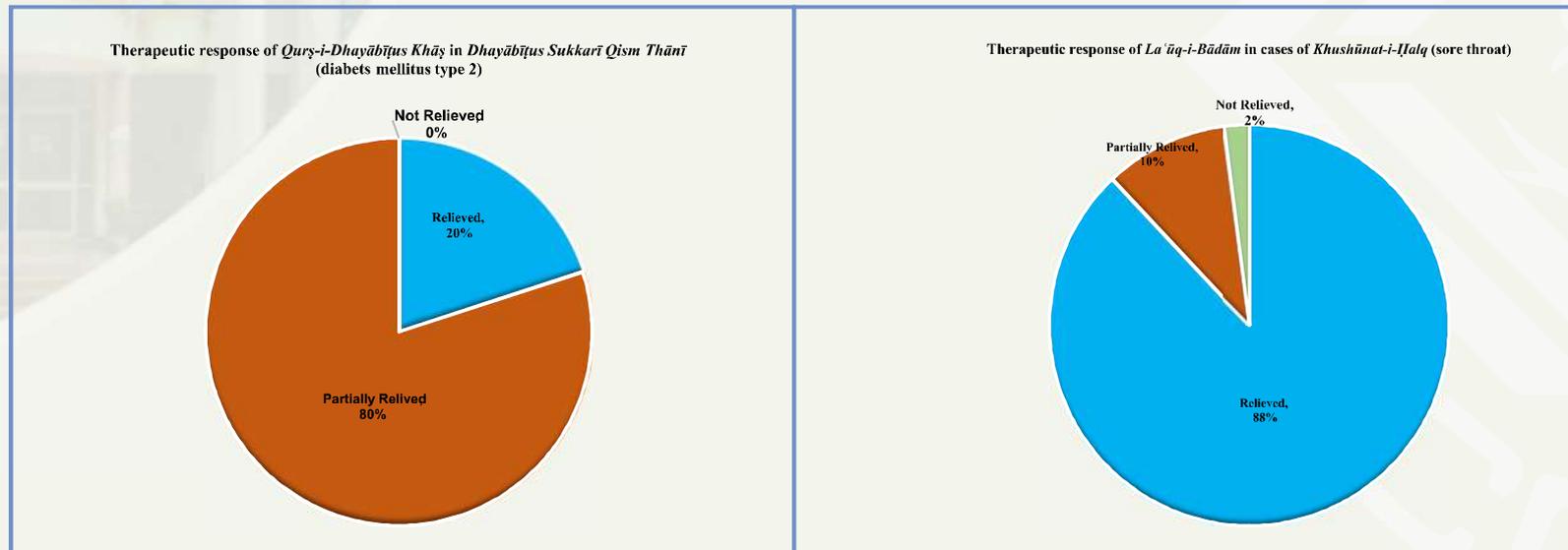
Clinical validation of Unani pharmacopoeial formulation *Khamīra Ābresham Sāda* in cases of *Khafaqān* (palpitation): The study was conducted to validate the safety and efficacy of Unani pharmacopoeial formulation *Khamīra Ābresham Sāda* in

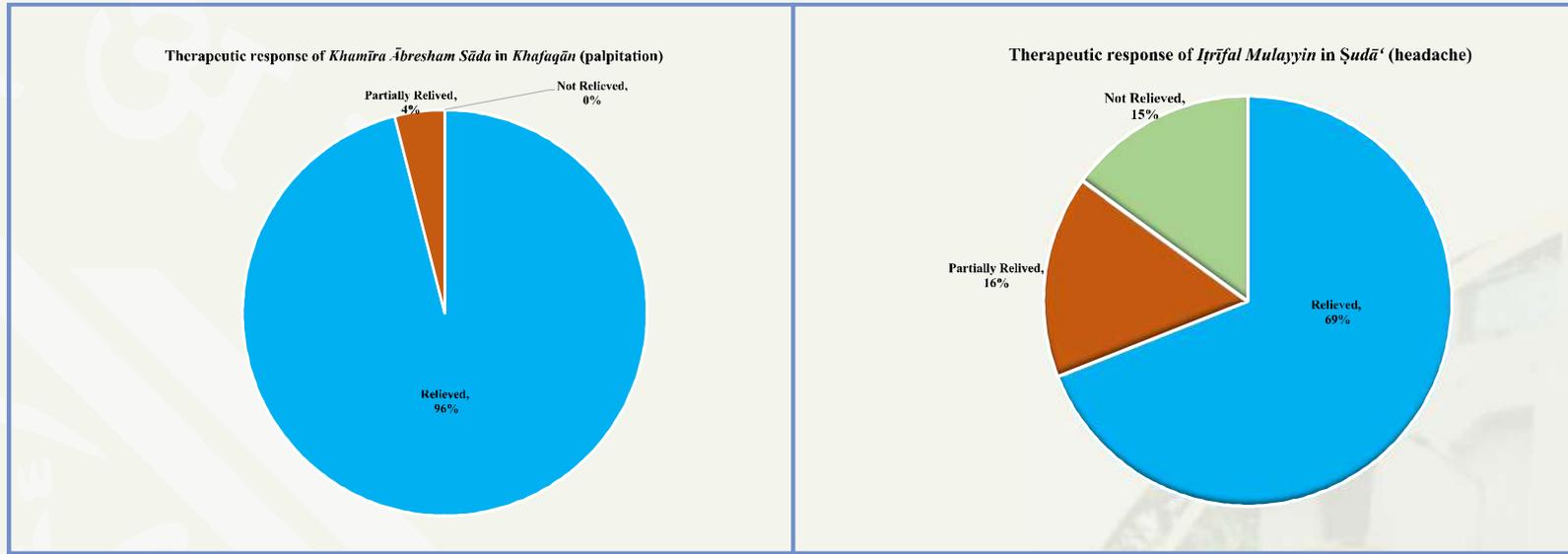


cases of *Khafaqān* (palpitation). The methodology involved administering *Khamīra Ābresham Sāda* 5 g twice daily for 14 days, between December 30, 2017 and May 25, 2020. The results indicated that out of 84 cases, 96.4% experienced relief and 3.6% had partial relief.

Clinical validation of Unani pharmacopoeial formulation *Iṭrīfal Mulayyin* in cases of *Ṣudā* (headache): The study on validation of the safety and efficacy of Unani pharmacopoeial formulation *Iṭrīfal Mulayyin* was carried out during November 21, 2017–March 31, 2020. The study drug *Iṭrīfal Mulayyin* 7 g was orally administered at bedtime daily for 7 days. Out of 86 cases, 68.6% found relief, 16.3% had partial relief, and 15.1% did not experience relief.

Clinical validation of Unani pharmacopoeial formulation *Ḥabb Bawāsīr ‘Amyā’* in *Bawāsīr ‘Amyā’* (non-bleeding piles): The study was conducted to validate Unani pharmacopoeial formulation *Ḥabb Bawāsīr ‘Amyā’* in *Bawāsīr ‘Amyā’* (non-bleeding piles) during 2017–2021. The methodology involved administering 2 tablets of *Ḥabb Bawāsīr ‘Amyā’* to *Bawāsīr ‘Amyā’* (non-bleeding piles) patients twice daily for 14 days. The results indicated that out of 80 cases studied, 73.7% were relieved, 17.5% had partial relief, and 8.8% did not experience relief.





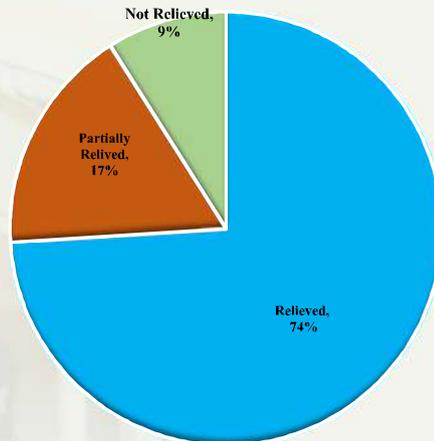
Clinical validation of Unani pharmacopoeial formulation *Ma jūn Najāḥ* in *Mālankhūliyā* (mixed anxiety depressive disorder): The clinical validation of Unani pharmacopoeial formulation *Ma jūn Najāḥ* in cases of *Mālankhūliyā* (mixed anxiety depressive disorder) was conducted during 2019–2023. *Ma jūn Najāḥ* 5 g was administered to the subjects twice daily orally for a period of 6 weeks. The results indicated that out of 76 cases, 7.9% found complete relief, 69.7% had relief, and 22.4% had partial relief.

Randomized Controlled Trial (RCT)

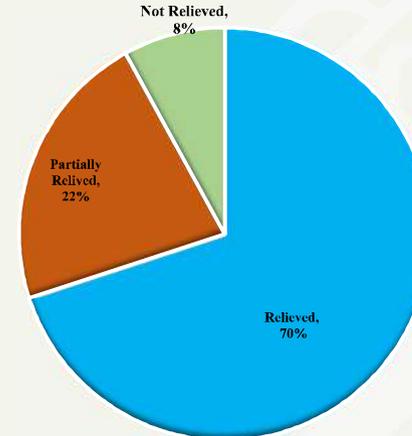
A multi–centric, single blind, randomized, parallel group, comparative study to compare the efficacy and safety of coded Unani formulations UNIM-001 + UNIM-003 with Psoralen in the treatment of *Baraṣ* (vitiligo): A multi-centric, single-blind, randomized, parallel-group comparative study was conducted to assess the efficacy and safety of coded Unani formulations UNIM-001 + UNIM-003 compared to Psoralen in treating *Baraṣ* (vitiligo). The methodology involved administering UNIM-001 to the test group and Melanocyl tablets to the comparator group orally, ranging from one to four tablets, two to three times daily, with each tablet of 800 mg and 10 mg, respectively. Additionally, UNIM-003 and topical



Therapeutic response of *Habb Bawāsīr 'Amīyā'* in *Bawāsīr 'Amīyā'* (non-bleeding piles)



Therapeutic response of *Ma'jūn Najāḥ* in *Mālanḫūliyā* (mixed anxiety depressive disorder)



Melanocyl in lotion form were applied topically for 8 months, followed by exposure to sunlight. This study was conducted between January 23, 2017, and 2019. Among 29 cases evaluated, 10.3% experienced partial relief, while 89.7% showed no relief.

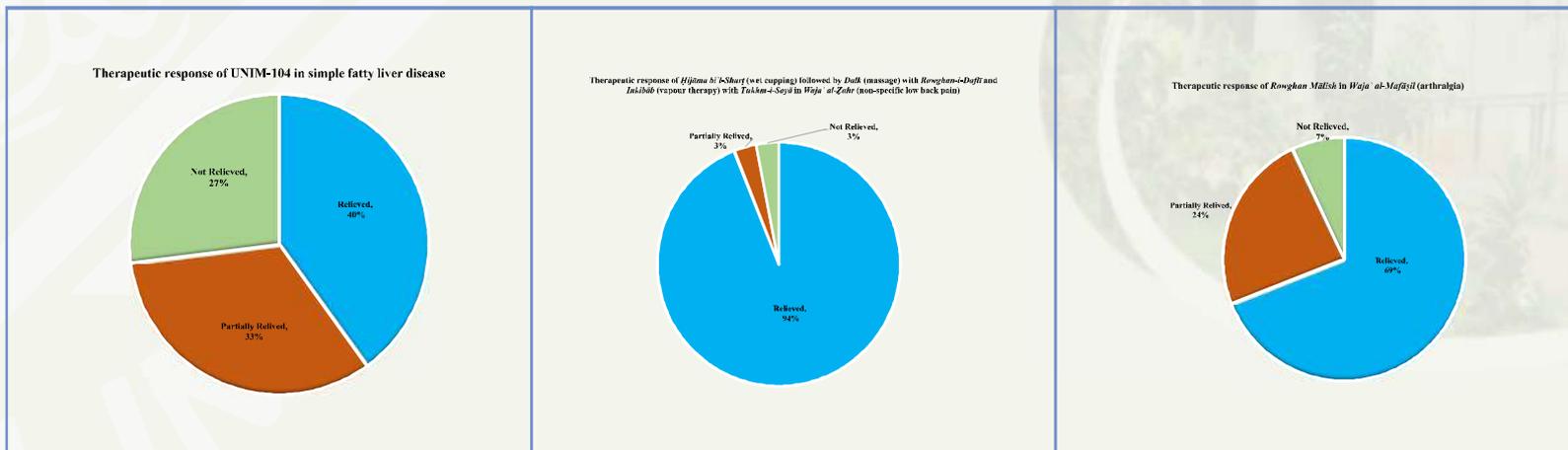
IMR Projects

Preliminary screening clinical study in simple fatty liver disease (FLD) grade-I & II patients with Unani coded drug UNIM-104: A preliminary screening clinical study was conducted on patients with simple fatty liver disease (FLD) grade-I & II using the Unani coded drug UNIM-104. The study aimed to assess the safety and efficacy of UNIM-104 in these patients. The methodology involved administering UNIM-104 in *Ma'jūn* form at a dosage of 5 grams with water twice daily on an empty stomach for a duration of 90 days in an outpatient department setting. This study spanned from 2009 to 2014. Among the 30 cases evaluated, 40% experienced relief, 33.3% reported partial relief, and 26.7% did not experience relief.



Clinical efficacy of combination of *Hijāma bi`l-Sharṭ* (wet cupping) followed by *Dalk* (massage) with *Rowghan-i-Daftī* and *Inkibāb* (vapour therapy) with *Tukhm-i-Soyā* in cases of *Waja` al-Zahr* (non-specific low back pain) – An open prospective pilot clinical trial: An open prospective pilot clinical trial aimed to evaluate the clinical efficacy of a combination therapy involving *Hijāma bi`l-Sharṭ* (wet cupping) followed by *Dalk* (massage) with *Rowghan-i-Daftī* and *Inkibāb* (vapour therapy) with *Tukhm-i-Soyā* in cases of *Waja` al-Zahr* (non-specific low back pain). The methodology involved performing *Hijāma* on day 1 and 8, while *Dalk* with *Rowghan-i-Daftī* followed by *Inkibāb* with *Tukhm-i-Soyā* was performed on 3–7 and 10–14 days of admission. This clinical trial was conducted between January 23, 2018, and March 31, 2020. Among the 31 cases assessed, 93.6% experienced relief, 3.2% reported partial relief, and 3.2% did not find relief. The study findings have been published in the Journal of Complementary and Integrative Medicine.

Evaluation of analgesic and anti-inflammatory activity of *Rowghan Mālīsh* in cases of *Waja` al-Mafāṣil* (arthralgia) – A pilot study: A pilot study was conducted to evaluate the analgesic and anti-inflammatory activity of *Rowghan Mālīsh* in cases of *Waja` al-Mafāṣil* (arthralgia). The methodology involved advising patients to apply *Rowghan Mālīsh* 2.5 ml over the affected joint (5 ml if two joints were involved) with increased pain, followed by gentle massage for 5 minutes in a circular motion twice daily for a duration of 2 weeks. This study was conducted between February 22, 2020, and February 25, 2022. Among the 58 cases examined, 69.0% experienced relief, 24.1% reported partial relief, and 6.9% did not find relief. The results have been published in the Journal of Natural Remedies.



Collaborative Research Projects

- The institute collaborated with the Central Malaria Laboratory, Corporation of Chennai, conducting a study involving 30 cases positive for malarial parasite. Among these cases, 23 were positive for plasmodium vivax, 6 for plasmodium falciparum, and 1 positive for both. The drug UNIM-152 (HE-4) demonstrated 87% therapeutic efficacy, with no recurrence of symptoms during follow-up. The drug was deemed safe and well-tolerated.
- A double blind placebo controlled trial was conducted in collaboration with the Department of Medicine, Govt. General Hospital, Chennai in cases with filariasis during which comparison was made between the efficacy of Di-ethyl carbamazine citrate and the Unani formulation.
- Toxicological studies on UNIM-115 in experimental rats were conducted in collaboration with the Department of Microbiology at Dr. A.L.M. PG Institute of Basic Medical Sciences, University of Madras, Chennai. The study revealed the non-toxic nature of the drug, with no adverse effects observed in biochemical parameters or histopathological studies. The drug was well-tolerated by the animals.
- Under the memorandum of understanding between the CCRUM and Indian Council of Medical Research (ICMR), a study on drug-sensitive and multidrug-resistant pulmonary tuberculosis patients was initiated in collaboration with the National Institute for Research in Tuberculosis (ICMR-NIRT), Chennai. The study involved animal studies to generate safety data before human trials. The study results indicated that the co-administration of Unani formulations *Qurṣ Ṭabāshīr Saraṭānī* and *'Araq Harā Bharā* with antitubercular (CAT-1) drugs improved liver and kidney functions and increased plasma levels of RIF, an essential drug for mycobacterial sterilization. These promising findings suggest a potential for pharmacokinetic studies in humans and have been published in the Journal of Complementary and Integrative Medicine.
- In-silico studies were conducted using four Unani formulations, *Triyāq Wabā'ī*, a novel Unani formulation, *Triyāq Arba'a*, and *'Araq 'Ajīb* containing 40 phytoconstituents, against SARS-COV-2, assessing their interaction with essential viral proteins. Molecular docking identified potential phytoconstituents in these formulations that could inhibit key SARS-CoV-2 proteins, indicating potential avenues for further in vitro and in vivo studies. These findings were published in the Journal of Complementary and Integrative Medicine and the Journal of Drug Delivery and Therapeutics.

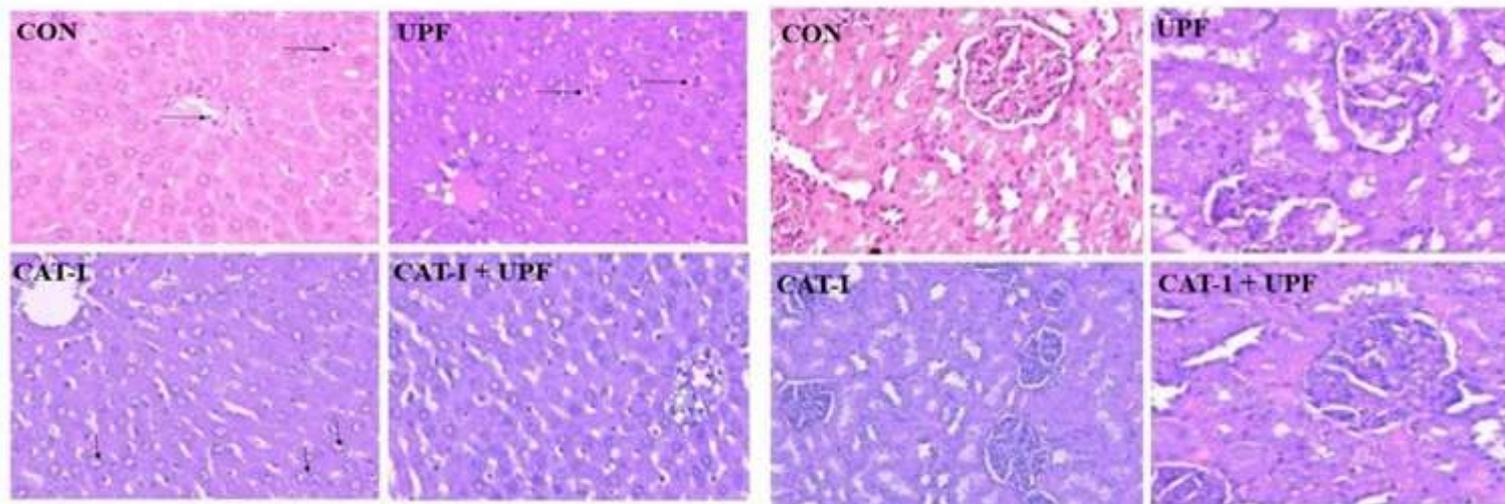


Effects of co-administration of *Qurs Tabāshīr Saraṭānī* and (*Araq Harā Bharā*) with CAT-I anti-tubercular drugs in rats

Table 1: ATT drug level estimation in the plasma of the experimental rats.

ATT drugs, µg/mL	14th day (n=8)		60th day (n=10)		180th day (n=10)	
	CAT-I	CAT + UPF	CAT-I	CAT + UPF	CAT-I	CAT + UPF
RIF	2.29 ± 1.4	3.1 ± 1.6	6.19 ± 4.6	4.82 ± 2.1	7.96 ± 3.3 ^a	22.31 ± 13.1 ^a
INH	2.37 ± 1.1	1.36 ± 1.0	5.51 ± 3.3	2.31 ± 1.3	19.77 ± 8.4 ^a	19.12 ± 5.9 ^a
PZA	51.81 ± 11.2	54.88 ± 16.7	69.3 ± 21.9	47.49 ± 29.2	NA	NA

RIF, rifampicin; INH, isoniazid; PZA, pyrazinamide. PZA was not administered for continuous phase and hence the value was not available (NA). Values expressed as mean ± standard deviation. Tests used two-way ANOVA with Bonferroni post hoc tests. ^aThe values only with different superscripts at a given time point are statistically significantly different (p<0.05).



Liver histomicrographs

Kidney histomicrographs



- A new experimental study, in collaboration with ICMR-NIRT, Chennai, titled "Evaluation of anti-tubercular and immunomodulatory activities of Unani pharmacopoeial formulations (UPF) *Qurs Ṭabāshīr Saraṭānī* and '*Araq Harā Bharā* through in-vitro and in-vivo studies," has been approved and initiated. The objective is to validate the anti-tubercular and immunomodulatory activities of the Unani drugs alone and in combination with Rifampicin and INH drugs through in-vitro and in-vivo studies.

Ongoing Research Projects

1. Single blind, randomized, parallel group study to compare efficacy and safety of Unani formulation Capsule *Shaqīqa* with Divalproate in patients with *Shaqīqa* (migraine)
2. Clinical validation of Unani pharmacopoeial formulation *Ma 'jūn Ḥajar al-Yahūd* in *Ḥaṣā al-Kulya* (nephrolithiasis)
3. Clinical validation of Unani pharmacopoeial formulation *La 'ūq Ḍīq al-Nafas* in *Ḍīq al-Nafas* (bronchial asthma)
4. Clinical validation of Unani pharmacopoeial formulation *Iṭṛīfal Kabīr* in *Ḍu 'f-i-Dimāgh* (cerebro-asthenia)
5. Clinical validation of Unani pharmacopoeial formulation *Ma 'jūn Adharāqī* and *Rowghan Surkh* in patients of *Waja ' al-Mafāṣil* (rheumatoid arthritis)
6. Clinical validation study to evaluate the efficacy and safety of Unani pharmacopoeial formulation *Rowghan Banafsha* in *Sahar* (insomnia)
7. Clinical validation of Unani pharmacopoeial formulation *La 'ūq Fālij* and *Rowghan Mom* in *Fālij* (hemiplegia)
8. Clinical validation of Unani pharmacopoeial formulation *Tiryāq Raḥim* in *Sayalān al-Raḥim* (leucorrhoea)
9. Shelf-life study on five commonly used Unani pharmacopoeial formulations (IMR project)
10. A single blind, randomized, parallel group study to compare efficacy and safety of Unani Medicine Kit formulation *Qurs Mulayyin* with Dulcolax in patients with *Dā 'imī Qabḍ* (chronic constipation)



General OPD Programme

The institute operates a comprehensive Outpatient Department (OPD) dedicated to providing Unani treatments for common ailments and selecting cases for research studies. Patients receive treatment for common and seasonal ailments through various specialized OPDs including General, Research, Geriatric, Mother & Child Healthcare, NCD, and Post-Trial Access OPD. With a fully equipped 49-bed hospital facility, the institute utilizes this space for research patient admissions in the Inpatient Department (IPD) as well as accommodating general cases.



Reception



OPD Block

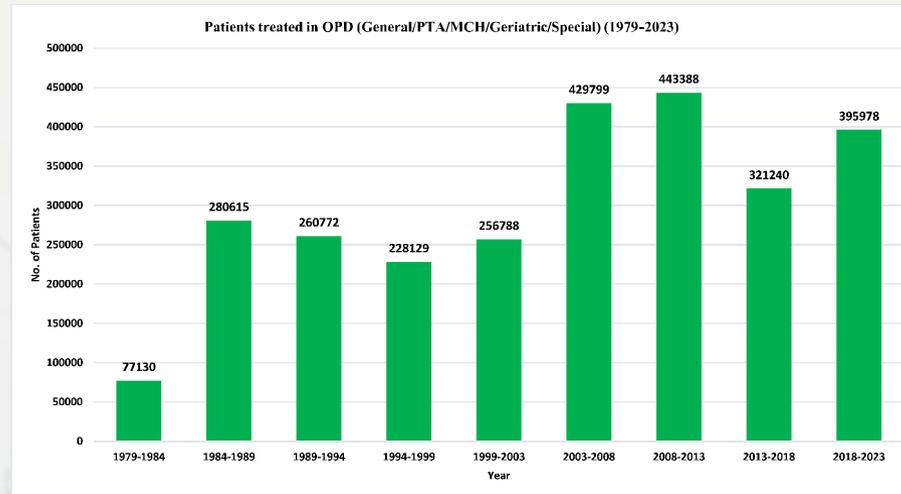


IPD (Male Ward)



IPD (Female Ward)





Mobile Clinical Research Programme

The Mobile Clinical Research Unit (MCRU) operates under a mobile research programme aimed at providing healthcare to economically disadvantaged populations residing in rural areas and sub-urban slums of Chennai, where healthcare accessibility is limited. This unit offers Unani Medicine-based treatments directly at the doorsteps of the communities in need. Additionally, the MCRU conducts health surveys to assess morbidity. To date, over 300,000 patients from 35 rural and sub-urban slums have received treatment through this initiative.



Two major projects, *Swasthya Rakshan Parikshan* Programme (SRPP) & Scheduled Caste Sub Plan (SCSP), are integral parts of this programme:

SRPP: Benefitted 24,922 patients (Implemented during the period 2016 – 2019)

SCSP: Benefitted 59,242 patients (Under implementation since 2018)

School Health Programme

Initiated with the primary objective of conducting health check-ups for school children, the School Health Programme focuses on screening for nutritional disorders, providing treatment for ailments, and fostering health awareness through informative lectures. To date, the programme has conducted 91 school health visits, examining and treating 16,673 children for various health issues using Unani medicines.



School Health Checkups



‘Ilāj bi’l Tadbīr (Regimenal Therapy)

The RRIUM, Chennai operates a comprehensive ‘Ilājbi’l Tadbīr (Regimenal Therapy) Unit located on the second floor of the main building. This unit specializes in treating patients with various ailments using diverse Unani regimens such as *Dalk* (massage), *Hijāma* (cupping), *Irsāl-i-‘Alaq* (leech therapy), *Naṭūl* (irrigation), *Inkibāb & Takmīd Bukhārī* (steam inhalation & steam fomentation), among others.





Ḥammām Block (Traditional Bath House)

A pioneering initiative within the CCRUM, the *Ḥammām* block spanning 400 sq. meters is being developed at the institute for the benefit of the public, catering to both prophylactic and therapeutic purposes. The construction of the building has been completed, and the establishment is currently in progress. The primary objective behind establishing the *Ḥammām* block is to offer detoxification therapy through various medicated baths, as described in Unani classics, to address a spectrum of medical conditions.



Ḥammām Block



Pharmacy

A pharmacy block spanning 550 square meters has been newly constructed within the institute's campus. This facility is furnished with cutting-edge machinery and equipment, fully operational to meet various objectives. The primary aim is to establish a state-of-the-art, GMP-certified pharmacy capable of manufacturing research medicines, pharmacopoeial medicines, and post-trial access medicines. This facility serves the in-house requirements and extends support to different peripheral institutes of the CCRUM. Recently, the institute obtained licensing and GMP certification for the manufacturing of Unani formulations.



Pathology and Biochemistry Laboratory

Pathology and Biochemistry Unit is fully equipped with advanced instruments and equipment. It specializes in providing clinical biochemistry, clinical haematology, and clinical pathology services, aligning with the institute's service scope. These services primarily cater to the pathological and biochemical investigations required for various ongoing clinical research studies. Additionally, these services are available to general patients visiting the institute's Outpatient Department (OPD) at a nominal cost. Notably, the Biochemistry lab has achieved NABL M(EL)T Lab certification from the National Accreditation Board for Testing and Calibration Laboratories (NABL), a Constituent Board of Quality Council of India, Government of India, on March 21, 2023.



Pathology Lab



Biochemistry Lab

Drug Standardization Research Unit (DSRU)

The Drug Standardization Research Unit is dedicated to establishing pharmacopoeial standards for both Unani single and compound drugs. Its activities encompass pharmacognostical, microbiological, and chemical studies, alongside the development of Standard Operating Procedures (SOPs) for Unani compound formulations. Furthermore, the unit conducts quality control studies by testing internal and external drug samples in its approved drug testing laboratory, authorized by the State Drug Licensing Authority of Indian Medicine, Chennai, Government of Tamil Nadu.





Drug Museum



Instrumentation Room - 2

To date, the unit has studied 267 single drugs and 430 compound formulations. Additionally, it has published 66 monographs on SOPs of Unani compound formulations in the Unani Pharmacopoeia of India.

Survey and Cultivation of Medicinal Plants Unit (SMPU)

The Survey and Cultivation of Medicinal Plants Unit at the institute is dedicated to exploring the medicinal plant wealth in forest areas across various districts of Tamil Nadu and neighbouring states. During these surveys, researchers not only gather medicinal plants but also document folklore claims from tribal communities residing in forest areas and local villages. Moreover, the unit actively supplies substantial quantities of raw drugs to various Institutes/Units within the CCRUM, catering to the needs of pharmacy units.

Additionally, the unit preserves authentic samples of Unani raw drugs collected from the field as museum specimens. The institute boasts a vibrant herbal garden, a meticulously maintained museum, and a comprehensive herbarium section. The focus remains on the conservation and propagation of endangered, vulnerable, rare, and threatened medicinal plants, especially those used in Unani Medicine.



To date, the unit has conducted surveys in 25 forest areas, collecting 932 identified species and documenting over 25,000 herbarium sheets. Furthermore, 615 species have been collected through folklore claims, and experimental cultivation has been initiated for 12 plant species. The unit actively engages in digitizing herbarium sheets and conducts awareness meetings and training sessions for farmers on the cultivation and marketing of medicinal plants.



Experimental Cultivation of Medicinal Plants in Herbal Garden



Herbarium Documentation & Digitalization



Regional Raw Drug Repository (RRDR) – Southern Plateau Region

The institute collaborates as a partner in an NMPB-sponsored project titled “Establishment of Regional Raw Drug Repository (RRDR) – Southern Plateau Region” led by the National Institute of Siddha (NIS), Chennai, in association with the Siddha Central Research Institute, Chennai. This project is focused on the sustainable utilization and conservation of medicinal plants. The institute's role primarily involves the collection of raw drugs used in ASU&H (Ayurveda, Siddha, Unani & Homeopathy) systems from territorial and wild forests within the southern plateau regions. These collected raw drugs will contribute to the establishment of the repository at NIS, Chennai.



Regional Raw Drug Repository (RRDR-Southern Plateau)



Pharmacovigilance Unit

The institute houses a robust Pharmacovigilance Unit operating under the Central Sector Scheme for Pharmacovigilance of Ayush drugs, governed by the Ministry of Ayush, Government of India. Designated as a Peripheral Pharmacovigilance Centre (PPvC) for Unani drugs in January 2018, the unit diligently reports adverse drug reactions (ADRs) and scrutinizes misleading or objectionable advertisements. Moreover, the unit conducts awareness lectures and workshops, aiming to foster a reporting culture among stakeholders including practitioners, pharmacists, health workers, and patients.

The PPvC at RRIUM, Chennai, spearheads the monitoring and reporting of ADRs and misleading advertisements associated with ASU&H drugs. It stands as the sole Unani center in the state governed by the Ministry of Ayush, Government of India, for pharmacovigilance activities. The institute is dedicated to ensuring the safe administration of drugs to visiting patients. Since its establishment, the center has reported 16 ADRs, identified 614 misleading advertisements, and organized 23 awareness programmes, webinars, and seminars for Ayush practitioners and stakeholders. The institute has been honoured with the "Best Performing Peripheral Pharmacovigilance Centre" award for the year 2020.



Awareness Programme on Pharmacovigilance 2019



IEC & Outreach Activities

Besides its core activities of research and development, the institute is also engaged in carrying out information, education and communication (IEC) and outreach activities including organization of seminars, webinars, health camps, public lectures, health awareness programmes, health exhibitions, and health events for the benefit of public. The institute also implements the mandate of promoting Hindi language through workshops, Hindi fortnight campaigns, Hindi Diwas events, etc. Moreover, it executes different flagship programmes of the Govt. of India like Swachh Bharat Abhiyan, Poshan Maah, Ayush for Immunity Campaign and Vigilance Awareness Campaign. Furthermore, it organizes in-house training programmes, journal club meetings, technical meetings, etc. for the benefit of its technical officers and staff.

National Seminars / Conference / Workshops / Training Programmes

The institute organizes training programmes for its research personnel on Unani Medicine, bio-statistics, bio-medical ethics, intellectual property rights, pharmacy, hospital management and COVID-19. Besides, the institute deputed its personnel to various refresher courses and reorientation training programmes in the field of clinical research, medical laboratory technology, immunology, ethno-botany, bio-statistics, information technology (IT) and hospital / office administration. Some of the programmes organized are as follows:

- Reorientation training programme on biostatistics in 1992
- Two one-month reorientation training programme for ISM personnel during April 10–May 09, 1999 and March 02–31, 2000
- Popular lecture series on Unani Medicine starting from January 23, 2002
- The institute deputed its researchers to an IEC programme organized at Sivagangai District, Tamil Nadu and trained 45 field NGO's from 5 southern districts of Tamil Nadu through a 2-day orientation training programme on Unani Medicine held on February 27–28, 2002.
- National workshop on intellectual property rights in Unani Medicine on March 23, 2014
- Two certificate courses in *Hijāmah* (cupping) therapy in August and September 2016
- Two one-day training programs on '*Ilāj bi'l Tadbīr*' (cupping therapy) in 2016 and 2019
- National seminar on 'pharmacovigilance of ASU drugs - emerging trends and future prospects' on November 20, 2019
- National webinar on drug development in Unani Medicine on January 27, 2022



- National webinar on bioethics with emphasis on GCP guidelines on February 05, 2022
- National seminar on intellectual property rights on March 30, 2022
- One-day workshop on understanding NABH/ NABL accreditation on January 12, 2023
- One-day workshop-cum-hands-on training in Unani pharmacy for Unani medical practitioners and students on January 25, 2023
- One-day national workshop on “integrative operating procedures for raw drug repositories” on February 03, 2023
- One-day awareness programme on NABL accreditation for Ayush scientists of South Zone on February 21, 2023
- National seminar on current trends in standardization and quality control of ASU drugs on July 04, 2023
- National seminar on pharmacovigilance of ASU drugs with the theme ‘Good pharmacovigilance practices - Ensuring medication without harm’ on November 23, 2023



Seminar on Bio-Medical Ethics & IPR (2009)



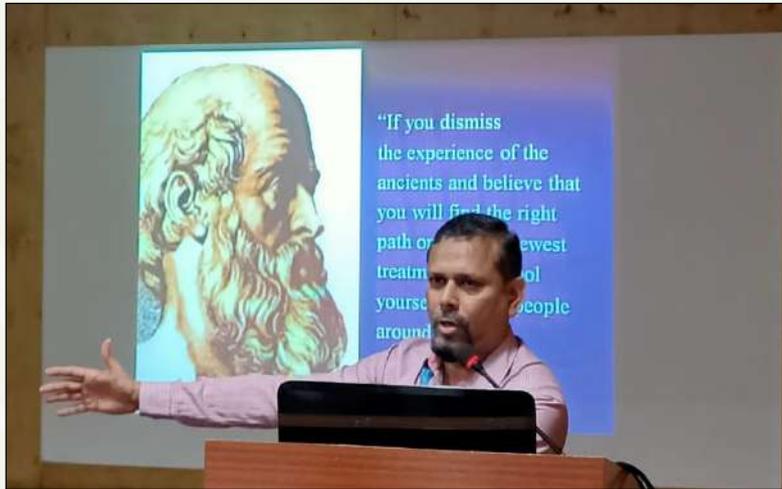


Seminar on Pharmacovigilance, 2019



National Seminar on Pharmacovigilance of ASU&H Drugs





Training Programme on *‘Ilāj bi’l-Tadbīr*



Certificate Course on *Hijāma* (2016)



Scientific Papers Presented / Published

The researchers of the institute working in various fields of Unani Medicine, pathology, bio-chemistry, pharmacology, pharmacognosy, botany and drug standardization participate in national and international seminars / conferences and present study findings and publish them in peer-reviewed scientific journals. Since inception of the institute, they have presented 245 papers and published 173 research papers.

Exhibitions / Health Camps / Arogya

To popularize Unani Medicine in general and CCRUM's activities in particular among the masses and to have interaction with other scientific organizations, the institute has participated in 35 exhibitions/Arogyas and over 50 health melas and organized 99 health camps. The institute also organized flood relief medical camp during Chennai floods on December 16, 2015. A total of 326 patients were treated for various seasonal ailments.

As part of Azadi ka Amrit Mahotsaw, the institute organized a campaign for distribution of prophylactic Ayush medicines and guidelines on diet and lifestyle with special focus on geriatric population from August 30–September 05, 2021.

- No. of cases registered - 11,000
- Unani drug (*Khamīra Marwārīd*) distributed with pamphlets - 11,000
- No. of pamphlets on guidelines for diet and lifestyle distributed - 32,156
- No. of Google forms submitted - 11,000





Participation in Arogyas and Exhibitions



Flood Relief Camp



Health Camp





Azadi ka
Amrit Mahotsav
Celebration

Public Awareness Programmes

Important occasions such as World AIDS Day, Health Day, Diabetes Day, Elderly Day, Women's Day, World Patient Safety Day, Poshan Maah, Swachhta Pakhwada, Vigilance Awareness Week are observed periodically at the institute to create public awareness about different health related issues.

Pulse Polio Programme

In collaboration with the Corporation of Chennai, Royapuram Health Zone, the institute has been actively participating in intensive oral pulse polio immunization programme. The institute has conducted 21 Polio vaccination drive for public.

COVID-19 Vaccination Programme

In collaboration with the Corporation of Chennai, Royapuram Health Zone, the institute has conducted 3 COVID-19 vaccination drives for staff and public.



Polio Camp





COVID-19 Vaccination Camp



Unani Day



Achievements

Clinical Achievements

- No of patients treated in GOPD/PTA/
Geriatric/NCD/MCH OPD : 26,93,839
- No. of patients admitted in IPD : 20,875
- No. of patients treated in research studies : 6,882
- Participation in Arogya/health exhibitions : 36
- No. of health melas organized : 50
- No. of free health camps conducted : 101
- No. of health events celebrated : 43
- No. of Polio immunization camps conducted : 21
- Training on regimenal therapy (cupping) : 5
- No. of NABH orientation trainings organized: 27

Drug Standardization

- Number of compound formulations
standardized : 430
- Number of single drugs standardized : 267
- Number of quality control sample analyzed
(from 2010) : 347
- Number of DTL samples analyzed
(from 2010) : 256

- Number of single drugs published in Unani
Pharmacopoeia of India : 11
- SOP for compound formulations
published in Unani Pharmacopoeia of India : 55

Survey and Cultivation of Medicinal Plants

- Ethno-pharmacological surveys of different
forest areas : 3 States
- Number of districts surveyed : 19
- Number of forest divisions surveyed : 21
- Plants specimen collected representing
medicinal taxa : 932 species
- Sample of authentic raw drugs collected : 210
- Medicinal folk claims collected from
different tribes : 615 species
- Conducted experimental and field scale
cultivation of important Unani
medicinal plants : 12
- Number of farmers meets and training
programmes on cultivation and marketing
of medicinal plants : 10
- Herbarium specimens documented and
arranged as per the Bentham and Hookers
system of classification : 25,000
- Digitalization of herbarium sheets : 715 species



- Monographs / books on medicinal plants / folklore claims published : 5

Research Achievements

- Best Research Paper Awards : 5
- Seminars/conferences organized : 17
- Scientific papers presented : 245
- Number of monographs published : 59
- Number of webinars conducted : 19
- Number of papers published : 173
- Guest lecturers conducted : 58
- Journal clubs / technical lectures conducted : 169

Developmental Achievements

- *Ilāj bi'l-Tadbīr* (Regimenal Therapy) Unit established and made fully functional

- A state-of-the-art pharmacy block established and made fully functional, licensing and GMP certification recently acquired for manufacturing Unani formulations from the State Drug Licensing Authority of Indian Medicine, Chennai
- Establishment of *Hammām* Block (Traditional bath house) in progress
- Successful implementation of AHMIS
- Establishment of Peripheral Pharmacovigilance Centre
- Establishment of pre-clinical laboratory is under progress (under PMJVK)
- Proposal for up-gradation of facilities to 'Centre of Excellence in Musculoskeletal Disorders' at RRIUM, Chennai, Tamil Nadu submitted under Ayushgyan

Prizes and Awards

The institute has won the following awards:

- Shifaul Mulk Hakim Makhdum Ashraf Rolling Shield for its significant leads in the field of clinical research. This was awarded at the Seventh Seminar on Unani Medicine organized by the CCRUM in Mumbai in February 1992.
- Certificate of distinction and a memento for the exhibition put up at INFORMAX – 87, organized at the University of Madras, Chennai in 1987.
- Hakim Syed Niamathullah Rolling Shield for ethno-botanical research at the Fourth Scientific Seminar of the CCRUM held at Aligarh in February 1985.
- Mr. S R Nayar, Research Officer (Botany) won a cash award of Rs. 500/- for the paper "Enumeration of Unani medicinal



plants of Vellore Forest Division, North Arcot District – A preliminary report” at the Fourth Scientific Seminar of the CCRUM held in February 1985 at Aligarh Muslim University, Aligarh. Mr. Nayar also won a special prize of Rs. 200/- for the best presentation.

- Cash award of Rs. 500/- was awarded to the paper “Experimental cultivation of *Atrilal (Ammi majus L.)*” presented by Mr. Viquar Ahmad at the Third Scientific Seminar of the CCRUM, held at Chennai in 1982.
- A cash award of Rs. 500/- was awarded to Dr. M. Abdul Kareem, Research Officer (Bio-Chemistry) for best scientific paper presentation in National Seminar on Recent Advances in Unani Medicine at New Delhi held during November 3–5, 1995.
- A cash award of Rs. 1000/- was given to Mr. A. Ramasamy, Research Officer (Chemistry) for best scientific paper presentation in National Seminar on R & D in Unani Medicine – An Appraisal at New Delhi during February 24–25, 2000.
- The institute received Best Display Award in Arogya 2005 (health mela) at Trivandrum, Kerala during December 24–27, 2005.
- Mr. R. Murugeswaran, Research Officer (Botany) received Best Research Paper Presentation Award from Tamil Nadu Agricultural University, Coimbatore on March 18, 2006.
- A Gold Medal was presented to Dr. N. Zaheer Ahmed, Research Officer (Unani) for “Best Researcher” from Tamil Nadu by Hamdard Laboratories during its centenary year celebrations in National Conference on Unani Medicine at Chennai on January 21, 2007.
- The institute received Best Display Award in Swasthya Bharat (Health Mela) at Kochi, Kerala during October 09–15, 2007.
- The institute received Best Display Award in Arogya 2008 (Health Mela) at Coimbatore, Tamil Nadu during August 21–24, 2008.
- Best Performance Award at Swasraya Bharath – 2009, November 2009, Kochi, Kerala.
- Special Appreciation Award at Natural Food and Agro Bio Diversity organized by CISSA in February 2010 at Kozhikodu, Kerala.
- Dr. N. Zaheer Ahmed, Deputy Director was conferred with Ayush Award for Best Paper Publication in Literary Research for his paper “An Insight on Malankholia (Melancholia) – Unani Perspective” published in Journal of Psychiatry, 2015; 18 (6):1-5.
- Dr. N. Zaheer Ahmed, Deputy Director, RRIUM, Chennai was conferred with Best Research Paper Presentation Award along with the Award for Best Paper from Unani Stream for “Therapeutic evaluation of Unani coded drug “UNIM – 104” in



cases of non-alcoholic fatty liver disease (NAFLD) – A preliminary clinical trial” in International Ayush Conference & Exhibition 2017 held in Dubai, UAE during November 9–11, 2017.

- Dr. Noman Anwar, Research Officer (Unani) was conferred with “Best Research Paper Award in Drug Research Category” by the CCRUM, Ministry of Ayush, Govt. of India for the year 2018.
- The RRIUM, Chennai was recognized as the Best Performing Peripheral Pharmacovigilance Centre by Ayush Suraksha Report, June 2020 of the Ministry of Ayush, Govt. of India.
- Dr. Noman Anwar, Research Officer (Unani) was awarded the Certificate of Appreciation by the National Pharmacovigilance Coordination Centre (NPvC), All India Institute of Ayurveda, Ministry of Ayush, Govt. of India for 4 consecutive years (2018–2019, 2019–2020, 2020–2021, 2021–2022) in recognition of his services as Coordinator of PPvC, RRIUM, Chennai.



Best Research Paper Awards



Accreditation With National / International Agencies

- The institute's chemistry laboratory is officially endorsed by the Drug Controller, State Drug Licensing Authority of Indian Medicine, Chennai, under the Government of Tamil Nadu. It is recognized as one of the drug testing laboratories authorized to examine Ayurveda, Siddha, and Unani (ASU) drug samples.
- The Institutional Ethics Committee (IEC) at RRIUM, Chennai, is registered with the National Ethics Committee Registry for Biomedical and Health Research (NECRBHR), operated by the Department of Health Research (DHR) under the Ministry of Health and Family Welfare, Government of India.
- The RRIUM, Chennai, has been granted the certificate and status of being a NABH- accredited hospital on July 26, 2022, by the National Accreditation Board for Hospitals and Healthcare Providers (NABH), a Constituent Board of the Quality Council of India, Government of India.
- The institute's pharmacy unit has obtained a license and GMP certification on February 17, 2023, for manufacturing Unani formulations from the State Drug Licensing Authority of Indian Medicine, Chennai, under the Government of Tamil Nadu.
- The biochemistry laboratory of the institute achieved the certificate and status of NABL M(EL) T Labs on March 21, 2023, from the National Accreditation Board for Testing and Calibration Laboratories (NABL), a Constituent Board of the Quality Council of India, Government of India. Efforts are underway to secure NABL accreditation for other medical and drug laboratories.



List of Deputy Director / Heads of the Institute

S. No.	Name	Duration
1.	Prof. Hakim Syed Khaleefathullah	18.07.1979–04.02.1999
2.	Dr. Gowher Sultana	05.02.1999–04.07.2005 & 23.10.2007–30.04.2011
3.	Dr. Darakshid Alam	05.07.2005–22.10.2007
4.	Dr. M. Abdul Kareem	01.05.2011–07.02.2012
5.	Dr. Syed Jameeluddin Ahmed	08.02.2012–20.12.2012, 01.09.2013–22.03.2015 & 01.09.2016–17.02.2017
6.	Dr. Rafath Mahmooda	21.12.2012–31.08.2013
7.	Dr. M. A. Raheem Rafeeq	23.03.2015–29.02.2016
8.	Dr. Mohammed Ismail	01.03.2016–31.08.2016
9.	Dr. Asiya Khanum	18.02.2017–09.08.2017
10.	Dr. N. Zaheer Ahmed	10.08.2017– 01.6.2023
11.	Dr. K. Kabiruddin Ahmed	02.06.2023– Present

List of Regular and Contractual Officers and Staff

S. N.	Name	Designation	Regular / Contractual
Clinical Section			
1.	Dr. K. Kabiruddin Ahmed	Research Officer (Unani) Scientist-IV & Incharge	Regular
2.	Dr. Noman Anwar	Research Officer (Unani) Scientist-II	Regular
3.	Dr. Athar Parvez Ansari	Research Officer (Unani) Scientist-II	Regular





S. N.	Name	Designation	Regular / Contractual
4.	Dr. Mohammed Saquib	Research Officer (Unani)	Regular
5.	Dr. Farooqui Shazia Parveen	Research Officer (Unani)	Regular
6.	Dr. A. Farhath Fathima	Research Associate (Unani)	Contractual
7.	Dr. H.M. Waseem Ahmed	Research Associate (Unani)	Contractual
8.	Dr. Abdullah Nasir	Senior Research Fellow (Unani)	Contractual
9.	Dr. Thaseen Begum	Senior Research Fellow (Unani)	Contractual
10.	Dr. Muzammil Ahmed	Junior Research Fellow (Unani)	Contractual
11.	Dr. Sumaiya Kouser	Junior Research Fellow (Unani) – PPvC	Contractual
12.	Dr. Mubeen	Junior Research Fellow (Unani)	Contractual
13.	Dr. Mohammed Ibrahim	Junior Research Fellow (Unani)	Contractual
Hospital Section			
14.	Mrs. Parveen Tabassum	Staff Nurse	Regular
15.	Mrs. Rabidha Banu	Staff Nurse	Regular
16.	Mrs. S. Subashini	Staff Nurse	Contractual
17.	Mrs. Nilofar Nisha	Staff Nurse	Contractual
18.	Mr. Anas Ali KB	Social Worker	Contractual
19.	Mr. Syed Saleem Batcha	Dresser	Regular
20.	Mr. K. Mahadevan Pillai	Cook	Regular
21.	Mr. S. Mohd Shakeel	Ward Boy	Regular



S. N.	Name	Designation	Regular / Contractual
22.	Mr. Karthick.V	Ward Boy	Contractual
23.	Mr. M. Essaki Selvan	Safaiwala	Regular
24.	Mr. P. Mani	Kitchen Servant	Regular
25.	Mrs. Shahanaz Begum	Kitchen Servant	Contractual
26.	Mr. Balaji Sethupandian	IT Consultant	Contractual
27.	Mr. Riyaz Ahmed	Data Entry Operator (Reception)	Contractual
28.	Mr. Md. Eliyas Basha	Data Entry Operator (Reception)	Contractual
29.	Mrs. Rownakh Fathima	Assistant (IPD)	Contractual
30.	Mr. Mohammed Asiff	Assistant (SCSP)	Contractual
31.	Mr. Abdul Nizam	Multi Task Attendant (SCSP)	Contractual
32.	Mr. Md. Sabeel	MTS (IPD)	Contractual
33.	Ms. Sufiyah Sulthana	MTS (IPD)	Contractual
34.	Ms. Alina	MTS (IPD)	Contractual
35.	Mr. Balaji P	MTS (IPD)	Contractual
Pharmacy Section			
36.	Mrs. Nazia Kouser Nathamkar	Compounder	Regular
37.	Mrs. Syeada Ayisha Tabassum	Pharmacist	Contractual
38.	Ms. Ishwarya	Compounder	Contractual
39.	Mr. Deepan Raj	Compounder (SCSP)	Contractual



S. N.	Name	Designation	Regular / Contractual
40.	Ms. Uma Maheshwari	Pharmacist	Contractual
41.	Mr. Manikandan	Compounder	Contractual
42.	Mr. Mohammed Azeez	Data Entry Operator (Reception)	Contractual
43.	Mr. Suriya Prasath	Machine Technician	Contractual
44.	Mr. Hassain	MTS	Contractual
Pathology Section			
45.	Mrs. Divya	Lab Technician	Contractual
46.	Mrs. Thahaseen Banu	Multi Task Attendant	Contractual
Biochemistry Section			
47.	Dr. Mohammed Farhan K	Research Associate (Biochemistry)	Contractual
48.	Ms. J. Kokila Jadaiyan	Lab Technician	Contractual
49.	Mr. Jamal Basha	Lab Technician	Contractual
Radiology Section			
50.	Mr. Amalraj T	Radiographer	Contractual
Statistics Section			
51.	Mrs. Arti Priyanka	Consultant (Statistics)	Contractual
Drug Standardization Research Unit			
52.	Dr. Mohammed Jameel	Research Officer (Pathology)	Regular
53.	Mr. Tirumala Santhosh Kumar	Research Assistant (Chemistry)	Regular



S. N.	Name	Designation	Regular / Contractual
54.	Dr. Mahesh Kancherla	Research Assistant (Chemistry)	Regular
55.	Dr. (Mrs.) Mageswari	Consultant (Botany)	Contractual
56.	Mrs. Mary Shamy A	Research Associate (Microbiology)	Contractual
57.	Dr. A. Jaculin Raiza	Senior Research Fellow (Chemistry)	Contractual
58.	S.A Wasim Akram	Senior Research Fellow (Botany)	Contractual
59.	R. Selvarani	Junior Research Fellow (Chemistry)	Contractual
60.	J. John Christopher	Junior Research Fellow (Chemistry)	Contractual
Survey & Cultivation of Medicinal Plants Unit			
61.	Dr. K. Venkatesan	Assistant Research Officer (Botany)	Regular
62.	Dr. Mohd. Asiff	Research Assistant (Botany)	Regular
63.	Mr. Parwez Ahmad	Research Assistant (Botany)	Regular
64.	Mrs. Faritha Begum	Office Assitant	Contractual
65.	MR. Sathish Kumar	Junior Research Fellow (Botany) - (RRDR)	Contractual
66.	Mr. Karunaidhasan	Field Attendant (RRDR)	Contractual
67.	Mr. Vijay	Data Entry Operator (RRDR)	Contractual
68.	Mr. Pushpalingam	Assistant	Contractual
Library Section			
69.	Mrs. N. Vidya Lakshmi	Library & Information Assistant	Regular





S. N.	Name	Designation	Regular / Contractual
Administrative Section			
70.	Mr. Syed Anvaruddin Kirmani	Junior Administrative Officer	Regular
71.	Mr. Muniaswamy	Consultant (Admin)	Contractual
72.	Mrs. Naseema Begum	Senior Stenogtapher	Regular
73.	Mr. Syed Abu Saleh Asim	Store Keeper	Regular
74.	Mrs. Rajathilaga	Lower Division Clerk	Regular
75.	Mr. P.R. Thirumaran	Junior Hindi Translator	Contractual
76.	Mr. M. Shankar	Driver	Regular
77.	Mr. M. Mohd Hussain	Driver	Regular
78.	Mr. Syed Shahul Hameed	Messenger	Regular
79.	Mr. M. Niyaz Hussain	Messenger	Regular
80.	Mr. K. Venkatesan	Electrician	Contractual
81.	Mr. Musthak Ahamed	Data Entry Operator	Contractual
82.	Ms. S. Mariam Arifa	Data Entry Operator	Contractual
83.	Ms. S. Shilpa	Data Entry Operator	Contractual



Research Paper Publication by Scientists of the Institute

Clinical Research

1. Mohammed Sheeraz, Zaheer Ahmed, Mohd. Aleemuddin Quamari. Concept and Management of Irqunnasa (Sciatica) in Unani System of Medicine - A Review. *Asian Academic Research Journal of Multidisciplinary (AAARJMD)* 2013; 1 (13): 205-218.
2. Md. Anzar Alam, Shamim Ahmed, Sadique Husain, Humaira Bano, Zaheer Ahmed, Abdul Azeez. Kabab Chini (Piper cubeba) & Its Healing Corollary in Unani Medicine: An Overview. *Am. J. Pharm Health Res (AJPHR)* 2013; 1 (6): 1-9.
3. Mohammad Asim Khan, Anzar Alam, Sadique Husain, Shamim Ahmed, Md. Nazamuddin, Zaheer Ahmed. Qust (Saussurea Lappa Clarke.) - A Potent Herb of Unani Medicine: A Review. *International Journal of Current Pharmaceutical Research.* 2013; 5(4): 1-4.
4. Mohammed Sheeraz, Mohd Aleemuddin Quamari, Zaheer Ahmed. A comparative clinical study on the effects of Mehjama Nariya (fire cupping) and Hijamat Bila Shurt (dry cupping) in Irqunnasa (sciatica). *Spatula DD.* 2013; 3(4):161-166.
5. Mohd Sheeraz, Mohd Arshad Jamal, Zaheer Ahmed. Maush-shaer ki Tibbi Ifadiyat: Ek Tahkheekhi Mutaliya. *Barkaat-e-Tib* 2013; 10(5): 23-28.
6. Mohd Sheeraz, Mohd Aleemuddin Qamri, Zaheer Ahmed, Mohd Anzar Alam., Irqunnasa aur Zakaria Razi – Ek Tahkheekhi Jaiza. *Jahan-e-Tib* 2013; 15 (2): 43-47.
7. Mohammed Sheeraz, Zaheer Ahmed, Mirza Ghufran Baig, Mohd Aleemuddin Quamari. Pragmatic Approach towards the Role of Hijamat in Irqunnasa (Sciatica) - A Review. *Int J Cur Res Rev (IJCRR)* 2014; 6 (2): 6-12.
8. Md. Anzar Alam, Zaheer Ahmed, Abdul Haseeb Ansari, Shamim Ahmed, Danish Mand, Md Tanwir Alam. Iksir-e-Badan (Elixir): Unique Influence from Unani Medicine – A Review. *International Journal of Herbal Medicine (IJHM)* 2014; 1 (6): 37-42.
9. Zaheer Ahmed, Anzar Alam, Najeebul Hasan. Hepatocentric Activity of Afsanteen (Artemisia Absinthium L) in Unani Medicine – An Appraisal. *International Journal of Pharmamedix India,* 2014; 2(3): 804-14.
10. Zaheer Ahmed, Anzar Alam, Ghufran, Rabee K, Qamri M A, Najeebul Hasan. Regimenal Therapy In Unani Medicine With Focus On Purgatives – Avicenna’s Approach. *International Journal of Pharmacognosy (IJP).* 2014; 1(7): 409-414.
11. Mirza Ghufran Baig, Mohd. Aleemuddin Quamri, Javed Ali S, Shaikh Imtiyaz, Mohammad Sheeraz, Zaheer Ahmed.



- Concept and Management of Waja-UI-Mafasil (Arthritis) In Greco Arabic Medicine – An Overview. *Int J Cur Res Rev (IJCRR)* 2014; 6 (20): 41- 47.
12. Mirza Ghufuran Baig, Mohd Arshad Jamal, Mohd Aleemuddin Quamri, N Zaheer Ahmed. Yaadasht ke Jadeed wa Qadeem Nazriyat me Tatbeeq – Ek Mutaliya. *Tarjuman-e- Tib* 2014; 1 (1): 22-28.
 13. Mirza Ghufuran Baig, Mohd Aleemuddin Quamri, Mohammad Shahid Khan, Md. Anzar Alam, Fauzia Naaz, N Zaheer Ahmed. Pain alleviation in Unani medicine – A conceptual analysis. *International Journal of Pharma Sciences and Research (IJPSR)* 2014; 5 (12): 927- 934.
 14. Md. Anzar Alam, Zaheer Ahmed, Danish Jahan, Qamri M A. Faqr-Ud-Dam (Anaemia) An Age- Old Malady in Unani Medicine – An Overview. *International Journal of Pharmamedix India* 2014; 2(4): 782-89.
 15. Noor Zaheer Ahmed, Mohd Anzar Alam, Mohd Sheeraz. Concept and management of fatty liver disease in Unani medicine Vis - A - Vis conventional medicine – A Review. *Spatula DD* 2014; 4(4):233-241.
 16. Sheeraz M, Jamal A, Shadab M, Zaheer Ahmed N. Amraaz Asnaan Ka Aasaan Ilaj – Tibbe Unani Ke Raushni Me. *Nawae Tib Wa Sehat* 2014; 23 (4): 46-52.
 17. Shamim Ahmed, Md. AnzarAlam, Sadique Husain, Zaheer Ahmed, Mohd. Shahabuddin. Shoneez (Nigella sativa) and its therapeutic effect in Unani Medicine-A Review. *International Journal of Pharma Sciences and Research (IJPSR)*. 2015; 6 (1): 12-14.
 18. Mirza Ghufuran Baig, Mohd Aleemuddin Quamri, Mohd Anzar Alam, Md Shahid Khan, N Zaheer Ahmed. Ilaj- Bil- Ghiza (Dietotherapy): A Core principle of Unani treatment – An appraisal. *Journal of Biological and Scientific Opinion (JBSO)* 2015; 3 (1): 52-56.
 19. Md. Anzar Alam, Zaheer Ahmed, Qamri MA. Time Tested Safe and Effect Oriented Drugs in Unani Medicine for Dyslipidemia-A Review. *J HomeopAyurv Med* 2015; 4 (1): 1-6.
 20. Hafiz C Mohammad Aslam, Zaheer Ahmed, Shahida Begum, Aijaz Ahmad, K Kabiruddin, Shaikh Nikhat, Javed Ali, Abdul Kareem, Syed Jameeluddin. Therapeutic Evaluation of Unani Coded Drug “UNIM – 104” In Cases Of Non-Alcoholic Fatty Liver Disease (NAFLD) – A Preliminary Clinical Trial. *HJUM*. 2015; 10 (1): 1-7.
 21. Noor Zaheer Ahmed, Mansoor Ahmed Siddiqui. Safety and efficacy of Afsanteen Artemisia absinthium L.) in fatty liver: A randomized single blind controlled study. *Int J Adv Pharmacy Med Bioallied Sci*. 2015; 3 (2): 106-112.
 22. Zaheer Ahmed, AnzarAlam, Mohd Khalid, Sheeraz, Qamri MA. An Insight on Malankholia (Melancholia) -Unani Perspective. *Journal of Psychiatry*. 2015; 18 (6): 1-5.



23. Noman Anwar, Abdul Azeez. Aftab Ahmed, N Zaheer. TOOTIYA (Copper sulphate): An excellent nutritional supplement more than a toxic metal. *Journal of Research in Unani Medicine*. 2015; 4 (1): 65-73.
24. Noman Anwar, Masood Shah Khan, Hifzul Kabir, Sayeed Ahmad. Effect of detoxification (tadbeer) in content of toxic metabolites of Strychnosnux-vomica: A Unani approach for its use in human. *Journal of Pharmacy and Bioallied Sciences*. 2015; 7 (4): 314-16. DOI:10.4103/0975-7406.168034.
25. Athar Parvez Ansari, Zaheer Ahmed N, Mohammad Sheeraz. Modification in Unani drug dosage forms–Need of the hour. *Int J Adv Pharmacy Med Bioallied Sci*. 2016; 4 (1): 22-28.
26. Kabiruddin Ahmed K, Zaheer Ahmed N, Athar Parvez Ansari. Ustukhuddoos (Lavandula stoechas Linn.) - A Brain Scavenger Drug: An Overview. *IJPPR. Human*, 2016; 7 (1): 618-626.
27. Mohd Shahid, Iram Naaz, N. Zaheer Ahmed, Sabiha Fatima, Mansoor Ahmad Siddiqui. Efficacy of Multi Unani regimen in functional independence recovery of post stroke patients –A black-box design. *Spatula DD*. 2016; 6 (1): 41-48.
28. Athar Parvez, Zaheer Ahmed, Noman Anwar, Kabiruddin Ahmed. Razi’s unique approach to Amraz-e-Wabaiya (Infectious Diseases): An overview. *International Journal of Herbal Medicine*. 2016; 4(6): 176-178.
29. Anzar Alam, Siddiqi MA, Qamri A, Fatthima S, Ruqaiya M, Zaheer Ahmed. Efficacy of Spirulina (Tahlab) in Patients of Type 2 Diabetes Mellitus (ZiabetusShakri) - A Randomized Controlled Trial. *Journal of Diabetes & Metabolism* 2016; 7(10):1-5.
30. Zaheer Ahmed N, Abdul Kareem, Kabeeruddin, Shahida, Aslam, Gracias D, Sultana G, Javid, Jameeluddin. Clinical trial to evaluate and compare the therapeutic efficacy of Coded Unani Drug UNIM–105 with control drug UNIM–106 in Itehab-E-Kabid Had (Infective Hepatitis) Patients. *HJUM*. 2016; 11 (3): 45-67.
31. Noor Zaheer Ahmed, Athar Parvez, Noman Anwar, Mohd Shahid. Cancer perception in Unani medicine – Conceptual analysis. *Spatula DD* 2016; 6 (4): 113-120.
32. Mohammed Sheeraz, N Zaheer Ahmed, Athar Parvez, Haqeeq Ahmed. Anti Psoriatic Effect of Leech Therapy in Psoriasis -A Case Report. *Hippocratic J. Unani Med* 2017; 12(3): 43-50.
33. Noman Anwar, N Zaheer Ahmed, T Shahida, K Kabiruddin, Hafiz Aslam. The Role of Mufarrehat (Exhilarants) in the Management of Depression: An Evidence Based Approach. *Journal of Psychiatry* 2017; 20 (5): 1-5.
34. Noman Anwar, Kamal YT, Mohd Aftab Ahmad, Shahana Salam, Mohd Asif, Mohd Akhtar and Sayeed Ahmad. Antimicrobial and wound healing potential of Marham-e-Aatshak (A Herb-o-mineral formulation). *Pakistan Journal of Pharmaceutical Science*. 2017; 30 (5): 1535-1543. PMID: 29084670.



35. Athar Parvez Ansari, N. Zaheer Ahmed, Abdul Wadud, Noman Anwar, Mohammad Sheeraz, Haqeeq Ahmad. A concept of Muzir (toxicity) and Musleh (corrective) of Unani drugs with scientific evidences: An Overview. *Journal of Research in Unani Medicine*. 2018; 7 (1): 70-77.
36. Sheeraz M, Akbar S, Huma, Rathore S, Qayoom R, Zaheer N. Therapeutic evaluation of efficacy of Nutool therapy (Irrigation) in Insomnia: A case study. *International journal of Unani and Integrative medicine*. 2018; 2 (2):01-04.
37. MdSheeraz, Afsahul Kalam, Humyra Tabassum, Ruqaya Qayoom, Arjumand Shah, Zaheer Ahmed. Topical Effect of A Novel Unani Formulation In Buthūr-E-Labaniya (Acne Vulgaris) -A Case Report. *Paripex - Indian Journal of Research*. 2018; 7 (5): 437-439.
38. Athar Parvez Ansari, N Zaheer Ahmed, Abdul Wadud, Mohammed Arif, SuheenaKhanday. IlajbilGhiza (Dietotherapy): A Core Mode of Unani Treatment. *Journal of Advanced Research in Pharmaceutical Sciences & Pharmacology Interventions*. 2018; 2 (1): 27-35.
39. Athar Parvez Ansari, N Zaheer Ahmed, Pervaiz Ahmad Dar. Empirical evidence of animals used in biomedical research in unani medicine: An appraisal. *International Journal of Unani and Integrative Medicine*. 2018; 2(4): 11-13.
40. Athar Parvez Ansari, Pervaiz Ahmad Dar, N Zaheer Ahmed. Scientific Basis of Some Common Medicinal Plants used in Unani Medicine- a Rational Approach. Research trends in Medical plant Sciences. *AkiNik Publications. New Delhi*. 2018; 3(5): 69-98.
41. Athar Parvez Ansari, N Zaheer Ahmed, Ansari Huzaiifa, Mohammad Arif. Sublingual route of drug administration in unani medicine: A historical perspective. *International Journal of Unani and Integrative Medicine*. 2019; 3(2): 19-20.
42. Athar Parvez Ansari, N Zaheer Ahmed, Abdul Wadud, Mohammad Arif and Abdul Raheem. Polyherbal Pharmaceutical Preparations in Unani Medicine - A Rationale Approach. *Hippocratic Journal of Unani Medicine*, 2019;14(1):1-16, ISSN: 0974-1291
43. Naushad P. Zaheer Ahmed N. Hammam -i – Bukhari (Turkish bath): A promising regimental mode of Unani treatment. *Journal of complementary and Integrative Medicine* 2020; 17 (3): /j/jcim.2020.17.issue-3/jcim-2019-0089/jcim-2019-0089.xml. doi: 10.1515/jcim-2019-0089. PMID: 31553699.
44. Ahmed NZ, Ahmed K, Anwar N, Ezhil R, Anjum N, Khan AA. Lithotriptic effect of Safūf Hajar-al Yahūd in patients of Hasat-ul Kilya (Nephrolithiasis) - an open prospective clinical validation trial. *J Complement Integr Med*. 2020;18(1):139-146. PMID: 32427123 [SN impact: 0.785/ Impact score: 1.82].
45. Munawwar Hussain, T. Shahida Begum, Hafiz. C. Md. Aslam, Ghazala Javed, Nighat Anjum, Anju and Rasikh Javaid.



- Efficacy and Safety Study on Unani Formulation Majün Nisyän in Nisyän (Amnesia). *Hippocratic Journal of Unani Medicine*, 2020;15(2): 67-75, ISSN: 0974-1291
46. Md. Sheeraz, Aleemuddin Qamri, Zaheer Ahmed (2020). Irqun Nasa me Mehjamae Nariya aur Hijamah Bila Shart Ki Taseeraat – Ek Taqabili Mutaliya. *JAHAN-E-TIB*, 2020;22(1): 44-47, ISSN:0974-1372
 47. Kabiruddin Ahmad, N Zaheer Ahmed, REzhil, Nighat Anjum, Asim Ali Khan. Evaluation of Analgesic Effect of Unani Pharmacopoeial Formulation Habb-e-Suranjan and Raughan-e-Suranjan in WajaulMafasil (Joints Pain) Patients: An Open Prospective Clinical Trial. *Journal of Drug Delivery & Therapeutics*. 2021;11(2-s): 44-49.
 48. Athar Parvez Ansari, Sumyyah Hasina Sana, Mohammad Younis Dar, Pankaj Goswami, Dr.N.Zaheer Ahmed. Validation of Unani concept of Abadal-i-Adwiya (drug substitution) by physicochemical standardization and hepatoprotective activity of *Aristolochia rotunda* Linn. And its substitute *Curcuma Zedoaria* Rosc. In albino wistar rats. *Complement Integr Med*, 2021; <https://doi.org/10.1515/jcim-2020-0378>: 1-8
 49. Athar Parvez Ansari, Huzaifa Ansari, Tariq Ahmad Butt, Ifra Qayoom, N. Zaheer Ahmed. Zarawand Mudharaj (*Aristolochia rotunda* Linn.), an important medicinal plant used in Unani system of medicine: A review. *Journal of Drug Delivery and Therapeutics*. 2021;11(6), 272-280, ISSN: 2250-1177
 50. Naushad P, N Zaheer Ahmed, Akram Basha, Md Aslam, Abdur Raheem. Prevalence of Arthritis (Waja- ul- Mafasil) in Chennai City Under Scheduled Caste Sub Plan of Mobile Clinical Research Programme – An Observational Study. *International Journal of Research and Analytical Reviews(IJRAR)*, 2021;8(4): 850 – 860. ISSN 2348-1269, P- ISSN 2349-5138
 51. Anwar N, Ahmed NZ, Fathima AF, Begum S, Khan AA. Emergence of antimicrobial resistance and magnitude of Unani medicine - scope and challenges. *J Complement Integr Med*. 2021; 18(3): 477-83. PMID: 33544550. [SN impact: 0.785 / Impact score: 1.82].
 52. Athar Parvez Ansari, N. Zaheer Ahmed, K Kabiruddin Ahmed, Asim Ali Khan An Insight on Wabāi Amrād (Epidemic Diseases) and COVID-19 Like Conditions – Unani Perspective. *International Journal of Current Research and Review*, 2020;12(17): 109 – 119, ISSN: 2231-2196
 53. Ahmed NZ, Agibothu Kupparam HK, Akbar S, Anwar N et al. Effects of co-administration of Unani pharmacopoeia formulations Qurs Tabasheer Sartani and Arq Hara Bhara with CAT-I antitubercular drugs in rats. *J Complement Integr Med*. 2021; 18 (3):517-525. PMID: 33964191. [SN impact: 0.785/ Impact score: 1.82].
 54. Ahmed NZ, Anwar N, Begum S, Parvez A, Ezhil R, Anjum N. Effect of Hġjāma (wet cupping), Dalk (massage) & Bukhūr (medicated steam) in amelioration of Waja al-Zahr (non-specific low back pain) - an open prospective clinical trial. *J*



- Complement Integr Med.* 2021; doi:10.1515/jcim-2021-0099. PMID: 34265876. [SN impact: 0.785/ Impact score: 1.82].
55. Noman Anwar, N Zaheer Ahmed, Shehnaz Begum. Plausible role of ArqAjīb in combating COVID-19: A multi-faceted review. *Journal of Drug Delivery and Therapeutics.* 2021; 11(4):141-148.
 56. N Zaheer Ahmed, Dicky John Davis. Noman Anwar et al. In-silico evaluation of Tiryāq-e-Wabai – a Unani formulation for its potency against SARS-CoV2 spike glycoprotein and main protease. *Journal of Drug Delivery and Therapeutics.* 2021; 11(4-S):86-100.
 57. Ahmed NZ, John Davis GD, Khan AA, Anwar N, et al. ArqAjīb - a wonder Unani formulation for inhibiting SARS-CoV-2 spike glycoprotein and main protease - an in silico approach. *J Complement Integr Med.* 2021; doi:10.1515/jcim-2021-024. PMID: 34679263. [SN impact: 0.785/ Impact score: 1.82].
 58. Huzaifa Ansari, Athar Parvez Ansari, Ifra Qayoom, Bazilah Majeed Reshi, Abdul Hasib, N. Zaheer Ahmed, Noman Anwar. Saqmunia (*Convolvulus scammonia*L.), an important drug used in Unani system of medicine: A review. *Journal of drug Delivery and Therapeutics,* 2022; 12 (5): 231-238.
 59. Noman Anwar, Noor Zaheer Ahmed, Shahida Begum, Athar Parvez Ansari, Ammu Jayanthi Viswanathan. Appetite-inducing effect and safety evaluation of Habb-e-Hilteet in patients with Du‘f al-Ishtihā (anorexia) – an open prospective clinical trial. *Journal of Drug Delivery & Therapeutics.* 2022; 12(6):38-43
 60. Athar Parvez Ansari, N Zaheer Ahmed, Noman Anwar & Mohammed Farhan K. Effect of an Unani Regimen in the treatment of “Yaraqan” (Jaundice): A Case Report. *Indian Journal of Unani Medicine.* 2022; 15(2):93-101.
 61. Athar Parvez Ansari, Ifra Qayoom, Ansari Huzaifa, Abdul Habib, Bazilah Majeed Reshi, N Zaheer Ahmed, Noman Anwar. Sana (*Cassia angustifolia* Vahl.): A Potent Detoxifying Drug in Unani System of Medicine – An Appraisal / Insight. *Journal of Advanced Research in Pharmaceutical Sciences and Pharmacology Interventions.* 2022; 6(2): 1-11.
 62. Anwar N, Ahmed NZ, Fathima AF, Khan AA. Analytical review of Tiryāq-i-Wabāi-A Unani panacea for the control of COVID-19. *Journal of Herbal Medicine.* 2023; 39:100653.
 63. Anwar N, Ahmed NZ, Fathima AF, Ansari AP, Farhan KM and Viswanathan AJ. Roghan Mālīsh ‘A Topical Formulation’ Attenuates Joint Pain, Down-Regulates C-Reactive Protein Level and Improves Quality of Life in Patients with Waja‘ al-Mafāsil (NUMC: L-4) (Arthralgia) – A Pilot Clinical Study. *Journal of Natural Remedies.* 2023; 23 (2): 593-602.
 64. Juwariya Shamim, Athar Parvez Ansari, Pankaj Goswami, Seema Akbar, Huzaifa Ansari, Abdul Wadud, Pervaiz Ahmad Dar. Protective effects of Hydro-alcoholic extract of the root of Kasondi (*Cassia occidentalis* L.) against gentamicin-induced nephrotoxicity in albino wistar rats. *CellMed.* 2023; 13 (6): e5.



65. Huzaifa Ansari, Athar Parvez Ansari, Pankaj Goswami, Ifra Qayoom, Abdul Hasib, Bazilah Majeed Reshi, Seema Akbar. Comparative physicochemical evaluation and acute toxicity study of crude and processed (detoxified) sample of Saqmunia (*Convolvulus scammonia* L.) in albino Wistar rats. *Journal of Natural Remedies*. 2023; 23 (4): 1461-1474.
66. Ifra Qayoom, Athar Parvez Ansari, Ansari Huzaifa, Musaib Bhat, Bazilah Majeed, Pankaj Goswami, Noman Anwar. Quality control and acute toxicity study of Habb-i-Hayat (Unani formulation) in albino wistar rats. *Pharmacognosy Research*. 2023; 16 (1): 98-109.
67. Musaib Bhat, Athar Parvez Ansari, Ansar Ahmad, Ifra Qayoom, Bazilah Majeed. Antipyretic activity of the hydro-alcoholic extract of *Artemisia absinthium* L. as a standalone and as an adjuvant with barely water against yeast-induced pyrexia in albino wistar rats. *Journal of Complementary and Integrative Medicine*. 2023; Published online December 19, 2023.

Drug Standardization Research

1. SK Nazimuddin, S Qamruddin, S.S Tahera, M Ashfaquddin, A Rehana and M. Iqbal Ali. Protective effect of Gul-e-Teesu (*Butea Monosperma* (lam) flowers) in experimental liver injury. (1981) *Proceedings 1st International Conference Islam Medicine*, P: 329-336
2. Rampratap Meena, Shamshad Ahmed Khan, Shamsul Arfin, S Mageswari and Gowher Sultana, Studies on the Pharmacopoeial Standards of Dried Fruits of Sapistan (*Cordia dichotama* Forst. f.), *Hippocratic Journal of Unani Medicine*, 2008; 3(3): 31–38.
3. Rampratap Meena, Shamshad Ahmed Khan, Shamsul Arfin, Mageswari S and Gowher Sultana, Development of “Standard Operating Procedures” and Pharmacopoeial Standards for Jawarish-e-Aamla Sada, *Hippocratic Journal of Unani Medicine*, 2008; 3(4): 73–81.
4. Rampratap Meena, Mageswari S, Ramasamy D Shamshad Ahmed Khan, Shamsul Arfin and Gowher Sultana, Microscopical and Chemical Standardization of a Poly Herbal Drug – Jawarish-e-Hazim, *Hippocratic Journal of Unani Medicine*, 2009; 4(1): 85–92.
5. D Ramasamy, Rampratap Meena, S Mageswari, Shamshad Ahmed Khan, Shamsul Arfin and Gowher Sultana, Comparative Study for Anatomical Parameters, Toxic Elements and Minerals on Two Terminalia Species, *Hippocratic Journal of Unani Medicine*, 2009; 4(2): 33–40.
6. D Ramasamy, Rampratap Meena, Shamshad Ahmed Khan, Shamsul Arfin, A Saraswathy and Gowher Sultana, Use of finger printing and marker compounds for identification and standardization in *Luffa cylindrica* (L.) M. Roem., (Whole Plant), *Hippocratic Journal of Unani Medicine*, 2009; 4(2): 71–78.



7. Rampratap Meena, Shamshad Ahmed Khan, Shamsul Arfin, S Mgeswari, D Ramasamy and Gowher Sultana, Pharmacognostic & Preliminary Phytochemical Studies on the Leaf of *Ruta graveolens* Linn., *Hippocratic Journal of Unani Medicine*, 2009; 4(3): 31–40.
8. Ramasamy D, Rampratap Meena, Shamshad Ahmed Khan, Shamsul Arfin, S Mageswari and Gowher Sultana, Chemical Examination of Majoon-e-Rewand – A Unani Formulation, *Hippocratic Journal of Unani Medicine*, 2009; 4(3): 59–67.
9. S Mageswari, Rampratap Meena, Shamshad Ahmed Khan, D Ramasamy, Gowher Sultana and Mohammed Khalid Siddiqi, Microscopical and Chemical Examination of A Polyherbal Formulation- Majoo-e-Yahya Bin Khalid, *Hippocratic Journal of Unani Medicine*, 2009; 4(4): 31–39.
10. Rampratap Meena. Evaluation of Quality Standards for Traditional System of medicines with reference to Berg-e-Sudab (*Ruta graveolens* Linn.). *Hippocratic Journal of Unani Medicine*, CCRUM, New Delhi, 2009; 4(2) :33-40
11. D Ramasamy, Rampratap Meena, Shamsad Ahmed Khan, S Mageswari, Gowher Sultana and Mohammed Khalid Siddiqi, Evaluation of In-vitro Antioxidant Activity of the Rhizome of *Alpinia officinarum* Hance, *Hippocratic Journal of Unani Medicine*, 2010; 5(1): 77-81.
12. D Ramasamy, Rampratap Meena, Shamsad Ahmed Khan, S Mageswari, Mohammed Khalid Siddiqi and Gowher Sultana, Comparative Chemical Analysis of Stem Bark and Fruits of *Caesalpinia coriaria* (Jacq.) Willd., *Hippocratic Journal of Unani Medicine*, 2010; 5(2): 57-64.
13. S Mageswari, Rampratap Meena, Shamshad Ahmed Khan, Shamsul Arfin and Gowher Sultana, Evaluation of Pharmacognostical Standards on Leaves of *Couroupitaguianensis* Aubl., *Hippocratic Journal of Unani Medicine*, 2010; 5(2): 75–84.
14. S Mageswari, D Ramasamy, Rampratap Meena, Shamshad Ahmed Khan and Gowher Sultana, Pharmacognostical and Phyto-Chemical Studies on *Commelina bengalensis* L., *Hippocratic Journal of Unani Medicine*, 2010; 5(2): 117–129.
15. Rampratap Meena, Ajay Kumar Meena, Shamshad Ahmed Khan and S Mageswari, Standardization of Unani Poly Herbal Drug – Jawarish-e-Darchini, *Journal of Pharmacy Research*, 2010; 3(7), 1673–1676.
16. Rampratap Meena, Ajay Kumar Meena, Shamshad Ahmed Khan and S Mageswari, Evaluation of an Unani compound formulation – Majoon-e-Sandal, *International Journal of Pharma Science and Research (IJPSR)*, 2010; 1(5), 238–242.
17. Rampratap Meena, A K Meena, S Mageswari, D Ramasamy and Shamshad Ahmed Khan, Evaluation of pharmacopoeial standards with reference to Aftimoon – Whole Plant (*Cuscuta reflexa* Roxb.), *International Journal of Pharmaceutical Science and Research (IJPSR)*, 2010; 1(11):139–144.



18. D Ramasamy, Rampratap Meena and Shamshad Ahmed Khan, Comparative studies of fruits of two Ficus species using HPTLC and quality control methods, *Journal of Pharmacy Research*, 2011; 4(11): 4106–4108.
19. Meera Devi Sri, Rampratap Meena, Abdul Kareem, Shamshad Ahmed Khan and Gowher Sultana, Antibacterial Activity of ItrifalMulayyan – A Unani Classical Formulation, *Hippocratic Journal of Unani Medicine*, 2011; 6(1): 29–33.
20. Rampratap Meena, D Ramasamy, S Mageswari, Syed Jameeluddin Ahmed, Shamsul Arfin, Shamshad Ahmed Khan and Syed Shakir Jameel, Scientific validation of Jawarish-e-Bisbasa – A Unani formulation, *International Journal of Pharmaceutical Science and Research (IJPSR)*, 2012; 3(8), 2809–2814.
21. Rampratap Meena, P Meera Devi Sri, D Ramasamy, S Mageswari, M Abdul Kareem and Shamshad Ahmed Khan, Studies on Physico-chemical Standardization and Antibacterial Activity of Jawarish-e-Zanjabeel – A Unani Polyherbal Formulation, *Hippocratic Journal of Unani Medicine*, 2012; 7(1): 135–143.
22. S Mageswari, Rampratap Meena, D Ramasamy, P Meera Devi Sri and Shamshad Ahmed Khan, Evaluation of Pharmacopoeial and Quality Control Standards of Nelumbo nucifera Gaertn., *STM Journals Research & Reviews: A Journal of Botany*, 2012; 1(3): 7–14.
23. Rampratap Meena, P Meera Devi Sri, D Ramasamy, S Mageswari, Jameeluddin Ahmed, Pawn Kumar and Shamshad Ahmed Khan, Antibacterial and Pharmacopoeial studies of ItrifalUstukhuddus - Formulation, *Hippocratic Journal of Unani Medicine*, 2012; 7(4): 31–39.
24. P Meera Devi Sri, Rampratap Meena, D Ramasamy, S Mageswari, M Abdul Kareem, Shamsul Arfin and Shamshad Ahmed Khan, Antibacterial Activity of Itrifal Mundi against Staphylococcus aureus, *Hippocratic Journal of Unani Medicine*, 2012; 7(4): 63–67.
25. D. Ramasamy, Rampratap Meena, S Mageswari, P. Meera Devi Sri, Shamshad Ahmed Khan, Shamsul Arfin, Syed Jameeluddin Ahmed and Shakir Jamil, Development of HPTLC Finger prints and Pharmacopoeial Standards of Unani Formulation Jawarish-e-Javed, *Hippocratic Journal of Unani Medicine*, 2013; 8(1): 117–127.
26. Rampratap Meena, S Mageswari, D Ramasamy, P Meera Devi Sri, Shamsul Arfin, Shamshad Ahmed Khan, Syed Jameeluddin Ahmed and Syed Shakir Jameel, Standardization of Habb-ul-Aas (Myrtus communis Linn. Fruits) – A Unani drug, *Hippocratic Journal of Unani Medicine*, 2013; 8(1): 143–152.
27. Meera Devi Sri P, Rampratap Meena, D Ramasamy, S Mageswari, Shamsul Arfin, Aminuddin and Rafath Mehmooda, Antibacterial Activity of Majoon-e-Maddat-ul-Hayat Jadwari Against Uropathogenic Escherichia coli (UPEC), *Hippocratic Journal of Unani Medicine*, 2013; 8(3): 115-121.



28. S Mageswari, Rampratap Meena, D Ramasamy, Meera Devi Sri P, Shamsul Arfin, Aminuddin and Rafath Mehmooda. Pharmacognostical and Physico-chemical Studies of Ood-e-Balsan (*Commiphora gileadensis* (L.) C. Chr.) – A Unani drug, *Hippocratic Journal of Unani Medicine*, 2013; 8(3):123-133.
29. Rampratap Meena, S. Mageswari, D. Ramasamy, P. Meera Devi Sri, Jameeluddin Ahmed, Shamsul Arfin and Syed Shakir Jamil, Development of SOP's and pharmacopoeial standards for Jawarish-e-Jalinoos, *Journal of Pharmacy Research (Elsevier)*, 2013; 7 (8); 734-740.
30. Mageswari S, Rampratap Meena, D Ramasamy, P Meera Devi Sri, Shamsul Arfin, Aminuddin, Kabiruddin Ahmed and Syed Jameeluddin Ahmed, Development of Quality standards of a Single Unani Drug – Habb-e-Balsan, *Hippocratic Journal of Unani Medicine*, 2013; 8(4): 161-170.
31. Rampratap Meena, P Meera Devi Sri, D Ramasamy, Mageswari S, Shamsul Arfin, Aminuddin and Syed Jameeluddin Ahmed, Development of Pharmacopoeial Standards and Microbial Studies on Jawarish-e-Qaiser, *Hippocratic Journal of Unani Medicine*, 2014; 9(1): 103-113.
32. D Ramasamy, Rampratap Meena, S Mageswari, P Meera Devi Sri, Shamsul Arfin, Syed Jameeluddin Ahmed and Syed Shakir Jamil, Standardization and quality control methods of Unani single drug Tudri Surkh (*Cheiranthus cheiri* Linn.), *Hippocratic Journal of Unani Medicine*, 2014; 9(3): 119-125.
33. Rampratap Meena, Mageswari S, Ramasamy D, Meera Devi Sri P, Shamsul Arfin, Aminuddin and Nitin Rai, Development of Quality Standards on Jawarish-e-KafoorQawi – A Classical Unani Formulation, *Hippocratic Journal of Unani Medicine*, 2014; 9(3): 127-140.
34. S Mageswari, D Ramasamy, P Meera Devi Sri, Rampratap Meena, Jameeluddin Ahmed, Shamsul Arfin and Aminuddin. Standardization of Unani Drug – JawarishUsqf, *Hippocratic Journal of Unani Medicine*, 2014; 9(4): 133-142.
35. P Meera Devi Sri, D Ramasamy, S Mageswari, Rampratap Meena, Shamsul Arifin, Aminuddin and Jameeluddin Ahmed, Anticandidal Activity of Ornamental *Punica granatum* Linn. Flowers, *Hippocratic Journal of Unani Medicine*, 2014; 9(4): 163-168.
36. Rampratap Meena, D Ramasamy, S Mageswari, P Meera Devi Sri, Shamsul Arfin and Aminuddin. Quality Evaluation of Jawarish-e-OodKibreet, *Hippocratic Journal of Unani Medicine*, 2015; 10(1): 85-94.
37. Nitin Rai, Rampratap Meena, Mageswari S, Shamsul Arfin, Aminuddin and Rajeev Kumar Sharma. Pharmacognostical Standardization of Flowers of *Althea officinalis* L. (*Gul Khatmi*), *Hippocratic Journal of Unani Medicine*, 2015; 10(1): 117-128.



38. Rampratap Meena, D Ramasamy, Asma Sattar Khan, Shoeb Ahmed Ansari, Shamsul Arfin and Aminuddin. Standardization of Laooq-e-Khiyarshambar: A Classical Unani Formulation, *Hippocratic Journal of Unani Medicine*, 2015;10(2): 111-121.
39. Ramasamy D, Mageswari S, Meera Devi Sri P, Rampratap Meena, Shamsul Arfin, Zaheer Ahmed and Syed Jameeluddin Ahmed. Development of HPTLC finger prints and pharmacopoeial standards of Unani formulation Majoon-e-Lana, *Hippocratic Journal of Unani Medicine*, 2015; 10(2): 129-140.
40. Rampratap Meena, S C Verma, S Mageswari, P Meera Devi Sri, A S Khan, S A Ansari, Shamsul Arfin and Aminuddin. Scientific Validation of Unani Formulation: ‘Majoon-e-Hamal Ambari AlwiKhani’, *Hippocratic Journal of Unani Medicine*, 2016; 11(1): 47–60.
41. Rampratap Meena, S Mageswari, P Meera Devi, A S Khan, Shoeb A Ansari, S Arifin, Aminuddin and K M Siddiqui. Standardization of Habb-e-Narkachoor using Pharmacopoeial and HPTLC methods, *World Journal of Pharmaceutical Research*, 2016; 5(8): 701-712.
42. Rampratap Meena, Subash C Verma, Anupam Maurya, Jayanthi A, A S Khan, S A Ansari, Mageswari S, Shamsul Arfin and Aminuddin. Standardization of a Unani Drug Harsingher (NyctanthesarbortritisL.) Leaves, *Hippocratic Journal of Unani Medicine*, 2016; 11(2): 107–120.
43. Rampratap Meena, Shamsul Arfin, Mageswari S, Meera Devi Sri P, Pawan Kumar Sagar and Aminuddin. Standardization of a Polyherbal Unani Formulation – Habb-e- Bawaseer Badi, *Hippocratic Journal of Unani Medicine*, 2016; 11(3): 175–184.
44. Rampratap Meena, Mustehassan, Mageswari S, Meera Devi Sri P, S A Ansari, R K Negi, Shamsul Arfin and Z A Khan. Standardization of Majoon-e-Hajar-ulYahood – A Unani Compound Drug Formulation, *Hippocratic Journal of Unani Medicine*, 2016;11(4): 99-112.
45. Meera Devi Sri P, Pawan Kumar Sagar, Mageswari S, Akthar Parvez Ansari, Rampratap Meena, Shamshul Arifin and Asiya Khanum. HPTLC Finger print Studies and Evaluation of Pharmacopoeial Standards for the dug Habb-e-Sadar - A Unani Formulation, *Hippocratic Journal of Unani Medicine*, 2017; 12(2): 9–20.
46. Mageswari S, Pawan Kumar Sagar, Meera Devi Sri P, Murugeswaran R, Rampratap Meena, ShamshulArfin and Asiya Khanum. Pharmacognostical Evaluation and HPTLC Fingerprinting Studies of Millingtonia hortensis L. f. Leaf., *Hippocratic Journal of Unani Medicine*, 2017; 12(2): 21–36.
47. Pawan Kumar Sagar, Murugeswaran R, Rampratap Meena, Mageswari S, Meera Devi Sri P, M A Rasheed N and Asiya Khanum. Pharmacopoeial Standard Development and Quality Assessment Studies of Asu. Drug Roughan-E-Qaranfal or



- Laung Taila (Clove Oil), *Hippocratic Journal of Unani Medicine*, 2017; 12(3): 35–42.
48. Rampratap Meena, Mageswari S, Meera Devi Sri P, Sadaf Subhani. Pharmacognostical studies of *Stachytarpheta jamaicensis* (L) Vahl. (Whole Plant), *Hippocratic Journal of Unani Medicine*, 2017; 12(4): 1-18.
 49. Pawan Kumar Sagar, Rampratap Meena, Kunal Sajwan, R Murugeswaran, S Mageswari and P Meera Devi Sri. Standardization and HPTLC fingerprinting Study of Polyherbal Unani Formulation – Habb-e-Bawaseer Khooni, *Hippocratic Journal of Unani Medicine*, 2017; 12(4): 19-26.
 50. Rampratap Meena, Sadaf Subhani, Mageswari S and Meera Devi Sri P. Standardization of *Eruca sativa* Linn. (Seeds) using pharmacopoeial and HPTLC methods, *World Journal of Pharmaceutical Research*, 2019; 8(8): 599-607.
 51. Rampratap Meena, Meera Devi Sri P, Mageswari S, Sadaf Subhani and Zaheer Ahmed, Comparative microscopic, HPTLC and anti-candidal studies of *Apium graveolens* L. seeds with morphologically identical plant, *World Journal of Pharmaceutical Research*, 2019; 8(10): 1171-1186.
 52. Mageswari S, Rampratap Meena, Meera Devi Sri P, Murugeswaran R, Jaculin Raiza and Zaheer Ahmed N. Macro and Microscopical Evaluation, HPTLC Fingerprinting and Quality Control Studies on *Mimusops selengi* L. Fruits, *Hippocratic Journal of Unani Medicine*, 2019; 14(1): 51-65.
 53. Meera Devi Sri P, Rampratap Meena, Mageswari S, Murugeswaran R and Zaheer Ahmed N. Antimicrobial Studies of *Ocimum basilicum* L. Seeds against Urinary Tract Infection Causing Organisms, *Hippocratic Journal of Unani Medicine*, 2019; 14(2): 45-54.
 54. Renjini Haridas, Zaheer Ahmed N, Mohammad Younis Dar and Murugeswaran R. Pharmacognostic Analysis of Unani Drug Hummaz (*Rumex vesicarius* L.) seed., *Devagiri Journal of Science*, 2019; 5(1): 17-21.
 55. Renjini Haridas, Rampratap Meena, Zaheer Ahmed N and Murugeswaran R. Unani Drug ‘Mulsari’ (Flower part of *Mimusops selengi* L.) – Pharmacognostical Profile and a Review of its Medicinal Uses, *World Journal of Pharmaceutical and Life Sciences (WJPLS)*, 2020; 6 (9): 152-156.
 56. Jaculin Raiza A, Rampratap Meena, Mageswari S, Meera Devi Sri P, Selvarani R and Zaheer Ahmed N. Establishment of quality standards of *Abrus precatorius* L. (Root) by Physicochemical and HPTLC Method, *International Journal of Advanced Research (IJAR)*, 2020; 8(9): 33-39.
 57. Jaculin Raiza A, Murugeswaran R, Mageswari S, Meera Devi Sri P, Rampratap Meena and Zaheer Ahmed N. Pharmacognostical, Physico-chemical and HPTLC profile of Shalgum seed (*Brassica rapa* L.), *European Journal of Biomedical and Pharmaceutical Science (EJBPS)*, 2020; 8(2): 130-140.



58. Pawan Kumar Sagar, R Murugeswaran, Rampratap Meena, Asma Sattar Khan, S Mageswari, P Meera Devi Sri, Sonali Sajwan and Syed Gulnawaz Ahmad. Drug Standardization and Monographs and Development, HPTLC Finger Printing Research Studies of Polyherbal Formulation - Habb-e-Nishat Jadeed, *European Journal of Biomedical and Pharmaceutical Sciences (EJBPS)*, 2020; 7(12):210-218.
59. Renjini Haridas, Zaheer Ahmed N, Rampratap Meena and Murugeswaran R. Pharmacognostical study of male inflorescence of Pandanus odoratissimus L., *International Journal of Pharmacognosy and Pharmaceutical Sciences*, 2020; 2 (1): 24-26.
60. Renjini Haridas, Zaheer Ahmed N, Rampratap Meena and Murugeswaran R. Pharmacognostical view of unani single drug neem gum, *Devagiri Journal of Science*, 2020; 6(1): 01-06.
61. Renjini Haridas, R. Murugeswara. Screening of antioxidant potential and antimicrobial studies of tender leaf part of Grewia tiliifoliavahl. *International Journal of Research in Pharmacy and pharmaceutical Sciences*, 2020;5(2): 21-24
62. P Meera Devi Sri, S Mageswari and N Zaheer Ahmed. Pharmacopoeial Monograph of AYUSH Safuf-i-Joshanda. *The Unani Pharmacopoeia of India Part-II (formulations) PCIM&H*, Ministry of AYUSH, Govt. of India, ISBN 978-81-938504,2020;4(4):23 – 48
63. Renjini Haridas, Zaheer Ahmed N and Rampratap Meena. Pharmacognostical analysis of Unani drug Sambhalu; Dried leaf and fruit of V. negundo L, *Devagiri Journal of Science*, 2021; 7(1): 50-57.
64. Asim Ali Khan, Rampratap Meena, Meera Devi Sri P, Dicky John Davis, Zaheer Ahmed N, Mageswari S, Jaculin Raiza A, Sadaf Subhani and Selvarani R. Antimicrobial, HPTLC and In-Silico studies of Habb-e-Bukhar-widely used in Unani system of Medicine, *International Journal of Recent Scientific Research (IJRSR)*, 2021; 12 (8): 42788-42793.
65. Jaculin Raiza A, Mageswari S, Meera Devi Sri P, Rampratap Meena, and Zaheer Ahmed N. Standardization of Allium cepa L. - Seeds via Pharmacognostical, Physico-chemical and HPTLC Finger Print Profile Studies, *International Journal of Research and Analytical Reviews (IJRAR)*, 2021;8 (04): 111-122.
66. Asim Ali Khan, Rampratap Meena, Jaculin Raiza, P Meera Devi Sri, S Mageswari, Sadaf Subhani, Jamal Akhtar, Nighat Anjum and N Zaheer. Pharmacopoeial and In-silico studies of Unani Joshanda: A potent drug for management of infectious diseases, *International Journal of Herbal Medicine*, 2021; 9(6): 32-49.
67. S A Wasim Akram, J John Christopher, A Jaculin Raiza, S Mageswari, P Meera Devi Sri, R Selvarani, Rampratap Meena and N Zaheer Ahmed. Pharmacognostical and HPTLC analysis of Azadirachta indica A. Juss.: Flower, *International Journal of Herbal Medicine* 2022; 10(1): 15-21.



68. S Tirumala santhoshkumar, J John Christopher, S A Wasim Akram, S Mageswari, A Jaculin Raiza, Rampratap Meena, N Zaheer Ahmed, P Meera Devi Sri and R Selva Rani. Pharmacognostical and HPTLC Fingerprint analysis of Pterocarpus santalinusLinn.- Heart Wood in Chloroform extract, *Journal of Emerging Technologies and Innovative Research*, 2022; 9(2): 631-639.
69. John Christopher J, S A Wasim Akram, S Mageswari, P Meera Devi Sri, A Jaculin Raiza, R Selva Rani, Thaseen, S Shenaz, Rampratap Meena, Tirumala Santhosh kumar S and N Zaheer Ahmed. Development of Standardization Parameters of Chobchini (*Smilax china*L) –Tuberous Root with reference to its Pharmacognostical, Physico-chemical and HPTLC Studies in Chloroform Extract, *International Journal of Research and Analytical Reviews (IJRAR)*, 2022; 9(1): 140-147.
70. R Selvarani, Jaculin Raiza A, Meera Devi Sri P, Mageswari S, Wasim Akram SA, John Christopher J, Rampratap Meena and Zaheer Ahmed. Physico-chemical properties and HPTLC finger print profile of *Alangiumsalvifolium*L. F. Wang.: Leaves, *International Journal of Herbal Medicine*, 2022; 10(2): 11-19.
71. Wasim Akram, Mary Shamyia A, J John Christopher, Zaheer Ahmed & Rampratap Meena. Evaluation of bioactive compounds as antimicrobial and antidiabetic agent from the crude extract of *Heliotropium curassavicum* L. *Biocatalysis and Agricultural Biotechnology*. 2023; 50: 102745.
72. J. John Christopher, S. A. Wasim Akram, S. Mageswari, Mary Shamyia, Rajan, S. Tirumala Santhosh Kumar, N. Zaheer Ahmed and Rampratap Meen. Development of standarization parameters for *Hyocyamus niger* L. seeds with special reference to its Pharmacognostical, physicochemical and HPTLC Fingerprinting studies. *World Journal of Pharmaceutical Research*. 2023; 12 (16): 671-689.
73. Jameel M, Ali A, Ahmad W, Faiyazuddin M., Haque MR, Meena R, et al. Traditional Uses and Phytopharmacological Analysis of Ancient and Lucrative Traditional Plants *Lavandula Soechas* L. and *Lavandula Officinalis* Chaix. *Pharmacognosy Research*. 2023; 15 (4): 607-614.
74. Mahesh Kancherla, Mary Shamyia A, Athar Parvez A, Zaheer Ahmed N, Rampratap Meena, Mohammed Younis Dar. Physico-chemical, HPTLC, GC-MS, Heavy metal analysis, DPPH, and antibacterial activity of ethanol extract of *Viola pilosa* blume Whole plant. *Journal of Herbal Medicine*. 2023; 42: 100812.

Survey of Medicinal Plants

1. S R Nayar, Syed Khaleefahullah. Medico-ethno-botanical studies in North Arcot District, Tamilnadu. *Glimpses of Indian Ethnopharmacology TBGRI*, 1995; p:217-227



2. Manonmanium M, Murugeswaran R, Swaminathan K. Effect of Hindustan Photo film Factory Effluent on Seed germination and seedlings development of some crop plants. *Journal of Eco Biol.* 1992;4(2): 99-105. ISSN 0970-9037.
3. Murugeswaran R, Meena R P, Mageswari S and Alam M D. Pathological observations in the Cultivation of Asgand (WithaniasomniferaDunal) - A report. *Hippocratic J. Unani Med.* 2007; 2(1): 42-48. ISSN 0974-1291.
4. Venkatesan K, Mohammad Khalid Siddiqui, Gowher Sultana and Singh V K. Ethno botanical report of some Unani Medicinal Plants used for Diabetes in Coimbatore District, Tamil Nadu. *Hippocratic J. Unani Med.*, 2008;3(3): 57-62. ISSN 0974-1291.
5. Venkatesan K, Murugeswarn, R, Gowher Sultana, Singh V K and Aminuddin. Unani Medicinal Plants Used for Asthma by Irular Tribes of Coimbatore District, Tamil Nadu. *Hippocratic J. Unani Med.* 2009; 4(2): 41-47. ISSN 0974-1291.
6. Venkatesan K, Murugeswarn R, Gowher Sultana, Mohammad Khalid Siddiqui, Singh V K and Aminuddin. Folk Medicinal Plants used by Tribal's of Kanniyakumari District, Tamil Nadu. *Hippocratic J. Unani Med.* 2009; 5(2): 23-30. ISSN 0974-1291.
7. Venkatesan K, Murugeswarn R, Gowher Sultana, Mohammad Khalid Siddiqui, S Singh V.K and Aminuddin. Some Unani Medicinal Plants Used for Hepatitis and jaundice by Kannitribals of Kanniyakumari District, Tamil Nadu. *Hippocratic J. Unani Med.* 2010; 5(2): 65-73. ISSN 0974-1291.
8. Murugeswarn R, Gowher Sultana, Singh V K and Aminuddin. Useful Unani Medicinal Plants of Kodaikanal Forest areas of Dindigul District-Tamil Nadu. *Hippocratic J. Unani Med.* 2010; 5(2): 85-92. ISSN 0974-1291.
9. Murugeswarn R, Venkatesan K, Abdul Karim M and Aminuddin. Ethno-pharmacological Uses of Plants among Tribal and Rural Inhabitants of Wayanad District, Kerala. *Hippocratic J. Unani Med.* 2011; 6(4): 87-95. ISSN 0974-1291.
10. Venkatesan K, Murugeswarn R, Jameeluddin Ahmed and Aminuddin. Medicinal Plants used for Wound Healing by the Kanitribe of Kanniyakumari District, Tamil Nadu. *Hippocratic J. Unani Med.* 2013;8(1): 129-141. ISSN 0974-1291.
11. Venkatesan K, Murugeswarn R, Aminuddin and Rafath Mehmooda. Plants used as Mosquito repellents among soligars tribes in Chamarajanagar District of Karnataka, India. *Hippocratic J. Unani Med.* 2013; 8(3): 105-113. ISSN 0974-1291.
12. Venkatesan K, Murugeswarn R, Aminuddin and Rafath Mehmooda. Ethnobotanical studies in Chamarajanagar District, Karnataka. *Hippocratic J. Unani Med.* 2013; 8(3): 171-181. ISSN 0974-1291.
13. Murugeswarn R, Venkatesan K, Jameeluddin Ahmed and Aminuddin. Ethno medicinal Uses of Plants used by Malayali Tribal Community in Kolli Hills of Namakka District, Tamil Nadu. *Hippocratic J. Unani Med.* 2013; 8(4): 137-148. ISSN 0974-1291.
14. Murugeswarn R, Rajendran A, Venkatesan, Binu Thomas and Aravindhan V. Potential Plants for Unani System of

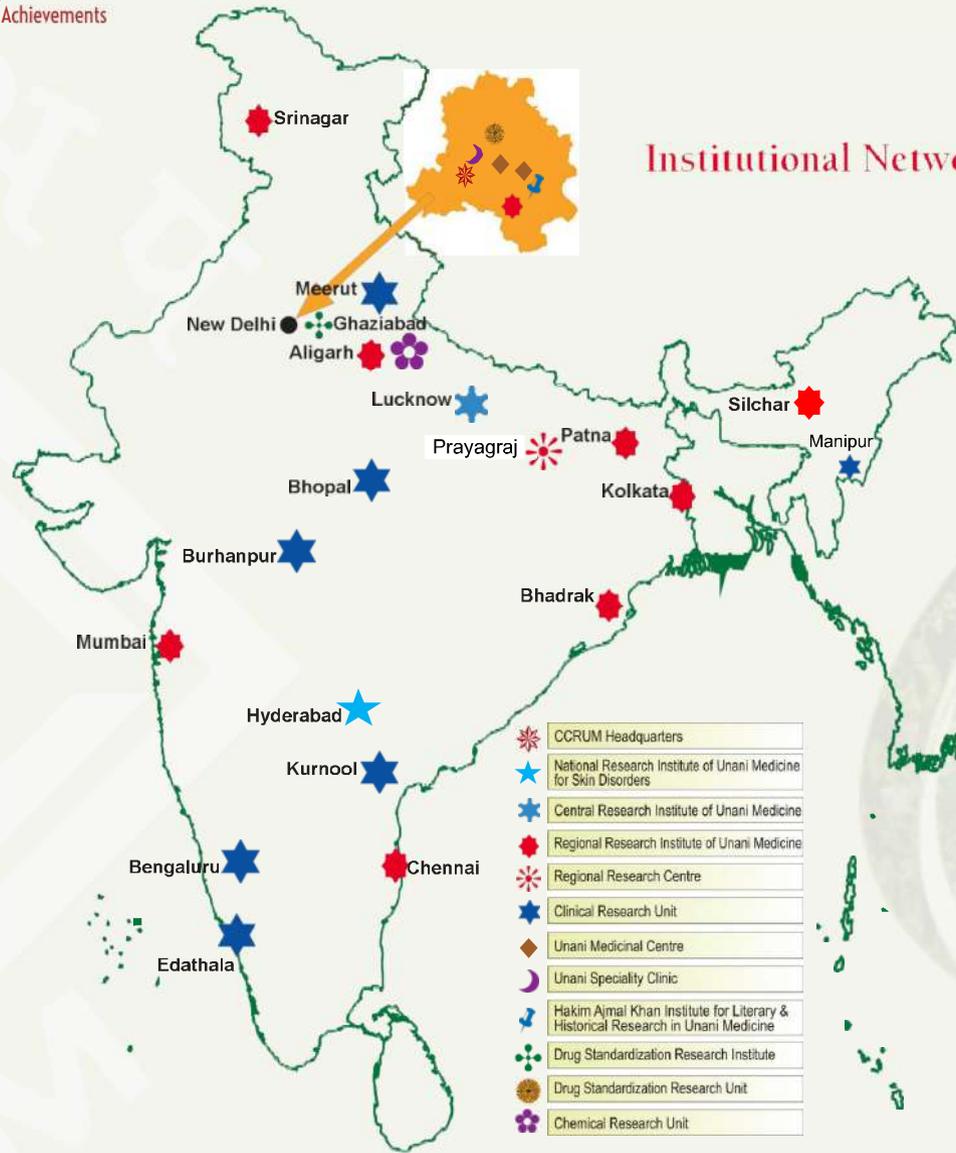


- Medicine from Southern Western Ghats of Coimbatore District, Tamil Nadu, India. *Journal of Science*. 2014; 4(2): 106-112. ISSN 2277-3290
15. Murugeswarn R, Rajendran A, Venkatesan and Hafiz C M Aslam. Diversity of Unani Medicinal Plants in Southern Western Ghats of Coimbatore District, Tamil Nadu, India. *International Journal of Herbal Medicine*, 2014; 2(1): 29-38. ISSN 2321-2187.
 16. Murugeswarn R, Venkatesan T, Shahida Begum and Aminuddin. Diversity of Unani Medicinal Plants in Chamarajanagar Wildlife Division, Karnataka, India. *International Journal of Innovative Science, Engineering & Technology*, 2015; 2(1): 22-39. ISSN 2348-7968.
 17. Murugeswarn R, Venkatesan K, Aijaz Ahmed and Aminuddin. A study on diversity of Unani Medicinal Plants used for Non-Communicable diseases in Southern Western Ghats of Tamil Nadu, India. *Hippocratic J. Unani Med.* 2015;10(1):105-116. ISSN 0974-1291.
 18. Aminuddin, Tariq Ahmad Butt, R. Murugeswaran and Parvez Ahmad. Exploration of Unani Medicinal Plants in Jammu & Kashmir and Strategy for their Conservation and Cultivation. *Hippocratic J. Unani Med.* 2015;10(4):109-121. ISSN 0974-1291.
 19. Murugeswarn R, Rajendran A, Binu Thomas and Venkatesan K. Potential Plants of Southern Western Ghats of Coimbatore District, Tamil Nadu India with special reference to Indian Systems of Medicine. *International Journal of Biopharmaceutics*, 2016; 7(1): 24-34. ISSN 2229-7499.
 20. Murugeswaran R, Rajendran A, Kabiruddin Ahamed, Arunachalam C, Venkatesan K and Thomas B. Potential Medicinal Plants used in Ayurvedic System of Medicine and their diversity in Southern Western Ghats of Coimbatore District, Tamil Nadu, India. *Journal of Ayurvedic and Herbal Medicine* 2016;2(4): 136-145. ISSN: 2454-5023
 21. Murugeswaran R., Rajendran A, Kabiruddin Ahmed, Binu Thomas and Venkatesan K. Medicinal Plants of Siddha System of Medicine and their Diversity Status in Southern Western Ghats of Coimbatore District, Tamil Nadu, India. *Devagiri Journal of Science* 2016; 2(1), 95-112. ISSN 2454-2091
 22. Murugeswaran R, Venkatesan K, P.K. Sagar, Kabiruddin Ahmed and Asiya Khanum. Useful Folk Medicinal Plants and Their Diversity Status in Southern Western Ghats of Tamil Nadu, Karanataka and Kerala. *Hippocratic Journal of Unani Medicine*, 2017; 12(1):117-133. ISSN: 0974-1291.
 23. Venkatesan K, Murugeswaran R, Kabiruddin, Zaheer Ahmed. Diversity and Traditional Knowledge of Wild Fruit used by Muthuvan Tribes of Wayanad Dt., Kerala, India. *International Journal of Botany Studies*, 2018; Vol-3(6): 19 – 24. ISSN:2455 - 541X



24. Venkatesan K, Murugeswaran R, Kabiruddin Ahmed K and Zaheer Ahmed N. Collection of Medicinal Plants Germplasm Conservation Status and Traditional uses in the Wayanad District, Kerala, India. *International Journal of Phytotherapy*. 2019; Vol.9: Issue.232-43ISSN-2249-7730
25. Venkatesan K, Murugeswaran R, Kabiruddin Ahmed K and Zaheer Ahmed N. Traditional Herbal Medicines used for Renal Calculi by Kattunayakan Tribals of South Wayanad Forest Division, Kerala. *International Journal of Phytot pharmacology*. 2019; Vol.10: Issue.4. 112-121ISSN-2229-7472.
26. Venkatesan, Mokhtar Alam, R. Murugeswaran and N Zaheer Ahmed. Floristic Diversity of Unani Medicinal Plants in Kalakadu Mundanthurai Tiger Reserve Forest, Tirunelveli District, Tamil Nadu, India. *Hippocratic Journal of Unani Medicine*, 2019; Volume 14, Number 3, July - September 2019, 33-50, ISSN: 0974-1291
27. K. Venkatesan, Murugeswaran, Mokhtar Alam, R.P.Meena, P.K.Yadav and Zaheer Ahmed. Analysis of Use Value, Informant Consensus factor and fidelity level of ethnomedicinally used wild fruits by tribals in selected areas of Western Ghats. *International Journal of Phytopharmacy Research*, 2020; Vol.11, Issue no.1, 1-12.
28. K. Venkatesan, Murugeswaran, Mokhtar Alam, Kabiruddin Ahmed and Zaheer Ahmed. Ethnobotanical report of wild flowers used by Kani tribes of Southern Western Ghats of Tamilnadu-India. *International Journal of Innovative Drug Discovery*, 2020; Vol.10, Issue no.1, 11-17.
29. Venkatesan K, Murugeswaran R, Mokhtar Alam, Rampratap Meena, Pawan Kumar, Mohamed Aslam, Zaheer Ahmed N. Quantitative Ethnobotany of Medicinal Plants used by Indigenous Community in the Munnar Forest division, Kerala, India. *International Journal of Pharmacometrics and Integrated Biosciences*. 2021; 6(2): 21-41.
30. Venkatesan K, Murugeswaran R, Mokhtar Alam, Kabiruddin Ahmed, Zaheer Ahmed N. Quantitative Ethnobotanical Report of Wild Flowers used by Tribes of Wayanad Forest Division, Kerala-India. *International Journal of Pharmaceutical Research and Life Sciences*. 2022;10(2): 9-24.
31. K. Venketasan, Mohd Asif, Parvez Ahmed, Kabiruddin Ahmed, N. Zaheer Ahmed. Survey of millets explored for the traditional food and medicine by the Rural Inhabitant of Salem District, Tamil Nadu-India. *International Journal of Review in Life Sciences*. 2023; 14 (4): 1-9.
32. K. Venketasan, Mohd Asif, Mokhtar Alam, Kabiruddin Ahmed, R. Murugeswaran, N. Zaheer Ahmed. Medicinal plants used for various health issues by rural inhabitants of Waynad Forest division – Kerala, India – A Statistical Analysis. *International Journal of Pharmaceutical Research and Life Sciences*. 2023; 14 (4): 1-18.





Contact Details of Different Peripheral Institutes/ Centres / Units

1	<p>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</p>	2	<p>National Research Institute of Unani Medicine for Skin Disorders Opp. ESI Hospital, AG Colony Road Erragadda, Hyderabad – 500 038 Telangana Phone: +91-40-23811551, 23810246 E-mail: criumhyderabad@gmail.com</p>
3	<p>Central Research Institute of Unani Medicine Basaha, Kursi Road, Lucknow – 226 026 Uttar Pradesh Phone: +91-522-2361720 E-mail: ddcriumlko@gmail.com</p>	4	<p>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: lrriumnew1986@gmail.com</p>
5	<p>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</p>	6	<p>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</p>
7	<p>Regional Research Institute of Unani Medicine Guzri, Patna City, Patna – 800 008, Bihar Phone: +91-612-2631106 E-mail: rriumpatna@gmail.com</p>	8	<p>Regional Research Institute of Unani Medicine Shahjahan Manzil Near AMU Riding Club, Qila Road, Aligarh – 202 001, Uttar Pradesh Phone: +91-571-2704781, 2701399 E-mail: rrium_aligarh@rediffmail.com</p>
9	<p>Regional Research Institute of Unani Medicine JJ Hospital Compound, Byculla, Mumbai – 400 008, Maharashtra Phone: +91-22-23718706 E-mail: rrium_mumbai@gmail.com, rrium_mumbai@yahoo.co.in</p>	10	<p>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</p>





11	Regional Research Institute of Unani Medicine 250A/29, GT Road (North), Liluah Howrah – 711 204, West Bengal Phone: +91-33-26550108 E-mail: kolrriium@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: rridelhi@gmail.com
13	Drug Standardization Research Institute PLIM, Sector–23, Kamla Nehru Nagar Ghaziabad – 201 002, Uttar Pradesh Phone: +91-120-2783029 E-mail: dstriccrum@gmail.com	14	Regional Research Centre B-501/4, GTB Nagar, Opp. Dulhan Palace Kareli, Prayagraj – 211 016, Uttar Pradesh Phone: +91-532-2551223 E-mail: rrcallahabad@gmail.com
15	Regional Research Centre SM Dev Civil Hospital, Silchar – 788 001 (Cachar) Assam Phone: +91-3843-267522 E-mail: rrcsilchar@gmail.com	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
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	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
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	20	Clinical Research Unit Cantonment General Hospital, Soti Ganj Begumpul, Meerut – 250 001, Uttar Pradesh Phone: +91-9012843253 E-mail: crumeerut@gmail.com



21	Clinical Research Unit Gandhi Medical College, Bhopal – 462 001, Madhya Pradesh Phone: +91-755-2540590 E-mail: cruu_incharge@yahoo.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
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	24	Unani Medical Centre (Extension Centre of RRIUM, New Delhi) Dr. Ram Manohar Lohia Hospital New Delhi – 110 001 Phone: +91-11-23404594 unaniopdrmlh@gmail.com
25	Unani Speciality Centre (Extension Centre of RRIUM, New Delhi) Deen Dayal Upadhyay Hospital Ghantaghar, Harinagar New Delhi – 110 064 dduhospital0786@gmail.com	26	Unani Medical Centre (Extension Centre of RRIUM, New Delhi) VMMC & Safdarjung Hospital New OPD Block, Ansari Nagar East, New Delhi – 110029 Phone: +91-11-26707121 umcsafdarjung@gmail.com





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: <https://ccrum.res.in>