



# BARASAT GOVERNMENT COLLEGE

## TEACHER'S PROFILE

*DR SOMADITYA DEY, DEPARTMENT OF ZOOLOGY*

- **DESIGNATION** : Assistant Professor (Stage2)
- **QUALIFICATION** : M.Sc., Ph.D.
- **DATE OF JOINING THE SERVICE** : Feb 20, 2015
- **DATE OF JOINING THE INSTITUTION** : Feb 20, 2015
- **ADDRESS FOR COMMUNICATION** : 10, K.N.C Road, Barasat (N 24 Parganas), Kolkata-700124
- **PHONE NO** : 8013247086
- **EMAIL ADDRESS** : somaditya.dey@bgc.ac.in
- **SPECIALIZATION** : PARASITOLOGY AND IMMUNOBIOLOGY
- **TEACHING EXPERIENCE** : UG & PG LEVEL [2015-till date]
- **COLLEGE SERVED** : BARASAT GOVT COLLEGE (20.02.2015- TILL DATE)

<p>➤ <b>ACADEMIC AND ADMINISTRATIVE EXPERIENCE</b></p>	<p>: 1. Performing duties in teaching and learning processes, as educators, leaders, role models of the students; as well as paper setter, examiner, scrutineer, invigilators . Jt. Coordinator, MSc Examination Committee, and invited member, PGBOS, Dept of Zoology. 3. Jt. Coordinator, System Management Committee- Overall maintenance of college website, online processes, Implementation of IFMS system &amp; administrative works- 2016-2024. 4. Jt. Convener, Admission Committee- B.A./B.Sc. &amp; M.A./M.Sc. admission processes- 2017-2024 5. Teacher member, Project Monitoring unit, RUSA, 2016-2021 6. Teacher member, UGC and AISHEE committee- 2016-2021 7. Teacher member, Students' welfare, and support cell- - 2017-21</p>
<p>➤ <b>TOPICS TAUGHT</b></p>	<p>: 1. Chordate &amp; Non-chordate 2. Developmental Biology 3. Human Physiology 4. Parasitology 5. Immunology 6. Endocrinology 7. Neurobiology 8. Cytology &amp; Genetics</p>
<p>➤ <b>AREA OF RESEARCH &amp; INTEREST</b></p>	<p>: Immunobiology and Parasitology focusing on cellular immunology and vector molecular biology.</p>
<p>➤ <b>ONGOING PROJECT DETAILS</b></p>	<p>: NONE</p>
<p>➤ <b>AWARD RECEIVED</b></p>	<p>:  <ul style="list-style-type: none"> <li>➤ Long-term International Fellow, Indian Council of Medical Research, Government of India</li> <li>➤ Travel grants from AAI for presentation at the 17th ICI, 2019, Beijing, organized by IUIS, 2019.</li> <li>➤ Winner of the BRIC idea exposition stipend, IICB, Kolkata, 2019</li> <li>➤ ECI- AAI Travel Grant award, for presentation at the ECI, 2018, organized by, EFIS, Netherland, 2018</li> <li>➤ Presentation at GRC' 2018, at Newport, USA. [Travel Grant Recommended by UGC]</li> <li>➤ 'Young Scientist Award from ICMR and CSIR, for presentation at ASM/ESCMID Conference, 2017, USA.</li> <li>➤ Travel Support Award by WHO &amp; DNDi, Geneva for presentation at 6th WL, 2017, at Toledo, Spain.</li> <li>➤ International Travel Grant as young scientist (DST-SERB) for presentation at ICI, 2016, Australia Awarded best presentation</li> <li>➤ Poster presentation at Symposium on FIMB, 2015, IISER-Kolkata; 2015</li> <li>➤ Oral presentation at International Conference on "Molecular Biology and its Applications", JU, Kolkata.</li> </ul> </p>
<p>➤ <b>Ph.D. DETAILS</b></p>	<p>:  <b>Cellular Immunology &amp; Experimental Therapeutics Laboratory, Department of Zoology, West Bengal State University. PI: Prof. Chiranjib Pal. M: 9831306386. E-mail: chiranjibpal.zoology@wbsu.ac.in.</b>  <b>[Thesis title: "Host protection against drug -sensitive &amp; -resistant <i>Leishmania donovani</i> infection by therapeutic combination of <i>Mycobacterium indicus pranii</i> (<i>M.w.</i>) &amp; heat induced promastigotes promotes the up regulation of FIt3+ preDC leading to IL-6 producing CD11c+ cDC" (2019)]</b></p>
<p>➤ <b>POSTDOCTORAL ACTIVITIES</b></p>	<p>: Long-term International Fellow, Indian Council of Medical Research, Government of India, at Laboratory of Malaria and Vector Research, National Institute of Allergy and Infectious Diseases, NIH, Rockville, MD, USA</p>
<p>➤ <b>CAREER PROFILE</b></p>	<p>: B.Sc. Zoology (Hons., 2008), M.Sc. Zoology (2010), BIDHANNAGAR COLLEGE  Joint CSIR-UGC NET (Life Sciences)- 2012,2013,2014.  Dept. of Zoology, West Bengal State University, JRF, DBT Project; 2012.  Dept. of Zoology, West Bengal State University, Laboratory Assistant (Technician B), ICMR Project; 2012-15  Assistant Professor, West Bengal Education Service, Post Graduate Department of Zoology, Barasat Government College (2015-till date)</p>
<p>➤ <b>ACADEMIC LINK</b></p>	<p>: 1. <a href="https://scholar.google.co.in/citations?user=ufC_vDgAAAAJ&amp;hl=en">https://scholar.google.co.in/citations?user=ufC_vDgAAAAJ&amp;hl=en</a>  2. <a href="https://www.researchgate.net/profile/Somaditya-Dey">https://www.researchgate.net/profile/Somaditya-Dey</a>  3. <a href="https://orcid.org/0000-0002-5741-9668">https://orcid.org/0000-0002-5741-9668</a></p>

# PUBLICATION (Last 10 years)

## JOURNAL PUBLICATION :

- (1) Kamalika Roy, Sanhita Ghosh, Mintu Karan, Suman Karmakar, Supriya Nath, Bedanta Das, Sharmistha Paul, Pritam Mandal, Monalisa Ray, Mousumi Das, Soumyadip Mukherjee, **Somaditya Dey**, Chiranjib Pal\* (2024). Activation of neutrophils excels the therapeutic potential of *Mycobacterium indicus pranii* and heat-induced promastigotes against antimony-resistant *Leishmania donovani* infection. Scandinavian Journal of Immunology; <https://doi.org/10.1111/sji.13350>. Impact Factor: 3.7
- (2) Joydip Ghosh<sup>a1</sup>, Sondipon Chakraborty<sup>a1</sup>, **Somaditya Dey<sup>a, #</sup>**, Debarati Mukherjee<sup>a</sup>, Biswajyoti Sarkar<sup>a</sup>, Suvadip Mallick<sup>a</sup>, Aritri Dutta<sup>a</sup>, , Tanmoy Dutta<sup>c</sup>, Soumen Bhattacharjee<sup>c</sup>, Narayan Ghorai<sup>b</sup>, Chiranjib Pal\*<sup>a</sup> (2021). Potential anti-leishmanial activity of a semi-purified fraction isolated from the leaves of *Parthenium hysterophorus*. *Acta Parasitologica*; 2021;66, 1480–1489; Impact factor: 1.44. (#: Joint 1<sup>st</sup> author)
- (3) Debarati Mukherjee1, #, Md Yousuf2, #, Somaditya Dey1, Sondipon Chakraborty1, Vinay Kumar3, Ankur Chaudhuri4, Biswajyoti Sarkar1, Supriya Nath1, Aabid Hussain1, Aritri Dutta1, Saurav Chatterjee2, Sibani Chakraborty4, Sushma Singh3, Susanta Adhikari2\*, Chiranjib Pal1\* (2020)., 'Targeting the trypanothione reductase of tissue-residing *Leishmania* in hosts' reticuloendothelial system: Flexible water-soluble ferrocenylquinoline-based preclinical drug candidate.', Journal of Medicinal Chemistry; 63, 24, 15621–15638. Impact Factor: 6.205 (#: Joint 1st author)
- (4) Somaditya Dey, Debarati Mukherjee, Sirin Salma Sultana, Suvadip Mallick, Supratim Mandal, Aritri Dutta, Joydip Ghosh, Aabid Hussain, Pradyumna Patra, Bhaskar Saha and Chiranjib Pal., 'Combination of *Mycobacterium indicus pranii* and heat induced promastigotes cures drug-resistant *Leishmania* infection: Critical role of Interleukin-6 producing classical dendritic cells. Infection and Immunity; e00222-19; 88(6):1-20. Impact Factor: 3.2. ISSN: 00199567; Wos & Scopus; SJR: 1.59, UGC: 21033.', Infection and Immunity; e00222-19; 88(6):1-20. Impact Factor: 3.2. Wos & Scopus; SJR: 1.59, UGC:
- (5) Md Yousuf#; Debarati Mukherjee#; Somaditya Dey; Sourav Chatterjee, Abhishek Pal; Biswajyoti Sarkar Chiranjib Pal and Susanta Adhikari. (2018) ., 'Synthesis and biological evaluation of polyhydroxylated oxindole derivatives as potential antileishmanial agent.', Bioorganic and Medicinal Chemistry Letters 28: 1056–1062. Impact Factor: 2.46. [#: Joint 1st author]. UNIV, Wos & Scopus; UGC: 47160, 43141 ISSN: 0960894X;
- (6) Md Yousuf#, Debarati Mukherjee#, Somaditya Dey, Chiranjib Pal, Susanta Adhikari\* (2016), 'Antileishmanial ferrocenylquinoline derivatives: Synthesis and biological evaluation against *Leishmania donovani*.', European Journal of Medicinal Chemistry, 124:468-479. Impact Factor: 4.52. [#: Joint 1st author] Wos & Scopus; UGC: 28767, 42606, ISSN: 02235234;
- (7) Suvadip Mallick#, Somaditya Dey#, Supratim Mandal, Aritri Dutta, Debarati Mukherjee, Gunja Biswas, Soumya Chatterjee, Sanjaya Mallick, Tapan Kumar Lai, Krishnendu Acharya and Chiranjib Pal (2015). ., 'A novel triterpene from *Astraeus hygrometricus* induces reactive oxygen species leading to death in *Leishmania donovani*.', Future Microbiology, 10 (5): 763-789. Impact Factor: 4.275. [#: Joint 1st author]; Wos & Scopus; UGC: 17877, 2015, ISSN: 17460913
- (8) Somaditya Dey, Debarati Mukherjee, Sondipon Chakraborty, Suvadip Mallick, Aritri Dutta, Ningomban Swapana, Swatilekha Maiti, Narayan Ghorai, Chingakhm Brajakishor Singh and Chiranjib Pal\* (2015) 'Protective effect of *Croton caudatus* Geisel leaf extract against experimental visceral leishmaniasis induces proinflammatory cytokines in vitro and in vivo.', Experimental Parasitology; 151–152: 84–95. Impact Factor: 1.76. WoS & Scopus; UGC: 29106., 42031, ISSN: 00144894;
- (9) Suvadip Mallick#, Aritri Dutta#, Somaditya Dey#, Joydip Ghosh, Debarati Mukherjee, Sirin Sultana, Supratim Mandal, Soumitra Paloi, Somanjana Khatua, Krishnendu Acharya, Chiranjib Pal\* (2014)., 'Selective inhibition of *Leishmania donovani* by active extracts of wild mushrooms used by the tribal population of India: An in vitro exploration for new leads against parasitic protozoans.', Experimental Parasitology; 138: 9–17. Impact Factor: 1.76. [#: Joint 1st author], 2014, ISSN: 00144894; WoS& Scopus; UGC: 29106
- (0) Md Yousuf#, Debarati Mukherjee#, Abhishek Pal, Somaditya Dey, Supratim Mandal, Chiranjib Pal\*, and Susanta Adhikari\* (2015)., 'Synthesis and Biological Evaluation of Small Molecule Ferrocenylquinoline as a Potential Antileishmanial Agent.', ChemMedChem, 10 (3): 546-554. Impact Factor: 2.97. [#: Joint 1st author; \*Joint Correspondence Author.], 2015, ISSN: 18607179; WoS& Scopus; UGC: 5535.

### ➤ Ad-hoc Reviewer

1. Reviewed a manuscript entitled '**Identification of Chalcone derivatives as inhibitors of *Leishmania infantum* Arginase and promising antileishmanial agents**' submitted to the journal **Frontiers in Chemistry**.

### ➤ Research highlights

The frontline area of post-doctoral research was focused on the establishment of the Sand Fly-bite initiated experimental murine Visceral Leishmaniasis (VL) and, Cutaneous Leishmaniasis (CL) models, and utilising these systems to explore the kinetics of parasite tropism at the bite site and the visceral organs and identify vector-derived and/or host factors affecting the severity of the disease

Experiences in performing extensive flow cytometry (FACS), polymerase chain reaction (PCR) assays in cellular immunology based cutting-edge scientific research to establish the novel combination of *Mycobacterium indicus pranii* (M.w.) & heat induced *Leishmania* promastigotes as adjuvant therapy against experimental murine visceral leishmaniasis.

Participated as a key contributor in wet-lab research for establishing the anti-leishmanial efficacies of several natural and synthetic molecules against visceral leishmaniasis, using methods including spectrophotometry, scanning electron microscopy (SEM), fluorescence microscopy and extensive biochemical and pharmacokinetic assays.

Worked in the field of clinical immunology-based study on the involvement of CD14+CD16+ and CD14-CD16+ inflammatory monocytes in development of chemokine axis during *Leishmania donovani* infection in active Kala-azar patients in disease-endemic regions of West Bengal, India.

### ➤ Awards and Presentations

- **Long-term International Fellowship (One-year)**, funded by **Indian Council of Medical Research, Government of India**, amounting to 30,02,000/-, for postdoctoral training and research at National Institute of Allergy and Infectious Diseases, NIH, USA.
- **Travel grants to early-career researchers from American Association of Immunologists** for attendance and paper presentation (poster) at the **17<sup>th</sup> International Congress of Immunology, 2019**, Beijing, China, organized by IUIS and CSI, on 19-23<sup>rd</sup> October, 2019. [Abstract published in *European Journal of Immunology*; [doi.org/10.1002/eji.201970400](https://doi.org/10.1002/eji.201970400)].
- **Joint Winner of the BRIC idea exposition stipend of Rs. 25000/- (Theme: Pharmaceuticals and Nutraceuticals)**, organized by the Biotechnology Industry Research Assistance Council (BIRAC), IKP Knowledge Park (IKP), and IICB (TRUE), Salt Lake, Kolkata on 20-21<sup>st</sup> September, 2019
- **ECI- AAI Travel Grant award, from American Association of Immunologists** for participating and poster presentation of the thesis work at the **European congress of Immunology, September, 2018**, organized by, EFIS and DSI, NVVI at Amsterdam, Netherland.
- Poster presentation at '**Gordon Research Conference on Biology of Host- Parasite Interactions,**' June, 2018, at Newport, RI, USA. [Travel Grant Recommended by University Grants Commission, India for full support]
- '**Young Scientist Travel Support Award from ICMR and CSIR India, sponsored by Govt. of India**, for participating and paper presentation (poster) at **ASM/ESCMID Conference on Drug Development to Meet the Challenge of Antimicrobial Resistance, September, 2017**, organized by the ASM & ESCMID, at Boston, USA.

- **'100 students initiative scheme' Travel Support Award from KAMRC, India, sponsored by WHO & DNDi, Geneva** for participating and paper presentation (ORAL) at **6th World Congress on Leishmaniasis, May, 2017**, organized by [WHO Collaborating Centre for Leishmaniasis, Madrid](#) and the [Drugs for Neglected Diseases initiative, Geneva](#), at Toledo, Spain.
- **International Travel Support Grant as young scientist (DST Science & Engineering Research Board)** for attendance & paper presentation (ORAL) at **International Congress of Immunology, August, 2016**, Melbourne Australia, organized by [International Union of Immunological Societies](#) and the [Australasian Society for Immunology](#). [Abstract published in *European Journal of Immunology*; **46(1): 2016**].

### **Training Programs and Workshops**

- Attended **International Webinar on "Vaccines from Vectors"**, Organized by Dept. of Zoology, WBSU; August 25, 2020
- Attended **107<sup>th</sup> Indian Science Congress** at University of Agricultural Sciences, GKVK, Bengaluru during 5-6<sup>th</sup> January, 2020; funded by the Biotechnology Industry Research Assistance Council (BIRAC), IKP Knowledge Park (IKP).
- **Training Course on Clinical Flow Cytometry**, organized by CRNN, University of Calcutta in association with BD Biosciences (India); June 11<sup>th</sup> – 13<sup>th</sup> 2013.
- **International Workshop on Application of Flow Cytometry and Imaging in Cell Biology and Nano-Biotechnology**, organized by CRNN, University of Calcutta; August 11<sup>th</sup>-18<sup>th</sup> 2012.