**Pranita P. Sarangi**

Department of Biotechnology, Indian Institute of Technology, Roorkee, UK, India

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**Education**

**2003-2008** **PhD**. College of Veterinary Medicine, University of Tennessee, USA

 Major: Comparative and Experimental Medicine (Immunology)

* 1. **BVSc&AH**. Orissa Veterinary College, Orissa University of Agriculture and Technology, Bhubaneswar, India.

Professional History

03/14-Present Assistant Professor, Department of Biotechnology, Indian Institute of Technology Roorkee, Uttarakhand, India.

**09/13-Present** Special Research Volunteer, Laboratory of Cell and Developmental Biology, Molecular Biology Section, NIDCR/National Institute of Health, Bethesda, MD, USA

**07/11-09/13** Research Fellow, Laboratory of Cell and Developmental Biology, Molecular Biology Section, NIDCR/National Institute of Health, Bethesda, MD, USA

**04/08-06/11** Post-Doctoral Research Associate, Center for Vaccine Biology and Immunology, School of Medicine and Dentistry, University of Rochester, Rochester, NY, USA

**08/03-03/08** Research Assistant, University of Tennessee, Knoxville, TN

**02/03-07/03** Junior Veterinary Officer, Directorate of Animal Husbandry and Fisheries, Government of Orissa, Cuttack, India

**02/02-01/03** Veterinary Extension Officer, Heifer Project International/India, Orissa Task Force Office, Bhubaneswar, Orissa, India.

**Honor and Awards**

2017: AAI Early Career Faculty Travel Grant Award, Immunology-2017, Washington DC, USA

2014: Best oral presentation, Immunocon-2014, Madurai, India.

2010: Early investigator Travel Grant Award, 33rd Annual conference on Shock, Oregon.

2007: Travel Award (Second position) for oral presentation, University of Tennessee.

2006: NIAID Biodefense Fellowship, Keystone Symposium, Viral Immunity, Colorado.

2003-2008 : Research Assistantship for doctoral studies at the university of Tennessee, USA.

1996-2001: University Merit Scholarship, for undergraduate education by Government of India.

Published Peer Reviewed Research articles

1. **Sarangi PP**, Lee H, Lerman Y, Harrower E., Rezaie AR, Kim M. Activated protein C attenuates severe inflammation by selectively targeting VLA-3high neutrophil subpopulation in mice **(Revised manuscript Submitted- Journal of Immunology)**
2. \***Sarangi PP**, Chakraborty P, Ambatipudi K, Vega SD, Ikeuchi T, Wahl L, **\***Yamada Y. Cell adhesion protein Fibulin-7 and its C-terminal fragment negatively regulate monocyte and macrophage migration and functions *in vitro* and *in vivo.***\***Corresponding authors **(Submitted)**
3. Verma A, Bhushan B, Gajvhiya P, Pakirisamy G, **Sarangi PP**, Ambatipudi K. Zeta potential of bovine milk fat globule as an indicator of health and disease. **(Submitted)**
4. Lerman YV, Lim, KH, Hyun YM, Falkner LK, Yang, H, Sonnenberg A, Pietropaoli A, **\*Sarangi PP**, \*Kim M. 2014. Sepsis lethality via exacerbated tissue infiltration and TLR-induced cytokine production by neutrophils is integrin α3β1-dependent. **Blood**. Dec;124; 3515-3523 \***Co-Corresponding author (***Received Special Commentary in Blood)*
5. \*Sarangi PP, Hyun YM, Lerman Y LermanV, Pietropaoli A, \*Kim M. 2012. Essential Role of integrin β in tissue homing of neutrophils during sepsis. **Shock.** Aug;38(3):281-7\***Co-Corresponding author**
6. Hyun, YM, Ronen Sumagin, Sarangi PP, Elena Lomakina E, Overstreet MG, Baker C, Fowell DJ, Waugh R, Sarelius IG, Kim M. 2012. Uropod Elongation is a common final step in leukocyte extravasation from inflamed vessels. Journal of Experimental Medicine. Jul 2;209(7):1349-62
7. \*Elphick GF, \*Sarangi PP, Hyun Y, Hollenbaugh JA, Ayala A, Biffl WL, Chung H, Rezaie AR, McGrath JL, Topham DJ, Reichner JS, Kim M. 2009. Recombinant human activated protein C inhibits integrin-mediated neutrophil migration. Blood. 113(17):4078-85 \*Co-First Author. *Cited in Nature’s Scibx Journal,*
8. Sarangi PP, Woo SR, Rouse BT. 2009. Modulation of herpes virus induced ocular immunopathology by anti-CD200R:Fc treatment. Clinical Immunology. 131(1):31-40
9. Sarangi PP, Kim B, Rouse BT. 2008. Modulation of herpes virus induced ocular immunopathology by non-mitogenic anti-CD3 monoclonal antibody treatment. ****Investigative Ophthalmology & Visual Science**.** 49(12):5425-33
10. Sarangi PP, Sehrawat S, Suvas S, Rouse BT. 2008. IL-10 and natural regulatory T cells: Two independent anti-inflammatory mechanisms in HSV induced ocular immunopathology. Journal of Immunology. 180(9):6297-306
11. **Sehrawat** S, Suvas S, Sarangi PP, Shuryawanshi A, Rouse BT. 2008. **In vitro generated antigen specific CD4+CD25+Foxp3+ regulatory T cells control the severity of virus induced immunoinflammatory lesion.** Journal of Virology. 82(14):6838-51
12. \*Kim B, \*Sarangi PP, Ahmet Kursat Azkur, Deshpande Kaistha S, Rouse BT. 2008. Enhanced viral immunoinflammatory lesions in mice lacking IL-23 responses. Microbes and infections. 10(3):302-312 \* Co-First Author.
13. Sarangi PP, Kim B., Kurt-Jones E, Rouse BT. 2007. Innate recognition network driving the HSV induced corneal immunopathology: Role of Toll Pathway in the early inflammatory events in Stromal Keratitis. Journal of Virology. 81(20):11128-38
14. Kim B, Sarangi PP, Y Lee Deshpande Kaistha S, Lee S, Rouse BT. 2006. Depletion of MCP-1 increases development of herpetic stromal keratitis by innate immune modulation. Journal of Leukocyte Biology. 80(6):1405-15 *Recommended in Faculty1000*
15. Kim B, Suvas S, Sarangi PP, Lee S, Reisfield RA, Rouse BT. 2006. Vascular endothelial growth factor receptor2-based DNA immunization delays development of herpetic stromal keratitis by antiangiogenic effects. Journal of Immunology. 177(6):4122-31
16. Suvas S, Kim B, Sarangi PP, Tone M, Waldmann, H, Rouse BT. 2005. In vivo kinetics of GITR and GITR ligand expression and their functional significance in regulating viral immunopathology. Journal of Virology. 79(18):11935-42

Reviews

1. Bhan C, Dipankar P, Chakraborty P**, Sarangi PP**. 2016. Role of cellular events in the pathophysiology of sepsis. **Inflammation Research**. 65 (11), 853-868
2. Sarangi PP, Lee Hyun-wook and Kim M. 2010. Activated Protein C action in inflammation. British Journal of Hematology. 148(6):817-33
3. Rouse BT, Sarangi PP, Suvas S. 2006. Regulatory T cells in virus infections. Immunological Reviews. 212:272-86

Book chapters:

1. Sarangi PP, Rouse BT. Herpetic Keratitis. 2009. Levin and Albert Ocular Disease: Mechanisms and Management, Elsevier, Chapter 12

P**eer reviewed conference proceedings**

1. 2017 **Poster Presentation**: Immunology-2017 (AAI), Washington DC, USA

 Title: Adhesion protein Fibulin-7 (Fbln7) regulates differentiation and polarization of human monocytes and macrophages.

2. 2016 **Oral Presentation**: Immunocon 2016. Annual Meeting of IIS, Vizag, India

 Title: *In vitro* modulation of human monocyte function by Fibulin7 (Fbln7) (Oral by Ms. P. Chakraborty et al)

3. 2015 **Invited Talk**: International conference on translational Research, BBSR, India

 Title: Role of integrin α3β1 in trafficking of activated neutrophils during sepsis

4. 2014 Oral Presentation: Immunocon 2014. Annual Meeting of IIS, Madurai, India.

Title: Integrin α3β1 mediates tissue homing of activated neutrophils and TLR mediated cytokine production during sepsis

5. 2013 **Invited Talk** International Conference on Hematology & Blood Disorders, USA

Title: Exacerbated tissue homing of hyper-inflammatory neutrophils during sepsis is mediated by integrin VLA-3 (CD49c/CD29)

6. 2013 Oral Presentation- NIDCR Annual Retreat, Maryland, USA

Title: Fibulin-7 active as a immunomodulator

7. 2013 **Poster Presentation**- Immunology (AAI), Honolulu, USA

Title: **F**ibulin-7, a member of the extracellular matrix fibulin family, regulates immune cell migration and function

8. 2012 Poster Presentation- NIDCR Annual Retreat, Rockey Gap, Maryland, USA

Title: Fibulin-7 a new member of the extra cellular matrix fibulin family of proteins is involved in adhesion, angiogenesis and inflammation

9. 2011 **Poster presentation**- Thirty-fourth Annual Conference on Shock, Virginia, USA

 Title: Exacerbated tissue homing of hyper-inflammatory neutrophils during sepsis is mediated by integrin VLA-3 (CD49c/CD29)

10. 2010 **Oral Presentation** -Thirty-third Annual Conference on Shock, Portland, Oregon, USA

 Title: A peptide analog of the RGD (Arg-Gly-Asp) motif improves sepsis survival & bacterial clearance via regulation of local neutrophils recruitment

11. 2008 **Poster Presentation** - Keystone Symposium, Keystone, Colorado, USA

 Title: Modulation of herpes virus induced ocular immunopathology by non-mitogenic anti-CD3 monoclonal antibody treatment. Poster presentation

12. 2007 **Poster Presentation** - Immunology (AAI), Miami, Florida, USA

 Title: IL-10 and natural regulatory T cells: Two independent anti-inflammatory mechanisms in HSV induced ocular immunopathology

13. 2007 **Poster and Oral Presentation** - Annual Research Symposium, Univ. of Tenn., USA

Title: IL-10 and natural regulatory T cells: Two independent anti-inflammatory mechanisms in HSV induced ocular immunopathology.

14. 2006 **Poster Presentation** - Keystone Symposium, Colorado, USA

 Title: Roll of Toll-like Receptors in clinical herpetic stromal keratitis

Professional Training and Workshops

2013 Management in academic environment workshop, NIH, USA.

2012 Management Boot Camp, NIH, USA.

2012 Scientists Teaching Science Term Course, NIH, USA.

2011 Workplace Dynamics, NIH, USA.

2011 Certificate Course in Principles of Clinical Pharmacology, NIH.

2008 Phlebotomy training program. University of Rochester, NY. USA

**Teaching Experience**

**B.Tech Courses:** Immunotechnology, Biosafety Ethics, patenting & IPR, Vaccine Technology, Technical Communication, Case Study.

**MSc. Courses:**  Immunology & Immunotechnology.

**M.Tech:** Microbiology.

**NCC Lectures:** Self-Awareness, Communication skills, Time Management and Mindset.

**Administrative responsibilities**

1.2014 till present: In-charge, Experimental Animal Facility, IIT Roorkee, India.

2. 2015 till present: Student Advisor, B Tech first year, Dept of Biotechnology, IIT, Roorkee.

3. 2014 till present: NCC officer, 3UK CTR NCC, IIT Roorkee.

4. 2014 till present: member: Department Faculty Committee.

5. 2016 till present: Member, Department Academic Programming Committee.

6. 2017- 2022: Member: Institute Animal Ethics Committee.

7. 2016 till present: In-Charge: Flow-cytometry core facility

8. 2017 till present: Faculty Advisor, National Cadet Core (NCC) and National Service Scheme (NSS), IIT Roorkee.

**Thesis Guided**

B.Tech: 5, M.Sc.: 3, PhD: 4 (On going)

**Research Funding**

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| **Sl No.** | **Title of Project** | **Funding Agency** | **Amount (lacs)** | **Duration** |
| 1 | Role of Extra cellular matrix protein Fibulin-7 in T cell activation and function | SRIC-IITR | 10 | 2014 to 2017 |
| 2 | Cell Matrix interaction in Inflammation and sepsis | DBT, Govt. of India | 31.2 | 2014 to 2017 |
| 3 | Immunmodularory effect of adhesion protein Fibulin7 (Fbln7) on immune cell activation and function  | DST, Govt. of India | 32.11 | 2015 to 2018 |