

MANIPAL UNIVERSITY RESEARCH BULLETIN

July 2015



INSPIRED BY LIFE

MANIPAL
UNIVERSITY

Manipal 576104, Karnataka, India

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Manipal Institute of Technology, Manipal
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Manipal College of Pharmaceutical Sciences, Manipal
5. Dr Rekha Shenoy, Associate Professor,
Manipal College of Pharmaceutical Sciences, Manipal



Manipal University (MU) is one of the premier universities in India. MU considers both research and academics equally important for the betterment of an institution. The faculty members and the research scholars at MU have embraced the research culture and publicize their research works in scientific publications, through presentations in various conferences and obtaining patents, research grants, etc. In this report, we present to you an overview of the research activities of Manipal University held during April - June 2015.

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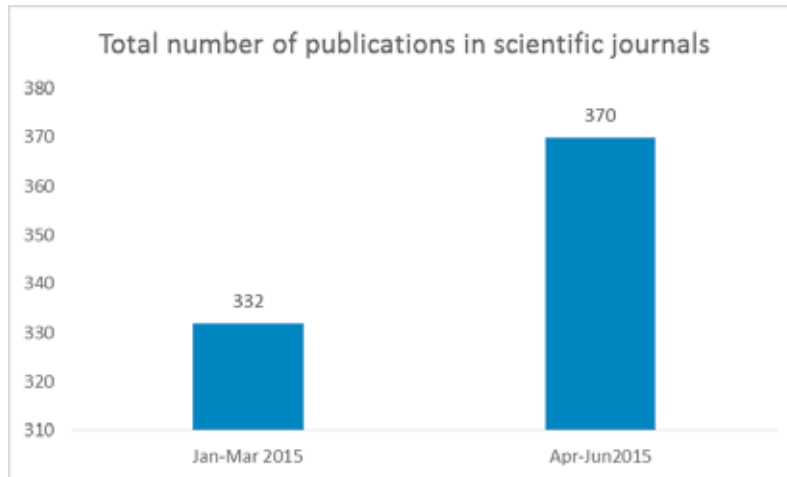
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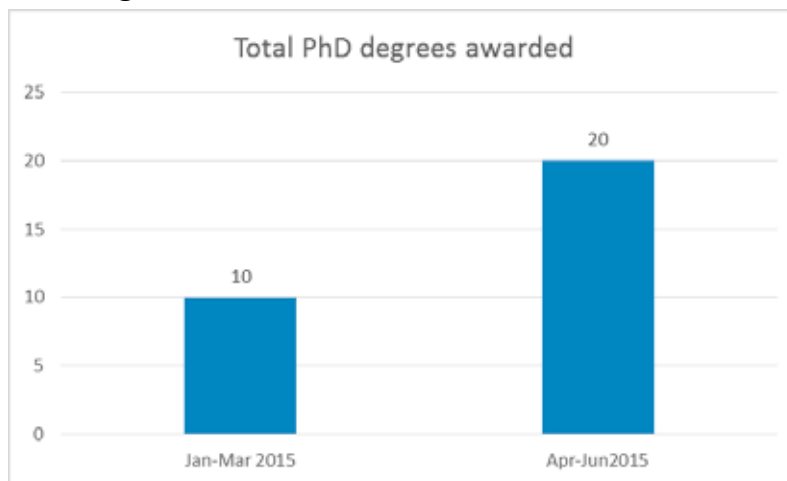
Part I

A. Details of Research Activities of Manipal University during Apr-Jun 2015

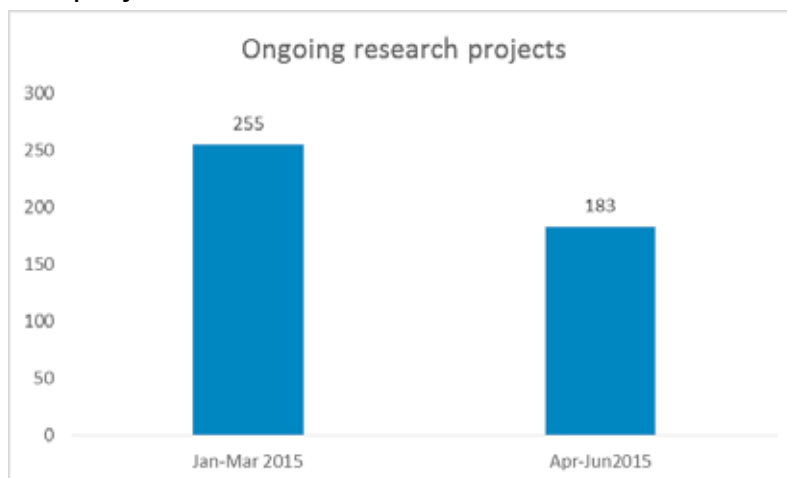
- a. Total number of Publications in the Scientific Journals (in Indexed and/or impact factor journals)



- b. Total number PhD degrees awarded



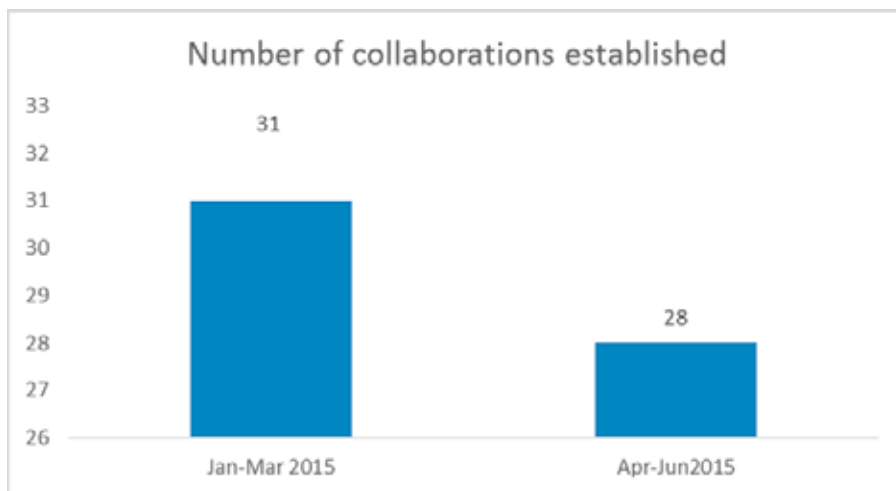
- c. Ongoing research projects



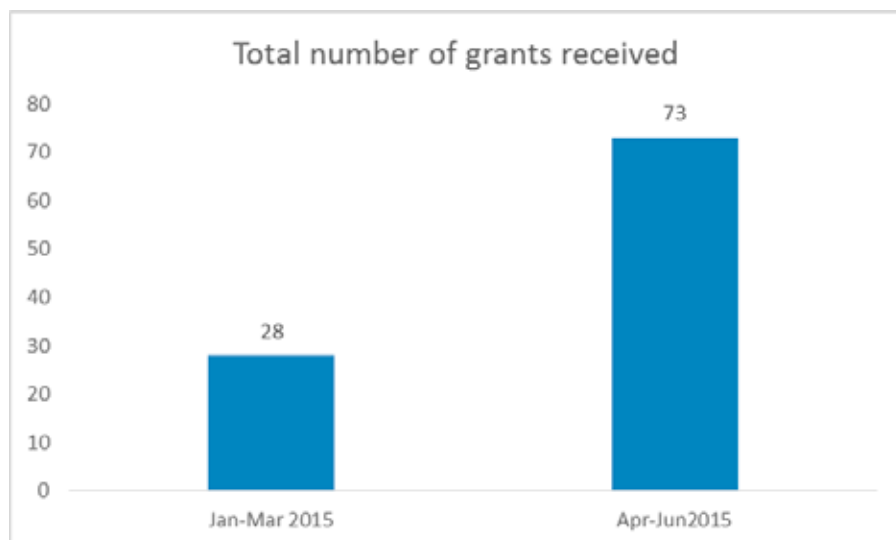
d. Research and Training Programs Conducted



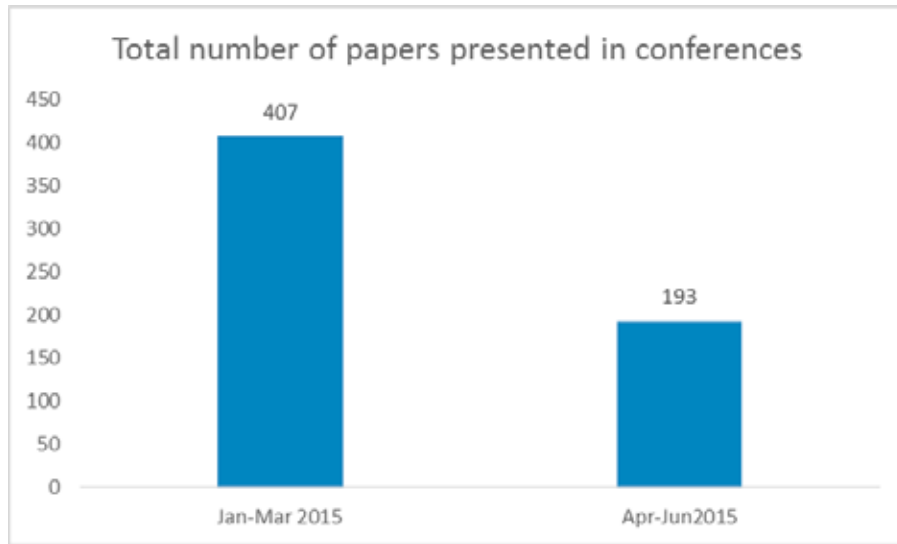
e. Number of Collaborations established



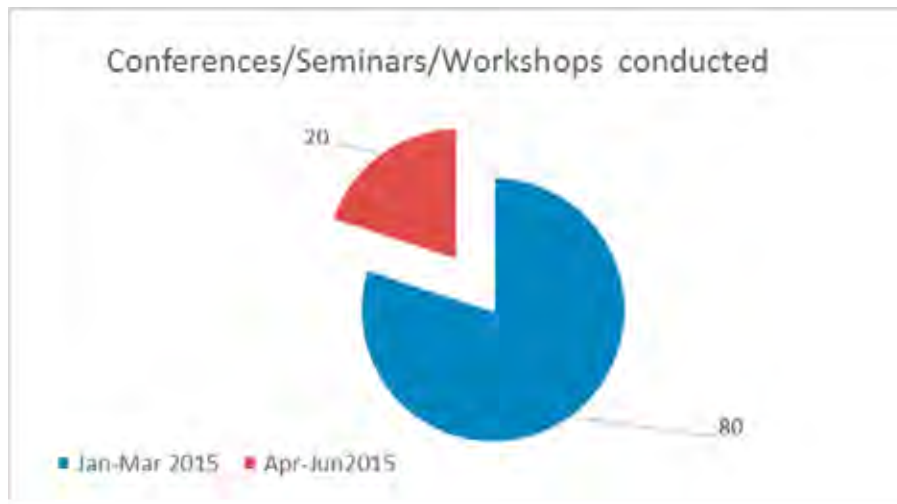
f. Total number of grants received



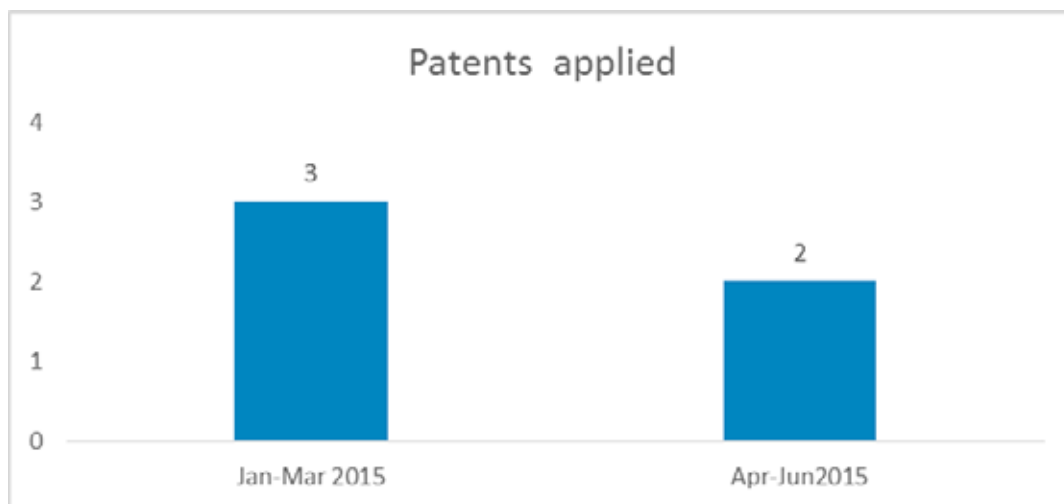
g. Total number of Papers presented in Conferences



h. Conferences/Seminars/Workshops conducted



i. Patents applied



Top five Publications during Jan – Jun 2015

Health Sciences

No.	Author	Institution	Journal	Journal Impact Factor
1	Soumendra Sahoo, Ankur Barua, Kay Thi Myint, Adnaan Haq, Adinegara BL Abas, N S Nair	Department of Ophthalmology, Melaka Manipal Medical College, Melaka, Malaysia; Department of Community Medicine, International Medical, St George's University of London, London, UK; Department of Community Medicine, Melaka-Manipal Medical College, Melaka, Malaysia; Department of Statistics, Manipal University, Manipal, India	Cochrane Database of Systematic Review	5.939
2	Dorien Schepers Alexander J Doyle, Gretchen Oswald, Elizabeth Sparks, Loretha Myers, Patrick J Willems, Sahar Mansour, Michael A Simpson, Helena Frysira, Anneke Maat-Kievit, Rick Van Minkelen, Jeanette M Hoozeboom, Geert R Mortier ¹ , Hannah Titheradge, Louise Brueton, Lois Starr, Zornitza Stark, Charlotte Ockeloen, Charles Marques Lourenco, Ed Blair, Emma Hobson, Jane Hurst, Isabelle Maystadt, Anne Destre'e, Katta M Girisha, Michelle Miller, Harry C Dietz Bart Loeys and Lut Van Laer*	Center for Medical Genetics, Faculty of Medicine and Health Sciences, University of Antwerp and Antwerp University Hospital, Antwerp, Belgium; McKusick-Nathans Institute of Genetic Medicine, Johns Hopkins University School of Medicine, Baltimore, MD, USA; Howard Hughes Medical Institute, Baltimore, MD, USA; GENDIA, GENetic DIAGnostic Network, Antwerp, Belgium; SW Thames Regional Genetics Service, St George's, University of London, London, UK;	European Journal of Human Genetics	4.349
3	Rashmi Boppana, G Krishna Mohan, Usha Nayak, Srinivas Mutalik, Biswanath SA, Raghavendra V Kulkarnia,*	Department of Pharmaceutical Technology, BLDEA's College of Pharmacy, BLDE University Campus, Bijapur 586 103, Karnataka, India; Centre for Pharmaceutical Sciences, Jawaharlal Nehru Technological University, Kukatpally 500 585, Hyderabad, India; Department of Pharmaceutics, Manipal College of Pharmaceutical Sciences, Manipal University, Manipal 576 104, India; Department of Pharmaceutical Technology, Jadavpur University, Kolkata, India	International Journal of Biological Macromolecules	3.96
4	Shubhashree Uppangala, Shilly Dhiman, Sujit Raj Salian, Vikram Jeet Singh, Guruprasad Kalthur, Satish Kumar Adiga	Department of OBG, KMC, Manipal	PLOS One	3.5
5	Prachi Sharma, MK Unnikrishnan and Abhishek Sharma	Manipal College of Pharmaceutical Sciences, Manipal University, Manipal; International Health, Boston University School of Public Health, 715 Albany Street, Boston, Massachusetts 02118, USA	Health Policy and Planning	3.47

Technical

No.	Author	Institution	Journal	Journal Impact Factor
1	Rajeev K Sinha, Debora Scuderi, Philippe Maitre, Barbara Chiavarino, Maria Elisa Crestoni*, and Simonetta Fornarini*	Dipartimento di Chimica e Tecnologie del Farmaco, Università di Roma "La Sapienza", P.le A Moro 5, 00185 Roma, Italy; Faculté des Sciences, Laboratoire de Chimie Physique, UMR8000 CNRS, Université Paris-Sud, Batiment 349, 91405 Orsay Cedex, France; Department of Atomic and Molecular Physics, Manipal University, Manipal, 576104 Karnataka, India	Journal of Physical Chemistry Letters	6.585
2	Ranajit Sai, Suresh D Kulkarni, Swetha S M Bhat, Nalini G Sundaram, Navakanta Bhat and S A Shivashankar*	Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore-560012, India; Department of Atomic and Molecular Physics, Manipal University, Manipal-576104, India; Materials Science Division, Poornaprajna Institute of Scientific Research, Bangalore-560080, India	RSC Advances	3.84
3	S O Manjunatha, Ashok Rao T-Y Lin b, C -M Chang, Y-K Kuo	Department of Physics, Manipal Institute of Technology, Manipal University, Manipal 576 104, India; Department of Physics, National Dong-Hwa University, Hualien 974, Taiwan	Journal of Alloys and Compounds (Science Direct-Elsevier)	2.999
4	S O Manjunatha, Ashok Rao, Subhashini, G S Okram	Department of Physics, Manipal Institute of Technology, Manipal University, Manipal 576104, India; Material Processing Laboratory, Department of Physics, National Institute of Technology Karnataka, Surathkal 575025, India; UGC-DAE Consortium for Scientific Research, Khandwa Road, Indore 452 001, MP, India	Journal of Alloys and Compounds (Science Direct-Elsevier)	2.999
5	S Pramodini, P Poornesh	Nonlinear Optics Research Laboratory, Department of Physics, Manipal Institute of Technology, Manipal University, Manipal, Karnataka 576 104, India	Optical Materials	1.981

B. Faculty Achievements

1. Dr Abhay T Kamath, Professor and Head , Department of Oral and Maxillofacial Surgery, MCODES, Manipal, completed his Fellowship in Advanced Temporo Mandibular Joint Reconstruction at Mount Sinai Hospital Toronto, Canada, Under Dr David Psuika in the month of June 2015.



2. Dr Adarsh Kudva, Assistant Professor, Department of Oral and Maxillofacial Surgery, has been awarded Travel grant by Federation of Head and Neck Oncology India and obtained FHNO Travel Fellowship at Amrita University Cochin for Training in Microvascular Surgery.
3. Department of European Studies (DES) facilitated to bag the Erasmus Mundus scholarships worth of €1,000,500 (Rs 7,035,000) through the Consortium of Interdisciplinary Bridges for the Indo-European Studies (IBIES) for Manipal University faculty members and students – totally nine members. Three more students of the Department have been selected by the partner universities either by institute funded scholarships or fee waiver programs to study their second year. Some of them also have been selected for paid internships during their study in Europe.



Best Paper Awards

1. Dr Rajesh V, Assistant Professor (Senior Scale), Manipal College of Pharmaceutical Sciences, Manipal University, Manipal, received first prize for oral presentation on the topic titled “Novel Adverse Event Trigger Tool System for Monitoring Patient Safety: Implementation and Assessment”, at the International Conference on “Roles and Responsibilities of Pharmacist on Chronic Disease Management, Adverse Drug Reaction and Therapeutic Monitoring” on 24th and 25th, April 2015 at PSG College of Pharmacy, Coimbatore co-sponsored by DST, New Delhi.
2. Mr Sonal Sekhar M, Assistant Professor (Senior Scale), Manipal College of Pharmaceutical Sciences, Manipal University, Manipal, received second prize for poster presentation titled “Surveillance Study on Antimicrobial Susceptibility Pattern and Quality Of Life (QoL) in Diabetic Foot Ulcer Patients in a South-Indian Tertiary Care Hospital” at the International Conference on “Roles and Responsibilities of Pharmacist on Chronic Disease Management, Adverse Drug Reaction and Therapeutic Monitoring” on 24th and 25th, April 2015 at PSG College of Pharmacy, Coimbatore co-sponsored by DST, New Delhi.



3. Dr Prameela M D, Associate Professor of Anatomy, KMC, Mangalore, won the ISERD Excellent paper award for the paper titled "Anatomical study of width and thickness of the sciatic nerve in the gluteal region" at the International Conference on Medical and Health Sciences (ICMHS) organized by International Society for Engineering Research and Development (ISERD) on 23rd May 2015 at Flora Grand Hotel, Dubai, UAE. This paper was co-authored by Dr Rajalakshmi Rai.



4. Dr Annapoorna K received Yoga Deepti Award by Rotary, Malpe, for her service of 24 years in the field of yoga at KMC, Manipal and Udupi.
5. Dr Rishikesh V Behere, Associate Professor, Dept of Psychiatry has been awarded overseas bursary to attend annual scientific meeting of old age psychiatry of Royal College of Psychiatrists, UK. He was invited to make an oral presentation on the development of brief instrument for cognitive examination in India at the conference held in Glasgow in April 2015 and was attended by old age psychiatrists from all over UK.

Visits by faculty members of Manipal University

1. Dr Satish Adiga

Visited University of Naples, Italy as a Visiting Professor to establish research co-operation and PhD programs (May 1-16, 2015).

2. Ms Shubhashree U

Visited Center for Reproductive medicine and Andrology, University of Munster, Germany, during May 8-23, 2015 to take up a joint research project - "Innovations to Preserve Fertility in Cancer Affected Prepubertal Boys: From Experimental Approaches to Clinical Applications" as a part of Alexander von Humboldt research group linkage program between Manipal University and University of Munster, Germany.

3. Mrs Sibi Oommen

Delivered a guest lecture to students (BSc NMT, BSc RIT and MSc Medical Physics) of KMCH College of Allied Health Sciences, Coimbatore, on May 27-28, 2015 for NMI topics.

C. SPIE Manipal University Chapter Awards 2015

Ms Surekha Somayaji, PhD Student, Department of Atomic and Molecular Physics, Manipal University, Manipal has been awarded "2015 SPIE Optics and Photonics Education Scholarship" of \$2000 by SPIE, the International Society for Optics and Photonics to carry out her research work on "Development and Optimization of SERS set-up to Study Blood Components".



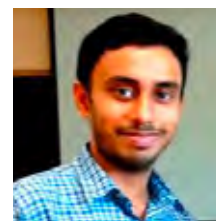
Three MSc Students have been awarded "2015 SPIE Travel Scholarship" of \$2000 each by SPIE, the International Society for Optics and Photonics for visiting SPIE conferences abroad.

1. Mr Ashok Kumar Renganathan, First year MSc Photonics student, Department of Atomic and Molecular Physics, Manipal University, Manipal.



Purpose: To participate in "SPIE Photonics Europe-2016" to be held at Brussels, Belgium during April 4-7, 2016.

2. Mr Rik Chakraborty, First year MSc Nanoscience and Technology student, Department of Atomic and Molecular Physics, Manipal University, Manipal.



Purpose: To participate in "SPIE Photonics Europe - 2016" to be held at Brussels, Belgium during April 4-7, 2016.

3. Ms Anupamaa R, First year MSc Photonics student, Department of Atomic and Molecular Physics, Manipal University, Manipal.



Purpose: To participate in "SPIE Astronomical Telescopes+Instrumentation-2016" to be held at Edinburgh, Scotland, United Kingdom during June 26 - July 1, 2016.

Part II

Board of Management, MU, had approved the establishment of Dr TMA Pai Endowment Chairs for research and education in 2012 under the aegis of Dr Ramdas M Pai, Chancellor, MU. The Endowment chair facilitates the research promotion activities and conduct programs like symposia, workshops, read and share sessions, etc., to keep the academicians and scholars updated with the latest development.

A. Recent Dr TMA Pai Endowment Chair recipients

Sl No	Name of Dr TMA Pai Endowment Chair	Name, Designation and Institution of the awardees
1	Stem Cell Solution for Diabetes	Dr Ramesh R Bhonde, School of Regenerative Medicine, Bengaluru
2	Indian Literature	Dr Janaki Srinivasa Murthy (Vaidehi)
3	Pharmacogenomics	Dr Padmalatha Rai, School of Life Sciences, Manipal
4	Earth Sciences	Dr Balakrishna K, Manipal Institute of Technology, Manipal
5	Sustainable Built Environment	Mr Pradeep Kini, Manipal School of Architecture and Planning, Manipal
6	Medical Devices	Dr V Venkatesan, Manipal Institute of Technology, Manipal

B. Featured Scientist of Manipal University

*Dr Girisha K M, Professor, Department of Pediatrics,
Kasturba Medical College, Manipal University*



The Dr TMA Pai Endowment Chair has been an excellent initiative to recognize and promote research activities in Manipal University. It is an honour for my team to work towards elucidating the genetic basis of Mendelian disorders. We could initiate several research projects during this period with both national and international collaborators. It also enabled us to disseminate the knowledge of current scenario of medical genetics among the scientists and the clinicians.

Dr Girisha's area of research interest is Mendelian Disorders. According to Dr Girisha "Mendelian disorders, though individually rare, are quite frequent as a group and cause significant morbidity and mortality. They now constitute a significant proportion of health burden with improvements in nutrition and control of infectious diseases in a developing country like India. The population of our country and the practice of consanguineous marriage provide unique opportunity to Indian scientists to work on these conditions. These are evident by the fact that we have the largest published series of Morquio syndrome, progressive pseudorheumatoid dysplasia and GM1 gangliosidosis".

When asked about his journey in teaching and research, he said that Kasturba Medical College, Manipal University, is one of the very few centers in the country to provide comprehensive services to patients with genetic disorders. Various PhD programs in the area of interest are initiated and currently ours is the only university providing MSc in Genetic Counselling in India. Dr Girisha acknowledged the support of collaborators he received from within Manipal University in this area of research and patient care. Dr Girisha has collaborators across the country and some excellent international research partnerships.

On future plans, he is of the firm opinion that there is immense potential to identify new monogenic syndromes and the causative genes. Given the size of our country, more training programs in medical genetics, in addition to our master's program in genetic counselling, needs to be developed. He is keen on developing and establishing international exchange program for the students of Manipal University in this research field.

His message to the budding scientists is that they have to be honest, hardworking and truthful. Integrity is the most important quality of a good scientist.

Part III

A. Manipal University Students' Research Forum (MUSRF)

Summer Training 2015

Manipal University Students' Research Forum (MUSRF) under the aegis of Research Directorate of Manipal University inaugurated 'Summer Training 2015' program for the students and the faculty of Manipal University on June 15, 2015 at Manipal College of Pharmaceutical Sciences. This annual event is into its second year. The program was inaugurated by the chief guest Dr Vinod Bhat, Vice Chancellor, Manipal University.

The program motivated the participants to pursue research in their respective fields and simultaneously collaborate with other specialists. There was a high level of excitement among the students after undergoing the training. The program was so elite and unique that it turned out to be a lifetime experience for many students. The training was divided into two major modules, the health sciences and the technical sciences. In the health sciences module, the participants learnt about the latest instrumentation techniques, methodologies and thrust research areas in the departments of pharmaceutical sciences, life sciences, dental sciences, allied health sciences, and medical sciences. There were informative lectures and extensive demonstrations over a period of 10 days. Each department presented their vision, their recent research interests, and their contribution to the health-care sector. It was followed by a 10 day training period in the technical science departments. The participants were able to learn about the simple techniques of engineering to high-tech programs. The program also involved laboratory visits to department of atomic and molecular physics, Manipal University Technology Business Incubator (MUTBI), biomedical sciences and other instrumentation facilities. High impetus was given to the sessions on entrepreneurship, leadership, personality development and international internships.

