

## BIO DATA

**Name:** Dr. Ajeet Kumar Mohanty, Ph.D  
**Designation:** Asst. Research Scientist & Officer-in-Charge  
**Complete Postal Address:** ICMR-National Institute of Malaria Research  
Field Station, DHS Building,  
Campal, Panaji-403 001, Goa.  
Phone: 0832-2222444, 09823679337(M)  
Email: [ajeet.nimr@gmail.com](mailto:ajeet.nimr@gmail.com)  
**Date of Birth:** 25<sup>th</sup> Aug, 1982

### Education (Post-Graduation onwards & Professional Career)

Sl No.	Institution Place	Degree	Year	Field of Study
1.	Utkal University, Bhubaneswar, Odisha	M.Sc.	2005	Biotechnology
2.	Goa University, Goa	Ph.D.	2016	Mosquito Proteomics
3.	Public Health Foundation of India (PHFI), Delhi	Post Graduate Diploma in Epidemiology (PGDE)	2018	Epidemiology

### Research/Training Experience

S.No	Duration	Institution	Particularsof work done
1.	Research Scientist Nov 2014-Jan 2020	National Institute of Malaria Research (ICMR), Field Station, Panaji, Goa	Proteomic and Genomic studies on vectors, mosquito infection assays.
2.	Assistant Research Scientist 2006- 28 Nov. 2014	National Institute of Malaria Research (ICMR), Field Station, Panaji, Goa	Field Surveys of Vector Borne Diseases, Bioprospecting, Biological Control of Vectors, Proteomic and Genomic studies on vectors.

### Research specialization (Major scientific fields of interest)

Entomology, biological vector control agents, vector proteomics and vector-parasite interaction

### Patent:

**Patent filed:** Temp/E-1/13888/2018-CHE- Novel peptides for developing anti-malarial vaccines and diagnostic kits.

### Awards:

1. **“DGAFMS & Senior Colonel Commandant Award”** for the best published article in the field of Community Medicine for the year 2017 by Armed Forces Medical College (AFMC), Pune, India.
2. Best **“Oral Presentation Award”** during XII Joint Annual Conference of Indian Society for Malaria and Other Communicable Diseases & Indian Association of

Epidemiologists” ISMOCD 2017, held from 1st -3rd September, 2017 at Armed Forces Medical College (AFMC), Pune, India.

3. Best“**Poster Presentation Award**” at the National Symposium on “Microbial Diversity and its Applications in Health, Agriculture and Industry” organized by the ICAR Research Complex for Goa, Ela, Old Goa, Goa- from 4-5th March, 2011.

**Publications: 29 (27 Research articles, 2 review articles, 3 book chapters)**

1. Pereira MH, **Mohanty AK**, Garg S, Tyagi S, Kumar A. Characterization of midgut microbiome of *Anopheles stephensi* Liston. J Vector Borne Dis. 2021 Jan-Mar; 58(1):74-84.
2. **Mohanty AK**, de Souza C, Harjai D, Ghavanalkar P, Fernandes M, Almeida A, Walke J, Manoharan SK, Pereira L, Dash R, Mascarenhas A, Gomes E, Thita T, Chery L, Anvikar AR, Kumar A, Valecha N, Rathod PK, Patrapuvich R. Optimization of *Plasmodium vivax* sporozoite production from *Anopheles stephensi* in South West India. *Malar J* 18;20(1):221.
3. Vaigankar DC, Dubey SK, Mujawar SY, **Mohanty AK**. Halomonas Venusta Mediated Detoxification and Biotransformation of Selenite Into Selenium Nanoparticles Exhibiting Various Biomedical Applications. Research Square; 2020. DOI: 10.21203/rs.3.rs-45336/v1.
4. Dey G, **Mohanty AK**, Sreenivasamurthy SK, Kumar M, Kumar A, Prasad TSK (2020). Proteomics dataset of adult *Anopheles Stephensi* female brain. Data in Brief. 32:106243
5. Almeida J, **Mohanty AK**, Dharini N, Hoti SL, Kerker S, Kumar A. (2020). A report on novel mosquito pathogenic *Bacillus* Spp. isolated from a beach in Goa, India. International Journal of Mosquito Research 2020; 7(2): 21-29.
6. Kumar A, Chaturvedi H, **Mohanty AK**, Sharma SK, Malhotra MS, Pandey A (2020) Surveillance based estimation of burden of malaria in India, 2015-2016. Malaria Journal.19(1):156
7. Almeida J, **Mohanty AK**, Kerker S, Kumar A (2020) Current Status and future prospects of Bacilli based vector control'. Asian Pacific Journal of Tropical Medicine 2020; 13(12): 525-534.
8. **Mohanty A K**, Dey G, Kumar M, Sreenivasamurthy S K, Garg S, Prasad TSK, Kumar A. Proteome data of female *Anopheles stephensi* antennae. Data in Brief 24 (2019) 103911.
9. **Mohanty AK**, Nina PB, BallavS, Vernekar S, Parkar S, D'souza M, Zuo W, Gomes E, Chery L, Tuljapurkar S, Valecha N, Rathod PK, Kumar A (2018) Susceptibility of wild and colonized *Anopheles stephensi* to *Plasmodium vivax* infection. Malaria Journal June 2018; 17:225
10. **Mohanty A K**, Dey G, Kumar M, Sreenivasamurthy S K, Garg S, Prasad TSK, Kumar A. (2018) Mapping *Anopheles stephensi* midgut proteome using high-resolution mass spectrometry. Data in Brief 17 (2018) 1295–1303.
11. Kumar M, **Mohanty AK**, Dey G, Sreenivasamurthy SK, Kumar A, Prasad K.(2019) Dataset on fat body proteome of *Anopheles stephensi* Liston. Data in Brief. 22 1068-1073.

12. Dey G, **Mohanty AK**, Sreenivasamurthy SK, Kumar M, Prasad T.S.K, Kumar A. (2018) Proteome data of *Anopheles stephensi* salivary glands using high-resolution mass spectrometry analysis Journal. Data in Brief 21: 2554-2561
13. Sreenivasamurthy SK, Dey G, Kumar M, **Mohanty AK**, Kumar A, Prasad T.S.K. (2018) Quantitative proteome of midgut, Malpighian tubules, ovaries and fat body from sugar-fed adult *An. stephensi* mosquitoes. Data in Brief. 20: 1861–1866 DOI: 10.1016/j.dib.2018.08.189.
14. Dey G, **Mohanty AK**, Kumar M, Sreenivasamurthy SK, Patil A H, Prasad T.S.K, Kumar K. (2018) Proteome data of *Anopheles stephensi* ovary using high-resolution mass spectrometry. Data in Brief. 20:723-731
15. Dey G, **Mohanty AK**, Kumar M, Sreenivasamurthy SK, Kumar A, Prasad TSK. (2018) Proteome data of *Anopheles stephensi* hemolymph using high resolution mass spectrometry. Data in Brief. 18 (2018) 1441–1447.
16. Nina PB, **Mohanty AK**, Ballav S, Vernekar S, Bhinge S, D'souza M, Walke J, Manoharan SK, Mascarenhas A, Gomes E, Chery I, Valecha N, Kumar a, Rathod PK. Dynamics of Plasmodium vivax sporogony in wild Anopheles stephensi in a malaria endemic region of Western India. Malar J. 2017 Jul 11;16(1):284. **(Shared First Author)**
17. Prasad TSK, **Mohanty AK**, Kumar M, Sreenivasamurthy SK, Dey G et al. Integrating transcriptomic and proteomic data for accurate assembly and annotation of genomes. Genome Res. 2017 Jan; 27(1):133-144. **(Shared First Author)**
18. Kumar M, **Mohanty AK**, Sreenivasamurthy SK, Dey G, Advani J, Pinto SM, Kumar A, Prasad K. Response to blood meal in the fat body of Anopheles stephensi using quantitative proteomics: Towards new vector control strategies against malaria. OMICS:Journal of Integrative Biology.2017 Sep; 21(9):520-530.
19. Sreenivasamurthy SK, Madugundu AK, Patil AH, Dey G, **Mohanty AK**, Kumar M, Patel K, Wang C, Kumar A, Pandey A, Prasad TSK. Mosquito-Borne Diseases and Omics: Tissue-Restricted Expression and Alternative Splicing Revealed by Transcriptome Profiling of Anopheles stephensi. OMICS: Journal of Integrative Biology. 2017 Aug;21(8):488-497.
20. Kumar A, **Mohanty AK**, Prasad TSK. (2017) Mosquito-borne diseases – how can omics help characterize vectors? <https://www.id-hub.com/2017/07/11/mosquito-borne-diseases-can-omics-help-characterize-vectors/>Infectious Diseases Hub.
21. Dhawan R, Kumar M, **Mohanty AK**, Dey G, Advani J, Prasad TSK, Kumar A **Mosquito-Borne Diseases and Omics:Salivary Gland Proteome of the Female Aedes aegypti Mosquito.** OMICS: Journal of Integrative Biology. 2017 Jan; 21(1):45-54.
22. Kumar A, Hosmani R, Jadhav S, de Sousa T, **Mohanty A**, Naik N, Shettigar A, Kale S, Valecha N, Chery L and Rathod P K (2016) *Anopheles subpictus* carry human malaria parasites in an urban area of Western India and may facilitate perennial malaria transmission. Malar J. 15:124
23. Sreenivasamurthy SK, Dey G, Ramu M, Kumar M, Gupta MK, **Mohanty, AK**, Harsha, HC Sharma, Kumar N, Pandey A, Kumar A and Prasad TSK. (2013). A compendium of molecules involved in vector-pathogen interactions pertaining to malaria. Malaria Journal. 26; 12 (1):216.

24. Nagpal BN, Saxena R, Srivastava R, Singh N, Ghosh SK, Sharma SK, Kumar A, Kumar H, Sharma AS, Chand SK, Ojha VP, Mohanty SS, **Mohanty AK**, Dasgupta RK, Singh GP, Dash AP. Retrospective study of Chikungunya outbreak during 2006 in urban areas of India. Indian Journal of Medical Research. 2012 Mar; 135, 351-358.
25. Chaerkady R, Kelkar DS, Muthusamy B, Kandasamy K, Dwivedi SB, Sahasrabudhe NA, Kim MS, Renuse S, Pinto SM, Sharma R, Pawar H, Sekhar NR, **Mohanty AK**, Getnet D, Yang Y, Zhong J, Dash AP, MacCallum RM, Delanghe B, Mlambo G, Kumar A, Keshava Prasad TS, Okulate M, Kumar N, Pandey A. A proteogenomic analysis of *Anopheles gambiae* using high-resolution Fourier transform mass spectrometry. Genome Res. 2011 Nov; 21(11):1872-81. doi: 10.1101/gr.127951.111.
26. Dhawan R, Pillai CR, **Mohanty AK**, Kumar A. (2017). Achieving *in vitro* gametocytogenesis of *Plasmodium falciparum* in optimal conditions: A review. International Journal of Medical and Health Research. Volume 3; Issue 12; December 2017; Page No. 83-90.
27. Dhawan R, **Mohanty AK**, Kumar M, Dey G, Advani J, Prasad TSK, and Kumar A (2017). Data from salivary gland proteome analysis of female *Aedes aegypti* Linn. Data in Brief 13:274–277.
28. **Mohanty AK**, Garg S, Dhindsa K, Kumar A. (2017). Variable Region of 16s rRNA is Essential for the Identification of Group 1 Mosquito- Pathogenic Strains of *Lysinibacillus*. Adv Biotech & Micro. 2(2): 555583.
29. Nayak P, Gaonkar T, **Mohanty A**, Kumar A, Bhosle S, Garg S (2013). Rapid Identification of Polyhydroxyalkanoate Accumulating Members of Bacillales Using Internal Primers for phaC Gene of Bacillus megaterium ISRN Bacteriology, Volume, Article ID 562014, 12 pages

#### Book chapters: 3 No.s

S. No	Title of Chapter	Details
1	<b>Mohanaty AK</b> , Garg S, Dhindsa K, Kumar H and Kumar A (2012) Phenotypic Characterization of Mosquito Larvicidal Ed. Barbuddhe S.B., Ramesh R., Lysinibacillus Strains Isolated from Paddy Field and Mangrove Vegetation In : microbial diversity and its application, pp. 49-58.	Ed. Barbuddhe S.B., Ramesh R., Singh N.P. New India Publishing Agency, New Delhi
2	Nayak P, Gaonkar T, <b>Mohanty A</b> , Kumar A, Bhosle S, Garg S (2012) Isolation and Characterization of Polyhydroxyalkanoates Producing Bacteria from Coastal Sand-Dune Ecosystem In : microbial diversity and its application pp. 75-82	Ed. Barbuddhe S.B., Ramesh R., Singh N.P. New India Publishing Agency, New Delhi
3	<b>Ajeet Kumar Mohanty</b> , Keshava Prasad, Sandeep Garg and Ashwani Kumar. Proteogenomics of vector mosquitoes: Progress and Prospects: Major tropical Diseases; Public Health Perspective pp.38-50	Ed. Ashwani Kumar, SavioRodrigues and Amit Dias. Broadway Publishing House, Panaji, Goa.

**Number of On-going research projects both for PI and Co-PI**

<b>S. No</b>	<b>Title of the project</b>	<b>Funding Agency</b>	<b>Total Cost</b>	<b>Project Duration</b>
<b>1</b>	Juvenile Hormone Mediated Immune Suppression and its Potential Antiplasmodial Effects in Malaria Mosquito <i>Anopheles stephensi</i> . (PI)	DBT	62,00,000.00	2022-2025
<b>2</b>	Studies on bionomics of vectors in relation to transmission and control/elimination of malaria in the state Goa (PI)	ICMR	54,05,120.00	2021-2023
<b>3</b>	A study on asymptomatic and low-density malaria parasite infection in community and its transmission potential in Goa (Co-PI)	ICMR	91,92,460.00	2021-2023
<b>4</b>	Malaria Evolution at South Asia-International Centers for Excellence in Malaria Research (MESA-ICEMR) (Site-PI)	NIH, USA	40,00,000.00 per annum	(2017-2024)

**Number of Completed research projects both for PI and Co-PI**

<b>S. No.</b>	<b>Title of the project</b>	<b>Funding Agency</b>	<b>Total Cost in Lakhs</b>	<b>Project Duration</b>
<b>1</b>	Characterization of malaria vector <i>Anopheles stephensi</i> Proteome and Transcriptome (Co-PI)	SERB	3,70,000.00	2015-2018
<b>2</b>	A study on the role of gut microbiota in modulation of Longevity, Fecundity and Fitness of <i>An. stephensi</i> as a malaria vector (Co-PI)	DSTE-Goa state	8,00,000.00	2015-2018

(Dr. Ajeet Kumar Mohanty)

**Place:** Panaji

**Name & Signature of Investigator**

**Date:** 24<sup>th</sup> March, 2022