ACADEMIC PROFILE

1. **Name of the Faculty Member:** Dr. ACHINTYA MOHAN GOSWAMI
2. **Designation:** Associate Professor of Physiology (W.B.E.S.)
3. **Qualification:** M.Sc.(Burdwan University), Ph.D. (University of Calcutta)
4. **Specialization:** Endocrinology & Reproductive Physiology
5. **E-mail address:** achintya02@gmail.com
6. **Date of Joining in W.B.E.S.:** 13.04.2010
7. **Date of Joining in this College:** 13.04.2010
8. **Total Teaching experience in College level:** 15 years
9. **Research Interests:** My research interests lie at the intersection of bioinformatics, computational biology and human genetics, with a specific focus on elucidating the role of single nucleotide polymorphisms (SNPs) in disease susceptibility and progression. I am also interested in the context of cancer, where both inherited risk and somatic variations can drive tumor heterogeneity and influence clinical outcomes. My research motivation is to decipher the complexity of large-scale genomic data by integrating epigenomic, transcriptomic and proteomic information; and to reveal the underlying disease mechanisms and identify new therapeutic avenues.

10. **Title of thesis (Ph.D.) with year: "**Studies on the production, characterization and application of silver and gold nanoparticles synthesized by *Penicillium citrinum* MTCC9999**"** (awarded in 2015; ***Supervisor***: Dr. Sanjay Ghosh, Dept. of Biochemistry, University of Calcutta)
11. **Research guidance:** Nil

12. Research Projects (Completed):01

Year	Name of PI	Title of Project	Amount (in Rs.)	Duration	Funding Agency with date
2015 - 2017	Dr. Achintya Mohan Goswami	Bioinformatics approach to study the effect of nsSNP in some genes associated with hypertension in human.	4,00,000/-	Two Year	UGC (Eastern Regional Office)

13. List of publications:

A) Published papers in Journals:

1. Amalesh Mondal, Debarati Paul, Tithi Mondal, **Achintya Mohan Goswami** * **(2026)**. Impact of coding and non-coding SNPs in the FZD8 gene on structural and functional alterations associated with tumorigenesis: A multi-faceted computational approach. **Computers in Biology and Medicine**. 1st April; 205:111563. (**ISSN**: 0010-4825; **IF**: 6.3)

   ***- Corresponding author.**

   DOI: https://doi.org/10.1016/j.compbiomed.2026.111563

2. Nasima Sultana, Himani Adhikari, **Achintya Mohan Goswami,** Amalesh Mondal, Indranil Ganai, Himani Biswas, Asif Iqbal, Aratrika Das, Saibal Moitra, Sanjoy Podder **(2025)** SCGB1A1 rs3741240 variant downregulates CC16: a molecular insight into COPD pathogenesis in Indian population. **Frontiers in Immunology**, 12th December; 16:1689340. (**ISSN:** 1664-3224; **IF:**5.9)

   DOI: https://doi.org/10.3389/fimmu.2025.1689340

3. Sanjib Das, Arka Bagchi, Analava Bera, Arunima Biswas, Analabha Roy, Rik Ganguly, Amalesh Mondal, Deepanjan Chattopadhyay, Paromita Saha Mondal, Tanushree Mondal, Subhasree Samanta, **Achintya Mohan Goswami,** Tanima Saha. **(2025)** In-silico drug repositioning studies of *Candida albicans* Nitrogen permease reactivator 1 (Npr1) kinase. **Scientific Reports**. 02nd July; **15:23626 (ISSN:** 2045-2322**; IF:**3.9 **)**

   DOI: https://doi.org/10.1038/s41598-025-08148-2

4. Deepanjan Chattopadhyay, Sanjib Das, Paromita Saha Mondal, Tanushree Mondal, Subhasree Samanta, Amalesh Mondal, **Achintya Mohan Goswami** * and Tanima Saha. **(2025)** PPI network identifies interacting pathogenic signaling pathways in *Candida albicans*. **Molecular Omics.** May, **21:315**. (**ISSN:**2515-4184; **IF:**2.4)
   ***- Corresponding author.**
   DOI: https://doi.org/10.1039/D5MO00042D

5. Indranil Ganai, **Achintya Mohan Goswami**, Nasima Sultana, Saheen Sultana, Arghya Laha, Himani Biswas, Saibal Moitra, Sanjoy Podder **(2025)** Functional insights into PTGS2 rs689466 polymorphism associated to asthma in West Bengal, India. **Gene.** 21st May; **962: 149592. (ISSN:** 0378-1119**; IF :** 2.4**).**
   DOI: https://doi.org/10.1016/j.gene.2025.149592

6. **Achintya Mohan Goswami (2025)** *In silico* prediction of the intrinsic disorder and ligand binding sites of human 3β-hydroxysteroid dehydrogenase type 2 enzyme. **Research Journal of Biotechnology. Vol. 20 (2) February (2025) (ISSN:** 0973-6263**; IF:**0.2**).**
   DOI: https://doi.org/10.25303/202rjbt1400146

7. **Achintya Mohan Goswami (2022)** Comprehensive *in silico* prioritization of pathogenic nsSNPs in human*β-adducin* gene towards finding its relation with cancer. **Human Gene**. December; **34: 201119 (ISSN**: 2773-0441).
   DOI: https://doi.org/10.1016/j.humgen.2022.201119

8. Amalesh Mondal, Debarati Paul, Shubhra Ghosh Dastidar, Tanima Saha, **Achintya Mohan Goswami*** **(2022)** In silico analyses of Wnt1 nsSNPs reveal structurally destabilizing variants, altered interactions with Frizzled receptors and its deregulation in tumorigenesis. **Scientific Reports**. 02nd September; **12:14934 (ISSN:** 2045-2322**; IF:**5.516 **)**
   ***- Corresponding author.**
   DOI: https://doi.org/10.1038/s41598-022-19299-x

9. Sanjib Das, **Achintya Mohan Goswami*,** Tanima Saha **(2022)** An insight into the role of protein kinases as virulent factors, regulating pathogenic attributes in *Candida albicans*. **Microbial Pathogenesis.** 29th January**; 164:105418. (ISSN:** 0882-4010**; IF: 3.738).**
   ***- Corresponding author**.
   DOI: https://doi.org/10.1016/j.micpath.2022.105418

10. Sanjib Das, RajabrataBhuyan**, Achintya Mohan Goswami*,** TanimaSaha **(2021)** Kinome analyses of *Candida albicans*, *C. parapsilosis* and *C. tropicalis* enable novel kinases as therapeutic drug targets in candidiasis. **Gene.** 23rdFebruary;**780:145530. (ISSN** 0378-1119; **IF: 2.984**). ***- Corresponding author**.
    DOI: https://doi.org/10.1016/j.gene.2021.145530

11. Amalesh Mondal, **Achintya Mohan Goswami *,** Tanima Saha **(2021)** In silico prediction of the functional consequences of nsSNPs in human beta-catenin gene. **Gene Reports**. 25thFebruary;**23:101066** (**ISSN**2452-0144).
    ***- Corresponding author**.
    DOI: https://doi.org/10.1016/j.genrep.2021.101066

12. **Achintya Mohan Goswami (2020)** Computational analyses prioritize and reveal the deleterious nsSNPs in human angiotensinogen gene. **Computational Biology and Chemistry.** January; **84:107199. (ISSN**1476-9271; **IF:2.877**).
    DOI: https://doi.org/10.1016/j.compbiolchem.2019.107199

13. **Achintya Mohan Goswami (2018)** α-Adducin nsSNPs affect mRNA secondary structure, protein modification and stability. **Meta Gene.** June; **17:153-162. (ISSN**2214-5400**).**
    DOI: https://doi.org/10.1016/j.mgene.2018.06.002

14. **Achintya Mohan Goswami (2017)** Codon usage patterns of 3β-hydroxysteroid dehydrogenase type 2 gene across mammalian species and the influence of mutation and selection pressure. **Gene Reports.** August; **9:20–31**. **(ISSN** 2452-0144).
    DOI: https://doi.org/10.1016/j.genrep.2017.08.007

15. **Achintya Mohan Goswami (2017)** Computational analysis, structural modeling and ligand binding site prediction of *Plasmodium falciparum* 1-deoxy-d-xylulose-5-phosphate synthase. **Computational Biology and Chemistry.** February; 66:1-10. (**ISSN** 1476-9271; **IF: 1.380**).
    DOI: https://doi.org/10.1016/j.compbiolchem.2016.10.010

16. **Achintya Mohan Goswami (2016)** Insights into structural features of *Plasmodium falciparum* 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase enzyme. **International Journal of Research on Social and Natural Sciences.** December; Vol. I, Issue 2 (**ISSN** 2455-5916**)**
17. **Achintya Mohan Goswami (2015)** Structural modeling and in silico analysis of non-synonymous single nucleotide polymorphisms of human 3β-hydroxysteroid dehydrogenase type 2. **Meta Gene.** August; 5: 162–172. (**ISSN** 2214-5400).
    DOI: https://doi.org/10.1016/j.mgene.2015.07.007

18. **Achintya Mohan Goswami (2012)** "Attention Deficit Hyperactivity Disorder: A Childhood Psychiatric Problem", **Conscientia.** 1(3), 98-112 [ISSN 2278-6554].

19. **Achintya Mohan Goswami**, and Sanjay Ghosh **(2013)** Biological synthesis of colloidal gold nanoprisms using *Penicillium citrinum* MTCC9999. **Journal of Biomaterials and Nanobiotechnology** (SCRIP Open Access Journal). 4 (2A):20-27
    DOI: 10.4236/jbnb.2013.42A003

20. **Achintya Mohan Goswami**, Tuhin Subhra Sarkar, Sanjay Ghosh **(2013)** An Ecofriendly synthesis of silver nano-bioconjugates by *Penicillium citrinum* (MTCC9999) and its antimicrobial effect. **AMB Express**. February; 23;3(1):16. (**ISSN** 2191-0855; **IF: 2.659**)
    DOI: https://doi.org/10.1186/2191-0855-3-16

21. Tuhin Subhra Sarkar, Arindam Bhattacharjee, Uddalak Majumdar, Anirban Roy, Debasis Maiti, **Achintya Mohan Goswamy**, Subrata Kumar Ghosh and Sanjay Ghosh **(2011)** Biochemical characterization of compatible plant-viral interaction: A

case study with a Begomovirus-Kenaf host-pathosystem. **Plant Signaling & Behavior**. 6(4):501-509. (**ISSN** 1559-2324)
DOI: https://doi.org/10.4161/psb.6.4.13912

22. Arindam Bhattacharjee, Uddalak Majumdar, Debasis Maity, Tuhin Subhra Sarkar, **Achintya Mohan Goswami**, Rupam Sahoo, and Sanjay Ghosh **(2010)** Characterizing the effect of nitrosative stress in *Saccharomyces cerevisiae*. **Archives of Biochemistry and Biophysics** 496, 109-116. (**ISSN** 0003-9861; **IF: 3.118**)
DOI: https://doi.org/10.1016/j.abb.2010.02.003

23. Tuhin Subhra Sarkar, Uddalak Majumdar, Anirban Roy, Debasis Maiti, **Achintya Mohan Goswamy**, Arindam Bhattacharjee, Subrata Kumar Ghosh and Sanjay Ghosh **(2010)** Production of Nitric Oxide in host-virus interaction: A case study with a compatible Begomovirus-Kenaf host-pathosystem. Plant Signaling and Behavior. **Plant Signaling & Behavior**. Dec 2;5(6):668-676. (**ISSN** 1559-2324)
DOI: https://doi.org/10.4161/psb.5.6.11282

24. Arindam Bhattacharjee, Uddalak Majumdar, Debasis Maity, Tuhin Subhra Sarkar, **Achintya Mohan Goswami**, Rupam Sahoo, Sanjay Ghosh **(2009)** In vivo protein tyrosine nitration in *S. cerevisiae*: Identification of tyrosine-nitrated proteins in mitochondria. **Biochemical and Biophysical Research Communications**. Oct 23;388(3):612-617. (ISSN 0006-291X; **IF: 2.559**).
DOI: https://doi.org/10.1016/j.bbrc.2009.08.077

B) Chapter in Books:

1. "Regulation of FOX O Signaling and its Impact on Cardiac Function", **A.M. Goswami**, In '*Physiology Update*', Published by Department of General Human Physiology, Haldia Institute of Dental Sciences & Research, Haldia, Purba Midnapore, West Bengal, 2010, Vol. 2, 40-49.

14. Membership of Learned Societies/ Editorial Boards, etc.:
Life Member of Society of Biological Chemists (India)

15. Patents: Nil

16. Awards:

1. Received NET-LS in Life Science jointly conducted by CSIR and UGC in 2006.
2. Awarded **1st prize** for the **Poster Presentation** in the seminar titled '*National Conference on Nanoscience and Nanotechnology (NCNN-2011)*', organized by National Centre for Nanoscience and Nanotechnology, at Maraimalai Campus, University of Madras, Chennai, held during **25th -27th August 2011**.
3. Received "**Invention Award**" from **Intellectual Ventures India**, 701, Raheja Paramount, 138 Residency Road, Bangalore-560025, India for invention titled "*Synthesis of Gold Nanoprism by Fungal Mycellia*" [Invention ID: IN-812050].

17. A) Participation in Seminars/Symposia/Conferences:

1. **Presented an invited lecture (Oral presentation)** entitled "*Non-synonymous Single Nucleotide Polymorphisms in Human Angiotensinogen Affect its Stability, Post-translational Modifications, and Interaction with Renin*" in the International conference 'Contemporary Innovative Issues and Future Challenges in Physiology and Allied Sciences', organized by Department of Human Physiology Vidyasagar University, Midnapore during **21-22 January, 2020**.

2. One of my Research Scholar (Amalesh Mondal) **presented (poster) a paper** entitled "Computational analyses of non-synonymous polymorphisms in human β-catenin gene towards predicting their functional consequences" in the International conference 'Contemporary Innovative Issues and Future Challenges in Physiology and Allied Sciences', organized by Department of Human Physiology Vidyasagar University during **21st-22nd January, 2020**.

3. **Presented an invited lecture (Oral presentation)** entitled "*Non-synonymous Single Nucleotide Polymorphisms in Human Angiotensinogen Affect its Stability, Post-translational Modifications, and Interaction with Renin*" in the XXXIst Annual Conference of the Physiological Society of India (PHYSICON-2019) on "Recent Trends in Physiology and Healthcare Research for Salubrious Society" organized by Bankura Christian College, Bankura, West Bengal during **15th – 17th November, 2019**.

4. **Presented a paper (Oral presentation)** entitled "*Plasmodium Falciparum DXP Synthase: A Putative Target For Anti-Malarial Drug Designing*" in the State Level West Bengal Science &

Technology Congress (Sothern Region) at Bidhannagar Govt. College, Salt Lake, Kolkata during **18th -19th December, 2018**.

5. **Presented a paper (Oral presentation)** entitled " *Understanding the Effects of Coding Variants of Human 3β-HSD2 and its Molecular Evolution Among Mammals*" in the National Seminar on "Biological Sciences for Human Welfare: Teaching and research in Modern Perspective" organized by Berhampore Girls' College, Murshidabad, West Bengal during **29th -30th September, 2018**.

6. One of my student (Tista Dutta**) presented (poster)** entitled "*Comparative Homology Modelling of 3β-HSD1 across Different Species*" in the National Seminar on "Biological Sciences for Human Welfare: Teaching and research in Modern Perspective" organized by Berhampore Girls' College, Murshidabad, West Bengal during **29th -30th September, 2018**.
7. One of my student (Ankita Paul**) presented (poster)** entitled "*Insights into the Sequence and Structural Similiarity of 3β-HSD1 mRNA Across Different Species*" in the National Seminar on "Biological Sciences for Human Welfare: Teaching and research in Modern Perspective" organized by Berhampore Girls' College, Murshidabad, West Bengal during **29th -30th September, 2018**.

8. One of my student (Priyankan Majumder**) presented (poster)** entitled "*Insights Into The Evolutionary Relationship of Aromatase Among the Vertebrates*" in the National Seminar on "Biological Sciences for Human Welfare: Teaching and research in Modern Perspective" organized by Berhampore Girls' College, Murshidabad, West Bengal during **29th -30th September, 2018**.

9. **Presented a paper (Oral presentation)** entitled "*Understanding the Molecular Effects of Coding Variants of Human 3β-Hydroxysteroid Dehydrogenase Type 2 Enzyme: A Computational Approach*" in the UGC sponsored two day **National Seminar** on '*Trends of Physiological Researches from Laboratory to Community*', organized by Department of Human Physiology with Community Health, Vidyasagar University during **30th to 31st March, 2016**.

10. **Participated and Presented a poster** entitled "*In silico prediction and prioritization of non-synonymous single nucleotide polymorphisms in relation to human 3β-hydroxysteroid dehydrogenase type 2 enzyme*" in the **17th All India Congress of Cytology and Genetics and International Symposium** on '*Exploring Genomes: The New Frontier*', jointly organized by

CSIR-Indian Institute of Chemical Biology, Kolkata and Archana Sharma Foundation of Calcutta, during **22nd -24th December, 2015**.

11. **Participated and Presented a poster** entitled "*Ecofriendly extracellular synthesis of silver nanoparticles and evaluation on its application as antimicrobial compound*" in **National Conference** on '*Nanoscience and Nanotechnology (NCNN-2011)*',organized by National Centre for Nanoscience and Nanotechnology, held at Maraimalai Campus, University of Madras, Chennai, during **25th -27th August, 2011**.

12. **Participated and Presented a poster** entitled *"Biological synthesis of stable gold nanoprism: An eco-friendly approach "* in the **National level** Seminar on '*Regulation of Biochemical and Cellular Processes in Diverse Systems*' organized by Society of Biological Chemists, India, held at the National Science Seminar Complex, Indian Institute of Science, Bangalore, during **13th -15th December, 2010**.

13. **Participated in the National level** '*B.C. Guha Symposium for Young Investigators*' jointly organized by the Department of Biotechnology and Dr. B.C. Guha Centre for Genetic Engineering and Biotechnology (GCGEB), University of Calcutta, held at Puri, Orissa, during **9th -11th March, 2010**.
14. Participated in the **workshop** titled "***Trends in Bioinformatics***", organized by Berhampore Girls' College in collaboration with DBT Centre for Bioinformatics, Presidency University, Kolkata and Centre for Interdisciplinary Research in Biology and Bioinformatics, during **8th - 9th March, 2013**.

B) Participation OP/RC:

1. Participated in the UGC sponsored **Orientation Programme** organized by UGC-HRDC, University of Burdwan from **17th November to 14th December, 2015**.
2. Participated in the UGC sponsored **Refresher Course** in '*Biological Sciences*' organized by UGC-HRDC, University of North Bengal from **26th August to 15th September, 2016**.
3. Participated in the UGC sponsored **Refresher Course** in '*Emerging areas of Life Science (IDC)*' organized by UGC-HRDC, Jadavpur University from **27th January 2020 to 08th February 2020.**
4. Participated in the UGC sponsored **Refresher Course** in **"***Environmental Studies***"**, organized by UGC-HRDC, Aligarh Muslim University, Aligarh from **27thSeptember 2022 to 11th October 2022.**