Curriculum-Vitae

Prof. KRISHNA DAS MANANDHAR, Ph.D.
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Date of Birth : April 5, 1964

Nationality : Nepali

Current Position : Professor and Head, Central Department of Biotechnology, Tribhuvan University, Nepal

Academic Qualification:

Post Doc.

• Dengue virus	2015/16	La Jolla Institute for Allergy and Immunology, USA
• Leishmaniasis	2011	Institute de Researche pour la Development(IRD), France

Ph.D. Zoology [**Leishmaniasis**]	2008	Banaras Hindu University (BHU), India Institute of Medical Sciences, Medicine Dept.
WHO-TDR Adv. course	2008	Immunology, Vaccinology & Biotechnology of infectious diseases. Univ. of Lausanne, Switzerland,
INSA Research course	2003	Entomophilic nematodes of insects at Aligarh Muslim University-India
M. Sc. Zoology (Parasitology)	1988	Tribhuvan University, Kathmandu, Nepal

Research Fields:

Immunology, Diagnosis, Molecular biology and Biotechnology applied to tropical infectious and viral diseases.

Contribution to science

- First to identify the species of *Leishmania* causing cutaneous leishmaniasis in Nepal by using nested PCR technique.
- Establishment of consensus PCR based diagnosis and serotyping of dengue virus in Nepal.
- Detection of a novel virus 'Gemykibivirus' in Acute Encephalitis Syndrome patients.
- First whole genome sequencing of Dengue virus serotypes.
- Establishment of SARS CoV-2 diagnostic laboratory in the university level as a model of University-Local Government collaborative initiative.
- Establishment of advanced biological research laboratory within Tribhuvan University as a model laboratory in the academic and research arena.
- First NIH-U01 research project grant of USA awardee in the Tribhuvan University/Nepal to work on identification of novel virus.

Teaching/Professional Experiences:

Head – Central Department of Biotechnology, Tribhuvan University, Nepal. December 18, 2016- Continued for second tenure

Professor – Central Department of Biotechnology, Tribhuvan University, Kirtipur, Kathmandu, Nepal, Since March 14, 2013.

Associate Professor – Central Department of Biotechnology, Tribhuvan University, Kirtipur, Kathmandu, Nepal, Since Oct. 23, 2009

Lecturer - Padmakanya Multiple Campus, Bagbazar since June 1997 to July 5, 2009

Assistant Lecturer– Padmakanya Multiple Campus Bagbazar from April 17, 1992 to May 1997.

Central Department of Zoology, Tribhuvan University, Kathmandu in 1992.

Parasitologist– Manandhar Excyst P. Ltd., Poultry Hatchery, from 1989 - 1992

Other Experience and Professional Memberships

2022- Presnt	**Executive Board Member**, Nepal Biotechnology Society, Baneshwor, Kathamandu
2021- Presnt	**Editorial Board Member**, National Journal of Science and Technology, Nepal Academy of Science and Technology
2020-Present	**Executive Chief**, Kirtipur Municipality Biotech TU Corona Laboratory, Government associated laboratory, Central Department of Biotechnology, TU, Nepal
2019- Present	**Coordinator**, Resource Management Project. Higher Education Reform Project, Central Department of Biotechnology TU **Expert Team Member**, Tribhuvan university Quality Assuranance and Accreditation Directorate Office
2018 - 2022	**Executive Member**, Research Committee, Institute of Science and Technology
2017- Present	**Chairman,** Flow Cytometry Association of Nepal (FloKandu), TU
2016 – Present	**Head of Department**, Central Department of Biotechnology, Tribhuvan University
2014 – 2015	**Executive Member**, Research Committee, Institute of Science and Technology
2013 - 2014	**Deputy Coordinator**–World Bank supported "IOST Research Lab Strengthening Project (IRLASP)". Institute of Science and Technology, Tribhuvan University.
2009 - Present	**Lifetime member**, Nepal Biotechnology Association, Baneswor, Kathmandu
2002 – 2003	**Coordinator**–Women Resource Development in Environmental Management Project supported by Canadian International Development Agent, Kathmandu, Nepal
2002 - 2003.	**Coordinator**– B.Sc. Environmental Science, Padmakanya Campus Kathmandu, Nepal
1992 - Present	**Member**, Tribhuvan University Teacher's Association, Kirtipur, Kathmandu
1989 - Present	**Lifetime member**, Zoological Society of Nepal, Kirtipur, Kathamandu

Institutional Project Coordination

- Central Department of Biotechnology Resource Management Project - Nurturing Excellency in Higher Education Project (NEHEP)-2022 & Higher Education Reform Project, TU-2019 **[Coordinator]**
- Construction of Full Fledge Biotechnology Building- 2017 **[Coordinator]**
- World Bank supported "IOST Research Lab Strengthening Project (IRLASP)". IOST, Tribhuvan University. April 2013-December 2014. **[Deputy Coordinator**]
- Women Resource Development in Environmental Management in Padma Kanya Multiple Campus, TU. Canadian Cooperation Office, Lazimpat, Kathmandu, Nepal, February 04, 2002 to April 30, 2003 [**Coordinator]**

Research Activities:

Post Doctorate Research

2015/16 "**Dengue Virus infection in Nepal".** A nine-month long **Fulbright Senior Scholar Program for Post Doctoral Research-2015/16**, at La Jolla Institute for Allergy and Immunology (LJI), California, USA. October 15, 2015 to July 14, 2016.

2011 "**Study of biomarkers associated with human infection with *Leishmania* in the risk population of Nepal." 6** month long Technological and Scientific Exchange Research program supported by BEST grant, at Institute de Recherche pour le Development (IRD), Montpellier, France. May 15, 2011 to August 15, 2011.

Organizer: Workshops/ Seminars / Conferences/Trainings

Viro Seminar	One Day seminar on viral diseases. Central Department of Biotechnology. Plenary speaker: Dr. Sujan Shresta. Nov 24, 2016
SABC-2017	Third International "South Asian Biotechnology Conference-2017", Kathmandu. March 16-18, 2017
Summer School	First Biotech-TU Summer School-2017 on 'Applied Molecular Biology' April 6 – 9, 2017.
IFCW-2017	First International Flow Cytometry Workshop-2017 on 'Application of Flowcytometry in Biotechnology', September 14 -17, 2017. Central Department of Biotechnology, Tribhuvan University, Nepal.
Winter School	First CDBT-TU Winter School on 'Applied Molecular Biology: A hands on training'. January 7-10, 2018
IFCW-2019	Second International Flow Cytometry Workshop-2019 on 'Advancing Biological and Clinical Research with Flowcytometry', March 2 -6, 2019. Central Department of Biotechnology, Tribhuvan University, Nepal.
Eloquence	First National Eloquence and Seminar on 'Scope of Biotechnology in Nepal and its role in nation development' September 16, 2019
Winter School	Second CDBT-TU Winter School on 'Experimental Biotechnology: A Teacher's Training. January 27-31, 2020.
NGS Training	First Illumina MiSeq Next Generation Sequencing Training to the Faculty, Lab Technicians, PhD and MSc students. Infectious and Viral Disease Research Laboratory [IVDRL], Central Department of Biotechnology, Tribhuvan University, March 15-17, 2021
ICB-2023	International Conference in Biotechnology-2023, Kathmandu. Kathmandu. March 17-19, 2023
IFCW-2023	Third International Flow Cytometry Workshop-2023 on 'Flowcytometry: Basics to Advanced Clinical and Research', October 11 - 14, 2023. Central Department of Biotechnology, Tribhuvan University, Nepal.
SASME-2023	South Asian Symposium on Microbial Ecology-2023, Dhulikhel, November 1-3, 2023.

Fellowship Awards

2015 Fulbright Senior Scholar Program for Post Doctoral Researcher-2015/16-USA

2011 BEST Grant- 2011-France

2008 WHO/TDR– Lausanne-2008-Switzerland.

2007 Ph. D. Fellowship UGC, Nepal, 2004– 2007

2004 "INSA-JRD TATA Fellowship-2003, India

Research Support and/or Scholastic Performances

Ongoing Research Projects

1. *Innovative VLP-based dengue vaccine prototype development.* TU-NPAR-078/79-ERG-06-06/11/2022 - 05/11/2025. **Role: PI**
   Research Coordination and Development Council (RCDC), Tribhuvan University – Nepal
2. *Emerging infections: surveillance, epidemiology and pathogenesis.* 1U01AI151810-01) 05/11/2020 - 04/30/2025. International PI- Prof. David Wang, -Washington University. Consortium of five

international institutions comprising CDBT-TU, Teku Hospital and NPHL from Nepal. **Role: PI-Nepal Chapter**.
National Institutes of Health - USA

3. *A Molecular and Immunological Investigation of leishmaniasis from an unusual foci of cutaneous and visceral disease in India and Nepal.* (CRP-IND19-01) 01/01/2020 - 12/31/2022. International PI- Dr. Manju Jain. Consortium of three international institutions representing Nepal by CDBT-TU. **Role: Co-PI.**
International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy

Completed Research Support

1. **Profiling Cellular Immune Responses in Dengue Virus Infected Nepalese population. (**CRG-74/75-S&T-1PI) 12/15/2018 – 12/14/2021 (Extended 2023)**. Role: PI. University Grants Commission- Nepal**
2. **Australian Academy of Science Regional Collaborations Programme (RCP_R2) 07/10/2020 - 04/10/2022.** HCVax - International HCV vaccine consortium. PI-Lloyd. **Role: Nepal collaborator**
3. **CDBT-Karius- LJI (Dept. of Biotechnology-Karius Inc.-La Jolla Institute for Allergy, USA). Dengue Project. 12/01/2016 – 2020.** Dengue and Dengue like infections in patients visiting the hospitals in Nepal. **Role: PI**
4. **Industry Grant 2018-2019.** Molecular characterization of Classical Swine Fever virus. A joint research project of Central Department of Biotechnology (CDBT) with Hester Bioscience Nepal. **Role: PI.**
5. **MoST (Ministry of Education, Science and Technology)- Gov of Nepal. 15/02/2017 – 14/06/2018.** Immuno-molecular study of cutaneous leishmania sis, an alarming emerging disease of Nepal. **Role: PI**.
6. **ICIMOD Grant. 01/08/2017 – 30/05/2018.** Study of overall quality of water from Nepalese, Bhutanese and Indian Himalayas and its health impact on dependent population. A collaborative initiative to develop a good multinational networking for research work in the health impact on mountain people of Hindukush Himalayan Range. **Role: PI.**
7. **KRIBB- (Korean Research Institute for Biotechnology and Biosciences). 03/01/2014 – 12/30/2014.** Bioprospectives of Medicinal Plants of Nepal. Shrestha K (PI) **Role: Co-PI.**
8. **NAST(Nepal Academy of Science and Technology)-Grant. 10/01/2012 - 04/30/2013.** Screening of selected medicinal plants of Nepalese origin for anti-leishmanial activity. **Role: PI**
9. **UGC (University Grant Commission) Faculty Grant. Manandhar KD (PI) 11/01/2011 - 04/30/2013.** Identification of antigenic protein from *Leishmania donovani* as marker for diagnosis of visceral leishmaniasis **Role: PI**
10. **CDBT-IRD support. 2012.** Study of Asymptomatic cases of visceral leishmaniasis in adjoining area of endemic region of Nepal. Joint support of Central Department of Biotechnology, Nepal and Institute de Recherche pour le Developpment (IRD), Montpellier, France.

Publications

Book: "A Handbook of Practical Zoology" A Practical Text Book for Proficiency Certificate Level, Tribhuvan University, Neapl. 2004.
Book chapter- Springer Book Chapter
"Nanonization Increases the Antileishmanial Efficacy of Amphotericin B: An Ex Vivo Approach"2014.

Research Papers
2023

1. Rai, T., Shrestha, S., Prajapati, S., Bastola, A., Parajuli, N., Ghimire, P. G., ... & **Manandhar, K. D.** (2023). Leishmania donovani persistence and transmission causing cutaneous leishmaniasis in unusual-foci of Nepal. Scientific Reports. https://doi.org/10.21203/rs.3.rs-2603027/v1**[Q1/SJR 2023-0.97]**

2. Rauniyar, R., Prajapati, S., Manandhar, B., Bastola, A., Chalise, B. S., Shrestha, S., Khanal, C., Thapa, M., Napit, R., Bajracharya, A.M., Shrestha, S., Adhikari, A., & **Manandhar, K.D.** (2023). Dengue virus infection during window period of consecutive outbreaks in Nepal and assessment of clinical parameters. *Scientific Reports*, *13*(1), 9262. DOI: https://doi.org/10.1038/s41598-023-35928-5**[Q1/SJR 2023-0.97]**

3. Müncha CC, Upadhaya BP, Rayamajhee B, Adhikari A, Münch M, En-Nossea N, Kowalski K, Eickmanna M, Bauer C, **Manandhar KD**, Keller C(2023). Multiple Orientia clusters and Th1-skewed chemokine profile: a cross-sectional study in patients with scrub typhus from Nepal. *International Journal of Infectious Diseases*. DOI: https://doi.org/10.1016/j.ijid.2022.12.022. **[Q1/SJR 2023-2.43]**

4. Ghimire, S., Yadav, B.K., Shrestha, S., Shakya, J., Poudel, C.M., Tuladhar, E.T., Sharma, V.K., Raut, M., Bhattarai, A., Manandhar, K.D. and Pant, V., 2023. Effect of ABCA1-R219K Polymorphism in Serum Lipid Parameters in Patients under Statin Therapy Visiting Tertiary Cardiac Center of Nepal. *Journal of Laboratory Physicians,* 15.

2022

5. Basnet, R., Rai, N., Tamang, R., Awasthi, N. P., Pradhan, I., Parajuli, P, Kashyap, D, Reddy, A.G., Chaubey G., **Manandhar, K.D.**, Shrestha, T.R., Thangarajan, K. (2022). The matrilineal ancestry of Nepali populations. *Human Genetics.* 142(2):167-180.doi: 10.21203/rs.3.rs-1728898/v1 **[Q1/SJR 2021-1.85]**

6. Adhikari HS, Garai A, **Manandhar KD**, and Yadav PN (2022). Pyridine-Based NNS Tridentate Chitosan Thiosemicarbazones and Their Copper(II) Complexes: Synthesis, Characterization, and Anticancer Activity. *American Chemical Society (ACS) Omega.* DOI: https://doi.org/10.1021/acsomega.2c02966. **[Q1/SJR 2022-0.71]**

7. Jha, BK, Mehta, R and **Manandhar, KD.** (2022). Investigation of the Diagnostic Accuracy of Rapid Influenza Diagnostic Kit Method in Comparison to the Real Time Reverse Transcription Polymerase Chain Reaction. Biomedical Journal of Scientific & Technical Research. Volume 46- Issue 3. Pg 37363-37367. DOI: 10.26717/BJSTR.2022.46.007341.

2021

8. Aryal, M., Adhikari, R.B., Kandel, P., Ghimire, T.R., Khadka, D., Maharjan, J., Gaire, K.P., Shrestha, S., **Manandhar, K.D.**, Kandel, R.C., Poudel, R.C., Pandey, K. (2021). First report o the molecular detection of *Entamoeba bovis* from the endangered wild water buffalo(*Bulalus arnee*) in Nepal. *Vet Med Sci*; 1-9. DOI:10.1002/vms3.697. **[Q2/SJR 2021-0.43]**

9. **Shrestha, S.**, Maurya, M. & **Manandhar, K.D**. (2021). An Investigation on the Detection of Human Leucocyte Antigen HLA Class I Loci (A, B, C) and Class II Loci (DR, DQ) Allele Frequency in Nepalese Population by Next Generation Sequencing." *Journal of Applied Pharmaceutical Sciences and Research* 4(1), 1-6.

10. **Manandhar, K.D.**, McCauley, M., **Gupta B.P.**, Kurmi, R., Adhikari, A., Nguyen, A.V., Ngono, A.E., Zompi, S., Sessions, O. and Shresta S. (2021). Whole Genome Sequencing of Dengue Virus Serotype 2 from Two Clinical Isolatesand Serological Profile of Dengue in the 2015–2016 Nepal Outbreak. *American Jouranl of Tropical Medicine & Hygiene.* 104(1): 115–120. DOI: https://doi.org/10.4269/ajtmh.20-0163. **[Q1/SJR 2021-1.01]**

2020

11. Bhandary, S., Shrestha S.L. Khatiwada R.P., Shah, D.N., Munankarmi N.N., Banjara, M.R., Thapa-Parajuli R., **Manandhar K.D.**, Adhikari, R., Tuladhar, R. Trend Analysis, Modelling And Impact Assessment Of Covid-19 In Nepal (2020) Journal of Institute of Science and Technology, 25(2), 1-8 ISSN: 2469-9062 (print), 2467-9240 (e) Doi: https://doi.org/10.3126/jist.v25i2.33715.

12. Prajapati S, Napit R, BastolaA ,Rauniyar R, Shrestha S, Lamsal M, Adhikari A, Bhandari P , Yadav SR , **Manandhar KD**. Molecular phylogeny and distribution of dengue virus serotypes circulating in Nepal in 2017(2020). PLosONE. | https://doi.org/10.1371/journal.pone.0234929 J **[Q1/SJR 2021-0.85]**

13. Jha BK, Lav R, **Manandhar KD**, Influenza virus preservation and its effect on infectivity and viral load by lyophilization technique(2020). BioMedical Jour of Sci & Tech Res. DOI 10.26717/BJSTR.2020.26.004330

14. Mishra, S. K., Shrestha, L., Pandit, R., Khadka, S., Shrestha, B., Dhital, S., ... & **Manandhar, K. D.** Establishment of Reference Range of CD4 T-Lymphocyte in Healthy Nepalese Adults. (2020). BMC Res Notes. 13:316 https://doi.org/10.1186/s13104-020-05156-5 **[Q2/SJR 2021-0.53]**

15. Jha BK, Pandit R, Jha R, **Manandhar KD.** Overview of seasonal influenza and recommended vaccine during the 2016/2017 season in Nepal. *Heliyon.* 2020 Jan;6(1):e03304. doi:10.1016/j.heliyon.2020.e03304. eCollection.PMID:32021940; PubMed Central PMCID: PMC6994851. **[Q1/SJR 2021-0.55]**

2019

16. Anup Bastola, Mitesh Shrestha, Mahesh Lamsal, Srijan Shrestha, Sabita Prajapati, Anurag Adhikari, Birendra Prasad Gupta, Mallorie Hide, Lina Devkota, Bimal Sharma Chalise, Kishor Pandey, **Krishna Das Manandhar**(2019). A case of high altitude cutaneous leishmaniasis in a non-endemic region in Nepal. doi: 10.1016/j.parint.2019.101991.*Parasitology International.* **[Q2/SJR 2021-0.56]**

17. Sunil Timilsena, Sakkarin Ardsiri, Surada Lerdwana, **Krishna Das Manandhar**, Kovit Pattanapanyasat, Egarit Noulsri (2019). Accuracy of lymphocyte counts from UniCel DxH 800 in β-thalassemia/HbE patients having various numbers of nucleated red blood cells. *Asian Pac J Allergy Immunol.* doi: 10.12932/AP-170119-0472 **[Q1/SJR 2021-1.14]**

18. Mitesh Shrestha, Medha Khatri-Chhetri, Ram Chandra Poudel, Jyoti Maharjan, Shyam Prakash Dumre, **Krishna Das Manandhar**, Basu Dev Pandey, Sher Bahadur Pun and Kishor Pandey(2019). Molecular evidence supports the expansion of visceral leishmaniasis towards non-program districts of Nepal. BMC Infectious Diseases. https://doi.org/10.1186/s12879-019-4083-3 **[Q2/SJR 2021-1.04]**

2018

19. Shrawan Kumar Mishra, Rajindra Napit, Anup Bastola, **Krishna Das Manandhar**. *Assessment of High-Risk Group For Immune Reconstitution Inflammatory Syndrome (Iris) Development Among People Living With Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome (Hiv/Aids) In Nepal.* European journal of pharmaceutical and medical research ejpmr, 2018,5(7),489-498. 2018.

20. Shrestha M., Pandey BD., Maharjan J., Tiwari PN., **Manandhar KD**, Pun SB, Dumre S., Pandey K. *A Case of Visceral Leishmaniasis from the Non-endemic Himalayan region of Nepal*. Parasitology Research. Parasitol Res. 2018 Jul;117(7):2323-2326. doi: 10.1007/s00436-018-5887-6. **[Q1/SJR 2021-0.56]**

21. Shrestha S., KC S., Gautam B, Pun SB, Mahatara S., **Manandhar KD.** *Seroepidemiology study of Hepatitis B virus infection in Nepal.* SciUn Research Journal

22. Sunil Kumar Sah, Joaquin V. González, Sadina Shrestha, Anurag Adhikari, **Krishna Das Manandhar,** Shyam Babu Yadav, David A. Stein, Birendra Prasad Gupta and María Alejandra Picconi. *Human papillomavirus genotype distribution in cervical cancer biopsies from Nepalese women*. Infectious Agents and Cancer (2018) 13:4 DOI 10.1186/s13027-018-0176-7. **[Q2/SJR 2021-0.0.84]**

23. Gupta BP, Tuladhar R, Kurmi R, **Manandhar KD.** *Dengue periodic outbreaks and epidemiological trends in Nepal.* Annals of Clinical Microbiology and Antimicrobials. 2018;17:6. doi:10.1186/s12941-018- 0258-9 **[Q1/SJR 2021-1.18]**

24. Birendra Prasad Gupta, Mahesh Lamsal, Sudhikshya Chaulagain, Ramanuj Rauniyar, Rajani Malla, Smita Shrestha, Roshan Kurmi, **Krishna Das Manandhar**. *Emergence of dengue in Nepal*. VirusDis. 2018. https:// doi.org /10.1007/s13337-018-0439-3 **[Q3/SJR 2021-0.0.49]**

2017

25. Shravan Kumar Mishra, Sundar Khadka, Subhash Dhital, Raj Kumar Mahto and **Krishna Das Manandhar***.*Biomarkers in Immune Reconstitution Inflammatory Syndrome (IRIS) among People Living with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS)*. J AIDS Clin Res 2017, 8:9 DOI: 10.4172/2155-6113.1000728

26. Ananta Shrestha, Anurag Adhikari, Manjula Bhattarai, Ramanuj Rauniyar, Jose D. Debes, André Boonstra, Thupten K. Lama, Mamun Al Mahtab, Amna Subhan Butt, Sheikh Mohammad Fazle Akbar, Nirmal Aryal, Sapana Karn, **Krishna Das Manandhar** and Birendra Prasad Gupta. *Prevalence and risk of hepatitis E virus infection in the HIV population of Nepal*. Virology Journal.2017. 14:228 DOI 10.1186/s12985-017-0899-x. **[Q2/SJR 2021-1.09]**

27. Krishna K. Shrestha, Yadu N. Paudel, **Krishna D. Manandhar**, Gyandra P. Ghimire2 Sangho Choi and Sabina Shrestha. Bio-prospecting of plant resources for validation of indigenous knowledge and the search for novel herbal drugs in Nepal. Madhav Karki, Rosemary Hill, Dayuan Xue, William Alangui, Kaoru Ichikawa and Peter Bridgewater (eds.). 2017. *Knowing our Lands and Resources: Indigenous and Local Knowledge and Practices related to Biodiversity and Ecosystem Services in Asia.* Knowledges of Nature 10. UNESCO: Paris. pp. 200. France. 157-168 **[Non-Ranked]**

2016

28. Gupta BP, Lama TK, Adhikari A, Shrestha A, Rauniyar R, Sapkota B, Thapa S, Shrestha S, Gupta BP, **Das Manandhar K.** *First report of hepatitis E virus viremia in healthy blood donors from Nepal.* VirusDisease. 2016 Sep;27(3):324-326. doi: 10.1007/s13337-016-0331-y. **[Q3/SJR 2021-0.49]**

29. Upadhya BP, Malla R, **Manandhar KD**, Gupta BP, Adhikari A, Rauniyar R, Tamarkar CS, Jha BK, Kurmi R. Zika and Its Preparedness in Nepalese Scenario. SM Virol. 2016; 1(2): 1008

30. Gupta BP, Adhikari A, Rauniyar R, Kurmi R, Upadhya BP, Jha BK, Pandey B, **Das Manandhar K**; *Dengue virus infection in a French traveller to the hilly region of Nepal in 2015: a case report;* BMC J Med. 2016. Case Rep. DOI 10.1186/s13256-016-0847-1. **[Q3/SJR 2021-0.29]**

2015

31. Anurag Adhikari, Birendra Prasad Gupta, **Krishna Das Manandhar**, Shravan Kumar Mishra, Hari Krishna Saiju, Rajendra Maan Shrestha, Nawneet Mishra and Shishir Sharma; *Negative feedback circuit for toll like receptor-8 activation in human embryonic Kidney 293 using outer membrane vesicle delivered bi-specific siRNA;* BMC Immunology.2015. 16:42 DOI 10.1186/s12865-015-0109-9. **[Q3/SJR 2022-0.78]**

32. Singh S, Gupta BP, Manakkadan A, **Manandhar KD**, Sreekumar E;. *Phylogenetic study reveals co-circulation of Asian II and Cosmopolitan genotypes of Dengue virus serotype 2 in Nepal during 2013;* Infect Genet Evol. 2015 **[Q1/SJR 2022-0.83]**.

33. Adhikari A, Rauniyar R, Raut PP, **Manandhar KD**, Gupta BP, 2015. *Evaluation of sensitivity and specificity of ELISA against Widal test for typhoid diagnosis in endemic population of Kathmandu.* BMC Infectious Disease; 2015 **[Q2/SJR 2022-1.06]**.

34. Birendra P Gupta, Sneha Singh, Roshan Kurmi, Rajani Malla, Easwaran Sreekumar, **Krishna Das Manandhar,** 2015. *Re-emergence of dengue virus serotype 2 strains in a 2013 epidemic in Nepal.* Ind J Med Res; 2015 **[Q2/SJR 2022-0.72]**.

35. Satya Prakash, Avishek Mishra, Tilak Ram Shrestha, Nagendra Awasthi, Isha Pradhan, Anushuman Mishra and **Krishna Das Manandhar** *International. Evolutionary prospective of Indian Subcontinent Population*. Advancement of Technology and Research. 124-129.

2014

36. **Manandhar KD**, Yadav TP, Prajapati VK, Basukala O, Aganja RP, Dude A, Shrivastav ON, Sundar S. *Nanonization increases the antileishmanial efficacy of amphotericin B: an ex vivo approach.*. Advances in experimental medicine and biology. 2014; 808 doi:10.1007/978-81-322-1774-9_7 **[Q3/SJR 2021-0.41].**

37. Gupta BP*, Adhikari A, Chaudhary BK, **Manandhar KD**, Yadav SB, Shrestha N, Chaudhary P, Rauniyar R, Patel BD. 2014. *Hepatitis E outbreak in Nepal during 2014*. Journal of Advance in Biology **5:** 610-613

38. Bishnu Joshi1,Basant Pant, Pravesh Rajbhandari, Ram Prasad Aganja, Rajani Malla, **Krishna Das Manandhar** and Lakshmaiah Sreerama. The Epidemiology and Health Burden of Neurocysticercosis in Nepal. *International Journal of Tropical Diseases & Health,* 4(2): 204-223, 2014.

39. Gupta BP*, Mishra SK, **Manandhar KD**, Malla R, Tamarakar,CS, Bajarcharya A, RauniyarR, Raut PP, Sah SK and Pokhrel S. *Comparison of CPE NT and PRNT assays for estimating Neutralizing antibody titres against Japanese Encephalitis Virus*, Int.J.Curr.Microbiol.App.Sci.2014.**3(1)**: 407-413

2013

40. BP Gupta*, SK Mishra, **KD Manandhar,** R Malla, CS Tamarakar, PP Raut, SK Sah, S Pokhrel and R Rauniyar .*Seroprevalence of Dengue Virus Infection in Nepal*. Int J Appl Sci Biotechnol 2013.**4(1)**: 224-227

41. Gupta, B. P., **Manandhar, K. D**., Malla, R., Tamarakar, C., Mishra, S. K., & Rauniyar, R. (2013). *Emergence of Dengue Virus Infection in Nepal.* Int J Appl Sci Biotechnol 2013,**1(3)**: *79-84*

2012

42. **Manandhar KD**. Identification of An Antigenic and Potential Diagnostic Marker of Leishmania donovani Infection by Immunoblot Assay (2012). *Nepal Journal of Science and Technology*, 13(2): 63-72, 2012

2010

43. Maurya R, Kumar R, Prajapati VK, **Manandhar KD**, Sacks D, Sundar S, Nylén S. (2010). Human visceral leishmaniasis is not associated with expansion or accumulation of Foxp3+CD4 cells in blood or spleen. *Parasite Immunology*. 32(7): 479 – 483; doi: 10.1111/j.1365-3024.2010.01219.x. **[Q2/SJR 2022-0.56]**.

2008

44. **Manandhar KD**, Yadav TP, Prajapati VK, Kumar S, Rai M, Dube A, Srivastava ON, Sundar S. (2008). Antileishmanial Activity of nano-amphotericin-B deoxycholate. *J Antimicrob Chemother*. 62(2):376-80. doi: 10.1093/jac/dkn189 **[Q1/SJR 2022-1.38]**.

2007

45. Nylén S, Maurya R, Eidsmo L, **Manandhar KD**, Sundar S, Sacks D. (2007).. Splenic accumulation of IL-10 mRNA in T Cells distinct from CD4+CD25+(Foxp3) Regulatory T cells in human visceral leishmaniasis. *Journal of Experimental Medicine*, 204(4):805-17. doi: 10.1084/jem.20061141. **[Q1/SJR 2022-6.24]**.

46. Sundar S, Singh RK, Bimal SK, Gidwani K, Mishra A, Maurya R, Singh SK, **Manandhar KD**, Boelaert M, Rai M. (2007). Comparative Evaluation of Parasitology and Serological Tests in Diagnosis of Visceral Leishmaniasis in India: a Phase III Diagnostic accuracy study. *Tropical Medicine and International Health*. 12(2) 284-289; 2007. doi: 10.1111/j.1365-3156.2006.01775.x. **[Q2/SJR 2022-0.79]**.

Abstracts published in national/international conferences/seminars/workshops

1. **Circulating Dengue Virus and Neutralizing Antibodies in Nepalese Population.** Second South Asian Symposium on Microbial Ecology 2023 (SASME-2023). Dhulikhel Nepal. November 1- 3, 2023.
2. **Detection of Novel Viruses in Nepalese patients with Acute Encephalitis Syndrome.** First National Biotechnology Conference – 2023 organized by Kathmandu University. KU, Dhulikhel Nepal. May 11, 2023.
3. **Circulating serotypes in the window period of dengue outbreaks in Nepal and diagnostic approaches.** International Conference in Biotechnology-2023 organized by Nepal Biotechnology Association, Hotel Himalaya, Kathmandu March 18, 2023.
4. **Detection of Novel Viruses in Nepalese patients with Acute Encephalitis Syndrome.** Center for Research in Emerging Infectious Diseases (CREID) Meeting-2023. National Institute of Health Science, Bethesda, USA .
5. **Seroprevalence and Genetic Diversity of Dengue Virus During the 2022 Outbreak in Nepal.** Center for Research in Emerging Infectious Diseases (CREID) Meeting-2023. National Institute of Health Science, Bethesda, USA .
6. **Country needs and availability of resources for strengthening Healthcare Biotechnology facilities.** Asian and Pacific Centre for Transfer of Technology (APCTT) of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). March 22, 2022.
7. **Molecular Diagnosis of Infectious Disease in the prospects of Nepal.** 9th National Conference on Science and Technology Organized by Nepal Academy of Science and Technology, June 26-28, 2022
8. **Molecular Phylogeny and Distribution of Dengue virus serotypes circulating in Nepal in 2017.** Nepal Biotechnology Association 32nd Annual General Meeting. December 16, 2020
9. **Nano-amphotericin B: an novel approach to treat visceral leishmaniasis disease.** First International conference on "Infectious Diseases and Nanobiotechnology" held in Kathmandu Nepal from December 12 to 16, 2012 organized by Nepal Polymer Society.
10. **Study of asymptomatic cases of visceral leishmaniasis in hyper endemic foci of Nepal using nested PCR and qPCR** in ICGEB course "Molecular Biology of Leishmania" held in Trieste, Italy from October 24 to 26, 2012 organized by International Center for Genetic Engineering and Biotechnology (ICGEB).
11. **74kDa protein, a highly immunogenic protein fraction from *L.donovani* promastigotes** in a week long symposium on Immunological mechanisms in vaccination in Seattle, USA from Oct 27 to Nov 1, 2010 organized by Keystone Symposium**.**
12. **Study of antigenic protein from *Leishmania donovani* by comparing Western blot profile** in 5-days world congress on Leishmaniasis held from Feb. 3 – 7, 2009 organized by Central Drug Research Institute, Lucknow, Inida.

13. **Targeting IL-10 to Treat Visceral Leishmaniasis** in 5-days world congress on Leishmaniasis held from Feb. 3 – 7, 2009 organized by Central Drug Research Institute, Lucknow, Inida.

Additional Research Activities

Ph.D. Degree supervised (Completed)

2023 **Characterization of TNF-alpha gene polymorphism and its impact in Influenza A/Pandemic (H1N1) patients in Nepal.** Scholar - Mr. Bimlesh Jha. 2015

2023 **Molecular and Genetic Characterization of Hepatitis Virus B of Nepal** carrying Scholar - Dr. Smita Shrestha. 2015

2020 **Study on Immune Reconstitution Inflammatory Syndrom (IRIS) in HIV/AIDS Infection** carrying by Mr. Shrawan Kumar Mishra registered at Central Department of Biotechnology, Tribhuvan University, Nepal. 2012

2018 **Molecular Epidemiology and Genetic Characterization of Emerging Viral Diseases in Nepal** carried by Mr. Birendra Prasad Gupta registered at Central Department of Biotechnology, Tribhuvan University, Nepal. 2012.

2017 **Identification and Epidemiological Study of Zoonotic Parasites Prevalence in Nepal** carried by Mr. Hari Bahadur Rana, Prof., Rampur Agricultural Campus, TU registered at Dr. K. N. Modi University, Newai, Rajasthan, India. 2012.

Ph.D. Thesis Supervision (Continuing)

2023 **Analysis and applications of recombinant immunogenic dengue antigens.** Scholar – Mrs. Archana Maharjan.

2022 **Etiology and Immuno-Molecular Characterization of non-JE Acute Encephalitis Syndrome.** Scholar – Ms. Lilee Shrestha.

2022 **A Molecular and Immunological Investigation of Cutaneous and Visceral Leishmaniasis in Nepal.** Scholar Mr. Rajesh Kumar Gupta.

2020 **Human Variome in Fever of Unknown Origin and Immune responses.** Scholar - Dr. Eans Tara Tuladhar.

2018 **Immuno-Molecular and Genetic Characterization of Dengue Virus in Nepal** Scholar- Mr. Ramanuj Rauniyar

M.Sc.Thesis Supervisions

2021 Serotyping of Dengue Virus during the outbreak of 2022 – *Lata Karki*
- Detection of Novel virus in Febrile of Unknown Origin cases from STID Hospital using conventional PCR – *Mamata Tamang*
- Pathogenetic effect of synthetic compounds in cancerous cell line (Dr. Bhushan Shrestha)- *Rabindra Khatiwoda*
- Longitudinal Study of Cytokine Storm in Dengue Patients by Flow Cytometry- *Muskan Sainju*

2020 Genomic Surveillance of Sars-Cov-2 to Reconstruct Infection Dynamics and Phylodynamics using Phylogenetic Inference of Nepal- *Binod Khadka*
- Validation Of Saliva Biospecimen: An Alternative To Nasopharyngeal Swab For Detection Of Sars-Cov-2 Using Rt-Pcr- *Salin Maharjan*
- Dengue Viral Like Protein (VLP) development as vaccine prototype- *Smita Shrestha*

2019 Evaluation of Expression Pattern of Selected Plasma Micrornas in Type 2 Diabetic, Obese and Healthy Individual- *Shailesh Adhikari*
- Seroprevalance and Comparative Study of IGg Antibodies Against Spike RBD and Spike S1 Protein of SARS-Cov-2 in Covid Positive Patients- *Suresh Joshi*
- Molecular Detection of Sars-Cov-2 RNA in Nasopharyngeal/Oropharyngeal Swab of Patient Without RNA Extraction- *Suruchi Karna*

- S Gene Target Failure Analysis in Covid Positive Patients using Taq Path Covid-19 Assay- *Sushma Acharya*
- Morphological and Molecular Characterization of Gastrointestinal Parasites of Wild Water Buffalo of Chitwan National Park (Worked at NAST)- Menuka Aryal
- SARS Cov-2 infection and ct values of Far-Western region of Nepal- *Suman Gautam*

2018 Immuno-Molecular Characterization and Seroprevalence Analysis Of Epistein- Barr Virus (Ebv) And Kaposi's Sarcoma Herpes Virus (Kshv)-*Bandana Thakur*

- Construction Of Envelope Domain III Based Recombinant Tetravalent Dengue Vaccine From Nepalese Samples- *Machchhendra Thapa*
- Cytokine Profiling and its Association With Clinical Parameters in the Dengue Virus Infection-*Sishir Gautam*
- Genetic Polymorphisms Of Genes Involved In Host Immune Response To Dengue Severity In Nepalese Population- *Chetana Khanal*
- Frequency of BCR-ABL1 transcripts in Chronic Myeloid Leukemia-*Roji Raut*
- Molecular Characterization of Leishmania spp. Causing Cutaneous Leishmaniasis in Nepal-*Tin Maya Rai*

2017 Accuracy of Lymphocyte Counts from UniCel DXH800 in B-Thalassemia/HbE patients having various numbers of Nucleated red Blood Cells-*Sunil Timilsena*

- Molecular and Immunological characterization of Cutaneous Leishmaniasis-*Srijan Shrestha*
- Molecular Characterization of Classical Swine Fever virus- *Tika Bahadur Budha*
- Dengue virus characterization- *Sabita Prajapati*
- Flowcytometry analysis of Acute Leukemia patients of Nepal (Worked at Civil hospital)- *Kshitiz Subedi*

2016 Immuno-Molecular study of Dengue patients of Nepal

- Epidemiological Immuno-molecular study of Dengue patients of Nepal in 2016 samples from ICGEB India- *Mahesh Lamshal*
- Bioactive compounds of some medicinal plants of Nepal- *Pratikshya*

2015 Bio Active Compounds and Biological Activities of Medicinal Plants from Central Nepal

2014 HEV serotyping and prevalence with HIV as co infection in Nepal- *Nirmal Aryal*

- Molecular Cloning of DDI (DNA damage inducible) gene in pfCENV3 and pfCENV4 transfection vectors and production of recombinant Atg7 (Autophagy-related protein 7) protein for generation of antibodies- [Worked at Center for Cellular and Molecular Biology, Hyderabad, India- *Bhagwat Majhi*
- Bioactivity of methanol extract of medicinal plants of Dhading District, Nepal- *Yadu Nanda Poudel* (Botany Dept)

2013 Serological diagnosis of human neurocysticercosis caused by *Taenia solium* cysticerci- *Keshav Khadka*

- Genetic Affinity of Manandhar Population of Kathmandu Valley- *Isha Pradhan*
- Genetic Structure of Newar Population of Kathmandu Valley. at Center for Cellular and Molecular Biology, Hyderabad, India- *Nagendra Awasthi*

2012 Estimation of asymptomatic cases of visceral leishmaniasis using nested PCR in endemic and non endemic regions of Nepal- *Pratap Khadka*

- Screening of medicinal plants of Nepal for the study of antileishmanial activity- *Jyoti Bhuju*

2011 Identification of immunogenic protein of *L. donovani* parasite of Nepal- *Ram Prasad Aganja*

- In vitro antileishmanial activity of *bombax ceiba* linn. Flowers at Banaras Hindu University, India. *Om Basukala*
- Study of superoxide secretion by *L donovani* amastigote parasites at Banaras Hindu University, India- *Roshan Sah*

2010 Entomophilic nematodes of *Periplaneta americana* and *Gryllotalpa africana* of Pokhara sub-metropolitan city from Central Department of Zoology, Tribhuvan University, Nepal. April 11, 2010- *Purushotam Manandhar*

Medal Awards

Dirgha Sewa Padak - Long Service Award by Tribhuvan University for continuous 25 year contribution to the university. (Vice Chancellor Prof. Dr. Tirtha Khaniya)-2017

Nabil Science and Technology Award, Awarded by Nepal Academy of Science and Technology, Khumaltar, Lalitpur - (Priminister Mr. Pushpa Kamal Dahal) 2016

Nepal Bidhya Bhusan, a First Class National Medal awarded by Government of Nepal (President, Dr. Rambaran Yadav), 2010.

Languages

Nepal Bhasa	Mother tongue
Nepali	National
Hindi	Neighbour country language (Fluent in speaking and writing)
English	**Academic/International communication (Fluent in writing/speaking).**

Professional and Social Affiliation

- Biotechnology Association Nepal – Baneswor, Kathmandu (Executive Member)
- Zoological Society of Nepal – Kirtipur, Kathamandu
- Tribhuvan University Teacher's Association – Kirtipur, Kathmandu
- Fulbright Association of Nepal – Kathamndu, Nepal
- Central Manandhar Society –Kathmandu
- Timila Khala – Balaju, Kathmandu

December, 2023

Date

Signature