Prof. Dr Gautam Panda, FAScT, MNASc, JSPS Fellow

Chief Scientist (2021 onwards), CSIR-CDRI, Lucknow & Professor, AcSIR New Delhi
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Date of Birth: 30.11.1969; Permanent Add: PO. Contai, Dist. Midnapore, West Bengal, India

Background/Experience

• Ph.D., University of Hyderabad, 1999 (Advisor: Professor Goverdhan Mehta).
• Post-doctoral with Prof. Howard Alper (Univ. of Ottawa) and Prof. Prabhat Arya (NRC, Canada)
• Author of **127 publications** (3214 citations, **h-index 31**) and an inventor of 7 patents
• 23+ Years of Bio-medical research experience (post-PhD) in natural products/Chemical Biology/Medicinal/Bioorganic chemistry/ drug discovery/Process Chemistry & capable of talking about multidisciplinary languages in a government organization with clear focus in mind
• Experience to work with **experimental biologists, toxicologists, computational chemists, structural biologists and other multidisciplinary experts in close collaboration** which is mission and vision of CDRI, Lucknow
• **Administration: Nodal Sc. & Coordinator for a group of CSIR Scientists** (API Mission for Indigenous Technologies and Import Substitution, Anti-TB & Antimicrobial Mission, Affordable healthcare for Cancer patients through cost effective disruptive technologies for high value generics and New Chemical Entities with target selectivity)• Nodal Officer: Global Tender Enquiry
• ILDP (International Linkage Degree Program) with Hiroshima University, Japan has been signed with my effort
• Handled multiple projects (~20 crore) as Project Investigator and built up the confidence in generating intellectual property (negotiation with companies)
• Identified process route for two off-patented drugs (having no suppliers in India) **Almitrine and Ifenprodil** that could help in synthesizing 500 gram scale of them at **Reliance Rasayan Private Limited (RRPL), Ahmedabad**. Coordinated work for its transfer to industry and to prepare IND dossiers and subsequently DCGI has asked for Phase II protocol submission for Covid-19 patients for clinical trial
• Discovered cost effective routes of **Nintedanib** for non-small cell lung cancer, **Olaparib** for ovarian cancer & **Acyclovir** to treat genital herpes and HSV encephalitis. (Import Substitution for high value generics to save foreign currencies possibly), Currently negotiating with industries for their successful transfer of technologies
• Discovered **Spisulosine** analog that markedly induces autophagic cell death to cancer cells
• Published new routes for anti-histamines **Meclizine, Hydroxyzine and Cetirizine** and anti-tubercular drug **Bedaquiline** like molecules (last option for terminally ill TB patients)
• Metal free synthesis of dearylated drugs anti-osteoporosis **Lasofoxifene** and **Centchroman**
• Synthesized 20 bioactive natural products and their stereoisomers like inhibitors of protein kinase C **(-)-Balanol** and antifungal antibiotic **Ophiocordin**, nicotinic agonists **(+)-epiquinamide** and **(+)-α-conhydrine**, antimitotic **C_3-*epi*-(+)-lycoricidine**, **Jaspine B**, potent inhibitor of glucosidase enzymes **8,8a-diepicastanospermine** and **(-)-Swainsonine**, antibacterial **levofloxacin** and **piperazinomycin**, antimalarial **(—)-Raphidecursinol B**, novel antitumoral of marine origin **spisulosine** and **Plinabulin**, **Psammaplin like, Taiwaniaquinoids** etc
• **Corannulene Containing Unnatural α-Amino Acids and Amphipathic Peptides: Synthesis, Conformational Studies and Antibacterial Activities having Synergistic Effects with Rifampicin.** First use of corannulene in the field of biomedical research as possible antibacterial agents having membrane disrupting properties with synergistic behavior
• Conceptualized new kind of steroidomimetics utilizing chiral amino acids. Tyrosine-derived benzoxazine lead regressed tumor growth without causing any mortality in rat syngenic mammary tumor model (***J. Med. Chem.***, 2021, 64, 16293−16316)
• Conceptualized trisubstituted methane **S006-830** as antitubercular agents with CFU count of 2.2 x 10^7 with comparable efficacies to ethambutol and PZA (***EJMC,*** *2017, 133, 139-151)*
• Work on chiral serine azide via Weinreb amide to reduce acidity of α-proton is widely utilized
• Course Coordinator of CDRI students enrolled for Ph.D. in JNU & AcSIR, New Delhi
• Supervised **18 doctoral students** for their Ph.D. thesis in Chemical Sciences
• Taught M. Pharm students at NIPER, Raebareli for nearly five years

Awards/Recognitions

• JSPS-Bridge Professorship at Osaka & Hiroshima University, Japan 2019-2020, 2022
• JSPS Invitation Fellowship at Institute for Molecular Sciences, Okazaki, Japan 2011-2012
• Member of Evaluation committee of MEXT fellowships, Japan
• Chemical Research Society of India Bronze Medal in Chemistry (2012)