Subrata Kumar Pore, Ph.D.
Associate Professor & Ramalingaswami Fellow

Specialization: Cancer Biology, Targeted Liposomal Drug Delivery, Peptides, Micro-RNA, Breast Cancer Bone Metastasis

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Dr. Pore obtained his Ph.D. from CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad, in 2015 after completing M.Sc. from IIT-Kharagpur. He joined the University of Pittsburgh Medical Centre (UPMC), University of Pittsburgh, USA, where he spent more than 5 years as a postdoctoral research associate. His Ph.D. work focused on the development of a targeted liposomal formulation to deliver exogenous microRNA in a plasmid form to suppress HSP90 in cancer as an anticancer therapeutic. He was also involved in the development of peptide-based small molecule inhibitors of N-recognins, E3 ligases of the N-end rule pathway. During postdoctoral research, his main objective was to show the inhibitory roles of dietary phytochemicals in breast cancer-induced bone metastasis and osteoclastogenic bone loss. Dr. Pore received the Ramalingswami Fellowship from the Department of Biotechnology, Govt. of India, and joined IASST-Guwahati in July 2019. He moved to the Amity Institute of Molecular Medicine & Stem Cell Research, Amity University Uttar Pradesh, in July 2020 as an Associate Professor & Ramalingswami Fellow. He has been working as an Associate Professor, AIMMSCR since July 2025. His current research is focused on the development of targeted peptide-based liposomal nanocarriers for delivering drugs/genes for the treatment of breast cancer. His group also works on the development of exosomal formulations and novel anticancer small molecules. Apart from research, he is actively involved in teaching and other administrative duties.

Number of Publication: 31

Funded Project:

1. Jul 2019 – Jun 2025: *Development of Hsp90-regulating microRNA-Based Therapeutics in Breast Cancer.* Rs. 129.80 lakhs. DBT, PI
2. Oct 2023 – Sept 2026: *Mineralocorticoid receptor targeted dendritic cell-derived exosomes for anticancer therapy.* Rs. 26 lakhs. SERB-SURE, Co-PI
3. Feb 2025 – Jan 2028: *Development and biological evaluation of the anti-cancer potential of glucocorticoid receptor-targeted exosomal formulation.* Rs. 30 lakhs, CSIR-ASPIRE, Co-PI

Fellowships and Awards:

- Ramalingaswami Fellowship, Department of Biotechnology, Govt. of India, 2019
- 'Scholar-In-Training Award' from AACR-2016
- 'Basic Science Symposium Travel Award' AUA-2014
- CSIR-NET, Govt. of India, Dec 2006
- Indian Academy of Science Fellowship, May 2006

Selected publications:

1. Anjali Singh, Shria Mattoo, **Subrata K Pore**, Jayanta Bhattacharyyaa. *A glucose-responsive hydrogel laden with modified-GLP-1 and telmisartan ameliorates type 2 diabetes and reduce toxicities in liver and kidney*. ***J Mater Chem B*** 2025 13(14):4419-4432 (Impact factor: 6.1)

2. Mattoo S[#], Arora M[#], Sharma P, **Subrata K Pore***. *Targeting mammalian N-end rule pathway for cancer therapy*. ***Biochem Pharmacol*** 2025 231:116684 (Impact factor: 5.3)

3. Mattoo S, Gupta A, Chauhan M, Agrawal A, **Subrata K Pore***. *Prospects and challenges of noncoding-RNA-mediated inhibition of heat shock protein 90 for cancer therapy*. ***Biochim Biophys Acta Gene Regul Mech*** 2024 1867(1):195006 (Impact factor: 4.7)

4. **Subrata K Pore**, Hahm ER, Kim S, Singh KB et al, *A Novel Sulforaphane-Regulated Gene Network in Suppression of Breast Cancer-Induced Osteolytic Bone Resorption*. ***Molecular Cancer Therapeutics*** 2020, 19(2), 420-431 (Impact factor: 4.9)

5. **Subrata K Pore***, Ganguly A, Sau S et al, *N-end rule pathway inhibitor sensitizes cancer cells to antineoplastic agents by regulating XIAP and RAD21 protein expression*. ***J Cell. Biochem.*** 2020, 121(1), 804-815 *corresponding author (Impact factor: 3.5)

6. **Subrata K Pore**, Hahm ER, Latoche JD et al, *Prevention of breast cancer-induced osteolytic bone resorption by benzyl isothiocyanate*. ***Carcinogenesis*** 2018, 39(2):134-145 (Impact Factor: 5.1)

7. **Subrata K Pore**, Choudhary A, Rathore B, Ganguly A et al, *Hsp90-targeted miRNA-liposomal formulation for systemic antitumor effect*. ***Biomaterials*** 2013, 34(28):6804-6817 (Impact Factor: 10.3)

8. Jiang Y[#], **Subrata K Pore[#]**, Lee JH, Sriram S et al, *Characterization of mammalian N-degrons and development of heterovalent inhibitors of the N-end rule pathway*. ***Chemical Science*** 2013, 4:3339-3346. ([#]Equal contribution) (Impact Factor: 8.7)