

DHR-Multidisciplinary Research Unit

Uttar Pradesh University of Medical Sciences

Saifai, Etawah (206130), Uttar Pradesh, India

(Under aegis of Department of Health Research, Ministry of Health and Family Welfare, GOI)

Multidisciplinary Research Unit (MRU) under aegis of DHR, MoHFW, Govt of India has been established in Uttar Pradesh University of Medical Sciences, Saifai, Etawah (206130) since 2015 and has been extended as per 15th Finance Commission Period (2021-22 to 2025-26).

The aim of establishing a Multi-Disciplinary Research Unit at Medical University is to perform cutting-edge research in the field of health sciences, with a special emphasis on patient care in non-communicable diseases.

The primary goals of this research unit are to provide a central instrumentation facility and research environment for faculties and SR/JR PG students to choose and carry out their top research priorities on their own premises. Scientists of MRU will also conduct research to develop new technologies for their use in public health services.



Vision of MRU

- Encourage and strengthen an environment of research in Medical University
- Bridge the gap in the infrastructure to improve the health research and services;
- To ensure the geographical spread of health research infrastructure in Medical University and in other nearby institution;
- To improve overall health status of the population by creating evidence-based application of diagnostic procedures/processes/methods;
- To promote multicentric projects and facilitate the information interchange
- To provide a trained human resource for assisting Medical /Dental/Nursing/Paramedical faculties to upgrade the level of research
- To conduct and facilitate conferences, seminars, and workshop on various aspects of medical education and research;
- To promote the writing of various research proposal and helping in application process for extramural fundings in DST-SERB, ICMR, CSIR, UGC, DHR, DAE and others agencies
- To review and assess the research project as well as their progress by Research Advisory Committee as per DHR rules;
- To Undertake clinical trials as per the Allocation of Business Rules of Government of India.



Major Functions of the MRU UPUMS




- To undertake research projects as recommended by the local Research Advisory Committee of DHR Multidisciplinary Research Units (MRU) in the Uttar Pradesh University of Medical Sciences (UPUMS) for non-communicable diseases and other need-based research as recommended by the Local Research Advisory Committee (LRAC).
- To conduct the local research advisory committee meeting time to time for identifying smoothly implementation of research priorities and projects with timely submission of progress report to the DHR- MoHFW Govt. of India.
- To fully utilize the Multidisciplinary Research Units (MRU) facility established at Uttar Pradesh University of Medical Sciences (UPUMS) by funding intramural MRU-DHR projects.

Faculties in-charge

	<p>Dr. Prabhat Kumar Singh</p> <p>Nodal Officer-MRU,</p> <p>Vice Chancellor, UPUMS, UPUMS, Saifai-206130</p>
	<p>Dr. Sushil Kumar Shukla</p> <p>Co-ordinator-MRU,</p> <p>Professor, Department of Community Medicine,</p> <p>UPUMS, Saifai, Etawah, -206130</p>

Scientific and Technical Staff at DHR-MRU

Photo	Name of Faculty & Post
	<p>Dr. Arbind Kumar</p> <p>Scientist-II (Scientist C),</p>
	<p>Mr. Surya Pratap Singh</p> <p>Scientist-I (Scientist B)</p>

	Ms. Chandani Yadav Lab Technician
	Mr. Nand Kumar Yadav Lab Technician
	Mr. Prashant Chaturvedi Lab Assistant

Committees in place at MRU

1. Local Research Advisory Committee (LRAC)- for MRU as per DHR norms
2. Instructional Research Cell Committee
3. Institutional Ethical Committee (IEC)- Registered with Drug Controller General of India, CDSCO, New Delhi.
4. Initiated to get approval of DSIR for custom duty exemption

Local Research Advisory Committee (LRAC)- for MRU as per ICMR/DHR norms

S. No	Designation in RAC	Name, designation, and Organization
1	Nodal Officer/Member Secretary	Professor (Dr.) P. K. Singh, Vice Chancellor, UPUMS, Saifai, Etawah
2	Chairperson	Dr. Balbir Singh, Principal, ASMC, Firozabad
3	Co-Chairperson	Dr. D. S. Martolia, Principal, GMC, Kannauj
4	NCD Expert (External)	Dr. Tej Pal Singh, Professor, Department of Medicine, Sarojani Naidu Medical College, Agra

5	NCD Expert (Internal)	Dr. Rama Kant Yadav, Professor and Head, Department of Neurology, UPUMS, Saifai, Etawah
	NCD Expert (Internal)	Dr. Dhiraj Kumar Srivastava, Professor, Department of Community Medicine, UPUMS, Saifai, Etawah
6.	Nominee of State Health Department	CMO, Etawah
7.	Nominee from nearby ICMR	Mrs. Neha Mishra, Scientist C, NJIL&OMD Agra
9.	Coordinator	Dr. Sushil Kumar Shukla, Professor of Biostatistics, Department of Community Medicine, UPUMS, Saifai, Etawah

Facilities Available:

- Cell Culture Lab, Biochemistry, Molecular Biology and Cytogenetics labs with high-end instruments/equipment and well-trained Scientists and Technicians.

Departments Actively Involved with MRU:

- Neurology, Community Medicine, Biochemistry, Microbiology, Physiology, Pathology and Obst & Gynae

Indicative list of Equipment under Multi-Disciplinary Research Units (MRUs)		
S.No.	Name of Equipment	Qty.
General Basic Equipment		
HAEMATOLOGY ANALYZER		

MICROSCOPES		
1	Microscope (Fluorescent)	1
2	Microscope (Binocular-light)	2
CENTRIFUGE		
1	Ultra-centrifuge	0
2	Microfuge (refrigerated)	1
3	Table top refrigerated centrifuge	0
4	Table top non refrigerated centrifuge	0
5		
REFRIGERATED & DEEP FREEZERS		
1	Freezer (-70 degree)	1
2	Refrigerator (-20 degree)	1
3	Ordinary freezer	0
4	Mini cold freezer	0
5		
S.No.	Name of Equipment	Qty.

Basic Equipment for LAB		
1	Centrifuge	1
2	Bio-safety cabinet	1
3	Water bath	0
4	pH meter	1
5	Electronic weighing balance	1
6	Vortex mixers	1
7	Micro pipettes	4
8	Auto analyzer	1
S.No.	Name of Equipment	Qty.
STERLIZATION ROOM		
1	Autoclave	1
2	Hot air oven	1
ELISA READER		
1	Reader	1
2	Washer	1
HISTOPATHOLGOY SECTION		
1	Microscope	
2	Electronic weighing balance	
S.No.	Name of Equipment	Qty.
CYTOGENETICS LAB		
1	Fluorescent microscope with software	1
2		
TISSUE CULTURE LAB		
1	Biosafety (laminar hood) cabinet	1
2	Table top centrifuge	1
3	CO2 incubator	0
4		
5		
S.No.	Name of Equipment	Qty.
MINOR EQUIPMENTS		
1	Multi-channel micropipettes (variable) autoclave	1
2	Vortex	1
3	Electronic pH meter	1
4	BOD Incubator	1
5	Ultra sonicator	0
6		



FLUORESCENCE MICROSCOPE



BINOCULAR MICROSCOPE



VORTEX



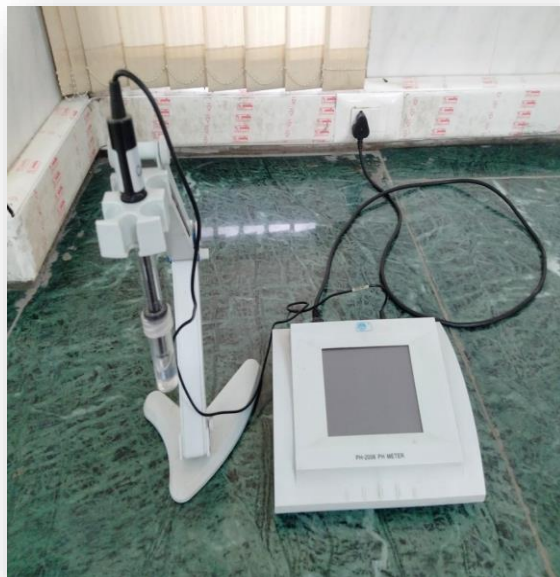
REFRIGERATOR MICROFUGE



ELISA READER WITH WASHER



WEIGHING BALANCE



pH-METER



-70° C DEEP FREEZER



-20° C DEEP FREEZER



BOD INCUBATOR



AUTO - ANALYZER



HOT AIR OVEN



AUTOCLAVE

Equipment to be Inducted in DHR-MRU

Sr. No.	Name of Equipment	Quantity
1	8x15 ml Laboratory Centrifuge (swing rotor)	1
2	Transilluminator UV	1
3	Gel electrophoresis system with power backup	1
4	PCR Machine: Thermocycler capable of gradient temperature with Electric power backup	1
5	Table top non refrigerated centrifuge with 1.5 ml/2.0 ml tube rotor	1
6	Mini Centrifuge with 8 x 2ml rotor & 2 x PCR 8 rotor [for 8x200 µl tube strips]	2
7	Cell frost (4°C)	1
8	Tissue homogenizer	1
9	Hot plate Magnetic stirrer	1
10	Laboratory scale weighing machine	1
11	Pipettes sets [all ranges,0.5-2.0µl; 1-10 µl; 10-100 µl; 20-200 µl; 100-1000 µl]	4 set
12	Computer/Desktop Workstation	1
13	Water Purification System (Millipore with Pre-Purification & Softener)	1
14	Dry Bath	1
15	ICE flaking machine	1
16	Table top refrigerated centrifuge with 15 ml/50ml rotor	1
17	Makler counting chamber	1
18	Positive pressure filtration unit	1
19	Nano Drop UV-Spectrophotometer	1
20	CO ₂ Incubator	1
21	CO ₂ cylinder & regulator	2
22	Real time PCR Machine	1
23	Gel Doc system	1
24	Microwave	1

Ongoing DHR-MRU Sanctioned Projects

S.N o.	Project No.	TITLE OF THE PROJECT	INVESTIGATORS		Domain	Year of approval	Duration
1	P01/MRU/U PUMS/2017	Study to evaluate the role of Human Papilloma virus infection in the development of prostate carcinoma	PI	Dr. Savita Agarwal	Cancer	2017	2 years
			Co-PI	Dr. Pinki Pandey Dr. Sushil Kumar Shukla			
2	P02/MRU/U PUMS/2017	Assessment of 113 Tyr>His Polymorphism of EPHX gene and its correlation to the development of Pregnancy induced hypertension	PI	Dr Amit Kant Singh	Reproductive health	2017	2 years
			Co-PI	Dr Kalpana Kumari			
				Dr Pragati Divedi			
				Dr. Savita Agarwal			
				Dr. Soniya Vishwakarma			
				Dr. Nupur Mittal			
		Dr. Reena Rani Verma					
3.	P03/MRU/U PUMS/2017	To evaluate utility of liquid-based cytology in screening oral cancers and precancerous lesions and prevalence of HPV	PI	Dr Pinki Pandey	Cancer	2017	2 years
			Co-PI	Dr Savita Agarwal			

		in Oral Cancers		Dr Jitendra Pratap Singh Chauhan Dr. Sushil Kumar Shukla			
4.	P04/MRU/U PUMS/2017	Effect of in-vitro additions of pentoxifylline on sperm motility in oligo-asthenospermic semen sample	PI	Dr. Kalpana Kumari	Reproductive Health	2017	2 years
				Dr Soniya Vishwarkarma Dr Nupur Mittal Dr Sarika Pandey Dr N.P. Singh Dr Amit Kant Singh Dr Savita Agarwal Dr Anamika Singh			
5.	P05/MRU/U PUMS/2017	Oxidative Stress and Polymorphism in EPHX gene in type 2 diabetes	PI	R. S. Rajpoot	Diabetes	2017	2 years
			Co-PI	Dr Vinit Chaturvedi Dr Manoj Kumar Dr. Sushil Kumar Shukla			
6	P06/MRU/U PUMS/2023	Unravelling the Role of Platelet Rich Plasma in the treatment of various Dermatological condition diagnosed through clinical and histopathological examination: A Prospective study in rural tertiary care hospital	PI	Dr Sanjay Kumar Kannaujia	Dermatology	2023	2 years
			Co-PI	Dr Sweta S Kumar Dr Rama Kant Yadav Dr Sandip Kumar Dr Geeta Maurya Dr Sanjeev Kumar Singh			
7	P07/MRU/U PUMS/2023	Deciphering the role iron status biochemical indicator and alteration in the transferrin genes susceptibility of Parkinson's Disease	PI	Dr Rama Kant Yadav	Neurological Disease	2023	2 years
			Co-PI	Dr Sandeep Yadav Dr Ajai Kumar Dr Arbind Kumar			
8	P08/MRU/U PUMS/2023	Deciphering the clinical correlations of micro RNAs (hsa-miR-21 and hsa-miR122b) in prediabetic, type 2 diabetic and diabetic nephropathy	PI	Dr Kirti Jaiswal	Diabetes	2023	3 years
			Co-PI	Dr Sandip Kumar Dr Ajai Kumar Dr Arbind Kumar			
9	P10/MRU/U PUMS/2023	<i>In silico</i> characterization of hypothetical protein of <i>Mycobacterium leprae</i> and identification of potential druggable molecules	PI	Dr Amit Singh	Leprosy	2023	1 year
			Co-PI	Dr Sushil Kumar Shukla Dr. Arbind Kumar			

Completed and to be Published Projects

S.No.	Project No.	TITLE OF THE COMPLETED PROJECT	INVESTIGATORS
	--	--	--

Training & Workshop:

SI No	Title	Date	Venue
	--	-	-

Project Undertaken:

<u>SI No</u>	<u>LRAC Approved Projects</u>	<u>Nos</u>
1	Completed and Published Projects	00
2	Completed and to be Published Projects	00
3	Ongoing Projects	09
	Total No of Projects Undertaken as on Dec 2023	09

Capacity building programs run by MRU, UPUMS Saifai Etawah

MRU will conduct a short-term training program for faculty and students of the region. The training is completely free for in-house candidates, however different training modules are provided for outsiders on a price basis.

Training course for in house students

MRU will provide free in-house training to all young brains so that researchers from all departments can interact, communicate, and be accountable. The training course is intended to aid graduates/post-graduate students in expanding their knowledge and abilities, as well as all students taking paramedical courses. Various molecular and biochemical techniques, as well as cell culture techniques, will be taught to students through training.

Contact with us

Department of Health Research-Multi-Disciplinary Research Unit
Uttar Pradesh University of Medical Sciences, Saifai,
Etawah, Pin – 206130, Uttar Pradesh (India).

Phone: +91-9882256921, E-mail id: mruupums@gmail.com

Google maps: <https://goo.gl/maps/hbeKBN55De2rZDGeA>