

# **Faculty Details proforma for Gargi College**

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#### Career Profile

- 1. **Assistant Professor** (1/2018-till date), Department of Microbiology, Gargi College (University of Delhi), Siri Fort Road, New Delhi-110049. India.
- 2. Assistant Professor (7/2017-12/2017), Department of Microbiology, Bhaskaracharya College of Applied Sciences (University of Delhi), Dwarka, New Delhi-110075. India.
- 3. Assistant Professor (1/2017-5/2017), Department of Microbiology, Gargi College (University of Delhi), Siri Fort Road, New Delhi-110049. India.
- **4. Senior Research Officer** (10/2015-06/2016), Department of Medicine, All India Institute of Medical Sciences (AIIMS), Ansari Nagar, New Delhi-110029. India.
- 5. **Postdoctoral Research Fellow (**8/2011-03/2015), Department of Physiology, School of Medicine, Tulane University, New Orleans, Louisiana-70112. USA.
- **6. Senior Research Fellow** (11/2006-12/2009), Molecular Biology Division, National Bureau of Fish Genetic Resources (NBFGR), ICAR, Lucknow-226002. UP. India.
- **7. Teaching Faculty** (09/2005-11/2006), Saaii College of Medical Science and Technology, CSJM University, Kanpur-209203. UP. India.

#### **Administrative Assignments**

# Areas of Interest / Specialization

Microbiology, cell signaling, molecular genetics, and bioinformatics

#### **Subjects Taught**

Advances in Microbiology, Bioinformatics, Recombinant DNA Technology, BacteriologyImmunology, Inheritance Biology, Food and Dairy Microbiology, Application of Microbes in Biotechnology, Microbial Physiology and Metabolism, Management of Human Microbial Diseases, Microbiological Analysis of Air and Water, Microbial Diagnosis in Health Clinics, Microbial Quality Control in Food and Pharmaceutical Industries, Industrial Microbiology, Introduction and Scope of Microbiology, Introduction to Microbiology and Microbial Diversity,

Microbial Genetics and Genomics.	
Research Guidance	
Guided 5 students from Microbiology Department, for minor research projects.	

# **Recent Publications**

Total Publications 56 [44 Journals, 12 Chapters] Google scholar citations 410

# Recent publications (Last 5 years)

- Mani I and Pandey KN (2019). Emerging concepts of receptor endocytosis and concurrent intracellular signaling: Mechanisms of guanylyl cyclase/natriuretic peptide receptor-A activation and trafficking. Cellular Signalling. 60:17-30. Doi.org/10.1016/j.cellsig.2019.03.022. (IF-3.968). ISSN: 0898-6568.
- 2. Sharma SK, Sharma R, Singh BK, Upadhyay V, Mani I, Tripathi M, and Kumar P (2019). A prospective study of NTM disease among TB suspects at a tertiary care centre in north India'. *Indian Journal of Medical Research*. (IF-1.503). 150:458-467. ISSN 0971-5916. DOI: 10.4103/ijmr.IJMR 194 19.
- Gogulamudi VR, Mani I, Subramanian U, and Pandey KN (2019). Genetic disruption of npr1 depletes T regulatory cells and provokes high levels of proinflammatory cytokines and fibrosis in the kidneys of female mutant mice. *American Journal of Physiology-Renal Physiology*. 316(6): F1254-F1272. Doi: 10.1152/ajprenal.00621.2018. (IF-3.144). ISSN: 1931-857X.
- Somanna NK\*, Mani I\*, Tripathi S and Pandey KN (2018). Clathrin-dependent internalization, signaling, and metabolic processing of guanylyl cyclase/natriuretic peptide receptor-A. Molecular and Cellular Biochemistry. (\*Somanna NK and Mani I have contributed equally the first authors). 441(1-2): 135-150. Doi 10.1007/s11010-017-3180-0. ISSN: 0300-8177. (IF-2.795).
- Mani I, Garg R, and Pandey KN (2016). Role of FQQI motif in the internalization, trafficking, and signaling
  of guanylyl-cyclase/natriuretic peptide receptor-A in cultured murine mesangial cells. *American Journal*of Physiology-Renal Physiology.310: F68-F84. Doi: 10.1152/ajprenal.00205.2015. (IF-3.144). ISSN: 1931857X.
- 6. Subramanian U, Kumar P, **Mani I**, Chen D, Kessler I, Periyasamy R, Raghavaraju G and Pandey KN **(2016).** Retinoic acid and sodium butyrate suppress the cardiac expression of hypertrophic markers and proinflammatory mediators in *Npr1* gene-disrupted haplotype mice. *Physiological Genomics*. **48**:477-490. DOI: 10.1152/physiolgenomics.00073.2015. (**IF-2.749**). **ISSN:** 1094-8341.
- 7. Singh V, Chaudhary DK, Mani I, and Dhar PK (2016). Recent advances and challenges of the use of cyanobacteria towards the production of biofuels. *Renewable and Sustainable Energy Reviews*.60 (1): 1-10. (IF-12.110). ISSN: 13640321.
- 8. **Mani I,** Garg R, Tripathi S, and Pandey KN **(2015).** Subcellular trafficking of guanylyl cyclase/natriuretuic peptide receptor-A with concurrent generation of intracellular cGMP. *Bioscience Reports*.**35** (art: e00260): 1-17, Doi: 10.1042/BSR20150136. (**IF-2.942**). **ISSN: 0144-8463.**

#### **BOOK CHAPTERS**

- Mani I (2020) Microbial productions of vitamins. Chapter in Engineering of Microbial Biosynthetic Pathways. V. Singh, AK. Singh, P. Bhargava, M. Joshi, C.G Joshi (eds). Springer Singapore. Pp. 143-152. ISBN: 978-981-15-2604-6.
- Mani I (2020) Metagenomic approach for bioremediation: Challenges and perspectives. Chapter in Bioremediation of pollutants. VC Pandey, V Singh (eds). Elsevier. Pp. 275-285. ISBN: 9780128190258.
- 3. Mani I (2020) Biofilm in bioremediation. Chapter in Bioremediation of pollutants. VC. Pandey, V. Singh (eds). Elsevier. Pp. 375-385. *ISBN:* 9780128190258.

- Mani I (2020) Current status and challenges of DNA sequencing. Chapter in Advances in Synthetic Biology. V. Singh (eds). Springer Singapore. Pp. 71–80. ISBN: 978-981-15-0081-7.
- Bhattacharjee G, Mani I, Gohil N, Khambhati K, Braddick D, Panchasara H, and Singh V (2019). CRISPR Technology for Genome Editing. Chapter in Precision Medicine for Investigators, Practitioners and Providers. Joel Faintuch, Salomao Faintuch (eds). Elsevier. Pp. 59–69. ISBN: 9780128191781.

# Conference Organization/ Presentations

- 1. Gogulamudi VR, Mani I, Subramanian U, and Pandey KN (2019). Genetic disruption of *Npr1* depletes T regulatory cells and provokes high levels of proinflammatory cytokines and fibrosis in the kidneys of female mutant mice. American Heart Association (AHA) Meeting, September 5-9, New Orleans, LA, USA. *Hypertension* 74: AP2045.
- Sharma SK, Sharma R, Singh BK, Upadhyay V and Mani I (2019). A Study of non-tuberculous Mycobacterial (NTM) disease among Tuberculosis suspects at a Tertiary Care Center in North India. American Thoracic Society (ATS) 2019 Interantional Conference, May 17-22, Dallas, TX, USA. American Journal of Respiratory and Critical Care Medicine 199: A2048.
- **3.** Gogulamudi VR, **Mani I,** Subramanian U, and Pandey KN **(2018).** Effect of rapamycin on the expression of T regulatory cells, Foxp3, and Toll-like receptors in the kidneys of *Npr1*Gene-knockout mice. American Heart Association (AHA) Meeting, September 6-9, Chicago, Illinois, USA. *Hypertension* 72: AP161.
- 4. Mani I, Garg R, Tripathi S, and Pandey KN (2016). Rapid internalization and trafficking of GC-A/NPRA via Endo-lysosomal compartments with concurrent generation of cGMP in mouse mesangial cells: Role of FQQI motif. Experimental Biology Meeting, April 2-6, San Diego, California, USA. *The FASEB Journal* 30(1); 867.2.
- 5. Mani I, Tripathi S, Garg R, and Pandey KN (2016). Immunofluorescence localization of ligand-induced internalization, trafficking, and signaling of eGFP-tagged guanylyl cyclase/natriuretic peptide receptor-A into the subcellular compartments. Experimental Biology Meeting, April 2-6, San Diego, California, USA. *The FASEB Journal* 30(1); 967.19.
- **6.** Pandey KN, Subramanian U, Kumar P, **Mani I**, Kessler I, Raghavaraju G **(2016).** Genetic basis of cardiac dysfunction: protective role of all-trans retinoic acid and histone deacetylase inhibitor. Cardiology Meeting, July 30-August 1, Bostan, Massachusetts, USA. *Cardiology* 134(suppl 1): 1-460.
- 7. Mani I and Pandey KN (2015). FQQI motif in the C-terminus of guanylyl-cyclase/natriuretic peptide receptor-A mediates intracellular trafficking in mouse mesangial cells. Experimental Biology Meeting, March 28-April1, Boston, Massachusetts, USA. *The FASEB Journal* 29(1); 574.24.
- **8. Mani I** and Pandey KN **(2015).** Visualization of internalization and intracellular trafficking of guanylyl cyclase/natriuretic peptide receptor-A with concurrent generation of cGMP. American Federation for Medical Research (AFMR), Southern regional meeting. February 26-28, New Orleans, Louisiana, USA. *Journal of Investigative Medicine* 63(2); 428.
- Gogulamudi VR, Subramanian U, Mani I, and Pandey KN (2015). Increased renal expression of toll-like receptor-4 in guanylyl cyclase/natriuretic peptide receptor-A gene-disrupted female mice. Experimental Biology Meeting, March 28-April1, Boston, Massachusetts, USA. *The FASEB Journal* 29(1); 710.22.
- 10. Mani I, Tripathi S, and Pandey KN (2014). A novel cytoplasmic tail FQQI motif mediates internalization and intracellular trafficking of guanylyl-cyclase/natriuretic peptide receptor-A. Experimental Biology Meeting, April 26-30, San Diego, California, USA. *The FASEB Journal* 27:553.9.
- 11. Mani I, Garg R, and Pandey KN (2013). Immunofluorescence visualization of the internalization and intracellular trafficking of guanylyl cyclase/natriuretic peptide receptor-A in sub-cellular compartments. American Society for Cell Biology (ASCB), Annual meeting. December 14-18. New Orleans, Louisiana, USA. Molecular Biology of the Cell 24, 3775. http://www.molbiolcell.org/content/suppl/2013/12/11/24.24.3775.DC1/2013Abstracts.pdf

12. Mani I, Garg R, and Pandey KN (2013). Aromatic residue-based tetrapeptide Fqqi motif mediates

- internalization and trafficking of guanylyl-cyclase/natriuretic peptide receptor-A in mouse mesangial cells. American Heart Association (AHA) Meeting, September 11-14, New Orleans, LA, USA. *Hypertension* 62: A282-A282.
- **13. Mani I,** Garg R, Nguyen VA, and Pandey KN **(2013).** Quantitative internalization kinetics of the green fluorescence protein-tagged guanylyl (guanylate) cyclase/natriuretic peptide receptor-A in human embryonic kidney-293 cells. Experimental Biology Meeting, April 20-24, Boston, Massachusetts, USA. **The FASEB Journal** 27:553.9.
- **14. Mani I,** Garg R, Nguyen VA, and Pandey KN **(2013).** Immunofluorescence study demonstrates internalization and trafficking of guanylyl (Guanylate) cyclase/nautriuretic peptide receptor-A in human embryotic kidney-293 cells. American Federation for Medical Research (AFMR), Southern regional meeting. February21-23, New Orleans, Louisiana, USA. *Journal of Investigative Medicine* 61(2); 488.
- **15.** Subramanian U, Kumar P, **Mani I**, and Pandey KN **(2013).** Regulatory action of all-trans retinoic acid and sodium butyrate in the modulation of cardiac remodeling in guanylyl cyclase/nautriuretic peptide receptor-A gene targeted mice. American Federation for Medical Research (AFMR), Southern regional meeting. February21-23, New Orleans, Louisiana, USA. *Journal of Investigative Medicine* 61(2):46.

Research Projects (Major Grants/Research Collaboration)

#### **Awards and Distinctions**

American Federation of Medical Research/Southern Society for Clinical Investigation (**AFMR/SSCI**) **Trainee Research Travel Award** for an oral presentation in the Southern Regional Meetings on February 26-28, 2015, New Orleans, Louisiana-70112. USA.

#### **Association With Professional Bodies**

- 1. Member of the American Federation of Medical Research (AFMR in 2013), USA.
- 2. Member of the American Association for the Advancement of Science (AAAS in 2012), USA.
- 3. Member of the American Heart Association (AHA in 2013), USA.
- 4. Life member of the Indian Science Congress Association (ISCA), Kolkata, WB, India.
- 5. Life member of Aquatic Biodiversity and Conservation Society (ABCS), Lucknow, UP, India.

## Other Activities

## MEMBER OF JOURNAL EDITORIAL BOARD

Current Synthetic and Systems Biology (OMICS Publishing Group)

#### **JOURNALS REVIEWER**

Gene, Journal of Cellular Biochemistry, Current Topics in Medicinal Chemistry, Preparative Biochemistry & Biotechnology, International Journal of Pharma and Bio Sciences. Bulletin of Environmental Contamination and Toxicology. Environment, Development and sustainability, Current Synthetic and Systems Biology.