

Curriculum Vitae

Dr. Rakesh Tamang, Assistant Professor
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Research Interest

- ✓ Understanding modern human origin and medical implications of human genetic diversity among Indian populations
- ✓ To study selection at genetic level
- ✓ Genetic studies on fauna of the Darjeeling Hills using molecular tools

Educational Qualification

- 1) Completed **Madhyamik Pariksha** (Secondary Exam) from Saint Alphonsus Higher Secondary School, Kurseong, affiliated to West Bengal Board of Secondary Education (WBBSE), West Bengal in 1999.
- 2) Completed **Higher Secondary** from Saint Alphonsus Higher Secondary School, Kurseong, affiliated to West Bengal Council of Higher Secondary Education (WBCHSE), West Bengal in 2001.
- 3) Completed **B.Sc** in Zoology (Honours) from Darjeeling Government College, Darjeeling, affiliated to North Bengal University, West Bengal in 2004.
- 4) Completed **M.Sc** in Zoology from Darjeeling Government College, Darjeeling affiliated with North Bengal University, West Bengal, in 2006.
- 5) Successfully defended **PhD Thesis** entitled “Genetic affinities among the populations of the Himalayas” at the Department of Genetics, Osmania University, Hyderabad on 17th June 2017.

Achievements and Awards

1. Selected as **Project Junior Research Fellow** at CSIR-Centre for Cellular and Molecular Biology, Hyderabad to work on the project entitled “**Peopling of India: a genomic view**” under the guidance of Dr Kumarasamy Thangaraj and Dr Lalji Singh in July 2007.
2. Qualified the Joint **CSIR-UGC** test for Lectureship (**NET**) twice during 21-06-2009 and 20-12-2009
3. Awarded **CSIR-SRF (2012)**
4. Awarded **DoRa Fellowship** from **European Union** to work at **University of Tartu** for 3 months (March –May 2013)
5. Appointed as **Assistant Professor** at the Department of Zoology, University of Calcutta on 23rd September 2013 and continuing.

Winter/Summer Schools/Short term course

1. Participated in the Winter School on “**Genetic Dissection of a Complex Disease: Analytical Approaches**”, in Celebration of the **Tenth Anniversary of the Human Genome Project** during January 3rd -10th, 2012 at NIBMG, Kolkata, India.
2. Participated in the workshop on “**Advanced Methods in Field Biology and Statistical application in Life Science Research**” during October 10 – 21, 2014 at the Department of Zoology, Calcutta University, Kolkata, India
3. Participated in the **Refresher Course in life Science** during 23rd December 2016 - 13th January 2017 at the Department of Zoology, Calcutta University, Kolkata, India
4. Participated in the **31st Orientation Programme (OP-NBU-31)** at UGC Human Resource Development Centre, University of North Bengal, Darjeeling held during 2nd – 29th August, 2017.
5. Participated in the Short Term Course in Modern Biology at UGC-Academic Staff College, University of Calcutta, Kolkata held during 6th Oct. 2018 – 12th Oct. 2018.

Poster/Oral presentations

- 1) Presented poster entitled “High Frequency of Rare Y-chromosomal and Mitochondrial Haplogroup in Darjeeling Population” in International Symposium on **Genomics and the future of medicine** conducted at HICC, Hyderabad during July 3rd -5th 2007 by HUGO.

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- 2) Presented poster on “Unique Genetic Signature of the indigenous Population of Darjeeling Hills” at the International Symposium on **Ethics Culture, and Population Genomics & 34th Annual Conference of Indian Society of Human Genetics**, held at Delhi from 17-20th March 2009.
- 3) Presented poster on “Genetic affinities of the Himalaya populations at “**International Symposium-“Role of genomics in clinical practice”** organized by **The Indian Society of Human Genetics (ISHG)**” held at SGPPI, Lucknow, India during 06-08 March, 2010.
- 4) Presented poster on “Genetic affinities of the Kurukshetra populations: evidence from mitochondrial DNA and Y chromosome markers at “**International conference on Genomics, genetic Diseases and Diagnostics and XXXVI Annual Conference of The Indian Society of Human Genetics (ISHG)**” held at Manipal Life Sciences Centre, Manipal University, Manipal, Karnataka, India during 14-16 February, 2011.
- 5) Presented a lecture on “**Genetic Landscape of the Human Populations of Central India**” participated in the International conference on “Genomics and Biodiversity” on 15th ADNAT Convention held during 23rd -25th Feb 2011.
- 6) Presented a poster in the International conference on “**Mitochondria in Biology and Medicine**” held during 8th -10th December 2011, at Hyderabad, India.
- 7) Presented a poster in the **Young Investigator Meet (YIM) 2015** held during 27th March to 1st April 2015 at Gulmarg, Srinagar organised by Indiabiosciences.
- 8) Presented a short lecture entitled “**Updates on the human migrations in and out of India: a genomic perspective**” in the refresher course in life Science during 23rd December 2016 - 13th January 2017 at the Department of Zoology, Calcutta University, Kolkata, India
- 9) Presented a lecture on “**Genetic affinity of outlier populations with Austroasiatic (Munda) speakers**” in the “International Seminar on Munda Linguistics” at the Department of Linguistics, Deccan College PG & RI, Pune held during 16th -17th March 2017.
- 10) Presented an invited lecture entitled “**Genetic affinities among the Indian Himalayan people**” in an International Conference named ‘Advances in Biological Techniques’ held at Raja Peary Mohan College, Kolkata during 2nd – 4th November, 2017.
- 11) Delivered an oral presentation entitled “**Dissecting the East and Southeast Asian genetic footprints among the Himalayan tribal populations**” in 2nd International Conference on Founder Populations held in Kochi, Kerala, India, during November 9th -12th, 2017.
- 12) Delivered an invited lecture entitled “**The Indian Himalayan populations: as revealed by their genes**” in an International Conference on “Contemporary health issues and environmental impact”, organized by Sarojini Naidu College for Women in collaboration with The Department of Zoology, West Bengal State University and Lincoln University College, Malaysia on November 30, 2017 at Sarojini Naidu College for Women, Dum Dum, Kolkata.
- 13) Delivered an invited lecture entitled “**Understanding human ancestry using DNA markers and its implications**” organized by Netaji Nagar Day College, West Bengal on 20th February, 2020 at Netaji Nagar Day College, Kolkata
- 14) Delivered an invited talk in “**One Day Online Interaction Session**” held on 26th July, 2020. organized by Gorkha Himalayan Science Society, Darjeeling.

Life membership of academic societies:

- 1) **Life Member: Society for Mitochondrial Research and Medicine**
- 2) **Life Member: Indian Society of Human Genetics**
- 3) **Life Member: Zoological Society of Kolkata**

Social contribution other than academics

One of the **members of Advisory Board** at SUBOCO, Jaunpur, Uttar Pradesh, India

Ongoing Projects:

1. “**Understanding genetic structure of the aboriginal Lepcha tribe from Darjeeling Hills**” (2019) (CRG/2018/001727) under the scheme “Core Research Grant” of SERB, Government of India (**Rs. 46,23,360**)
2. “**Investigating the role of genes in understanding the diversity and adaptive strategies among frogs in the Darjeeling Hill Region**” (2019) (EEQ/2019/000750) under the scheme EMEQ of SERB, Government of India (**Rs. 41,38360**)

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Lab Members

- 1) Mr. Shishir Tamang (shri_tamang@yahoo.com)
- 2) Mr. Kumaresh Mandal (kumareshpresi@gmail.com)
- 3) Miss Saptaparni De (saptaparnide870@gmail.com)
- 4) Miss Divya Rai (prathnardx17@gmail.com)
- 5) Miss Soni Subba (blossomocf@gmail.com)

Collaborators

- 1) Prof. Gyaneshwer Chaubey, Dept. of Zoology, BHU, Varanasi
- 2) Dr. Kumarasamy Thangaraj, Director, CDFD, and Group Leader at CSIR-CCMB, Hyderabad
- 3) Dr. Periyasamy Govindaraj, Nimhans, Bangalore
- 4) Prof. Gautam Aditya, University of Calcutta, Kolkata
- 5) Mr. Brijesh Kumar Yadav, SuBiCo, Jaunpur
- 6) Prof. George van Driem, University of Bern, Switzerland
- 7) Dr. Nurun Nahar Gazi, University of Dhaka, Bangladesh

Selected Publications

1. Aditya G, **Tamang R.**, Sharma D, Subba F, & Saha GK. (2008). Bamboo stumps as mosquito larval habitats in Darjeeling Himalayas, India: A spatial scale analysis. (2008) Bamboo stumps as mosquito larval habitats in Darjeeling Himalayas, India: A spatial scale analysis. **Insect Science**, 15, 245-249.
2. Shah AM, **Tamang R***, Moorjani P, Rani DS, Govindaraj P, Kulkarni G, Bhattacharya T, Mustak MS, Bhaskar LV, Reddy AG, Gadhvi D, Gai PB, Chaubey G, Patterson N, Reich D, Tyler-Smith C, Singh L, Thangaraj K. (2011) Indian Siddis: African descendants with Indian admixture. **American Journal of Human Genetics** 89, 1–8
3. Sharma G, **Tamang R***, Chaudhary R, Singh VK, Shah AM, Anugula S, Rani DS, Reddy AG, Eaaswarkhanth M, Chaubey G, Singh L, Thangaraj K. (2012) Genetic affinities of the Central Indian tribal populations. **PLoS ONE**. 7(2): e32546. doi:10.1371/journal.pone.0032546
4. **Tamang R**, Singh L and Thangaraj K (2012) Complex genetic origin of Indian populations and its implications. **Journal of Biosciences**. 37(5): 911–919, * Indian Academy of Sciences
5. Rai N, Chaubey G, **Tamang R***, Pathak AK, Singh VK, Karmin M, Singh M, Rani DS, Anugula S, Yadav BK, Singh A, Srinivasagan R, Yadav A, Kashyap M, Narvariya S, Reddy AG, van Driem G, Underhill PA, VILLEMS R, Kivisild T, Singh L, Thangaraj K. (2012) The phylogeography of Y-chromosome haplogroup H1a1a-M82 reveals the likely Indian origin of the European Romani populations. **PLoS ONE** 7(11): e48477. doi:10.1371/journal.pone.0048477
6. Gazi NN, **Tamang R***, Singh VK, Ferdous A, Pathak AK, Singh M, Anugula S, Veeraiah P, Kadarkaraisamy S, Yadav BK, Reddy AG, Rani DS, Qadri SS, Singh L, Chaubey G, Thangaraj K (2013) Genetic structure of Tibeto-Burman populations of Bangladesh: evaluating the gene flow along the sides of Bay-of-Bengal. **PLoS One**. 8(10):e75064. doi: 10.1371/journal.pone.0075064.
7. Basu Mallick C, Iliescu FM, Möls M, Hill S, **Tamang R**, Chaubey G, Goto R, Ho SY, Gallego Romero I, Crivellaro F, Hudjashov G, Rai N, Metspalu M, Mascie-Taylor CG, Pitchappan R, Singh L, Mirazon-Lahr M, Thangaraj K, VILLEMS R, Kivisild T. (2013) SLC24A5 gene is the main determinant of skin pigmentation variation in South Asia. **PLoS Genetics**. 9(11):e1003912. doi: 10.1371/journal.pgen.1003912
8. Negi N, **Tamang R***, Pande V, Sharma A, Shah AM, Reddy AG, Vishnupriya S, Singh L, Chaubey G and Thangaraj K (2016) The paternal ancestry of Uttarakhand does not imitate the classical caste system of India. **Journal of Human Genetics**, doi:10.1038/jhg.2015.121.
9. Chaubey, G., Q. Ayub, N. Rai, S. Prakash, V. Mushrif-Tripathy, M. Mezzavilla, A. K. Pathak, **R. Tamang**, S. Firasat, M. Reidla, M. Karmin, D. S. Rani, A. G. Reddy, J. Parik, E. Metspalu, S. Rootsi, K. Dalal, S. Khaliq, S. Q. Mehdi, L. Singh, M. Metspalu, T. Kivisild, C. Tyler-Smith, R. VILLEMS and K. Thangaraj (2017). ""Like sugar in milk": reconstructing the genetic history of the Parsi population." **Genome Biol** 18(1): 110.
10. **Tamang, R.**, G. Chaubey, A. Nandan, P. Govindaraj, V. K. Singh, N. Rai, C. B. Mallick, V. Sharma, V. K. Sharma, A. M. Shah, A. Lalremruata, A. G. Reddy, D. S. Rani, P. Doviah, N. Negi, Y. Hadid, V. Pande, S. Vishnupriya, G. van Driem, D. M. Behar, T. Sharma, L. Singh, R. VILLEMS and K. Thangaraj (2018). "Reconstructing the demographic history of the Himalayan and adjoining populations." **Hum Genet** 137(2): 129-139.