Resume

Prem Prashant Chaudhary, Ph.D

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Mobile No.: +1-614-477-7884
Date of Birth: 26th June 1983

Current Position

- Working as Staff Scientist at Epithelial Therapeutics Unit (LCIM), at National Institute of Allergy and Infectious Diseases (NIAID) at National Institutes of Health (NIH) in Skin microbiome and metabolomics studies from 24th October 2022 – till date.

Research Experience

- Worked as Research Fellow at Epithelial Therapeutics Unit (LCIM), at National Institute of Allergy and Infectious Diseases (NIAID) at National Institutes of Health (NIH) in Skin microbiome and metabolomics studies from 20th December 2020- 24th October 2022.

- Worked as Postdoctoral Researcher at Department of Periodontology at The Ohio State University in Oral Microbiome studies from 11th October 2019 – 19th December 2020.

- Worked as Senior Research Fellow at NAFTEC situated at School of Chemical and Biomedical Engineering at Nanyang Technological University in Gut Microbiome studies from 20th March 2017- 30th June 2019.

- Worked as Research Fellow at School of Medicine, Department of Internal Medicine and Infectious diseases (Centre for Microbial Systems) at University of Michigan, Ann Arbor from 16th May 2016 - 15th March, 2017 (Worked on Michigan Microbiome Project)

- Worked as Postdoctoral Fellow at School of Medicine, Université d' Auvergne, Clermont-Ferrand, France from 1st September 2014 - 14th May 2016 (Worked there on gut methanogens isolation and diversity analysis)

- Worked as Postdoctoral Fellow at Palacký University, Olomouc, Czech Republic (also spent 3 months as Visiting Researcher at Max Plank Institute for Terrestrial Microbiology from 2nd May 2014 to 29th July 2014 during this assignment) (Total duration of postdoctoral position is from 27th May 2013 - 27th September 2014).

- Worked as Research Associate at Biowits Life Sciences, Yamuna Nagar, Haryana from 1st October 2012 - 26th May 2013.

- Worked as Postdoctoral Fellow at Institute of Human Virology, School of Medicine, University of Maryland, Baltimore, USA (From 29th May 2012 – 29th September 2012).

- Worked as Senior Research Fellow at National Dairy Research Institute, Karnal, Haryana, India in the project entitled" Rumen microbial manipulations for the mitigation of methane emission and productivity enhancement in dairy animals."(From 12th June, 2007 - 31st January, 2012).

Projects sanctioned from National Funding agency

- Co –Principal Investigator in project entitled "Mutation screening and association analysis of PC -1 and IRS-1 gene in type II diabetic patients from Northern India" sanctioned by University Grant Commission as major project for 3 years.
  Total Cost - 9, 49,300 Rupees

Research Publications

1. Shobnam, N, Saksena, S, Ratley, G, Yadav, M, **Chaudhary, P.P**, Sun, A.A, Howe,K.N, Gadkari, M, Franco, L.M, Ganesan, S, McCann, K.J, Hsu, A.P, Kanakabandi, K, Ricklefs, S, Lack, J, Yu, W , Similuk, M, Walkiewicz, M.A, NIAID Centralized Sequencing Program, Gardner, D.D, Barta, K, Tullos, K and Myles, I.A (2024) Topical Steroid Withdrawal is a Targetable Excess of Mitochondrial NAD+ .medRxiv, 2024.04. 17.24305846.

2. Ratley, G, Zeldin, J, Sun, A.A, Yadav, M, **Chaudhary, P.P** and Myles, I.A (2024) Spatial modeling connecting childhood atopic dermatitis prevalence with household exposure to pollutants. *Commun Med* **4**, 74. https://doi.org/10.1038/s43856-024-00500-3

3. Ratley, G, Zeldin, J, **Chaudhary, P.P**, Yadav, M, Paller, A.S, Zee, P, Myles, I.A and Fishbein, A (2024) The circadian metabolome of atopic dermatitis. J Allergy Clin Immunol. Jan 21: S0091-6749(24)00041-1. doi: 10.1016/j.jaci.2023.11.926.

4. **Chaudhary, P.P**, O'Laughlin, B, Kumar, P.S, Dabdoub, S.M, Levy, S, Myles, I.A and Hourigan, S.K (2023) Vaginal delivery provides skin colonization resistance from environmental microbes in the NICU. Clin Transl Med. Dec;13(12):e1506. doi: 10.1002/ctm2.1506.

5. Borrel, G, Fadhlaoui, K, Ben, H.W, Gaci, N, Pehau-Arnaudet, G, **Chaudhary, P.P**, Vandekerckove, P, Ballet, N, Alric, M, O'Toole, P.W, Fardeau, M.L, Ollivier, B and Brugère, J.F (2023) *Methanomethylophilus alvi gen. nov., sp. nov.*, a Novel Hydrogenotrophic Methyl-Reducing Methanogenic Archaea of the Order *Methanomassiliicoccales* Isolated from the Human Gut and Proposal of the Novel Family *Methanomethylophilaceae fam. nov.* Microorganisms.Nov 17;11(11):2794. doi: 10.3390/microorganisms11112794.

6. Barbian, K, Bruno, D, Sykora, L, Ricklefs, S, **Chaudhary, P.P**, Beare, P.A, Myles, I.A and Martens, C.M (2023) De novo assembly of *Roseomonas mucosa* isolated from patients

with atopic dermatitis. Microbiol Resour Announc. Nov 16;12(11): e0052123. doi: 10.1128/MRA.00521-23. Epub 2023 Oct 17.

7. Barbian, K, Bruno, D, Sykora, L, Ricklefs, S, **Chaudhary, P.P**, Beare, P.A, Myles, I.A and Martens, C.M (2023) De novo assembly of *Roseomonas mucosa* isolates from healthy human volunteers used to treat atopic dermatitis. Microbiol Resour Announc. Nov 16;12(11): e0052023. doi: 10.1128/MRA.00520-23. Epub 2023 Oct 11.

8. Singh, N, Avatsingh A.U, Sharma, S, Kour,S, Arora, Y, Sharma, S, Joshi, D, **Chaudhary, P.P**, Perveen, K and Amin,M (2023) Prevalence of Antibiotic-Resistant Gram-Negative Bacteria having Extended-Spectrum β-Lactamase Phenotypes in Polluted Irrigation-Purpose Wastewaters from Indian Agro-Ecosystems. Frontiers in Microbiology 14:1227132. doi: 10.3389/fmicb.2023.1227132.

9. **Chaudhary, P.P,** Myles, I.A, Zeldin, J, Dabdoub, S, Deopujari, V, Baveja,R,Balker,R, Bengtson, S, Sutton, A, Levy, S and Hourigan, S.K (2023) Shotgun metagenomic sequencing on skin microbiome indicates dysbiosis exists prior to the onset of atopic dermatitis. Allergy, Jul 8. doi: 10.1111/all.15806.

10. Zeldin, J, Tran, T.T, Yadav, M, **Chaudhary, P.P,** D'Souza, Ratley, G, Ganesan, S and Myles, I.A (2023) Antimony Compounds Associate with Atopic Dermatitis and Influence Models of Itch and Dysbiosis. Environmental Science and Technology Letters 10 (5) 452-457.

11. Yadav, M, **Chaudhary, P.P**, D'Souza, B.N, Ratley, G, Spathies, J, Ganesan, S, Zeldin, J, Myles, I.A (2023). Diisocyanates influence models of atopic dermatitis through direct activation of TRPA1. PLoS One. Mar 6;18(3): e0282569. doi: 10.1371/journal.pone.0282569.

12. Zeldin, J, **Chaudhary, P.P**, Spathies, J, Yadav, M, D'Souza, B.N, Alishahedani, M.E, Gough, P, Matriz, J, Ghio A.J, Li, Y, Sun, A.A, Eichenfield, L.F, Simpson, E.L and Myles, I.A (2023) Exposure to isocyanates predicts atopic dermatitis prevalence and disrupts therapeutic pathways in commensal bacteria. Science advances 9(1):eade8898. doi: 10.1126/sciadv.ade8898.

13. Conway,P, Chen, L, Zheng, T, Yang,Y, **Chaudhary, P.P**, Teh, J.P.Y, Cheon,B.K, Moses,D, Schuster, S.C, Schlundt,J and Li,J (2022) Integrative multiomics analysis reveals host-microbe-metabolite interplays associated with the aging process in Singaporeans. Gut Microbes. Jan-Dec;14(1):2070392. doi: 10.1080/19490976.2022.2070392.

14. Yadav, M*, **Chaudhary, P.P** *, D'Souza, B.N, Spathies, J and Myles, I.A (2022) Impact of skin tissue collection method on downstream MALDI imaging. Metabolites 30;12(6):497. doi: 10.3390/metabo12060497(* contributed equally).

15. Sengupta,K, Hivarkar,S,S, Palevich,N, **Chaudhary, P.P**, Dhakephalkar, P.K and Dagar,S,S. (2022) Genomic architecture of three newly isolated unclassified Butyrivibrio species elucidate their potential role in the rumen ecosystem. Genomics. doi: 10.1016/j.ygeno.2022.110281. Epub 2022 Feb 4.

16. Meethil ,A.P, Saraswat, S, **Chaudhary, P.P**, Dabdoub, S.M, Kumar P.S.(2021) Sources of SARS-CoV-2 and Other Microorganisms in Dental Aerosols. Journal of Dental Research. Jul;100(8):817-823. doi: 10.1177/00220345211015948.

17. Castillo, C.R, Alishahedani, M.E, Gough, P, **Chaudhary, P.P** , Yadav, M, Matriz, J, Myles,I.A (2021) Assessing the effects of common topical exposures on skin bacteria associated with atopic dermatitis. Skin Health and Disease, https://doi.org/10.1002/ski2.41.

18. **Chaudhary, P.P**, Melkonyan, A , Meethil, A, Saraswat, S, Hall,D.L, Cottle, J, Wenzel, M, Ayouty, N, Bense, S, Casanova, F, Chaney, M, Chase, H, Hermel, R, McClement, M, Sesson, C, Woolsey, B, Kumar, P.S. (2021) Estimating salivary carriage of SARS-CoV2 in non-symptomatic individuals and efficacy of mouthwash in reducing viral load: a randomized controlled trial. The Journal of the American Dental Association. DOI: https://doi.org/10.1016/j.adaj.2021.05.021.

19. Bednařík, A, Blaser,M, Matoušů, A, Tušer,M, **Chaudhary, P.P** , Šimek,K and Rulík M (2019) Sediment methane dynamics along the Elbe River. Limnologica. https://doi.org/10.1016/j.limno.2019.125716.

20. **Chaudhary, P.**P , Conway, P. L and Schlundt, J (2018) Methanogens in humans: potentially beneficial or harmful for health. Applied Microbiology and Biotechnology 102(7):3095-3104.

21. **Chaudhary, P.P** and Schlundt, J (2017) Exercise and Gut Microbiome. Journal of Molecular Biology. 1(1):7.

22. Gaci, N, Flemer, B, Borrel, G, Sanderson, I.R, **Chaudhary, P.P**, Tottey,W, O'Toole,P.W and Brugère,J.F (2017) Faecal microbiota variation across the lifespan of the healthy laboratory rat. Gut Microbes. 3; 8(5):428-439.

23. Gaci,N, **Chaudhary, P.P**, Tottey,W, Alric, M and Brugère,J.F (2017) Functional amplification and preservation of human gut microbiota. Microbial ecology of Health and Disease. 28 (1), 1308070.

24. **Chaudhary, P.P**, Rulík, M and Blaser, M (2017) Is the methanogenic community reflecting the methane emissions of river sediments? – Comparison of two study sites. MicrobiologyOpen. doi: 10.1002/mbo3.454.

25. **Chaudhary, P.P**, Goel, N, Baker, G, Saxena, J, Singh, N, Chaturvedi, I, Sharma, A and Sirohi, S.K (2016) Influence of essential oils supplementation on rumen fermentation profile and ruminal microbial population in vitro. Journal of Science 1 (4): 25-34.

26. Chaturvedi, I, Sinha, S and **Chaudhary, P.P** (2016) A molecular docking study to understand the interaction between anti-Cancerous compounds and 12bp DNA sequences: poly (dA-dT) 12 and poly (dG-dC) 12. Journal of Science 1 (4): 19-24.

27. **Chaudhary, P.P**, Gaci,N, Borrel, G, O'Toole,P.W and Brugère,J.F (2015) Molecular methods for studying methanogens of the human gastro-intestinal tract: Current status and future directions. Applied Microbiology and Biotechnology 99(14):5801-15.

28. Mach,V, Blaser,M, Claus,P, **Chaudhary, P.P** and Rulík, M (2015) Methane production potentials, pathways, and communities of methanogens in vertical sediment profiles of river Sitka. Frontiers in Microbiology 6:506.

29. Rulík, M and **Chaudhary, P.P** (2015) Magnetotactic bacteria evidenced by molecular cloning and sequencing of 16S rRNA genes in selected freshwater sediments from the Czech Republic. Brazilian Journal of Microbiology. 45(4):1255-61.

30. Brablcová, L, Buriánková, Badurová,P, **Chaudhary, P.P**, Rulík, M (2015) Methanogenic archaea diversity in hyporheic sediments of a small lowland stream. Anaerobe 32:24-31.

31. **Chaudhary, P.P**, Wright, A.D.G, Brablcová, L, Buriánková, I, Bednařík, A, and Rulík, M(2014) Dominance of Methanosarcinales phylotypes and shifts in the distribution of methanogen community structure with depth in fresh water sediments of Sitka stream in Czech Republic. Current Microbiology 69(6):809-16.

32. Buriánková,I, Brablcová,L, Mach,V, Dvořák ,P , **Chaudhary, P.P** and Rulík, M (2013) Identification of methanogenic archaea in the hyporheic sediment of Sitka stream. PLOS One 8(11): e80804.

33. **Chaudhary, P.P**, Brablcová, L, Buriánková, I and Rulík, M (2013) Molecular diversity and tools for deciphering the methanogen community structure and diversity in freshwater sediments. Applied Microbiology and Biotechnology.97: 7553-7562.

34. Sirohi, S.K, Dagar, S.S, Singh, N, **Chaudhary, P.P**, Puniya, A.K and Singh, D (2013) Differential rumen microbial dynamics and fermentation parameters in cattle fed high fibre and high concentrate diet. Indian Journal of Animal Nutrition. 30 (1): 60-66.

35. Sirohi, S.K, **Chaudhary, P.P**, Singh, N, Singh, D and Puniya, A.K (2013) The 16S rRNA and mcrA gene based comparative diversity of methanogens in cattle fed on high fibre based diet. Gene. 523(2):161-166.

36. Sharma, A*, Subbias, K.K, $ Robine, O, $ Chaturvedi, I, $ Nigam, A,$ Sharma, N and **Chaudhary, P.P**$ (2012) Computational finding of potential inhibitor for Cytochrome P450 Mono-oxygenases Enzyme of Mycobacterium tuberculosis.Bioinformation.8(19):931-935. $-Authors contributed equally.

37. **Chaudhary, P.P**, Dagar,S.S and Sirohi,S.K (2012) Comparative quantification of major rumen microbial population in Indian Cattle and Buffalo fed on wheat straws based diet. Prime Journal of Microbiology Research; 2(2) 105–108.

38. Sirohi,S.K, **Chaudhary, P.P** and Goel,N (2012) Effect of inclusion of Myristica fragrans on methane production, rumen fermentation parameters and methanogens population . Veterinary World; 5(4)335-340.

39. Goel,N, Sirohi,S.K, Dwivedi,J and **Chaudhary P.P** (2011) Efficacy of different plant part combinations as rumen fermentation modulator in wheat straw based diet evaluated in vitro. Annals of Biological Research; 2 (6): 91-96.

40. **Chaudhary, P.P**, Sirohi,S.K and Saxena,J (2012) Diversity analysis of methanogens in rumen of Bubalus bubalis by 16S riboprinting and sequence analysis.Gene;493 13–17.

41. **Chaudhary, P.P**, Sirohi,S.K,Singh,D and Saxena,J (2011) Methyl Coenzyme M Reductase (mcrA) gene based phylogenetic analysis of methanogens population in Murrah Buffaloes (Bubalus bubalis). The Journal of Microbiology;49(4):558-61.

42. Sharma, A, **Chaudhary, P.P**, Sirohi,S.K and Saxena J (2011) Structure modeling and inhibitor prediction of NADP oxidoreductase enzyme from Methanobrevibacter smithii. Bioinformation; 6(1): 15-19.

43. **Chaudhary, P.P**, Sirohi,S.K and Kumar S (2011) Improved extraction of quality DNA from methanogenic archaea present in rumen liquor for PCR application. Asian Journal of Animal Sciences.5 (3)166-174.

44. Sirohi, S.K, Pandey, N, Goel,N, Singh,B, Mohini, M , Pandey,P and **Chaudhary P.P** (2009) Microbial Activity and Ruminal methanogenesis as affected by Plant Secondary Metabolites in Different Plant Extracts. International Journal of Environmental Science and Engineering (1) 52-58.

45. **Chaudhary, P.P** and Sirohi,S.K (2009) Dominance of Methanomicrobium phylotype in rumen (Bubalus bubalis) methanogens from India. Letters in Applied Microbiology. 49(2):274-277.

46. **Chaudhary, P.P**. (2009) Methanomicrobium phylotype are the dominant methanogen phylotype in the Murrah buffaloes. Letters in Applied Microbiology. 48(3) 386.

47. **Chaudhary, P.P** and Bhardwaj KR (2007) Antimicrobial activity of different antibiotics against Streptococcus pyogenes. Eco Research Journal of Biosciences 6, 62-65.

Poster presentations

- Gaci,N, Borrel, G,Tottey,W, **Chaudhary ,P.P**, O'Toole,P.W and Brugère,J.F (2015) Methanol as a substrate for methanogenesis of the principal human gut archaeal commensal *Methanobrevibacter smithii*.gdr-archaea 2015:journees scientifiques GDR Archaea 2015. Toulouse. France (March 12th-13th ,2015)

- Gaci,N,Tottey,W, **Chaudhary ,P.P**, Borrel,G, O'Toole,P.W and Brugère,J.F (2014)Evolution de la flore fécale des rats dans des conditions contrôlées de l'environnement et de l'alimentation Lifespan evolution of the fecal microbiota of rats under controlled environmental and diet conditions. 7 ème Journée Scientifique,Clermont-Ferrand, France (November 20,2014)

- Rulík, M, Matoušů, A, Tušer,M, **Chaudhary ,P.P**, Bednařík, A and Blaser, M(2014) Methane dynamics along the course of the River Elbe. Water resources and wetlands conference, Tulcea, Romania (September 11-13, 2014)

- Sirohi, S.K, **Chaudhary,P.P** and Saxena J (2011) Diversity analysis of methanogens in rumen of Bubalus bubalis by 16S riboprinting and sequence analysis.4thconference of European microbiologists FEMS 2011,Geneva,Switzerland (June 26-20,2011)

Abstracts/Conference Proceedings

- Dagar,S.S, Sirohi,S.K and **Chaudhary ,P.P** (2012) RT-PCR analysis of diet-dependent variation in rumen microbial populations in cattle. . In Proceedings of 8th Biennial Animal Nutrition Association Conference held at Rajasthan University of Veterinary and Animal Sciences, November 28-30, 2012, Bikaner, India, (Abstr: BAN-8, pp. 211)

- Goel,N, Pandey,P,Sirohi,S.K and **Chaudhary ,P.P.**(2009)Efficacy of different plant extract combinations as rumen fermentation modulator in wheat straw based diet evaluated *in vitro*.13th Biennial conference of Animal Nutrition Society of India hels at Bangalore in between 17th December-19th December.

- Goel,N, Pandey,P,Sirohi,S.K and **Chaudhary ,P.P.**(2009)Efficacy of different herbal plant parts combinations as rumen fermentation modulator in wheat straw based diet evaluated in vitro.13th Biennial conference of Animal Nutrition Society of India hels at Bangalore in between 17th December-19th December.

- Sirohi,S.K, Pandey,P, Goel,N and **Chaudhary ,P.P.**(2009)Supplementation effect of different organic acids and their sodium salts on rumen fermentation,digestibility and methane production in wheat straw based total mixed diet in vitro. 13th Biennial conference of Animal Nutrition Society of India hels at Bangalore in between 17th December-19th December.

- Singh,B, Sirohi,S.K, **Chaudhary ,P.P**, Singh,D and Thube,H (2009)Diversity of Ruminal Methanogenic Archaea.Proceedings of Animal Nutrition Association World Conference held at New Delhi in between February 14th -17th.

- **Chaudhary, P.P,** Singh, D and Sirohi, S.K. (2008) Methanomicrobium Phylotypes are the Dominant Methanogens in Buffaloes (Bubalus bubalis) from India. 9th Biennial Congress of the anaerobe society of Americas held at Long Beach, CA USA in between June 24th -27th.

- Sablok G, **Chaudhary, P.P** and Ghai, S (2008) Biocomputers: A lead ahead in Biocomputing.Biological Databases, Sequence and Phylogenetic analyses in Plant Sciences held at Department of Bioinformatics, Chaudhary Charan Singh Haryana Agriculture University in between 3rd -12th March.

- **Chaudhary, P.P,** Ghai, S, Rai, T.S and Khullar, M (2008) Mutation screening and association analysis cardiac myosin binding protein c gene in Hypertrophic Cardiomyopthy.Omics in the 21st century. P (10) held at Amritsar in between 17th -19th Feb.

- **Chaudhary, P.P,** Ojha, S.K, Ghai, S and Bhardwaj, K.R (2008) Antimicrobial activity of different antibiotics against *Streptococcus pyogenes*. National Conference held at Ghaziabad in between 18th -19th January

Book Chapters

- **Prem Prashant Chaudhary,** Sunil Kumar Sirohi and Haidar Ali Ahmed. Diversity and Geographical Distribution of Rumen Methanogens. Book: Livestock Greenhouse Gases: Emission and Options for Mitigation. Chapter-7.Page No.83-102
- Amit Bhattacharya, **Prem Prashant Chaudhary**, Sumit Singh Dagar, Prasanta Kumar Choudhary and Sunil Kumar Sirohi. Applications of Molecular Biology Techniques in the Study of Rumen Microbial Diversity. Book: Livestock Greenhouse Gases: Emission and Options for Mitigation.Chapter-29.Page No.393-415

Sequences submitted to NCBI Database

Accession Numbers received

EU330421, GU979792- GU979807, HM003379- HM003388, GU797091- GU797108, EU360960, EU360961, EU487513- EU487523, EU625230- EU625235, HQ450154- HQ450185, HQ616106-HQ616137, HQ634261- HQ634272, HQ640436- HQ640503, KF758468-KF758472, KF758474-KF758481, KM269746-KM269798

Awards

- Dean's award for the year 2013 for my publication Molecular diversity and tools for deciphering the methanogen community structure and diversity in freshwater sediments. Applied Microbiology and Biotechnology.97: 7553-7562

- Best Oral Presentation award in a National Seminar Emerging Trends in Science and Technology held at Government P.G College, Karnal from 27th-28th February 2012

Mentoring and Teaching Experience

2021 - 2022	Mentor to two post baccalaureate students, NIH, Bethesda, MD Jacquelyn Spathies Brandon D'souza
2017-2019	Mentor to two Research Associates and one Bachelor's student, Nanyanag Technological University, Singapore. Jean Pui Yi Te – current lab technician at the National University of Singapore, Singapore Teng Ting Shien – current Ph.D. student at NTU, Singapore Lim Chay Chee – current Recruitment Manager at Aureus Group
2015-2016	Mentor to two Master's students, University d Auvergne, France Virginie Huguet (2016) – current R&D project manager in a company. Vincent Marta (2015) – current bioprocess engineer at Afyren (a biotechnological company)
2013-2014	Taught a course on Responsible Conduct in Research to Master's and PhD students of Dept. of Ecology and Environmental Sciences at Palacky University, Olomouc, Czech Republic
2012-2013	Trained almost 25-30 students in 4 batches towards the completion of their Bachelor's and Master's degree projects.
2006-2007	Lecturer, M.L.N College, Haryana, India

Academic achievements

- Selected as a Postgraduate (Medical Biotechnology) student at Post Graduate Institute of Medical Education and Research on the basis of All India Entrance Examination.

- Selected as a Bachelor of Science student at Mukund Lal National College on the basis of All India merit.

Oral Presentations

- Isolement de *Methanomethylophilus alvus* gen. nov., sp. nov., archée méthanogène métabolisant le précurseur de l'agent plasmatique proathérogène TMAO. Journée Scientifique du CRNH Auvergne held in Clermont Ferrand, France on 26th November 2015

- Chronic inhibition of cGMP phosphodiesterase prevents and reverses cardiac hypertrophy (As a departmental presentation).

Academic Qualification

- **Ph.D. Biotechnology, 2012**
  Banasthali University, Jaipur, India

- **M.Phil. Biotechnology, 2007**
  Chaudhary Devi Lal University, Sirsa, Haryana, India

- **M.Sc. Medical Biotechnology, 2006**
  Post Graduate Institute of Medical Education and Research, Chandigarh, India

- **B.Sc. Biotechnology**
  M.L.N College, Yamuna Nagar, Haryana, India

PhD Thesis

Topic	**Studies on diversity of ruminal methanogens and effect of methane inhibitors on methanogenesis and methanogens population in buffaloes *in vitro***
Institution	Banasthali University, Banasthali, Rajasthan, India
Guide	Jyoti Saxena, PhD, Professor, Dept of Biosciences and Biotechnology, Banasthali University, Banasthali, Rajasthan, India

M.Phil PROJECT

Topic	**Isolation of Haemolytic microorganisms from human throat and check the effect of different antibiotics against them**
Institution	Mukand Lal National College, Yamuna Nagar,Haryana-135001,India
Period	Six Months (December,2006– May, 2007)
Guide	K.R Bhardwaj, PhD, Senior Lecturer, Dept of Botany, Mukand Lal National College, Yamuna Nagar,Haryana-135001,India

MASTER'S PROJECT

Topic	**Mutation Screening and Association Analysis Of Cardiac Myosin Binding Protein C Gene In Hypertrophic Cardiomyopathy**
Institution	Post Graduate Institute of Medical Education and Research, Chandigarh, India
Period	One-year (May,2 005– April, 2006)
Guide	Madhu Khullar, PhD, Professor, Dept of Experimental Medicine and Biotechnology, Post Graduate Institute of Medical Education and Research, Chandigarh

Research Trainings

- One month summer training (May 1st 2002-June 1st 2002) at Adlay Lab Limited, Derabassi, Punjab, India.

- One month summer training (May13th 2003-June12th 2002) at Haryana Distillery, Yamuna Nagar ,Haryana,India.

ONLINE CERTIFICATE COURSES

Machine Learning A-Z™: Hands on Python and R in Data science by Udemy.

TECHNIQUES KNOWN

DNA and RNA Isolation, Polymerase Chain Reaction, Anaerobic bacteria culturing, Real Time-PCR (Both absolute as well as relative), Gene Cloning, 16S and metagenomics data analysis, Fluorescence *InSitu* Hybridization, Plasmid Isolation, Single Stranded Conformation polymorphism, Poly Acrylamide Gel Electrophoresis, Agarose Gel Electrophoresis, Gel Extraction, Immunoprecipitation, Gas Chromatography (GC), Silver Staining, Tissue Culturing, Neutralization assays, FACS and ELISA.

COMPUTER SKILLS

I am well versed with various software used in NGS data (16S amplicon and shotgun metagenomics, metatranscriptomics and human transcriptome) and metabolomic (TIMS-TOF) data analysis, Primer designing and Sequence analysis. Along with this I have handsome experience of working on various software viz. MEGA4, N-J Plot, Phylip , MS Office, Endnote, R Language (for basic statistical analysis), Sigma plot, Chemdraw, Adobe photoshop.

SUBJECTS STUDIED

During Master of Philosophy in Biotechnology

1. Research Methodology
2. Advanced Molecular Biology
3. Scientific Writing, Techniques and Project Management in Biotechnology
4. Advanced Bioprocess Technology

During Masters in Medical Biotechnology

1. Biochemistry
2. Immunology
3. Molecular Biology
4. Gene therapy
5. Microbial Genetics

During Bachelors in Life Sciences

1. Microbiology
2. Molecular Biology
3. Biochemistry
4. Environmental Biotechnology
5. Cell Biology
6. Chemistry
7. Genetics
8. Zoology
9. Biophysics

LABORATORY EXPERIENCE:

I have learned following techniques during my Bachelor's and Master's course.

Immunology: Chromatography (Gas, Thin Layer, Paper, Column, Affinity), Electrophoresis (PAGE, SDS-PAGE), Immunological techniques (ELISA, FACS,Immuno precipitation, Haemagglutination, Western Blotting, Lymphocyte Isolation and culture)

Molecular Biology: Protein isolation and purification, DNA and RNA isolation,DNA Purification, Polymerase ChainReaction, Enzyme kinetics,Gene Cloning,Single Stranded Conformation Polymorphism, Poly Acrylamide Gel Electrophoresis ,Plasmid Isolation,PCR purification.

Biochemistry: Carbohydrate, Lipid, Protein and Nucleic Acid Estimation, Enzyme isolation and characterization

(Prem Prashant Chaudhary)