**Pranita P. Sarangi, BVSc & AH, PhD**

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**Educational Qualification:**

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

**BVSc&AH**. Orissa University of Agriculture and Technology, India.

Professional Experience

03/14-present Assistant Professor, Department of Biotechnology, IIT Roorkee

**03/13-09/18** Special Volunteer, NIDCR/National Institute of Health, Bethesda, MD, USA

07/11-02/13 Research Fellow, NIDCR/National Institute of Health, USA

04/08-06/11 Post-Doctoral Research Associate, University of Rochester, Rochester, NY, USA

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

02/03-07/03 Junior Veterinary Officer, Government of Orissa, Cuttack, India

02/02-01/03 Veterinary Extension Officer, Heifer India, Odisha task force office. India

**Awards and honors:**

2019 International Travel Support Grant, DST, Govt. of India.

2017 Innovative Young Biotechnologist Award (*IYBA-2017*), DBT, Govt. of India

2017 Early Career Faculty Travel Grant, American Association of Immunologists.

2014 Best oral presentation, Immunocon-2014, Indian Immunology Society.

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.

Peer Reviewed Journal Publications

***Publications from IIT Roorkee (2014-2020)***

1. Chakraborty P, Dash SP, Dalapati N, Kumar P, Jain D, \***Sarangi PP**. (2020) A C-Terminal Fragment of Adhesion Protein Fibulin-7 Inhibits Growth of Murine Breast Tumor by Regulating Macrophage Reprogramming. 2020 April 16. **The FEBS Journal. Q1, IF: 4.739**
2. Chakraborty P, Bhan C, Dalpati N, Kumar P, Dash SP, \***Sarangi PP**. **(2020).** C-terminal fragment of adhesion protein Fibulin7 improves survival in endotoxemic mice by regulating neutrophil migration and functions**.** May 6**. Cytokine**. **Q1, IF: 3.1**
3. Chakraborty P, Dash SP, \***Sarangi PP**. (2020) Fibulin-7: The adhesion protein with multidimensional functions and implications in therapeutics. **Molecular Medicine**. **Q1, IF: 2.991**
4. Chakraborty P, Dipankar P, Dash, SP, Priya, Srivastava S, Dhyani R, Navani N, Sharma D,\***Sarangi PP. (**2019) Electrostatic Surface Potential of Macrophages Correlates With Their Functional Phenotype. **Inflammation.** DOI: 10.1007/s10753-019-01146-3. **Q2, IF: 2.934**
5. Verma A, Ghosh T, Bhushan B, Packirisamy G, Navani, NK, Sarangi PP, **Ambatipudi K**. (2019) Characterization of Difference in Structure and Function of Fresh and Mastitic Bovine Milk Fat Globules. **PLOS ONE. Q1, IF: 2.776**
6. Bhan C, Dash SP, Dipankar P, Kumar P, Chakraborty P, \***Sarangi PP. (2019) I**nvestigation of extracellular matrix protein expression dynamics using murine models of systemic inflammation. **Inflammation.** ;42(6):2020-2031. **Q2, IF: 2.934**
7. \***Sarangi PP**,Chakraborty P, Dash SP, Ambatipudi K, Vega SD, Ikeuchi T, Wahl L, \*Yamada Y.(2018). Cell adhesion protein Fibulin-7 and its C-terminal fragment negatively regulate monocyte and macrophage migration and functions *in vitro* and *in vivo*, 32(9)**FASEBJournal.** *Highlighted in Nature-Asia/India.* **Q1, IF: 5.391**
8. **Sarangi PP**, Lee H, Lerman Y, Harrower E., Horrower E, Trzeciak A, Rezaie AR, Kim M. (2017). Activated protein C attenuates severe inflammation by selectively targeting VLA-3high neutrophil subpopulation in mice **Journal of Immunology.**, Oct 15;199(8):2930-2936. **Q1, IF: 4.718**
9. Bhan C, Dipankar P, Chakraborty P**, \*Sarangi PP**.(2016). Role of Cellular events in the pathophysiology of sepsis**. Inflammation Research.** 2**,** 65 (11), 853-868. **Q2, IF: 3.061**
10. 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 (*Received Special Commentary in Blood)* **Q1, IF: 16.562**

***Under Revision (Book Chapter)***

1. Bhan C, Dipankar P, Dash SP, Chakraborty P, Dalpati N, \***Sarangi PP**. Chapter 17: Recent advances in imaging and analysis of cellular dynamics in real time. Book: ***Development of Biotechnology in Life Sciences***. AAP Press. (Revision Resubmitted)

***Publication before IIT Roorkee (2005-2013)***

1. \***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. Q1, IF: 3.083**
2. 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. **Q1, IF: 10.892**
3. Sarangi PP, Lee Hyun-wook and Kim M. 2010. Activated Protein C action in inflammation. **British Journal of Hematology**. 148(6):817-33. **Q1, IF: 5.206**
4. **#**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.* **Q1, IF: 16.562**
5. **Sarangi P**P, Woo SR, Rouse BT. 2009. Modulation of herpes virus induced ocular immunopathology by anti-CD200R:Fc treatment. **Clinical Immunology**. 131(1):31-40 . **Q2, IF: 3.548**
6. **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. **Q1, IF: 3.812**
7. **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. **Q1, IF: 4.718**
8. **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 **Q1, IF: 4.324**
9. #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. **Q2, IF: 2.669**
10. **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. **Q1, IF: 4.324**
11. 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.* **Q1, IF: 4.012**
12. 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. **Q1, IF: 4.718**
13. Rouse BT, **Sarangi PP**, Suvas S. 2006. Regulatory T cells in virus infections. **Immunological Reviews**. 212:272-86, **Q1, IF: 11.292**
14. 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 . **Q1, IF: 4.324**

**Book Chapters**

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

**Details of Patents/Patent Applications**

1. US patent Publication No. WO2015021165 A1 Publication date: Feb12, 2015

Published **first Authored peer reviewed conference proceedings**

1. 2019 Oral Presentation, Immunocon 2019. Annual Meeting of IIS, BARC/Mumbai, India.
2. 2019 Poster Presentation, FOCIS Annual Meeting, Boston MA, USA.
3. 2018 Panelist: International Conference on Neutraceuticals and Chronic Disease .
4. 2017 Poster Presentation: Immunology -2017, Washington DC, USA.
5. 2015 Invited Talk: International conference on translational Research, BBSR, India.
6. 2014 Oral Presentation: Immunocon 2014. Annual Meeting of IIS, Madurai, India.
7. 2013 Invited Talk International Conference on Hematology & Blood Disorders, USA
8. 2013 Oral Presentation- NIDCR Annual Retreat, Maryland, USA.
9. 2013 Poster Presentation- Immunology (AAI), Honolulu, USA.
10. 2012 Poster Presentation- NIDCR Annual Retreat, Rockey Gap, Maryland, USA.
11. 2011 Poster presentation- Thirty-fourth Annual Conference on Shock, Virginia, USA.
12. 2010 Oral Presentation -Thirty-third Annual Conference on Shock, Portland, Oregon, USA
13. 2008 Poster Presentation - Keystone Symposium, Keystone, Colorado, USA.
14. 2007 Poster Presentation - Immunology (AAI), Miami, Florida, USA.
15. 2007 Poster and Oral Presentation - Annual Research Symposium, Univ. of Tenn., USA.
16. 2006 Poster Presentation - Keystone Symposium, Colorado, USA.

**Special Lectures at Other Institutes:**

1. June 2019: Division of Surgical Research: Brown University, USA

**Sponsored Research Projects**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl No** | **Title of Project** | **Funding Agency/Role** | **Amount (in lacs)** | **Duration** |
| 1 | Role of Extra cellular matrix protein Fibulin-7 in T cell activation and function | SRIC-IITR  (PI) | 10 | 2014-17 |
| 2 | Cell Matrix interaction in Inflammation and sepsis | DBT-BIOCAre  (PI) | 31.2 | 2014-17 |
| 3 | Immunmodularory effect of adhesion protein Fibulin7 (Fbln7) on immune cell activation and function | SERB-DST –YSS (PI)  SRIC Gap Fund | 32.11  +0.54 | 2015-18 |
| 4 | Role of integrin receptors in tumor mediated immunoediting of macrophages | DBT-IYBA-2017 (PI)  SRIC Matching | 58.12  +5 | 2018-21 |
| 5 | Lipidomics of bovine milk under different season and feed | DBT  (Co-PI) | 41.99 | 2015-18 |
| 6 | Immunomodulators in small cell lung cancer: Basis for implementation of cancer immunotherapy | DST-CRG  (Co-PI) | 36.16 | 2019-21 |

**Teaching Experience 2014-present)**

**BTech:**

1. BTN-207: Immunotechnology
2. BTN-499: Vaccine Biotechnology
3. BTN-415 Biosafety Bioethics and IPR
4. BTN-499: Training and Seminar
5. BTN-391: Technical Communication
6. BTN-208: Biotechnology Laboratory-I
7. BTN-000: Biotechnology Laboratory-II
8. BTN-300: Case study

**MTech:**

1. BTN-651 Microbiology and Biochemistry

**MSc.:**

1. BTN-522: Immunology & Immunotechnology
2. BTN-523: Biotechnology Laboratory-I
3. BTN-613: Course Coordinator: MSc Seminar: 2016-19

**Details of Doctoral Theses Supervised**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the Student** | **Reg. Year and status (FT/PT)** | **Thesis Title** | **Other supervisor (if any), name & department** | **Status** |
| 1 | Chandra Bhan | 2014, FT | Impact of Altered Extracellular Matrix Protein Distribution on Immune Cell Function During Inflammation | N/A | **Completed** |
| 2 | Papiya Chakraborty | 2014, FT | Role of adhesion protein fibulin7 in modulation of macrophage functions. | NA | **Defended** |
| 3 | Pankaj Dipankar | 2015, FT | Role of RhoGTPases in Immune cell migration during Inflammation | NA | Ongoing |
| 4 | Shiba Prasad Dash | 2016, FT | Role of Intergrin receptors in the function of innate immune cells in Inflammation and Cancer | NA | Ongoing |
| 5 | Nibedita Dalpati | 2018, FT | Immunomodulatory Therapeutics in Inflammation and Cancer | NA | Ongoing |
| 6 | Puneet Kumar | 2019, FT | Use of systems and computational biology in diseases | NA | Ongoing |
| 7 | Saloni Gupta | 2019, FT | Immunometabolism processes in inflammation and cancer | NA | Ongoing |

**Administrative Responsibilities**

***Institute Level:***

* 1. 2014 - Present: In-charge: Institute Animal House Facility, IIT Roorkee.
  2. 2014-Present: O.C, Building Maintenance, Dept. of Biotechnology.
  3. 2015 - present: Associate NCC officer, 3 UK CTR NCC, IIT Roorkee.
  4. 2016 - present: Scientist in charge, Institute Animal Ethics Committee.
  5. 2017 - preset: Faculty Advisor, NCC and NSS proficiencies, IIT Roorkee.
  6. 2020- Present: Nodal officer for IIT Roorkee: Vigyan Jyoti Initiative of Dept. of Science and Technology, Govt. of India.

***Department Level:***

* 1. 2017-18: Member, Department Academic Program Committee.
  2. 2018-Present Member, Department Research Committee.
  3. 2019- Present, Member, Department Safety Committee.
  4. 2019-Present, Member, Department Instrument Committee
  5. 020-Present. Department Faculty Search Committee

Professional Training and Workshops

2019 Systems Immunology: FOCIS Annual Meeting, Boston, USA

2016 Training on Animal welfare from National Institute of Animal Welfare, Faridabad.

2013 Management in academic environment workshop, 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

**Service to the Scientific Community**

* Serving as reviewer for DST-Govt of India grants proposals.
* Reviewer for several peer-reviewed Journals: Clinical Immunology, Journal of Biological regulators & Homeostatic Agents, Critical Care, Inflammation, Journal of Inflammation, International Journal of Medical Sciences, IOVS and Oncotargets etc.
* Editorial Review Board Member- International Journal of Immunology Research

**Community Development Activities for improving education and other aspects of society**

A. As the faculty advisor, National Social Scheme and national Cadet Corps, IIT Roorkee,

* 1. Coordinated and supervised three successful **National Social Summits** on the theme “Women and Child Empowerment”, “Empowerment with Education”. and “Building Nature with Innovation”
  2. Coordinated the initiation of new program “UDBHAV-Siksha Ki Ek Nayee Umang” in 2018-19, whose aimed at creating interest of underprivileged kids in education via promoting co-curricular activities in schools
  3. Associated with providing free education to children from poor families along with “ASMITA”, organization that is an initiative by women from IIT Roorkee.
  4. Supervised multiple initiatives from the Govt of India such as Swtchta Hi Sewa, Swatchh Bharat Abhiyan, Ek Bharat Shrestha Bharat, and national Road safety Week events.
  5. As one of the Associate NCC officers, have delivered various leadership skill lectures incl., Time Management, Change your Mind Set, etc to over 400 cadets from all over Uttarakhand state who attend the Annual Training Camp held at 3UK CTR, NCC, IITRoorkee

B. With the opportunity of becoming the Nodal officer for the DST, Govt of India’s initiative under KIRAN scheme, I have the opportunity to motivate young and bright girl students from JNV and Kendriya Vidyalaya, Haridwar to take up careers in the field of STEM and dream big.