

अनुसंधान



Exploring the Unknown



Research Cell

All India Institute of Medical Sciences

BIBINAGAR

Hyderabad Metropolitan Region

Second Edition

(2022-2023)



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आज़ादी का
अमृत महोत्सव

INSPIRATION



Dr. Mansukh Mandaviya

Honorable Minister
for Health & Family Welfare
and Chemicals & Fertilizers
Govt. of India



Prof. S.P. Singh Baghel

Honorable Minister of State
Ministry of Health & family Welfare,
Govt. of India



Dr. Bharati Pravin Pawar

Honorable Union Minister of
State for
Health & Family Welfare
Govt. of India

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Shri (Dr.) Mansukh Mandaviya

Hon'ble Union Minister of
Health & Family Welfare
and Chemicals & Fertilizers
Government of India



MESSAGE

I am happy to learn that AIIMS, Bibinagar is publishing its research magazine "Anusandhan".

India has witnessed a paradigm shift in the healthcare under the able leadership of Hon'ble Prime Minister, Shri Narendra Modi ji. Hon'ble Prime Minister has provided huge impetus to innovation by adding "Jai Anusandhan" to the country's evergreen slogan of "Jai Jawan, Jai Kisan, Jai Vigyan".

During the recent Covid- 19 pandemic, it has been proved that India has the potential to be a global leader in terms of research. India rolled out its own indigenous covid-19 vaccine within a month of the introduction of the first covid 19 vaccine in the world.

AIIMS, Bibinagar has been established in Telangana under PMSSY to provide Tertiary health care services to the people of Telangana and to formulate, co-ordinate and promote health research. Honorable Prime Minister had laid the Foundation Stone of the AIIMS, Bibinagar on 8th April, 2023 and there is progress towards completion of construction and full establishment of the Institute. During my recent visit to AIIMS, Bibinagar, I had witnessed the progress of the institute on the academic, hospital services and research spheres.

Best wishes to AIIMS, Bibinagar, in its journey of health research and contributing in implementation of Government health programs and policies.

Jai Jawan, Jai Kisan, Jai Vigyan and Jai Anusandhan.

Dr. Mansukh Mandaviya



Smt. (Dr.) Bharati Pravin Pawar

Hon'ble Union Minister of State for
Health & Family Welfare
Government of India



MESSAGE

I extend my congratulations to AIIMS Bibinagar for the Second edition of Institute research magazine, "Anusandhan - unravelling the unknown". Inculcation of the seeds of Anusandhan in young budding doctors is highly appreciable to achieve the vision of "Jai Vigyan Jai Anusandhan".

As we navigate through and beyond Covid-19 pandemic, it is important to recognise and address opportunities and challenges of the research and strengthen our national health research workforce.

Hon'ble Prime Minister Shri Narendra Modi ji believes that the future belongs to societies that invest in healthcare. An example of this pious objective is the increase in the number of AIIMS in our country. Honorable prime Minister had laid down the Foundation Stone of the AIIMS Bibinagar on 8th April, 2023. AIIMS has three Pillars- Medical Education in various subjects, Research in biomedical science and providing medical service of highest level.

I hope that AIIMS Bibinagar will prove to be a milestone in the field of health and it will emerge as an institute of excellence soon. My best wishes for future endeavours in this noble journey of building healthy nation.

BP

Dr. Bharati Pravin Pawar

(Dr. Bharati Pravin Pawar)



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G. Kishan Reddy

Minister of Culture, Tourism and Development of
North Eastern Region Government of India

MESSAGE

It is my pleasure to write this message for the second edition of AIIMS Bibinagar Research Magazine - Anusandhan.

Our honorable Prime Minister Shri Narendra Modi Ji has always encouraged research in India. India is progressing ahead in the area of health research. In the pursuit of achieving the goal of Atmanirbhar Bharat, today we are producing vaccines, medicines and other health products not just for our needs but also for helping other countries. This has become possible due to efforts of our research institutes and scientists.

It is heartening to know see that AIIMS Bibinagar initiated research activities from its nascent stage and these are getting flourished with the development of the Institute. Hyderabad has now become global hub for medical research. The collaboration of AIIMS Bibinagar with various eminent research institutes in Hyderabad and in other parts of the country is highly appreciable.

Hon'ble Prime Minister laid the Foundation Stone of the AIIMS Bibinagar on 8th April, 2023. The institute will soon get fully established to provide excellent tertiary health care services and research facilities to people of Telangana and neighboring states.

My hearty congratulations to the Director and his team for their consistent efforts to serve the people of Telangana. My good wishes to the medical students and budding junior doctors who are the future of this country.

— | Jai Hind | —

G. Kishan Reddy



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Bandi Sanjay Kumar

Member of Parliament (Lok Sabha)
Karimnagar (Telangana)
Member: Standing Committee on Urban Development
Committee on Welfare of OBC
AIIMS, Bibinagar
Tobacco Board
State Level Committee on Minority Affairs

MESSAGE

It is my pleasure to write message for Second Edition of Institute research magazine, "Anusandhan-unravelling the unknown." My hearty congratulations to the entire AIIMS Bibinagar family for Foundation stone laying by our Hon'ble Prime Minister Shri Narendra Modi ji.

AIIMS Bibinagar has tradition of persevering in the face of adversity. The institute had always strived hard in providing best medical education to MBBS students and providing quality health care facilities to the people of Telangana.

I personally witnessed the progress of the institute with start of OPD of few specialty departments to now running advanced Super-specialty services with various facilities coming up. It's highly appreciable to see how these facilities and services are taken to the doors of people living in remote villages through mobile medical units.

AIIMS Bibinagar had achieved one more milestone by going beyond the health care services and encouraging the research in the institute which will offer support, strategies, and interventions to communities to battle against health issues and needs. The global pandemic presented many challenges to the world. Research at all levels has been impacted by limited access to facilities, subjects, and travel. Against this backdrop, it is impressive that AIIMS Bibinagar continued with all its research activities through various intramural and extramural projects in association with other research institutes.

It is admiring that Research' in AIIMS Bibinagar is not only limited to laboratories but also had reached to tribal and remote places in villages. Research projects are framed as per demographic asymmetries, regional and Social factors.

My best wishes to Director and his excellent team working under his guidance. May God give you all success in this noble journey of serving the humanity.

— | Jai Anusandhan | —

Bandi Sanjay Kumar



Prof. (Dr). George A. D'Souza

President
AIIMS Bibinagar

Dean
St.John's Medical College
and Hospitals

MESSAGE

Research and innovation are the benchmarks against which institutes of repute are judged. AIIMS Bibinagar, one of the newer AIIMS, has from the word go made research as an important goal of the institute. The research magazine 'Anusandhan' showcases what the institute has achieved in the year gone. It is also a means of communicating to the students and faculty the research priorities and research capabilities of the institute and thus fostering research on the campus.

Research is important for the advancement of any society and in health for improving the quality and longevity of our population. In health many of the problems are local and we need to find solutions which are relevant to our population. Hence it is important that an institute like AIIMS Bibinagar identifies problems which are relevant to our population. I think the institute should focus on health priorities in our country and find solutions for the same.

The institute from the very beginning has looked for collaborations with other institutes to help in its research initiatives. Today collaborative research is key as it brings together different ideas, capabilities and strengths and hence helps deliver better research. This is a right step that the institute has taken and in the long run will help the institute be a center of excellence in research.

Ultimately all that we do is for the betterment of our fellowmen and humanity. I wish the faculty and the students the very best in achieving these goals and making the institute a center of research excellence.

Prof. (Dr). George A. D'Souza

President
AIIMS Bibinagar



Prof. (Dr.) Vikas Bhatia

**Executive Director & CEO
All India Institute of Medical Sciences,
Bibinagar (Telangana)**

- ◆ Founder Dean,
All India Institute of Medical Sciences, Bhubaneswar (2012-19)
- ◆ Editor-In-Chief: Indian Journal of Community and Family Medicine
- ◆ Officer Incharge, Health Section, UNICEF (2004-2007)
- ◆ Bharat Jyoti Award (2017) and Best Citizens of India Award (2017) recipient
- ◆ 176 Research Publications, 56 funded Research Projects

MESSAGE

Research is “an investigation that is intentionally designed to help develop or contribute to the knowledge”. When you add ‘Medical’ purpose to the research, it leads to significant discoveries, improves health care and ensures that the patients receive the best care possible.

It can have an enormous impact on the quality of healthcare which in turn affects human health and longevity. Healthy individuals tend to be more productive and contribute greatly to the nation. That’s why our honorable Prime Minister, Shri Narendra Modiji had dragged attention of the entire nation to research by adding “Jai Anusandhan” to the country’s popular slogan, “Jai Jawan, Jai Kisan and Jai Vigyan” and made Research an integral pillar of our Atmanirbhar Bharat.

Research cell was established in AIIMS Bibinagar as I believed when you support, participate in or conduct research; you are helping to continue to build the future of medicine. Dean Research and the team of research cell had encouraged faculty, junior doctors and MBBS students to get actively engaged in research activities which lead to various innovative intramural and extramural projects of the institute in collaboration with researchers of different eminent institutes of the country.

I am happy to inform that Multidisciplinary Research Unit (MRU) has been approved by ICMR-DHR, Govt of India and is being established in our institute. Our smart scientific brains of different specialties are working together as one unit in the different projects. It is truly said, “Coming together is beginning, keeping together is progress and working together is success.”



After seeing immense enthusiasm and active participation of our MBBS students in research, we initiated the provision of special funds for Students' Research too. It is admirable to see research articles of First MBBS students as First Author in association with faculty in highly reputed PubMed indexed journals. Today's era is the era of artificial intelligence. We are also trying to utilize artificial intelligence in the best possible way in few of our research projects.

Establishment of AIIMS in Telangana had raised expectations of people of the state for receiving quality health care services. We are working on some projects considering regional health problems too like fluorosis, maternal and child health, mental health of people in tribal areas, etc.

We feel fortunate that Honorable Prime Minister, Shri Narendra Modi ji had laid the foundation stone of our institute on 8th April 2023. Under visionary Prime Minister's blessings and supervision, we are sure AIIMS Bibinagar construction and establishment will be one of the most advanced establishments in the country in the service of people of Telangana and neighboring states.

I congratulate research cell and all who contributed directly and indirectly in promotion and conduction of the research activities in the institute. I appreciate Editorial Board of 'Anusandhan' for beautiful depiction of our research journey of last year in this Second Edition. If we work together strengthening the current health system nothing can stop us from becoming the Center of Excellence in the research in near future. Let's remain committed to foster the environment that encourages the pursuit of knowledge and advancement in our institute. I would like to end with the inspiring quote of our Former President, APJ Abdul Kalam,

"We are all born with a divine fire in us. Our efforts should be to give wings to this fire and fill the world with the glow of its goodness."

Best wishes..



Prof. (Dr) Rahul Narang

Dean (Academics),
AIIMS Bibinagar



AIIMS Bibinagar as a potential nucleus for integrating Medicine, STEM and HASS

MESSAGE

During his visit to AIIMS Bibinagar, Dr Mansukh Mandviya, the Honourable Union Health Minister of India advised us to develop a Health Ecosystem around the Institute. This advise has multiple potential facets that will eventually define an upcoming Institute of National Importance working on Health for the people of Telangana. One major mandate of INI is Research and we are contemplating our Institute as a nucleus that will act as a platform for partners, collaborators, and experts working not only in the field of healthcare, but also various other fields of Science, Technology, Engineering, Mathematics (STEM) as well as Humanities, Arts, Social Sciences (HASS) and also Geology & Meteorology to tackle impact of Climate Change on Human Health and embrace the newer technologies, including but not limited to digitalisation, AI/ML, use of Drones, etc. for Salutogenesis of humans, animals and their environment following approach of One Health.



This may appear over ambitious and complicated in the beginning, but as we work with various agencies after understanding their expertise, we tend to utilize such joint efforts for the benefit of Society in initiatives led by the community. In the modern times, mental health is regaining importance after science has been able to control and prevent various communicable and non-communicable physical illnesses. Integrative Medicine is

another sphere that Honourable Minister talked about during his visit. Considering above, we have tried to create a model that will define the research path in AIIMS Bibinagar and involve various aspects of science, arts and spirituality.

Prof. (Dr) Rahul Narang

Dean (Academics)
AIIMS Bibinagar



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Prof. (Dr.) Yogesh Chawla

M.B.B.S., M.D, D.M. (Gastroenterology)
AIIMS, New Delhi

- ◆ Padma Shri B C Roy Award recipient
- ◆ Former Director & Emeritus Professor, PGIMER
- ◆ Former Prof. & Head, Department of Hepatology, PGIMER, Chandigarh (India)
- ◆ Chairman, Scientific Advisory Committee, AIIMS Bibinagar, Hyderabad
- ◆ Chairman Academics and Professor Emeritus, Kalinga Institute of Medical Sciences (KIMS), Bhubaneswar
- ◆ Member, Institute Body AIIMS, Bhubaneswar
- ◆ Chairman, Academic Committee, JIPMER, Pondicherry
- ◆ Member, Academic Committee, ILBS, New Delhi
- ◆ Member, Academic Committee, IMS BHU, Varanasi
- ◆ Member, Governing Council, SRMC, Chennai
- ◆ Member, Board of Management, JSS Academy of Higher Education and Research, Mysuru

MESSAGE

It is with immense pleasure and pride that I welcome you all to the second edition of the annual research magazine of AIIMS Bibinagar, a beacon of excellence in the field of medical education and research in India. As the Chairman of the Research Scientific Committee, it is my privilege to present to you a glimpse into the remarkable research endeavors of our talented faculty and students.

In the pursuit of knowledge and advancements in healthcare, AIIMS Bibinagar has always been at the forefront. These achievements not only demonstrate the caliber of the researchers driven by their passion for discovery and desire to improve patient care, but also highlight the institution's commitment to scientific inquiry and dedication to address some of the pressing health challenges faced by our society.

The commitment to nurturing young scientific talent is reflected in the exceptional research contributions from the students. These budding scientists have embraced the spirit of inquiry, showcasing their ingenuity through innovative projects. The faculty mentors have played an instrumental role in guiding and encouraging their scientific pursuits. AIIMS Bibinagar has also actively fostered collaboration and partnerships with national and international institutions, recognizing the importance of a global approach to scientific discovery, leveraging the diverse expertise and resources, and further enhancing the impact and reach of the research efforts.

AIIMS Bibinagar remains committed to fostering an environment that encourages scientific curiosity, providing state-of-the-art facilities, and promoting interdisciplinary collaborations. We strive to create a fertile ground for research, where ideas can flourish, innovation can thrive, and transformative discoveries can be made, contributing to the global pool of scientific knowledge.

I extend my heartfelt appreciation to the faculty and students of AIIMS Bibinagar for their unwavering commitment and hard work, and for maintaining the highest standards of scientific rigor and integrity. Together, let us continue to push the boundaries of knowledge and drive meaningful change, paving the way for a healthier and brighter future for all.

With warm Regards

Prof. (Dr.) Yogesh Chawla



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Prof G Suryanarayana Raju

MS., MCh., FRCS., FUICC

- ◆ Member of Medical Assessment and rating Board, National Medical Commission,
- ◆ Chairman, IEC, AIIMS Bibinagar.
- ◆ Former Director, Asvins Specialty Hospitals, Hyderabad
- ◆ Dean of Research and Projects, Nizams Institute of Medical Sciences, Hyderabad
- ◆ Senior Professor and Head of Department, Surgical Oncology, NIMS, Hyderabad

MESSAGE

AIIMS BBN- Institutional Ethics Committee

Research has been given utmost priority by the management of AIIMS (All India Institute of Medical Sciences) Bibinagar, leading to the establishment of the Institutional Ethics Committee (IEC) in November 2020. AIIMS Bibinagar was established in 2019, and the IEC was promptly constituted to ensure ethical compliance in biomedical research activities conducted at the institution.

To maintain effective functioning of the IEC and ensure quality and technical excellence, the institution has compiled Standard Operating Procedure guidelines. These guidelines are in accordance with the ICMR (Indian Council of Medical Research) National Ethical Guidelines for Biomedical and Health Research involving Human Participants-2017 and the New Drugs and Clinical Trials Rules 2019.

The Institutional Human Ethics Committee (IHEC)/IEC at AIIMS Bibinagar plays a crucial role in guiding researchers on ethical aspects associated with biomedical research. The committee's main responsibility is to address ethical issues and protect the participants and investigators involved in biomedical research and clinical trials. Additionally, the IEC reviews research proposals for scientific relevance and the risks involved, alongside addressing ethical concerns. AIIMS Bibinagar IEC is registered with the Central Drug Standard Control Organization (CDSCO) and the National Ethics Committee Registry for Biomedical and Health Research (NECRBHR) under the Department of Health Research (DHR).

The Director, Dean, and Dean of Research actively encourage the participation of faculty, residents, and students in institutional, multicenter studies, and epidemiological research projects. The IEC promotes open discussions and communication, fostering a climate that encourages free expression throughout its activities.

To date, the IEC has conducted a total of 10 meetings, with 4 meetings held in the last year (2022-23). The committee has reviewed approximately 275 research proposals. The institution also conducts basic training courses for ethics committee members and investigators to enhance their understanding of ethical considerations.

In the current academic year (2022-23) several projects have been approved in collaboration with research laboratories in Hyderabad, including the National Institute of Nutrition (NIN) and other AIIMS institutes. The progress of these projects is being closely monitored. Despite the challenges posed by the COVID-19 pandemic, AIIMS Bibinagar's IEC has approved numerous projects, including those related to post-COVID sequelae. These accomplishments signify a significant achievement for the institution.

I wish the faculty, residents and students to avail the research facility created in AIIMS, Bibinagar Telangana state and lead in research amongst all the medical institutions in the country.

Prof G Suryanarayana Raju
Chairman, IEC

Salutogenic Alliance Modelled to Achieve Atma Nirbhar-Ayushman Bharat

(A Health Care Ecosystem Model to make Health Care in India- Future Ready)

Contributors

**Prof. (Dr) Vikas Bhatia; Prof. (Dr) Rahul Narang; Prof. (Dr) Sangeetha Sampath
Dr Yona M; Dr Raja S; Dr Vishaka Jain; Dr R Shyamala; Dr Vaman Kulkarni ;
Dr Anish Singhal ; Dr Emine ; Dr A Rajendra Prasad**



आरोग्यं परमं भाग्यं स्वास्थ्यं सर्वार्थसाधनम्
(संस्कृत सुभाषितानि)

Introduction

Our ancient scriptures have always asserted the importance of Good Health & Well Being. Addressing the 10th Episode of 'Mann Ki Baat 2.0', Honourable Prime Minister Shri Narendra Modi has quoted the adage mentioned above. It means 'Good health is the greatest fortune and with Health all things are accomplished'. As evident from the Government initiatives/ schemes such as Swachh Bharat Mission, Jal Jeevan Mission, Ujjwala Yojana, Poshan Abhiyan, Mission Indradhanush, Ayushman Bharat Yojna, Ayushman Bharat Digital Mission and PM Ayushman Bharat Health Infrastructure Mission, Government of India envisions providing a comprehensive, need-based health care to its citizens rather than sectoral and segmented health services. The novel initiatives by Telangana State Government such as: Aasara Pensions Dharani, 24/7 Uninterrupted Electricity, Grama Jyothi, Housing for the Poorm, Kalyana Lakshmi / Shaadi Mubarak scheme, KantiVelugu, KCR Kit for pregnant women and new born babies, Mana Ooru – Mana Kuragayalu, Mission Bhagiratha , Mission Kakatiya, Rythu Bandhu, SHE Teams, Sheep Distribution, TASK - Telangana Academy for Skill and Knowledge , Telanganaku Haritha Haram, etc are community oriented and focus on Good Health and Well being of humans, animals and environment.

In the second G20 Health Ministers Meeting, Dr Mansukh Mandaviya, Union Minister for Health and Family Welfare has stated that “India is committed to contributing immensely to create a future-ready and resilient global healthcare ecosystem. In accordance with the foresight of the Government to reform the country’s Health Infrastructure, AIIMS Bibinagar proposes the establishment of a Health Care Ecosystem depending on our local terrain, governance and collaborating Institutions.

Following concepts are the key elements of the Health Care Ecosystem, the Community driven Salutogenesis and various alliances formed in a One Health Approach proposed by AIIMS Bibinagar. Salutogenesis (Salus : Health, Genesis : Source) is a concept that focuses on factors that support human health and well being rather than on factors that cause disease.

At the heart of the Global 2030 agenda for Sustainable Development, is the principle of universality- ‘Leave No One Behind’. Sustainable development is incomplete without equitable access to all people, in every part of the country, including the most vulnerable and marginalized. This is even true in the case of Good Health & Well Being of the population. Hence the interim goal of establishing the proposed Health Care Ecosystem around AIIMS Bibinagar is ultimately directed to aid the population in achieving the Sustainable Development Goals with ease and dignity.



Figure 1: Goal of the Health Care Ecosystem (© AIIMS Bibinagar)

Proposed AIIMS Bibinagar Health Care Ecosystem

Rationale of Establishment of Health Care Ecosystem:

With the advent of Ayushman Bharat Digital Mission (ABDM) the backbone necessary to support a digital health infrastructure is well set in the country. The launch of Prime Minister Ayushman Bharat Health Infrastructure Mission (PM-ABHIM) marks a new era in transforming the physical Health Infrastructure significantly. This is the opportune hour to establish an Integrated Health Care Ecosystem that links the local to the global, the physical to the biological and social, the probabilistic to the deterministic health interventions.

Objectives of Health Care Ecosystem:

The proposed Health Care Ecosystem adopts a One Health approach thereby ensuring equitable Health Care to all concerned. The core components of the Health Care Ecosystem are to assist the Government in implementing its Health Initiatives successfully, providing Integrative Health care to the local population, collaborating with various neighbouring Institutions/experts and embracing novel Digital Health solutions.

AIIMS Bibinagar- Health Care Ecosystem-the Asclepius Model

The Health Care Ecosystem like any other ecosystem essentially involves a complex interplay of several components and stakeholders. The primary target of the Health Care Ecosystem is to achieve Community Health through Salutogenesis. Nonetheless, providing holistic health care to patients presenting with any disease, Non-communicable or Communicable through Integrative Medicine is its motto. The entire continuum of Humans, Animals, Plants, Environment and their respective interfaces will be monitored by the Health Care Ecosystem. The Health Care Ecosystem and relevant projects conceived by AIIMS Bibinagar are depicted below.

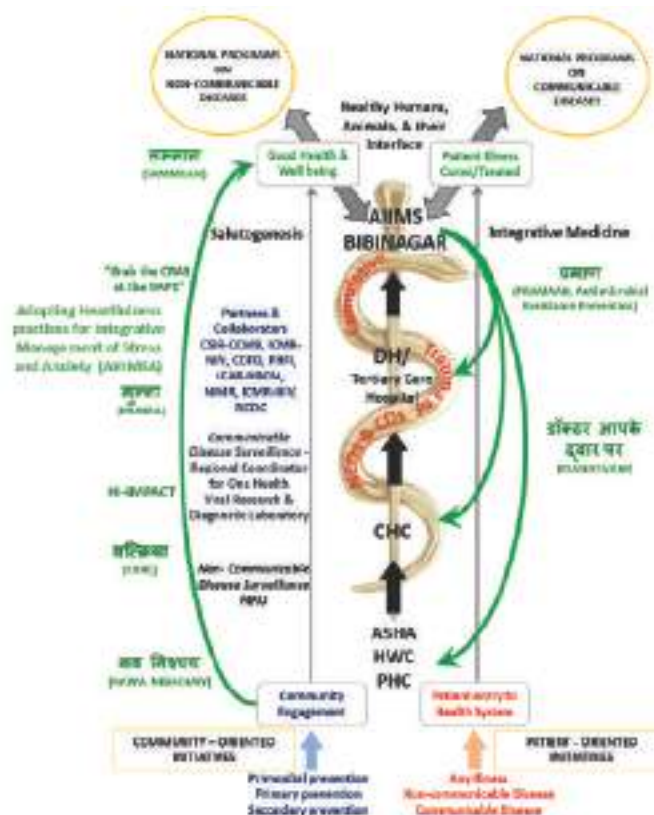


Figure 2: The Health Care Ecosystem of AIIMS Bibinagar The Asclepius Model (© AIIMS Bibinagar)

Holistic Health Through Integrative Medicine- AIIMS Bibinagar Model

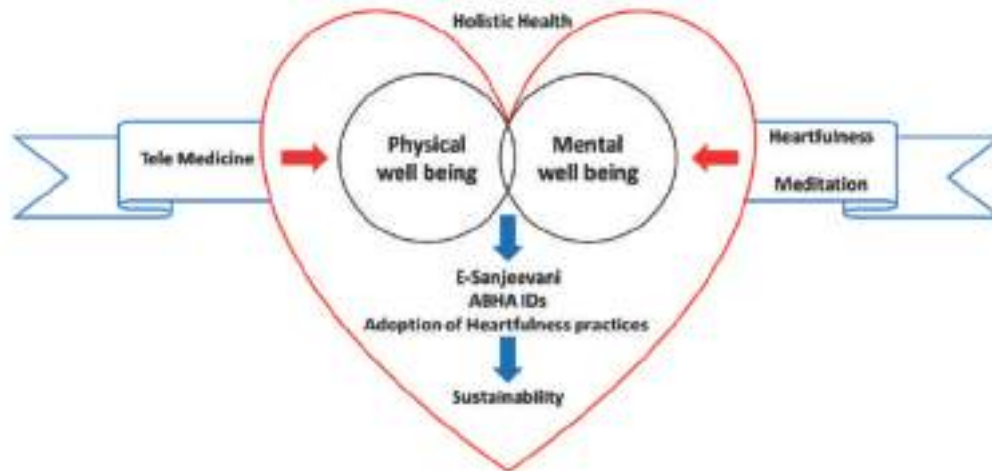


Figure3: Holistic health through integrative medicine(© AIIMS Bibinagar)

Economics Of Developing The Health Care Ecosystem

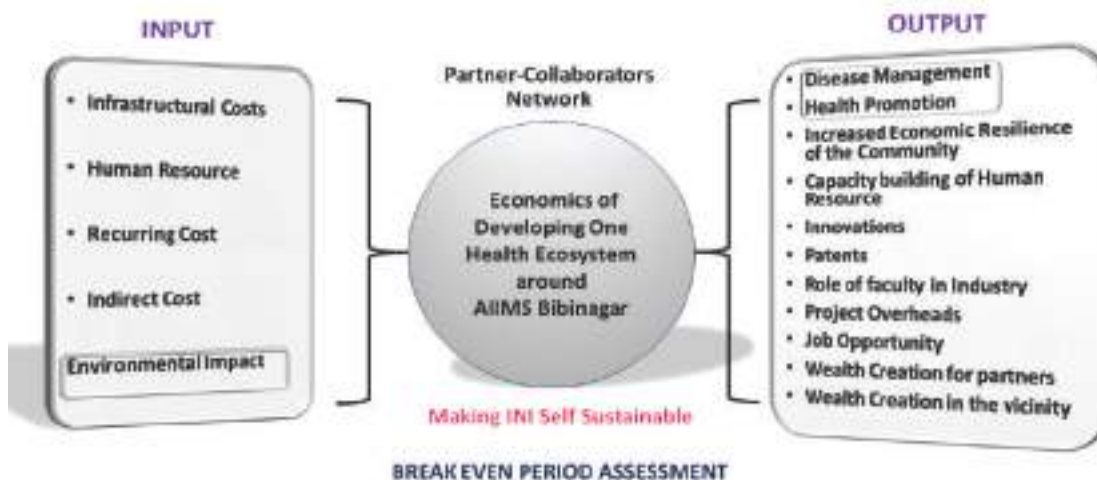


Figure 4: Economics of developing the Health Care Ecosystem (© AIIMS Bibinagar)

Example: Strategic Plan Of AIIMS Bibinagar To Combat Climate Sensitive Infectious Diseases Using Health Care Ecosystem

The Projected steady rise in the Human Health due to implementation of Prime Minister Ayushman Bharat Mission in India Vs the Degradation of Land, water bodies and air pollution due to rapid Urbanization is depicted below (Figure 6). The picture also illustrates Climate vulnerable districts of Telangana (2021) and Land Use- Land Cover Modelling for Eastern Ghats till 2050. The strategic plan of AIIMS Bibinagar to Combat Climate Sensitive Infectious Diseases is based on this projection.

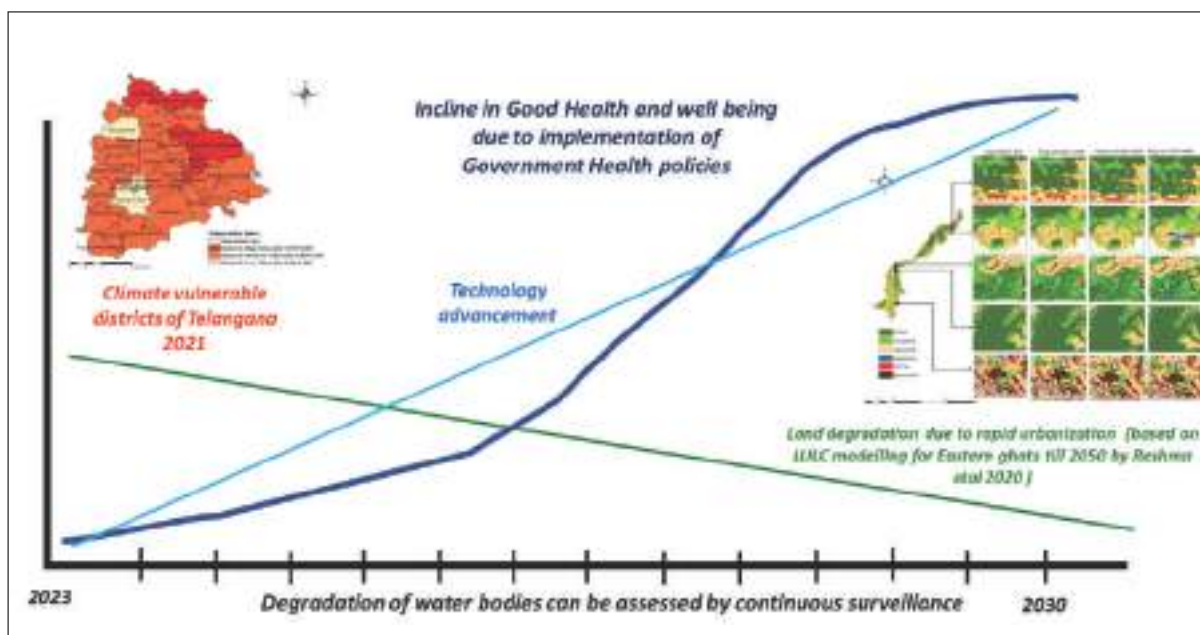
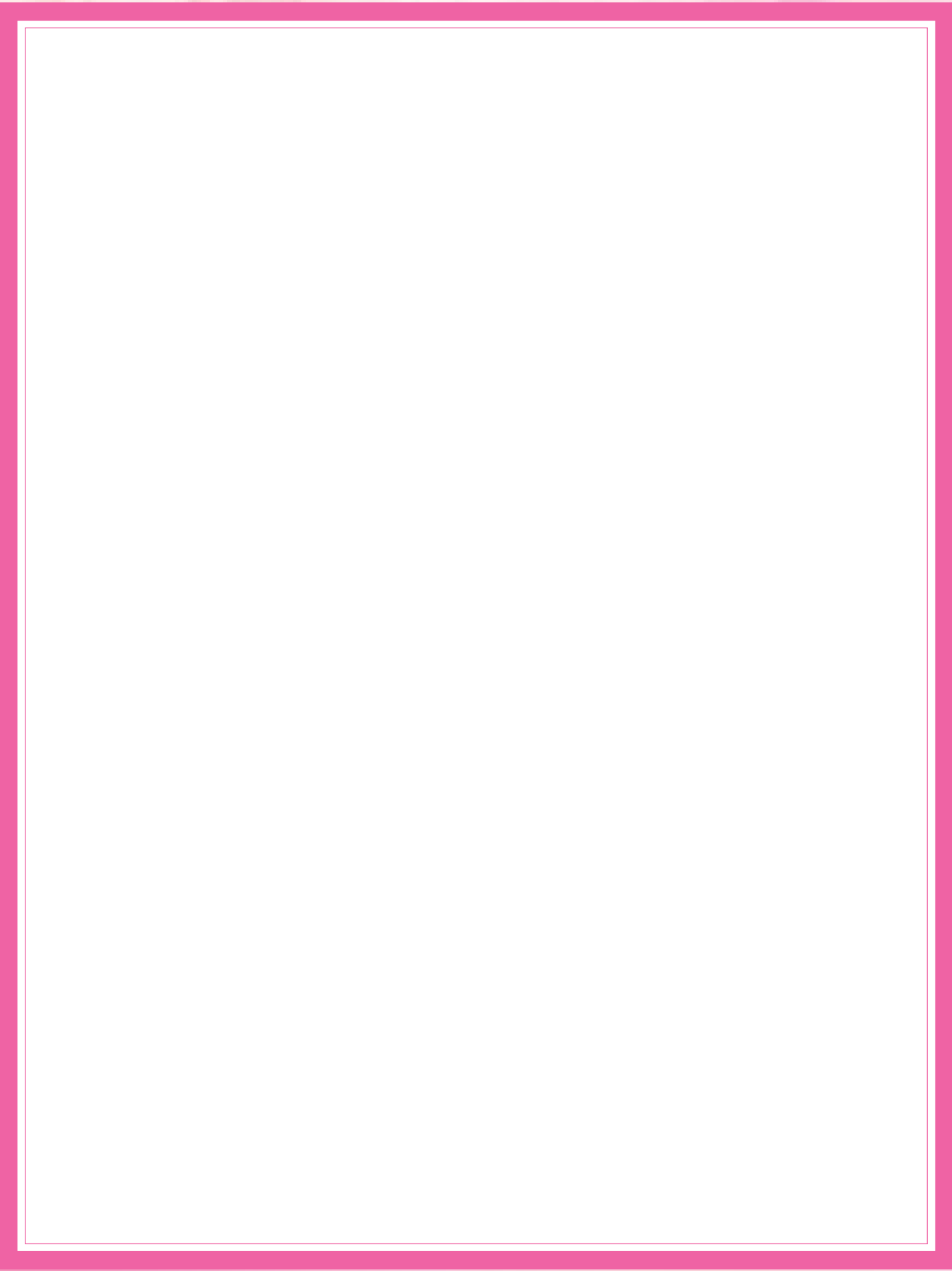


Figure 5 Example of strategic plan to combat climate sensitive infectious diseases using health care ecosystem

Conclusion

In this ever changing world of uncertainty and endless battles of the struggle for existence, humans have always proven their worth. The pandemic has proven it yet again. A Healthy Nation is an asset to the entire planet. Universal Health Care that is robust, accessible and affordable is the latest target of our country. In order to achieve this target we need to adequately assess our past, learn from our mistakes (if any), innovate and intervene in our present. Establishment of a functional One Health Care Ecosystem should be the first step in this direction.

A promising future awaits a Self-Reliant and Healthier India (Atma Nirbhar-Ayushman Bharat).



Members of the CTRC



Dr. Madhavi Eerike

Chairperson

Associate Professor of Pharmacology

Former Scientist-D (ICMR-HQ); Member Secretary IEC; Site and Lead PI for many renowned trials; More than 40 research publications; Extramural projects from ICMR, DHR; Areas of Interests: Infectious diseases, Rational Pharmacotherapy, Diabetes, Lipid metabolism



Dr. Sai Krishna Tikka

Member

Associate Professor of Psychiatry Post-doctoral fellowship (DBT-INCRE) from National Brain Research Centre (NBRC);

98 PubMed/SCOPUS publications (h-index 18) and 26 book chapters ;

Extramural projects from DBT, DST, NIDA, UNICEF Areas of Interests: Psychotic disorders, Cognitive neuroscience, and Brain stimulation



Dr. V. Mounika Reddy

Member

DM Paediatric Critical Care

Assistant Professor of Paediatrics

More than 25 research papers and book chapters (h-index 5);

Extramural projects from SERB Areas of Interests: Pediatric critical care, Pediatric emergency, Septic shock, Tropical infections, Acute respiratory distress syndrome



Dr. Gomathi R

Member

Assistant Professor of CMFM Member,

National Centre of Excellence and Advanced Research on Anemia control (NCEAR-A),

AIIMS New Delhi; Mentor, Structured Operational Research and Training Initiative,

WHO-TDR; Nodal Person, State Centre of Excellence for Nutrition (SCOEN); Extramural

projects from UNICEF and ICMR Areas of Interests: Public health nutrition, Anemia, Malnutrition, Epidemiology and implementation research



Dr. Gerard Marshall Raj

Member Secretary

Assistant Professor of Pharmacology Edited and published 3 Book volumes for

Springer-Nature and also many research & review articles (n ≈40; h-index 9);

Reviewer for National Institute for Health and Care Research (NIHR), UK and also for many

other high-impact journals (n ≈ 25) Extramural projects from ICMR Areas of Interests:

Pharmacogenomics, Precision medicine, Diabetes, AI, Drug patents and IPR

Proceedings of the CTCRC

The CTCRC meetings are convened on a case-to-case basis based on the submission of clinical trial proposals by the Pis.
The CTCRC had convened two review meetings (till 31st March 2023)

- **1st Meeting – 19th November 2022**

- o A Phase III, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy, Immunogenicity and Safety of Single dose of Dengue Tetravalent Vaccine, Live Attenuated (Recombinant, Lyophilized) – “DengiAll” of Panacea Biotec Limited in Healthy Indian Adults (*DengiAll Trial – ICMR/Panacea Biotec Limited Sponsored*)

- **2nd Meeting – 8th March 2023**

- o Immunogenicity and safety of JENVAC and JEEV vaccines administered for prevention of Japanese Encephalitis in an interchangeable dosing schedule among healthy Indian children: A multicentric, phase IV, open-labeled, randomized, controlled trial (*ICMR-NIE Sponsored*)

After thorough scrutiny and close examination, all the two trial proposals were accorded with conditional approval. Further, the CTCRC-SOP was presented and discussed during the 2nd Scientific Advisory Committee (SAC) Meeting held on 9th December 2022 in the presence of Prof. (Dr.) Yogesh Chawla, Chairperson, SAC, AIIMS Bibinagar.

The trial team presenting the proposal during the 1st CTCRC Meeting



AIIMS Bibinagar
Clinical Trial Review Committee
Details of the Clinical Trials reviewed by CTCR (Till 31st March 2023)

S. No.	CTRC Protocol number	CTRC Meeting details	CTRC Provisional approval letter details	Trial Title	PI details	Funding agency	Tentative/ Provisional Budget sanctioned (INR)
1.	AIIMS/BBN/CTRC/2022/Oct/Protocol / 01	1st Meeting 19th November 2022	AIIMS/BBN /CTRC/202 2/06 dated 12.12.2022	A Phase III, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy, Immunogenicity and Safety of Single dose of Dengue Tetraivalent Vaccine, Live Attenuated (Recombinant, Lyophilized) – “DengiAll” of Panacea Biotec Limited in Healthy Indian Adults	Dr. Rashmi Kundapur Additional Professor Department of Community and Family Medicine AIIMS Bibinagar, Hyderabad Telangana	ICMR Panacea Biotec Limited	86,68,420
2.	AIIMS/BBN/ Jan/ Protocol/02	2nd 8th March 2023	AIIMS/BBN 17 dated 29.03.2023	Immunogenicity and JEEV vaccines administered for prevention of Japanese Encephalitis in an interchangeable dosing schedule among healthy Indian children: A multicentric, phase IV, open-labeled, randomized, controlled trial	Dr. Rashmi Kundapur Department of Community and Family Medicine AIIMS Bibinagar, Hyderabad Telangana	ICMR	58,72,690

Multi-Disciplinary Research Unit

The proposal for establishment of Multi-Disciplinary Research Unit (MRU) in All India Institute of Medical Sciences was submitted to Department of Health Research (DHR) in 2022. DHR approved the establishment of MRU and the unit is established under the leadership and guidance of Prof. (Dr) Vikas Bhatia, Executive Director of the institute in 2023. Dr. Mrudula Chandrupatla, Additional Professor and Head of Department of Anatomy is the Nodal Officer for the unit. The objective of MRU is to promote and encourage quality medical research on non-communicable diseases and other need-based research in the institute.

As per the DHR mandate, the Local Research Advisory Committee (LRAC) was established to guide MRU and to inculcate and initiate robust path-breaking scientific research projects to provide evidence on better patient care and management. Dr. Yogesh Chawla, Former Director PGIMER Former Prof. & Head, Department of Hepatology PGIMER, Chandigarh is the Chairperson of the LRAC. The LRAC has external members from AIIMS, Bhubaneswar, National Institute of Nutrition, ICMR and District Tuberculosis Office to review and monitor the progress of activities under MRU. The committee is further strengthened by the internal members of AIIMS, Bibinagar – Dr Rahul Narag, Dean – Academics, Dr Sangeetha Sampath, Dean-Research and Dr Neeraj Agarwal, Medical Superintendent. Dr. Mrudula Chandrupatla, is the member secretary of the LRAC.

Activities carried out under MRU:

The first MRU meeting was held on 14th September 2022 with participation from ICMR. Around 10 research concept notes were presented by the faculty from AIIMS, Bibinagar. Five concept notes were finalized.

The first Local Research Advisory Committee (LRAC) meeting of Multi -Disciplinary Research Units (MRU) at All India Institute of Medical Sciences, Bibinagar was held on 1st July, 2023, Saturday to review the proposals submitted under MRU.

The following research topics were presented to the LRAC by the investigators from AIIMS, Bibinagar.

1. Strengthening of biomedical waste management at different health care levels – A district model
2. Gal analysis, challenges, encountered and strengthen of Primary Health Care delivery among tribal population of India
3. Genetic analysis of Product of Conception (POC) in the Recurrent Pregnancy Loss (RPL)
4. Molecular characterizations of beta-thalassemia in rural Telangana – A pilot hospital-based study
5. Schwann cell basement membrane zone abnormalities of cutaneous nerve fibers in diabetic neuropathy

All five proposals were provisionally approved with suggestions and the unit will be initiating the activities in near future.

The following are the LRAC committee members

MRU and LRAC Members

Chair Person (LRAC)

Prof. (Dr.) Yogesh Chawla

Former Director PGIMER
Former Prof. & Head, Department of
Hepatology PGIMER, Chandigarh



Chair Person (MRU)

Prof. (Dr.) Vikas Bhatia

Executive Director
AIIMS Bibinagar

Co-Chairperson (LRAC)

Prof. (Dr.) Binod Kumar Patra

Professor, Community and
Family Medicine
AIIMS Bhubaneswar



Dr. Swayam Pragya Parida

Additional Professor,
Dept. of CFM
AIIMS Bhubaneswar

Prof. (Dr.) Rahul Narang

Dean (Academics)
Professor & Head,
Department of Microbiology,
AIIMS, Bibinagar



Prof. (Dr.) Neeraj Agarwal

Medical Superintendent
Professor, Community and
Family Medicine, AIIMS Bibinagar

Prof. (Dr.) Sangeetha Sampath

Dean (Research)
Professor & Head of Department of
Biochemistry,
AIIMS, Bibinagar



Dr. G. Bhanu Prakash

Scientist – G
National Institute of Nutrition
Head, Department of
Biochemistry

Dr. Papa Rao

District Tuberculosis Officer
Yadadri Bhuvanagiri District



Nodal Person (MRU)

Member Secretary (LRAC)

Dr. Mrudula Chandrupatla

Associate Dean (Research)
Additional Professor & Head of
Department of Anatomy, AIIMS, Bibinagar



Additional Nodal Person (MRU)

Dr. Gomathi R

Assistant Professor
Department of CMFM
AIIMS, Bibinagar



AIIMS BBN INSTITUTIONAL ETHICS COMMITTEE

AIIMS BBN-Institutional ethics committee is functioning since November 2020 under the Chairmanship of Prof G Suryanarayana Raju. The main responsibility of this committee is protection of the participants involved in the biomedical research and clinical trials.

AIIMS BBN-IEC is registered with Central Drug Standard Control Organization (CDSCO) and National Ethics Committee Registry for Biomedical and Health Research (NECRBHR), Department of Health Research (DHR) and works as per ICMR National Ethical Guidelines 2017, New Drugs and Clinical Trials Rules 2019 (NDCTR 2019) and ICH GCP guidelines. After its constitution a total of 10 meetings were conducted and 4 were in the last year 2022-2023. Nearly 275 proposals were reviewed by the IEC so far.

Registration Details

- CDSCO - Registration No. ECR/1596/Inst/TG/2021
- DHR Provisional Registration No. - EC/NEW/INST/2021/1893

Members of the Committee

S. No	Name	Affiliations & Address	Role in the committee
1	Dr.G Suryanarayana Raju	Member, NMC, Former Senior Prof & Head, Surgical Oncology NIMS, Former Dean Research NIMS - Hyderabad	Chairperson
2	Dr. Madhavi Eerike	Associate Prof and I/C Head, Dept of Pharmacology, AIIMS Bibinagar	Member Secretary
3	Dr. CH Rama Krishna Prasad	Assistant Professor, Dept of Anaesthesia, AIIMS Bibinagar	Clinician
4	Dr. Gomathi R	Assistant Professor, Dept of CFM, AIIMS Bibinagar	Clinician
5	Shri Padmarao Lakkaraju	National Vice President, All India Prosecutor Association, Hyderabad	Legal Expert
6	Ms. Meeta Joshi	Head, Dept of History, St Ann College, Hyderabad	Social Scientist
7	Shri. Durga Das Saha	Ex. Director, Mines Safety, Hyderabad	Layperson from the community.

From April 2022 to March 2023, a total of 113 proposals were received by IEC and 98 proposals reviewed with full committee and 15 proposals under exemption from review category.

Out of 113 proposals,

- Extramural grant received projects 10
- Intramural grant 5
- Applied for extramural grant 7
- Applied for ICMR STS 8
- Sponsored Clinical trial (ICMR) 1
- UG students non funded projects 14
- PG dissertations 11

The details of meetings conducted and proposals reviewed as follows

S.No	Meeting number	Date of meeting	Number of proposals reviewed
1.	7th IEC meeting	23rd July 2022	50
2.	8th IEC meeting	08th October 2022	15
3.	9th IEC meeting	12th Dec 2022	10
4.	10th IEC meeting	25th March 2023	23
5.	Exemption from review		15
	Total		113



7th IEC meeting



8th IEC meeting



9th IEC meeting



10th IEC meeting

State Centre of Excellence for Nutrition

Why malnutrition in children needs focus?

Malnutrition is a significant problem in India, particularly among young children. The National Family Health Survey (NFHS-5) conducted in 2019-20 revealed that 19.3% of children under five years old in India suffer from wasting, which means they have low weight for their height, and 7.7% of children in this age group are severely wasted, indicating a more serious condition. Wasting can have severe consequences on children's health, including an increased risk of illness and even death. The causes of malnutrition are inadequate food intake, lack of access to clean water and sanitation, and exposure to infectious diseases.

What is SSFP program in Telangana and role of AIIMS, Bibinagar?

According to the NFHS-5 data, the prevalence of wasting in Telangana is comparatively higher than the national average. In Telangana, 37.7% of children under five years old are stunted (having low height for their age), 20.5% are underweight (having low weight for their age), 21.7% are wasted, and 8.5% are severely wasted. These numbers indicate a significant problem that needs urgent attention. The Department of Women Development and Child Welfare (WCDW) under the Government of Telangana has implemented a new and innovative program called Supervised Supplementary Feeding Program (SSFP) across the state in a phased manner in 2020. This program aims to improve the nutritional status of children under five years of age by regular monthly growth monitoring at Anganwadi centers and providing energy-dense food - Balamrutham plus (product developed by NIN-ICMR) to the children identified with wasting.

The Department of Community Medicine and Family Medicine in AIIMS Bibinagar (an institute of National importance), is conducting implementation research to monitor the implementation of SSFP in the districts of KB-Asifabad and J-Gadwal since December 2021 expanded to Kammarreddy district in 2023 in collaboration with WCDW and UNICEF. UNICEF funds this project.



State Centre of Excellence for Nutrition (SCOEN):

State Centre of Excellence for Nutrition is established in the Department of CMFM. SCOEN functions under the guidance of Executive Director Prof. (Dr.) Vikas Bhatia, Lead, SCOEN. Dr. Neeraj Agarwal, Co-Lead, SCOEN, HOD, CMFM, MS. Faculty part of SCOEN are Dr Gomathi Ramaswamy (Nodal Person of SCOEN), Dr Kishore Yadav Jothula, Dr Meely Panda and Dr Vaman Kulkarni from the department of CMFM. SCOEN works closely with Anganwadi teachers, district administration, mothers of under-five children and community members in these districts to ensure that the program is effectively implemented and that the nutritional needs of the targeted population are met. AIIMS Bibinagar conducts regular assessments of the program's progress and provides recommendations to the WDCW to make necessary adjustments for its success.

Impact:

1. Identification of gaps in the program implementation and provide feasible and evidence-based solutions
2. Monthly reports of supportive supervision are shared with the AWT, ICDS, district and state level administrators to take mid-course corrections
3. Capacity building of health and ICDS workforce
4. Technical advisory group meetings for review and further improvement of the program.



A few activities of SCOEN:



A few activities of SCOEN:



“A pilot study to assess the effect of elevated fluoride levels on maternal-fetal, neonatal and neurodevelopmental outcomes”

Honourable Governor Dr. Tamilisai Soundararajan has encouraged AIIMS Bibinagar faculty to do research on local problems for which she has given a grant to work on fluorosis problem. It's well known that fluorosis affects teeth and bones. But, its effect on pregnancy and neonatal outcome is not known. Hence faculty is conducting a study to follow up all pregnant women in this region. Pregnant women from 8 villages (High fluoride group- Bibinagar, Gogulthanda, Raheemkhanguda, Jainapally, Low fluoride group- Battugudem, Palvaigudem, Chokulathanda, Neelathanda) are being enrolled in this study with the help of health care workers of the Yadadri Bhuvanagiri district. Fluoride levels are estimated in drinking water and soil samples, as well as serum and urine of pregnant women.



New Intramural Funded Projects (2022-2023)

S.No	File Number	Title of the Project	PI Names	Total Budget
1	AIIMS/BBN/IM-F/2021/29	Comparision of cognitive functions between Bilingual and Multilingual	Dr.Kalpana M	Rs.1,50,545
2	AIIMS/BBN/IM-F/2022/30	Epidermiology, etiology and outcomes of severe acute respiratory infections (SARI) in children aged 1 month to 18 years in the Covid-19 era-a hospital-based prospective observational study	Dr.Mounuika Reddy	Rs.4,98,500/-
3	AIIMS/BBN/IM-F/Research/2023/31	Targeting Mitochondrial Behavior And Load In Exfoliated Buccal Epithelial Cells As Prognostic Markers Of Glycation In Type-2 Diabetes Targeting mitochondrial behavior	Dr Surraj.S	Rs. 1,96,760
4	AIIMS/BBN/IM-F/Research/2023/32	Genotoxicity and hepatotoxicity testing of Artificial Sweeteners in the Liver tissue of Rats by Comet Assay and his to pathological techniques: An Experimental Study	Dr.Ariyanachi K	Rs. 4,97,870
5	AIIMS/BBN/IM-F/Research/ 2023/33	Assessment of Immune cells in the end ometrial tissue in women with heavy menstrual bleeding and in those with normal cycles: A Cross Sectional Comparative Study	Dr.Mishu Mangla	Rs.4,99,800
6	AIIMS/BBN/IM-F/Research/ 2023/34	Utility of cell block preparation in comparison to conventional smears in the evaluation of Abnormal uterine bleeding by directly sampled endometrial cytology: A pilot study	Dr. Immanuel Pradeep	Rs. 1,19,550
7	AIIMS/BBN/IM-F/Research/ 2023/35	Identification of Novel Inhibitor targeting IL-33 Signaling pathway and its validation in Human Mast Cell line by using cell culture approach	Dr. Rohit Saluja	Rs.4,99,500
8	AIIMS/BBN/IM-F/Research/ 2023/36	Role of Contrast Ultrasound in differentiating benign from malignant breast lesions amongst the BIRADS 4 category	Dr. Annapurna S	Rs.5,00,000
9	AIIMS/BBN/IM-F/Research/ 2023/37	Prognostic Relevance Of Lymphocyte Activation Gene 3 (Lag3) And Fibrinogen-Like Protein 1 (Fgl1) In Colorectal Carcinoma	Dr. Seetu Palo	Rs.5,00,000

New Extramural Funded Projects (2022-2023)

S.No	File Number	Title of the Project	PI Names	Source of Funding	Total Budget
1	AIIMS/BBN/EM-F/2022/17	Feasibility study on use of drone in transportation of sputum samples for diagnosis of tuberculosis in rural areas of Yadadri Bhuvangiri district of Telangana	Dr.Bhushan Kamble	ICMR	Rs.16,23,000
2	AIIMS/BBN/EM-F/2022/18	ICMR National Registry on venous thrombo-Embolic disorders(I-Reg Ved)	Dr. Vikas Bhatia , Executive Director	ICMR	Rs.30,93,312
3	AIIMS/BBN/EM-F/2022/19	Adipocyte derived exosomes as a diagnostic biomarker for insulin resistance: a key components for Type 2 diabetes mellitus	Dr. Komal Rani	HRD	Rs.46,46,250/-
4	AIIMS/BBN/EM-F/2022/20	Continuous non-invasive advanced hemodynamic monitoring versus standaard care for the management of pediatric septic shock- A pilot randomized control trial	Dr.Mounika Reddy	SERB-SRG	Rs.30,71,400/-
5	AIIMS/BBN/EM-F/2022/21	Setting up pathogen surveillance system for environmental microbiological surveillance and AMR gens beyond SARS-CoV-2 in collaboration with CCMB Hyderabad	Dr.Rahul Narang	CCMB	Rs.52,30,340/-
6	AIIMS/BBN/EM-F/2023/22	Assessment of unmet and access to assistive technologies among the general population through digital rATA tool- Across-sectional survey in India	Dr.Meely Panda	ICMR	Rs.41,96,899
7	AIIMS/BBN/EM-F/2023/23	Identification of composite neural biomarker for differentiating psychotic disorders using quantitative EEG and speech signal analysis	Dr.Sai Krishna Tikka	SERB	Rs.24,65,936

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
BIBINAGAR, Hyderabad Metropolitan Region, TELANGANA – 508126

अखिलभारतीय आयुर्विज्ञानसंस्थान (एम), बीबीनगर
हैदराबाद मेट्रोपॉलिटनक्षेत्र, तेलंगाना – 508126, भारत.

STUDENTS NON FUNDED PROJECTS

S.No	Topic	Student Name	Batch	Guide	Department
1	Evaluation of citrated plasma after thawing for analysis of routine coagulation testing	Sathwik Reddy Nomula	2019	Dr.Parag Parshuram Patil	Pathology
2	Utility of NESTROF Test and Mentzer's Index in Pediatric Patients with Microcytic Hypochromic Anemia and around Bibinagar Areas in Southern India	Hemanth Sarma Bachinanchi	2019	Dr.Shailaja Prabhala	Pathology
3	Superficial Dermartophytosis: Comparing Papanicolaou stain with KOH Mount for Diagnosis and to determine cytological changes in the accompanying epithelial cells	Amoolya Shree Rachuri	2020	Dr.Shailaja Prabhala	Pathology
4	Neutrophil-to-lymphocyte Ratio-An indicator of diabetic control in Type 2 Diabetes Mellitus	Ridhima Mehra	2020	Dr.Shrinivas B Somlwar	Pathology
5	Micro-ESR in adults: A Validation study for application in emergency and resource-poor settings	Sri Vebhav Chintneni	2019	Dr.Seetu Palo	Pathology
6	Spectrum of cervico-Vaginal Pap smears in Newly Established Tertiary Care Medical Institute	Manas Ranjan Sethy	2020	Dr.Jitendra Singh Nigam	Pathology
7	Impact of Low socio-economic status on insulin resistance and obesity in apparently healthy adolescents	Surya S	2020	Dr.Madhu Latha Kara	Biochemistry
8	Maternal self-efficacy and its associated determinants in Rural Telangana	Likitha R	2020	Dr.Vaman Kulkarni	CFM
9	Awareness and Attitude of Pregnant Couple towards Umbilical Cord Blood Banking in Telangana Region: Across Sectional Study	Rohan Anandgaonakar	2020	Dr.Rohini Motwani	Anatomy
10	Assessment of adequacy of number of phlebotomist in a newly set-up sample collection centre	Sindhu Toomukuntla	2019	Dr.Shailaja Prabhala	Pathology
11	Patients and General public perception and awareness about Radiological tests and workings of the Department of Radio diagnosis	Vemula Chandra Vamshi	2019	Dr.Ahishek J. Arora	Radiology
12	A survey on the dietary habits and lifestyle of patients with PCOS attending a tertiary care hospital in southern India- a cross sectional study.	Aiswrya Renjith	2019	Dr. Nabnita Patnaik	OBGY
13	Emotional valence and irony comprehension as predictors of relapse in alcohol dependence syndrome	Mr. Nadella Karthikeyan,	2019	Dr.Sai Krishna Tikka	Psychiatry

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अखिलभारतीय आयुर्विज्ञानसंस्थान (एम्स), बीबीनगर
हैदराबाद मेट्रोपॉलिटनक्षेत्र, तेलंगाना – 508126, भारत.

INTRMURAL FUNDED SHORT TERM STUDENT RESEARCH PROJECTS

S.No.	File Number	Project Title	Name of the Student	Name of the Guide	MBBS Batch
1	AIIMS/BBN/ Res/IM-F/2022- 2023/01	Assessment of Dementia in elders and associated determinants in Urban and Rural areas of Telangana, INDIA.	Ms.Dhana lakshmi.V	Dr.Vaman Kulkarni	2020 - Batch
2	AIIMS/BBN/ Res/IM-F/2022- 2023/02	Effect of teneligliptin on lipid profile and renal function in type 2 diabetes mellitus patients: a cross sectional study	Ms.Ashna.R.J	Dr.Gerard Marshal Raj	2020 - Batch
3	AIIMS/BBN/ Res/IM-F/2022- 2023/03	Prevalence pattern and reasons of consanguineous marriages in a selected village of Telangana, Southern India: A Community based mixed methodological study.	Ms.Narayanam Dakshita	Dr.Mishu Mangla	2020 - Batch
4	AIIMS/BBN/ Res/IM-F/2022- 2023/04	Evaluation of salt taste perception threshold as an additional screening tool across a spectrum of blood pressure levels.	Ms.Hiranya Deore	Dr. Vidya Ganji	2020 - Batch
5	AIIMS/BBN/ Res/IM-F/2022- 2023/05	Association between Serum and Urine Fluoride levels and Haemoglobin levels in pregnant woman: A cross sectional study.	Mr.Mudavath Nikhil Kumar	Dr.Aparna Varma. B	2019- Batch
6	AIIMS/BBN/ Res/IM-F/2022- 2023/06	Effectiveness of an electronic hand hygiene monitoring system on healthcare worker compliance to hand hygiene in hospital settings.	Ms.R.Saiharshini	Dr.Sunil Kumar D Chavan	2019- Batch

Students Initiated Research Projects Under the Guidance of Faculties at AiiMS Bibinagar

A) ICMR – STS (SHORT TERM STUDENTSHIP) PROGRAM:

Background:

ICMR initiated the STS program in 1979 to provide an opportunity for students to carry out short-term research projects under the guidance of mentor from the institute, to learn and develop their research skills, and to contribute to the field of medical and health sciences. The ICMR-STS projects are usually of 2-3 months duration and are conducted during the summer vacation period. Students are required to submit a detailed research proposal based on their interest and feasibility of the project, which is reviewed and approved by the ICMR. At the end of the project, students are expected to present their report to ICMR, which will be evaluated by a panel of experts. Successful completion of the ICMR-STS project is considered a valuable experience and adds to the academic credentials of the student.

STS – 2022- Projects from AIIMS Bibinagar, approved by ICMR New Delhi:

Microbiology:

Title:

Prevalence of intestinal parasitic infections and associated risk factors among school going children of rural Telangana: A cross-sectional study.

Name of the student researcher:

Kaja Varun (IV M.B.B.S)

Name of the Guide:

Dr. Shalam Nikhat Sheerin

Project Summary:

Project was conducted in duration of 3 months between August to October in 2022 after getting approval from Institutional Ethics Committee. We had taken a sample of 314 from school going children of age 4-15 years and assessed for stool parasitosis. We had found total of 3 samples positive for parasitic infestation with prevalence rate of 1.27%. We have given proper health education and advised for treatment for those who have infestation with parasites. A significant association hasn't been found between parasitic infestations and risk factors. Prevalence of our study is less compared to other studies because of improving hygiene and deworming programme as initiated by government of India.

Credits:

Certificate of merit and a stipend of Rs.50,000/- was awarded to the student researcher by ICMR New Delhi for the successful completion of this project.

The project was accepted for Oral Presentation at 26th IAMM TAPC (Indian Association of Medical Microbiologists Telangana and Andhra Pradesh Combined Chapter) state chapter conference , organised by Global hospital , Hyderabad from March 11th - March 13th.



Department of Psychiatry



Title:

Knowledge attitude and practice of exercise prescription for mental illnesses among mental health professionals of India: A web – Based survey.

Name of the student researcher:

Nadella Karthikeyan (III M.B.B.S)

Name of the Guide:

Dr. Sai Krishna Tikka

Project Summary:

Understanding the fact that the levels of ‘insufficient physical activity’ are significantly higher in India and that improving physical activity in persons with mental illness are likely to bring about further improvements in several mental health parameters, we conducted this survey on exercise prescription for mental illnesses among mental health professionals. The survey was conducted in an online mode adhering to the standard guidelines. The Exercise in Mental Illness Questionnaire (EMIQ), a validated and a commonly used tool, was used. Key findings from the study are:

- 1) Most of the participants had not received any formal training in the exercise prescription and others received training while pursuing their highest level of education. Majority of the participants agreed or strongly agreed that “maintaining a healthy weight can prevent you from developing non-communicable diseases including mental illnesses.
- 2) Exercise was ranked as the fifth most important treatment strategies, while medication was ranked first.
- 3) Only one mental health professional never prescribed exercise while rest of the participants prescribed exercise commonly by personal discussion with their clients.
- 4) Prescribing exercise by mental health professionals encounters many barriers, commonly ‘patient adherence of exercise’ and ‘stigma attached with mental illnesses. Importantly, most of the participants showed interest in further training for prescribing exercise for mental illness. Importantly, most of the participants showed interest in further training for prescribing exercise for mental illness.

Credits:

Certificate of merit and a stipend of Rs.50,000/- was awarded to the student researcher by ICMR New Delhi for the successful completion of this project.

Department of Psychiatry



Title:

The prevalence of domestic violence and its co-relation with COVID-19 pandemic among married women belonging to rural area in southern India.

Name of the student researcher:

Nenavath Varshitha Rathod (III M.B.B.S)

Name of the Guide:

Dr. Barikar C Malathesh

Project Summary:

Domestic Violence (DV) is a major problem in developing countries like INDIA. COVID pandemic has worsened the burden of DV further. The measures which were taken to contain the spread of COVID -19, such as isolations, lockdowns resulted in significant disruptions to routine life of a common man. The above disruptions, coupled with unemployment and other financial crisis have led to increased stress levels thereby resulting in increased aggression violence at home. There are few studies from different countries which have explored the impact of COVID on DV and similar studies from India are very few. So, in the above background we undertook the current study to understand the prevalence of DV among married women in a village nearby the tertiary care hospital and its correlation with COVID pandemic and its impact on mental health. In this study, out of 157 participants, 95 women had experienced some form of DV. The most common type reported was psychological violence with prevalence being 37.6% and least common was sexual violence which was present in 3.2% participants. Even though there are legislations, most of the violence is still hidden due to fear of backlash by the family and sensitivity of the topic. Any disaster is likely to increase the prevalence of DV and interestingly in our study COVID related lockdown had not increased DV, which might be due to proactive measures taken by the government and increment of healthy social relationships in the family. In future disaster situation the same should be kept in mind and enough awareness programs about prevention of DV should be undertaken.

Credits:

Certificate of merit and a stipend of Rs.50,000/- was awarded to the student researcher by ICMR New Delhi for the successful completion of this project.

Department of Physiology



Title:

Arterial Stiffness and COVID-19: Potential Association with Diabetes, Hypertension and

Obesity: A Cross Sectional Study

Name of the student researcher: Sowganthikashri .A (III M.B.B.S)

Name of the Guide: Dr.Vidya Ganji

Project Summary:

Cardiovascular diseases accounts for large number of deaths worldwide and arterial stiffness assessed by pulse wave velocity is considered as an index of vascular ageing and useful predictor of cardiovascular events and mortality. Measuring arterial stiffness may therefore identify patients at risk to cardiovascular diseases and prevent morbidity and mortality at an early stage. In this study, we attempted to identify the conditions that cause greater increase in arterial stiffness and to investigate to which extent COVID-19 increased arterial stiffness in individuals especially with conditions like hypertension, diabetes and obesity in comparison with patients without COVID. We observed that COVID-19 is positively associated with increased arterial stiffness especially in subjects with co morbidities like hypertension ,obesity and diabetes.

Credits:

Certificate of merit and a stipend of Rs.50,000/- was awarded to the student researcher by ICMR New Delhi for the successful completion of this project.

Department of Pediatrics



Title:

Assessment of knowledge, experiences and attitude of parents attending pediatric out patients department on newborn screening.

Name of the student researcher:

Nethikar Ruchitha (III M.B.B.S)

Name of the Guide:

Dr. Rajendra Prasad Anne

Project Summary:

Newborn screening is a common practice in developed parts of the world. In India, there is no universal newborn screening because of insufficient funding, inadequate knowledge among parents. Only 3 states/UTs (Kerala, Goa and Chandigarh) in India have a universal newborn screening. Parental knowledge plays an important role in accessing health care options. This study was planned in this background. We found that more efforts are required to improve parental knowledge of newborn screening. As most parents have a positive attitude towards newborn screening, improving parental knowledge can form a basis for a successful newborn screening program in India. Both private and public sector childbirths have poor newborn screening rates. Parents suggested the requirement of a state-run universal newborn screening in India

Credits:

Certificate of merit and a stipend of Rs.50,000/- was awarded to the student researcher by ICMR New Delhi for the successful completion of this project.

B) Students Initiated Non Funded Projects Under the Guidance Of Faculties At AIIMS Bibinagar

Department of Pediatrics



Title:

Parental knowledge attitudes and practices regarding pediatric medications-A prescription and self medication survey in a tertiary pediatric out-patient department in rural Telangana.

Name of the student researcher:

Rita Grace Dain (IV M.B.B.S)

Name of the Guide:

Dr. Monika Reddy

Project Summary:

Parental pharmacotherapy literacy is an important determinant of rational and safe use of medicines in children. This is a two month cross-sectional study done to explore parental knowledge, attitudes and practices towards medication use in children. Majority parents had moderately satisfactory knowledge, attitudes and practices (KAP) towards medication use in children. Better KAP to ensure safe and effective use of medicines in children can be ensured by means of interaction with health care workers, mass media, educational program, and legal enforcements.

Comments:

The project was accepted for Oral presentation at the conference of International Pediatric Association -Indian Academy of Pediatrics (IPA -IAP congress, 2023), held on 22 February 2023.

Department of Surgery



Title:

Unrecognized anemia in diabetic patients and prognostic significance in diabetic foot ulcer patients

Name of the student researcher:

Ajay Unnikrishnan (IV M.B.B.S)

Name of the Guide:

Dr. Tushar Mohanlal Parmeshwar

Project Summary:

Anemia is a common complication in patients with diabetes mellitus, and it is associated with poor outcomes in many different clinical settings. In diabetic foot ulcer patients, anemia may have prognostic significance. Anemia has been shown to be associated with poor wound healing, increased risk of infection, and higher rates of amputation in patients with diabetic foot ulcers. In addition, anemia has been identified as an independent risk factor for mortality in diabetic patients with foot ulcers. However, anemia may often go unrecognized in diabetic patients, as the symptoms may be masked by other diabetic complications. Therefore, it is important to screen for anemia in diabetic patients, particularly those with foot ulcers, and to address any underlying causes of anemia. Treatment may include iron supplementation, erythropoietin-stimulating agents, or addressing underlying factors such as chronic inflammation or renal dysfunction. Early identification and management of anemia may improve outcomes in diabetic foot ulcer patients.

Department of Pathology



Title:

Spectrum of cervicovaginal Pap smears in newly established tertiary care medical institute

Name of the student researcher:

Manas Ranjan Sethy (III M.B.B.S)

Name of the Guide:

Dr. Jitendra Singh Nigam

Project Summary:

We undertook this study to find out the spectrum of the cervical smear pattern along with the clinical profiles of patients who underwent cervical Papanicolaou (Pap) smear evaluation in our newly started tertiary care center. We also tried to find the possible clinical cause for unsatisfactory smears and factors for epithelial cell abnormality. We found that cervical erosion had statistically significant associations with unsatisfactory smears, while bacterial vaginosis had with satisfactory smears. Hence, in the presence of clinical factors like cervical erosion, which may affect the quality of Pap smear, proper sampling techniques are to be used by health-care providers.

Comments:

The study got published in the journal "CytoJournal" – Sethy MR, Nigam JS, Rath A, Sharma A, Prabhala S, Pradeep I. Spectrum of cervicovaginal Pap smears in newly established tertiary care medical institute. CytoJournal 2023;20:1-9.

Scientific Advisory Committee Meeting

The second Scientific Advisory Committee (SAC) meeting took place on 8th & 9th December 2022 under the guidance of the Chairman SAC, Padmashri Prof Yogesh Chawla, Former Director & Emeritus Professor, PGIMER, Chandigarh. The committee deliberated on seven new research proposals for intramural funding submitted by the Assistant and Associate Professors of various departments. The committee also reviewed the progress of six ongoing intramural funded projects. Dr. Kiran Kumar, Associate Professor, Anesthesia and Critical Care Medicine, presented the results of the first completed intramural funded project.

AIIMS Bibinagar remains dedicated to fostering a research-driven mindset and environment, starting from the undergraduate level. During this meeting, seven undergraduate students from the second and third professional years, presented the reports of their completed ICMR-STs funded projects. Additionally, the Clinical Trials Review Committee of AIIMS Bibinagar utilized this opportunity to discuss and refine its Standard Operating Procedures (SOP), ensuring a streamlined and ethical approach to conducting clinical trials at the institution.



Guest lectures organized by Research Cell

On 9th December 2022, guest lectures were delivered by 3 distinguished doctors, renowned in the field of Gastroenterology and Hepatology. The speakers gave talks on the state of the art and current advancements in the field, while also actively engaging with the students and faculty members, igniting in them a spirit of exploration and innovation. Dr Manu Tandon, a senior gastroenterologist from AIG hospitals, Hyderabad, captivated the audience with an enthralling talk on the history and future prospects of gastrointestinal endoscopy. Dr. P Nagaraja Rao, the Director of Hepatology at AIG hospitals, Hyderabad, deliberated on the topic of non-alcoholic fatty liver disease. His comprehensive discourse not only highlighted the significance of this prevalent condition but also shed light on the latest diagnostic and therapeutic approaches, contributing to the understanding and management of this critical disease. Adding to the enriching session, Dr. Rami Reddy, an interventional Gastroenterologist from Glengales Global hospitals, Hyderabad shared his invaluable experiences with simple yet impactful innovations in the field. His practical insights and success stories inspired the audience, demonstrating the power of innovation and creative problem-solving in advancing patient care and treatment outcomes.





On 17th March 2023, Dr. Shibashish Giri, a distinguished specialist in endogenous stem cell research and therapy, at the University of Leipzig and Technical University of Munich in Germany graced the institution. Dr. Giri shared his knowledge and expertise on the topic of 'cell, tissue and organ regeneration using endogenous stem cells'. Through captivating examples, he unveiled the remarkable potential of harnessing the body's own regenerative powers to heal and restote damaged tissues.

Research Methodology Workshop

From the 15th to the 17th of March 2023, the Institute Research Cell (IRC) at AIIMS, Bibinagar organized a comprehensive three-day Basic Research Methodology Workshop, aimed to equip the new postgraduate students from various departments of the institute with essential research knowledge and skills. The workshop, expertly coordinated by Dr. Vaman Kulkarni, Assistant Professor in the Department of Community Medicine and Family Medicine (CMFM), featured an esteemed panel of resource persons from various departments including Prof (Dr.) Neeraj Agarwal, Dr. Aparna Varma, Dr. Rashmi Kundapur, Dr. Meely Panda, Dr. CH Rama Krishna Prasad, Dr. Sumitra S, and Dr. Rohit Saluja. The workshop was attended by 22 postgraduate students, enthusiastic and eager to enhance their research proficiency.

The first day of the workshop commenced with a series of engaging lectures focused on research question, literature review, various study designs and practical aspects of sample size calculations, complimented by interactive hands-on activities for practical application. On the second day, the workshop continued with a few lectures delving into basic statistics, ethical considerations in research, study protocol development, and data collection tools. Once again, the participants had an opportunity to engage in practical exercises, reinforcing their understanding of the concepts discussed. On the third day, pre-assigned groups of participants prepared and presented their draft research protocols, and the resource faculty members provided their valuable feedback on critical aspects of the protocol. This interactive session fostered a vibrant exchange of information and ideas, benefiting both the faculty and residents alike.





PERSPECTIVE OF RESEARCH AS A STUDENT

Research is globally recognized as a major output of universities and other institutions of higher education. Research allows us to pursue our interests to learn something new to hone our problem solving skills and to challenge our self in new ways. It builds up the empirical, theoretical and analytical perspective of a student along with the concept learning developmental, differential and problems solving abilities.

Talking about the medical field specifically Health Professional training curricula have increasingly become congested leading to allocation of inadequate time to hands-on teaching of research methods and related research statistical approaches. Much of the university teaching on research methods focuses more on knowledge transfer while giving little or no attention to content and application of acquired knowledge. This lack of content makes learning of research methods and biostatistics even more difficult for research native undergraduate health professional students.

The need for increased expertise in evidence based medicine and concerns about decreasing numbers of physician scientists have underscored the need for promoting and encouraging research in medical education. Student requires an emotionally supportive atmosphere where they can explore, conjecture, hypothesize and brainstorm. Student's research outputs count greatly to research related status of most institutions of higher education.

Increasingly the need for research as a critical component of modern medical education has not only gained currency but also urgency!

According to the studies in 2003 the number of physicians involved primarily in research was 1.8% compared to 4.6% in 1985: also a lower percentage of 1.6% in 2011 compared to 3.6% in 1982. During undergraduate medical education research instruction and involvement often provides the 1st opportunity for a medical student to gain exposure to research and participate in it.

Research helps to gain knowledge beyond the curriculum, learn how to investigate lesser known medical issues and give you experience to work collaboratively to find solutions. Thus, Research activities for medical students and residents (trainees) are expected to serve as a foundation for the acquisition of basic research skills.

Despite the wide variations in medical systems worldwide the perspectives of medical students on research in undergraduate medical education shared many common themes. Such early immersions can contribute to the development of lasting habits of scientific thought and profound dispositions towards critical thinking. The marriage between the clinical competence of a physician and the independent literature-based clinical evidence for informed decision making could spell the difference between life and death of patients under potentially time dependent conditions.

As a medical student's life depends on our knowledge. Hence it is important to understand the perspective and dynamics of research of a medical student during medical school through a global prism.

Thank You

Priydarshanee D Shelke

1st Yr MBBS
AIIMS Bibinagar

The Empowering Journey of Research: A Medical Student's Perspective

By- Bhargav Saikia - (Batch 2022)

Introduction:

Research holds a paramount role in the realm of medicine, serving as a catalyst for knowledge and innovation. Engaging in research not only enriches our academic journey but also unveils new discoveries, enhances critical thinking skills, and fosters a profound comprehension of the intricate world of medicine. This essay explores the perspective of research as a student, highlighting both the formidable challenges it presents and the remarkable beauty it brings to our education and future careers.

Challenges in Research:

Embarking on research as a medical student entails a plethora of challenges. Primarily, the sheer volume of information to assimilate can be overwhelming. From delving into extensive medical literature to comprehending intricate methodologies, research demands unwavering dedication and unwavering focus. Furthermore, effective time management becomes indispensable as we strive to harmonize our clinical duties, coursework, and research commitments. This delicate balancing act often necessitates arduous hours, sleepless nights, and personal sacrifices. Nevertheless, despite these challenges, the pursuit of research provides us with unparalleled opportunities for growth and development.

The Splendor of Discovery:

Amidst these obstacles, the splendor of research shines through. It enables us to explore uncharted territories, seeking answers to questions that remain unanswered. The process of discovery stimulates our intellect, acting as a catalyst for personal and professional growth. Engaging in research empowers us to delve deeper into our chosen medical field, fostering a more comprehensive understanding of the subject matter. It nurtures our critical thinking skills, sharpening our ability to analyze and interpret data, challenge existing paradigms, and propose innovative solutions. By immersing ourselves in research, we become active contributors, shaping the future of medicine.

Patient-Centered Approach:

Research not only expands our knowledge base but also enhances our capacity to deliver optimal care to our patients. By conducting research, we contribute to evidence-based medicine, forming the bedrock of clinical decision-making. Through research, we unearth novel treatment modalities, unravel the underlying mechanisms of diseases, and identify risk factors and preventive measures. This knowledge empowers us to provide more personalized and effective care, tailored to the unique needs of each patient. As future physicians, our commitment to research ensures that our medical practice remains anchored in the latest scientific advancements.

Collaboration and Networking:

Research also provides an invaluable opportunity to collaborate with experts and peers in the field. As medical students, we have the privilege of working alongside esteemed researchers, mentors, and professors who guide us on our research journey. These collaborations foster a sense of camaraderie and mentorship, enabling us to learn from experienced professionals and exchange ideas with fellow students. Moreover, research conferences and symposiums serve as platforms for networking and knowledge sharing, allowing us to connect with researchers from diverse backgrounds and gain valuable insights into ongoing studies worldwide.

Contribution to Society:

The impact of research transcends the confines of academia. Through our endeavors, we possess the potential to positively influence patient outcomes, public health policies, and medical advancements. Groundbreaking research has led to the development of life-saving drugs, the discovery of new diagnostic tools, and the implementation of preventive strategies. By actively participating in research, medical students become active contributors to society, possessing the ability to shape the future landscape of healthcare.

Conclusion:

Research represents both a challenge and a privilege for medical students. It demands unwavering commitment, perseverance, and an insatiable curiosity. While the obstacles we encounter may appear daunting, the beauty lies in the empowering journey of research. It deepens our understanding of medicine, nurtures critical thinking skills, and enables us to deliver enhanced care to our patients. Furthermore, research fosters collaboration, cultivates lifelong learning, and empowers us to contribute to the betterment of society. As medical students, let us embrace research as a cornerstone of our education and as a gateway to a brighter future in medicine.

Research helps to gain knowledge beyond the curriculum, learn how to investigate lesser known medical issues and give you experience to work collaboratively to find solutions. Thus, Research activities for medical students and residents (trainees) are expected to serve as a foundation for the acquisition of basic research skills.

Despite the wide variations in medical systems worldwide the perspectives of medical students on research in undergraduate medical education shared many common themes. Such early immersions can contribute to the development of lasting habits of scientific thought and profound dispositions towards critical thinking. The marriage between the clinical competence of a physician and the independent literature-based clinical evidence for informed decision making could spell the difference between life and death of patients under potentially time dependent conditions.

As a medical students life depends on our knowledge. Hence it is important to understand the perspective and dynamics of research of a medical student during medical school through a global prism.

Thank You

Perspective of Research as A Student

Being subject to diurnal compression under the burden of bulky tasks encoded by the syllabus, the only way to break free from this continuous feeling of oppression is to whole-heartedly enjoy the acquisition of knowledge. Interrogate, Ingest and Inspire. Interrogate "how" and "why" to answer questions you never pondered upon. Ingest the knowledge that sprouts. Finally, inspire the world with the results that follow to dwell deeper into the ocean of wisdom to make life for the underprivileged a little more privileged. Substantiate your life with a purpose other than monetary stability such that the very nature of veracity discovered by you unfolds easier means of living for ones down the lane. So that, one fine day, we can all enjoy the pinnacle of science regardless of our differences. Cheaper ways, efficient methods, extra points to remember and even the scope of the cosmos itself are contained within the ambit of one's precise investigation of nature and its mysteries. Being a medical student, Divinity has blessed me with this freedom of exploring the key to constraints in medicine to unlock the passage to a healthier world. It is a sport cum responsibility that demands passion and firmness of endeavour. Seeing my seniors and professors excelling in the field of research is yet another wave of motivation that flows right into my vision of concepts that I grasp. It just shifts the objective from report cards to the welfare of patients. Moreover, it uplifts the report card from a stressed out failure to an effortless success that doesn't even bother about ranks anymore. In simple words, it shifts the area of focus from competition to competency. I personally love the way research functions to erase that character fed up with limits of time and chalks out newer paths to harmony between routine and interest.

*Don't fear the result,
Don't fear the insult,
Don't blindly follow the cult,
Awaken the curious child within the dead adult,
Research with indefatigable grit,
Until all the lamps are lit...*

-AyushAmlan
2022 batch

Research Publications

2022 - 2023

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