

## Curriculum Vitae

**JOYDEEP PAUL, Ph.D.**

Alexander von Humboldt fellow

Assistant Professor

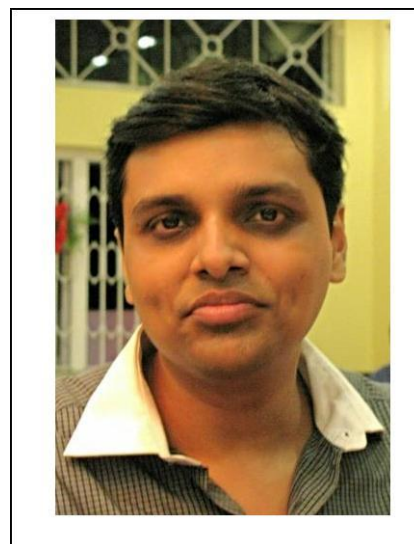
Department of Biotechnology

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**Languages Known:** Bengali, English, and Hindi

**Date of Birth:** 17.05.1985

**Sex:** Male

### WORK EXPERIENCE

**Assistant Professor:** From 03.12.2018 onwards-

**Department:** Biotechnology, School of Life Science and Biotechnology, Adamas University.

**Job Description:** Both Teaching and Research

**Experience:** 7.3 years (Post-PhD)

**Subjects Taught:** I am teaching various subjects and taking practical both at UG and PG levels such as Genetics, Immunology, Animal Biotechnology, Ecology, Evolution, Developmental Biology and Animal Biology.

**Research Focus Area:** Epidemiology and study of Drug resistance w.r.t host-pathogen interaction, using parasites (*Leishmania*, *Helminths*) as model organisms and deciphering the antimicrobial and antiprotozoal role of various synthetic and natural compounds in both *in vitro* and *in vivo* system.

**Administrative Responsibility:**

Deputy Center exam coordinator (Adamas University)

Coordinator of School Exam committee (School of Life Science and Biotechnology).

Coordinator of School NAAC 2 (School of Life Science and Biotechnology).

Member of School Lab Committee (School of Life Science and Biotechnology)

Member of departmental curriculum Committee (Biotechnology).

Member of departmental Placement Committee (Biotechnology).

**EDUCATION**

**2<sup>nd</sup> Post-Doctorate:** Alexander Von Humboldt Post-Doctoral Fellow, 2017, July- 2018, November

Prof. Dr. Dietmar Zehn  
Full Professor – Chair, Division of Animal Physiology and Immunology  
School of Life Sciences Weihenstephan  
Technical University of Munich

**Research Interest:** Molecular foundation of functional and dysfunctional T cells in chronic infections and tumors and development of new vaccination strategies and also validation of candidate molecules for immunoprophylaxis in an in vivo mice model.

**1<sup>st</sup> Post doctorate:** Dr. Venuprasad K. Poojary 2016, March-2017, March  
Associate Investigator  
Baylor Institute for Immunology Research  
Dallas, Texas, USA

**Research Interest:** IL-17-driven intestinal fibrosis is inhibited by Itch-mediated ubiquitination of HIC-5 in mice model.

**Ph.D.** Jadavpur University (CSIR-IICB), Kolkata, India 2010-2015

**Sub:** Biotechnology

**Thesis Supervisor:** Late Dr. Tripti De, PhD & Dr. Krishna Das Saha

(Principal Scientist, Indian Institute of Chemical Biology)

(I have done my PhD work under Late Dr. Tripti de. But due to her sudden death at 22<sup>nd</sup> December 2014, CSIR-IICB has appointed Dr. (Mrs) Krishna Das Saha as my new PhD supervisor to complete the formalities so that I can complete my PhD course as well as my unfinished projects without any complication)

**Title of Thesis:** TLR and immune response: Role of  $\beta$ - (1-4)- Galactose terminal glycans in enhancement of immune response and protection against experimental visceral Leishmaniasis

**Thesis work carried out** at Laboratory of Infectious Disease and Immunology

CSIR-Indian Institute of Chemical Biology, Kolkata (India).

Research Experience (with Ph.D.): 13.3 years

**Summer Intern:** Protective efficacy of *Lagenaria siceraria* in an experimental animal model of visceral leishmaniasis. 2007

**Supervisor:** Late Dr. Tripti De, Principal Scientist, Indian Institute of Chemical Biology, Jadavpur, Kolkata, India.

**M.Sc. (1<sup>st</sup>Class)** University of Calcutta, Kolkata, West Bengal, India, 2008

**Subject:** Genetics

**Department:** Genetics

**B.Sc. (1<sup>st</sup> class)** University of Calcutta, Kolkata, West Bengal, India, 2006

**Subject:** Zoology (Major), Chemistry & Botany (General)

### **AWARDS and Fellowship**

1. Qualified for **National Eligibility Test** (NET) for junior research Fellowship (Rank: 238) for PhD (June 2009) conducted by Council for Scientific and Industrial Research (Govt. of India).

2. Qualified for **Senior Research Fellowship** (SRF) for PhD conducted by Council for Scientific and Industrial Research (CSIR, Govt of India), January 2012- January 2015.

3. Selected for **Alexander von Humboldt long term post-doctoral Fellowship 2017/2018**. Receiving Fellowship from September, 2017 up to December, 2018.

4. Member of **Alexander von Humboldt Alumni** since January 2019.

5. **Plenary speaker** at the 26th BSVER Annual International Conference that held on 28 February to 1 March, 2020 at Bangladesh Agricultural University (BAU) campus, Mymensingh, Bangladesh under the Alexander von Humboldt networking initiative.

### **Professional Body membership:**

1. Life time member of The Biotech Research Society (BRSI).
2. Life time member of The Society of Biological Chemist (SBC)

## **List of Publications:**

**Total number of publications:** 23 (22 SCI/SCOPUS Indexed)

**h-Index:** 11

**Google Scholar Citation:** 377

1. Labony SS, Alim MA, Hasan MM, Hossain MS, Akter S, **Paul J**, Farjana T, Ali MH, Alam MZ, Hatta T, Kawada H, Mizutani K, Tsuji N, Anisuzzaman. Zoonotic human liver flukes, a type 1 biocarcinogen, in freshwater fishes: genetic analysis and confirmation of molluscan vectors and reservoir hosts in Bangladesh. **Infect Dis Poverty**. 2024 1;13(1):40.
2. Bhar R, Das A, Haldar S, **Paul J\***. Analyzing the antimicrobial efficacy of the economically important tree *Knema linifolia* (Roxb.) Warb. **Journal of Experimental Biology and Agricultural Sciences**. 10 (1-BIONEXT-2023). 12:145 – 152, 2024.
3. Mitra I, Bhattacharya A, **Paul J\***, Anisuzzaman\*. Present status with impacts and roles of miRNA on Soil Transmitted Helminthiasis control: A review. **Current Research in Pharmacology and Drug Discovery**. 2023. Jul. 15:5:100162..
4. Pradhan S, Snehlata, Manna D, Karmakar S, Singh MK, Bhattacharya A, Mukherjee B, **Paul J**. Activation of TLR-pathway to induce host Th1 immune response against visceral leishmaniasis: Involvement of galactosylated-flavonoids. **Heliyon**. 2022 Jul 3;8(7):e09868.
5. Roy Chowdhury S, Haldar S, Bhar R, Das S, Saha A, Pal K, Bandyopadhyay S, **Paul J**. *Pterocarpus angolensis*: Botanical, Chemical and Pharmacological Review of an Endangered Medicinal Plant of India. **Journal of Experimental Biology and Agricultural Sciences**. 10 (1-BIONEXT-2021):150 – 156, 2022.
6. Biswas S, Das A, **Paul J**, Bhadra T, Saha A. Impact of the non-biodegradable plastics and role of microbes in biotic degradation. **Journal of Experimental Biology and Agricultural Sciences**. 10 (1-BIONEXT-2021):171 – 189, 2022.
7. Singh MK, Das A, Saha R, **Paul J**, Nandi D. Leishmaniasis: Plants as a source of antileishmanial agents. **Journal of Experimental Biology and Agricultural Sciences**. 10 (1-BIONEXT-2021):227 – 247, 2022.
8. Baisya S, Saha A, **Paul J**, Saha R, Das A. Food Pattern Link To Covid19: The Role Of Diet And Nutritional Supplement During A World Wide Health Catastrophe. **J Microbiol Biotech Food Sci**, 2022, e3503.
9. Barman N, De A, **Paul J**, Haldar S, Bhattacharya A, Pal K. Strategy to Configure Multi-epitope Recombinant Immunogens with Weightage on Proinflammatory Response using SARS-CoV-2 Spike Glycoprotein (S-protein) and RNA-dependent RNA Polymerase (RdRp) as Model Targets. **J Pure Appl Microbiol**. 16(1):281-295, 2022.

10. Mandal S., Chakrabarty D., Bhattacharya A., **Paul J.**, Pal K., Haldar S. miRNA regulation of GPCR mediated angiogenic pathways in cancer. **The Nucleus**. 64: 303–315. 2021.
11. Bandopadhyay S., Pal K., Haldar S., **Paul J\***. Exploring the role of phytochemicals as biopharmaceuticals targeting Acute Respiratory Distress Syndrome (ARDS) virus:An Overview. **Discovery Phytomedicine**. 2021; 8 (1): 29-42.
12. Pradhan S., Ghosh S., Hussain S, **Paul J.**, Mukherjee B. Linking membrane fluidity with defective antigen presentation in leishmaniasis. **Parasite Immunology**. 2021. 43(7):e12835.
13. **Paul J**, Singh AK, Kathania M, Elviche TL, Zeng M, Basrur V, Theiss AL, Venuprasad K. IL-17-driven intestinal fibrosis is inhibited by Itch-mediated ubiquitination of HIC-5. **Mucosal Immunol**. 2018; 11(2):427-436.
14. Singh MK, Bhaumik SK, Karmakar S, **Paul J**, Sawoo S, Majumder HK, Roy A. Copper salicylaldehyde (CuSAL) imparts protective efficacy against visceral leishmaniasis by targeting Leishmania donovani topoisomerase IB. **Exp Parasitol**. 2017; 175:8-20.
15. Mukherjee B†, **Paul J†**, Mukherjee S, Mukhopadhyay R, Das S, Naskar K, Sundar S, Dujardin JC, Saha B, Roy S. Antimony Resistant Leishmania donovani exploits miR-466i to deactivate host MyD88 for regulating IL-10/IL-12 levels during early hours of infection. **J. Immunol**. 2015;195(6):2731-2742. († equal contribution).
16. Singh MK, **Paul J**, De T, Chakraborti T. (2015). Bioactivity guided fractionation of *Moringa oleifera* flower targeting Leishmania donovani parasite. **IJEB**. 2015; 53(11):747-52.
17. **Paul J**, Naskar K, Chowdhury S, Chakraborti T, De T. TLR mediated GSK3 $\beta$  activation suppresses CREB mediated IL-10 production to induce a protective immune response against murine visceral leishmaniasis. **Biochimie**. 2014;107: 235-246.
18. **Paul J**, Naskar K, Chowdhury S, Alam N, Chakraborti T, De T. TLR4 mediated activation of MyD88 signaling induces protective immune response and IL-10 down-regulation in Leishmania donovani infection. **IJBB**. 2014;51(6) 531-541.
19. **Paul J**, Karmakar S, De T. TLR-mediated distinct IFN- $\gamma$ /IL-10 pattern induced protective immunity against murine visceral leishmaniasis. **Eur. J. Immunol**. 2012;42: 2087– 2099.
20. Bhaumik SK†, **Paul J†**, Naskar K, Karmakar S, De T. Asiaticoside induces tumour-necrosis-factor-a-mediated nitric oxide production to cure experimental visceral leishmaniasis caused by antimony-susceptible and -resistant Leishmania donovani strains. **J Antimicrob Chemother**. 2012;67(4): 910-920. († equal contribution).

21. Karmakar S†, Bhaumik SK†, **Paul J**, De T. TLR4 and NKT Cell Synergy in Immunotherapy against Visceral Leishmaniasis. **PLoS Pathog.** 2012;8(4): e1002646. doi: 10.1371/journal.ppat.1002646. († equal contribution).

22. Karmakar S‡, Bhaumik SK‡, **Paul J**, De T. Leishmania Donovanii Cell Surface Sialoglycans Regulate Susceptibility for Siglec Mediated Macrophage Invasion and Parasite Survival. **Journal of Molecular Biochemistry.** 2012;1: 6-20. (‡equal contribution)

23. Karmakar S, **Paul J**, De T. Leishmania donovani glycosphingolipid facilitates antigen presentation by inducing relocation of CD1d into lipid rafts in infected macrophages. **Eur. J. Immunol.** 2011;41: 1–12.

### **List of Book Chapters:**

1. Bhakta S., Choudhury S., **Paul J.**, Bhattacharya A. Vaccine development through Reverse Vaccinology using Artificial intelligence and machine learning approach. Academic Press, 2022. Pages 33-49, ISBN 9780323858441.

2. Bhar, R., Pal, K., Haldar, S., **Paul, J.**, Elucidating the Role of miRNA in Inflammasome-Mediated Immune Response in Leishmaniasis. In: Mukherjee, B., Bhattacharya, A., Mukhopadhyay, R., Aguiar, B.G.A. (eds) Pathobiology of Parasitic Protozoa: Dynamics and Dimensions. Springer, Singapore. 2023

[https://doi.org/10.1007/978-981-19-8225-5\\_10](https://doi.org/10.1007/978-981-19-8225-5_10).

**Number of PhD students:** 2 (ongoing)

**Number of UG and PG dissertation:** UG-37 and PG- 12

### **Seminars and Symposium attended:**

#### **Poster presentation:**

1. Presented a poster entitled “**Protective efficacy of a 29KDa galactose terminal glycoprotein against visceral leishmaniasis: Engagement of toll like receptor4 (TLR4)**” at 100 Years of Antimonials: An International Conference held at CSIR-Indian Institute of Chemical Biology, Kolkata, India on August 23-25, **2013**.
  2. Presented a poster entitled “**TLR-mediated distinct IFN- $\gamma$ /IL-10 pattern induces protective immunity against murine visceral leishmaniasis**” at the National Symposium on Trends in Cellular Biochemistry & Biophysics held at University of Kalyani, Kalyani, West Bengal, India on October 5-6, **2010**.
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### **Oral Presentation:**

1. Presented the work entitled “**MyD88 mediated TLR signalling induces innate immune response against *Leishmania donovani***” at the CSIR-IICB Annual Research Meet on “Gene Regulation & drug Discovery” held at CSIR-Indian Institute of Chemical Biology, Kolkata, India on March 6-7, **2013**.
2. Presented the work entitled “**Protective efficacy of purified galactose terminal glycoconjugates against visceral leishmaniasis**” at the 18th West Bengal State Science and Technology Congress held at Narendrapur, Kolkata, India on 28th February to 1st March, **2011**.
3. **Plenary speaker** at the 26th BSVER Annual International Conference that held on 28 February to 1 March, 2020 at Bangladesh Agricultural University (BAU) campus, Mymensingh, Bangladesh under the Alexander von Humboldt networking initiative.
4. Presented the work entitled “**Prevalence of Soil Transmitted Helminthiasis among Primary School Going Children in Different Districts of West Bengal**” at the SERB (ANRF) Sponsored One Day International Seminar on “**Scientific Advances & Challenges against Cancer and Infectious Diseases**” scheduled for July 16, 2024.

### **Workshop:**

1. Attended a Flow Cytometry Workshop organized by **BD biosciences** held at CSIR-Indian Institute of Chemical Biology, Kolkata on 25<sup>th</sup> January **2013**
2. Attended “**Training Program on Laboratory Safety: Radiation Safety, Chemical Safety & Bio-Safety**” organized by CSIR-Indian Institute of Chemical Biology, Kolkata on 30th September 2010.
3. **Organised a Workshop** on RT-PCR (21st-23rd Oct 2019) as a part of BT-STAR 2019 initiative by Dr. KPC Life Sciences, Kolkata, which raised a fund of rupees 48000 for the University and also results in industry internship opportunity of one student.
4. **Organised an one day International seminar** on entrepreneurship on 18.08.2022 as a part of Falling walls lab India: Kolkata Chapter, at Adamas University in association with Adamas University BIRAC centre.

### **Grants Received:**

1. Received grant from ICMR for the project entitled “CRISPR-Cas based rapid diagnostics of Miltefosine susceptible and resistant strains of *Leishmania donovani* from asymptomatic and post kala azar dermal leishmaniasis using invasive and non-invasive approach” as Co-PI with Dr. Budhaditya Mukherjee. IIT-KGP as PI.

2. Received seed grant from Adamas University for the project entitled "Analysis of the phytoconstituents of an economically important and rare tree *Knema linifolia* and exploration of their antimicrobial & antiprotozoan efficacy" as PI.

Furthermore, with the available provisions as a Humboldt Fellow, I can collaborate and write for grants with the German scientists that would enhance the research collaborations between the Institute and numerous others in Germany. There are different provisions for Humboldt fellows to apply for these exciting programs as a Humboldt alumni. I have already been eligible to apply for these programs, such as, New research stay in Germany(<https://www.humboldt-foundation.de/web/erneuter-aufenthalt.html>), Attend specialist conferences in Germany(<https://www.humboldt-foundation.de/web/fachkongresse.html>), Short stays of German colleagues at the institutes of Humboldtians abroad (<https://www.humboldt-foundation.de/web/kurzaufenthalt.html>), Institute partnerships with an grant up to **55000** euro (<https://www.humboldt-foundation.de/web/institutpartnerschaften.html>) and Humboldt Kolleg for organizing regional and specialist conferences (<https://www.humboldt-foundation.de/web/humboldt-kollegs.html>).

### **DETAILS OF COLLABORATORS:**

**1. Dr. Budhaditya Mukherjee.**

Assistant Professor

Indian Institute of Technology Kharagpur

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School of Life Science and Biotechnology

Adamas University.

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**3. Anisuzzaman DVM, MS, PhD**

Professor

(JSPS Fellow, NIAH, Japan; Humboldt Fellow, TUM, Germany)

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Ph No: 1711044593

**4. Dr. Martha Betson, BA PhD MA MSc FHEA**

Senior Lecturer in Veterinary Parasitology,

School of Veterinary Medicine

University of Surrey

United Kingdom

E-mail: [m.betson@surrey.ac.uk](mailto:m.betson@surrey.ac.uk)



5. **Dr. Ruma Jas, Ph.D**  
Assistant Professor  
Department of Veterinary parasitology  
West Bengal University of Animal and Fishery Sciences  
West Bengal, India  
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**DETAILS OF REFEREES:**

**1. Dr. Syamal Roy, Ph.D**

INSA Senior Scientist & J C Bose Fellow  
CSIR-Indian Institute of Chemical Biology  
4, Raja S. C. Mullick Road,  
Jadavpur, Kolkata-700032.  
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**2. Dr. Rudra Prasad Saha, Ph.D**

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West Bengal, India.  
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**3. Dr. Barsanjit Mazumder, Ph.D**

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Dept: Biological, Geological and Environmental Sciences  
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