Name : Dr. Aparup Das

Current position : Scientist 'G' and Director, ICMR-National Institute for Research in Tribal

Health, Jabalpur, India

Date of Birth : 10 November 1964

Area of research interest : Genomic epidemiology of malaria and other Vector Borne Diseases

## **Details of Education and Training:**

Sl. No.	Institution/Place	Degree Awarded	Year	Subject
1.	Department of Zoology, Utkal University/ Bhubaneswar	M. Sc. (Zoology)	1986	Zoology with cytogenetic specialization
2.	Centre of Advanced Study in Zoology, Banaras Hindu University/ Varanasi	Ph. D. (Genetics)	1992	Population and evolutionary genetics
3.	Department of Zoology, Utkal University/ Bhubaneswar	Postdoctoral	1996	Population, ecological and evolutionary genetics
4.	Ludwig Maximilians University/ Munich, Germany	Postdoctoral	2004	Population and Evolutionary Genomics, Bioinformatics

## **Employment History:**

SI. No.	Institution/Place	Position	From	То
1.	National Institute for Research in Tribal Health, Jabalpur	Scientist 'G' and Director	2017	Till date
2.	Centre for Research in Medical Entomology, Madurai	Scientist 'G' and Director	2016	2017
3.	National Institute of Malaria Research, New Delhi	Scientist F	2015	2016
4.	National Institute of Malaria Research, New Delhi	Scientist E	2010	2015
5.	National Institute of Malaria Research, New Delhi	Scientist D	2005	2010
6.	Poornaprajna Institute of Scientific Research, Bangalore	Faculty Fellow	2004	2005
7.	Ludwig Maximilians University, Munich, Germany	Postdoctoral Scientist	2000	2004
8.	Utkal University, Bhubaneswar	Research Associate and DST Young Scientist	1993	1996

# Fellowships (Pre-doctoral)

- <u>Junior Research Fellowship</u>: University Grants Commission (UGC), New Delhi, 1988.
- Senior Research Fellowship: Council of Scientific and Industrial Research (CSIR), New Delhi, 1990.

# Fellowships (Post-doctoral)

- Research Associateship: Council of Scientific and Industrial Research (CSIR), New Delhi, 1992.
- <u>Post-doctoral Fellowship</u>: Deutsche Forschungsgemeinschaft (DFG) Germany, 2000.

## **Academic training imparted:**

- <u>Supervised three M. Phil.</u> students in Zoology at Utkal University, Bhubaneswar.
- <u>Established</u> the Evolutionary Genomics and Bioinformatics (EGB) laboratory at NIMR in 2006.
- Trained more than 50 Master's students for dissertation on different aspects of malaria at the EGB lab.
- <u>Nine Ph. D. awarded on malaria parasites, vectors and human host; five students are at present working for Ph. D.</u>
- <u>Examined</u> Ph. D., M. Phil. theses and M. Sc. examinations conducted by various universities; *viz.* Jawaharlal Nehru University, Delhi University, MD University, Rohtak. IIT-Bombay, Jiwaji University, Gwalior *etc*.

#### Research projects:

## In Drosophila (1992-1996)

- <u>Joint-Collaborator</u>: Indo-French Centre for Promotion of Advanced Research (IFCPAR) New Delhi, 1993 (on *Drosophila* ecological genetics; French PI: Prof. J. David, CNRS, Paris, France).
- <u>Principal Investigator of the Young Scientist Project</u>: Dept. of Science and Technology (DST), Govt. of India, New Delhi, 1993 (On *Drosophila* population genetics).

#### In malaria and dengue (2005-till date)

- <u>Co-Principal Investigator</u>: Tropical Disease Research (**World Health Organization**) funded project; 2005 (on Plasmodium evolutionary genomics; PI: Dr. Hema Joshi, NIMR).
- <u>Principal Investigator</u>: **Indian Council of Medical Research** funded extramural project; 2007 (On *Anopheles* population genomics).
- <u>Co-Investigator</u>: **Department of Biotechnology** funded project; 2008 (*Plasmodium vivax* population genetics; PI: Dr. Vineeta Singh, NIMR)
- <u>Co-Investigator</u>: **Department of Biotechnology** funded project; 2008 (*Plasmodium* functional genomics; PI: Dr. Arun Sharma, NIMR)
- Research Supervisor/Principal Investigator: Indian Council of Medical Research funded JRF-NET project;
  2008 (Pharmacogenomic of Indians).
- Research Supervisor/Principal Investigator: **Indian Council of Medical Research** funded SRF project; 2008 (The *Var* gene polymorphism in Indian *Plasmodium falciparum*).
- Research Supervisor/Principal Investigator: **Council of Scientific and Industrial Research** funded project; 2008 (Duffy gene polymorphism in Indian humans).
- Research Supervisor/Principal Investigator: **Indian Council of Medical Research** funded SRF project; 2009 (Genetics of chloroquine resistance in *Plasmodium falciparum*).
- Research Supervisor/Principal Investigator: **Indian Council of Medical Research** funded SRF project; 2009 (Population genetics of erythrocyte binding gene Indian *Plasmodium falciparum*).
- Research Supervisor/Principal Investigator: Third-World Association of Sciences (TWAS)-DBT funded JRF project; 2009 (Population genetics of the chloroquine-resistant gene in *Plasmodium falciparum* from Cameroon).
- Research Supervisor/Principal Investigator: **Indian Council of Medical Research** funded project; 2010 (Whole mitochondrial genome sequencing of Indian *Plasmodium falciparum*).
- <u>Coordinator, Core-Leader and co-investigator</u>: **National Institute of Health (USA)** funded project; 2010 (Center of Complex Malaria in India under the International Centers of Excellence project) left in September 2013.
- <u>Principal Investigator</u>: **Department of Biotechnology** funded project; 2011 (*Plasmodium falciparum* mitochondrial population genomics).
- <u>Co</u>-Investigator: **University of Michigan** funded project on effect of climatic change in malaria transmission (2010-2013); PI: Dr. Mercedes Pascuel, University of Michigan, USA.

- <u>Co-Investigator</u>: **French Government** funded project on Dengue outbreak and human genetic susceptibility (PI: Dr. Richard Paul, Pasture Institute, Paris) 2012-2014.
- <u>Principal Investigator</u>: **ICMR** funded research project on Plasmodium vivax genomics under the Medical Innovation Fund (2016-2019)
- <u>Principal Investigator</u>: **Indo-Canadian (IC-IMPACTS)** funded research project on point-of-care assay for malaria diagnosis and drug-resistance genotyping (Canadian PI: Dr. Stephanie Yanow)
- <u>Co-Investigator</u>: **NIH** funded project on Centre for Study on the Complex malaria in India (CSCMi); US PI: Prof. Jane carlton
- <u>Co-Principal Investigator</u>: **DST** funded research project on *P. falciparum* proteomics (PI: Dr. P. Acharya, AIIMS, New Delhi)

## Workshop/Course organized:

- Organized the Global Exchange Lecture Course on "Molecular and Evolutionary Genetics of Malaria" funded by the **European Molecular Biology Organization (EMBO)**, Germany at NIMR from 21 November to 04 December 2010. This course was co-funded by the Indian Council of Medical Research.
- Organized a Laboratory Training Course on "Application of Genomic Technologies in Malaria Research" funded by the **DBT, Govt. of India and ICMR**, at NIMR from 18 November to 01 December 2012.
- Organized the Global Exchange Lecture Course on "Malaria Genomics and Public Health" funded by the
   European Molecular Biology Organization (EMBO), Germany at ICMR-CRME from 29 January to 11
   February 2017. This course was co-funded by the Indian Council of Medical Research, Tata Trust, CSIR, NIH
   (USA) and Clake Group (USA).

#### **International training obtained (after coming back to India):**

 Undergone training for three months at the Ludwig Maximilians University, Munich, Germany on detection of natural selection in genome of Plasmodium falciparum (July – September 2008) under the DBT Overseas Associateship program.

#### International conference/workshop/meetings attended (last five years):

Infectious Disease Genomics and Global Health

12 –15 September 2010

Wellcome Trust Conference Centre, Wellcome Trust Genome Campus, Hinxton, Cambridge, UK.

Organizer: Wellcome Trust

**Role**: Discussion Leader and Oral presenter

 Tenth International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases

3-5 November, 2010

Amsterdam, the Netherlands

Organizer: Elsevier

**Role**: Co-chair and Oral presenter

• Fifth International Meeting on Molecular and Population Biology of Mosquitoes and Other Disease Vectors

24-30 July, 2011

Kolymbari, Crete, Greece

Organizer: Prof. Kitsos Louis, University of Crete, Greece

**Role**: Oral presenter

• First Annual Meeting and Workshop of the International Centers of Excellence for Malaria Research

21-23 September, 2011 Livingstone, Zambia

Organizer: Prof. Peter Agre (Nobel Laureate), Johns Hopkins Bloomberg School of Public Health, USA

Role: Oral presenter

#### Academic and administrative responsibilities at NIMR:

- Member secretary, publication screening committee (2005-2013)
- Coordinator, student Placement committee (2008-2013)
- Member, library committee (2008-till date)
- Member, staff transfer committee
- Member, NIMR Annual Report committee
- In-charge of the Central Instrumentation Facility (2008-2011)
- Coordinator of the "Parasite Biology" Research Advisory Committee (2006-2013)

#### Awards:

- Young Scientist Award: By the Department of Science and Technology, Government of India, 1993.
- Overseas Associateship: By the Department of Biotechnology, Government of India, New Delhi, 2007.
- Establisted Scientist Award: By Scientific Planet, Dehradun, 2013.

#### **Professional activities:**

- <u>Member</u>: Expert Panel of the World Health Organization project, Grand Challenges in Genomics for Public Health in Developing Countries (Grand Challenges project).
- Member: Advisory Committee on Biotechnology of Kumaun University, Nainital
- Member: Advisory Committee on Bioinformatics of Maharashi Dayananda University, Rohtak

#### • Member of the Editorial Boards:

- Biomed Research International (2013-till date)
- Genetica (2014-till date)
- Evolutionary Medicine (2012-till date)
- International Journal of Genetics and Genomics (2012-till date)
- International Journal of Basic and Applied Medical Sciences (2012-2014)
- Tropical Medicine and Surgery (2012-2014)
- Plasmodium-NIMR Newsletter (2006-2012)
- Journal of Genetics (2009-2011)
- Journal of Vector Borne Diseases (2006-2013)

#### • Reviewer of Grant Proposals:

- Deutsches Fortungsgeminschaft (German Science Foundation)
- Medical Research Council (United Kingdom)
- Department of Biotechnology (India)
- Department of Science and Technology (India)
- Indian Council of Medical Research (India)

#### Reviewer of scientific journal:

- Acta Tropica
- American Journal of Epidemiology
- Annals of Tropical Medicine and Parasitology
- Malaria Report
- Proceedings of the National Academy of Science (India)
- Biological Journal of the Linnaean Society
- BMC Genomics
- Genetics
- Genetics Research
- Genome Data
- Genome Research
- Emerging Infectious Diseases
- Infection Genetics and Evolution
- Insect Science
- Indian Journal of Medical Research
- Journal of Biosciences
- Journal of Computational Biology
- Journal of Genetics
- Journal of Infectious Disease
- Journal of Vector Borne Diseases
- Journal of Tropical Medicine
- Nature Reviews Genetics
- PLoS Neglected Tropical Diseases
- PLoS ONE
- PLoS Genetics
- Tropical Biomedicine
- Tropical Medicine and International Health
- Vector Borne and Zoonotic Diseases
- And many others...

## Scientific Publications (Research + review = 88)

## • Notable Publication:

1. Das A (1991) DNA fingerprinting in India. Nature 350: 38.