

# Sudhakar Jinka, Ph.D.

Assistant Professor-III & DHR-NRI/PIO/OCI-Fellow



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**Specialization:** Cancer Biology, Immunology, Molecular Biology and Targeted Drug and Gene Delivery

Dr. Sudhakar Jinka completed his B.Sc. in Botany, Microbiology, and Chemistry from Silver Jubilee Government Degree College, Kurnool, Andhra Pradesh, India, in 2008, followed by an M.Sc. in Biochemistry from Banaras Hindu University, Varanasi, Uttar Pradesh, India, in 2011. He subsequently worked as an ICMR-Junior Research Fellow at the ICMR-National Institute of Nutrition, Hyderabad, from 2013 to 2014, where he worked on biochemical and molecular studies on the role of diet in obesity induction. Dr. Jinka earned his Ph.D. from the CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad, in 2021. His doctoral research focused on the development of targeted liposomal and carbon nanosphere-based formulations for drug and gene delivery in melanoma, glioblastoma, cervical, colon, and breast cancers.

Following his Ph.D., he joined the Department of Internal Medicine at the University of Michigan, Ann Arbor, USA, as a Postdoctoral Research Scholar in 2021, where he investigated cancer signaling pathways using in vivo imaging approaches in esophageal and colon cancers. In 2022, he moved to Vanderbilt University Medical Center, Nashville, USA, as a Postdoctoral Fellow in the Department of Pathology, Microbiology, and Immunology, where his research centered on the role of RSK in breast cancer progression and Doxorubicin induced cardiotoxicity. He later joined the University of Miami, Miami, USA, in 2023 as a Postdoctoral Associate, where he spent nearly three years investigating CREB-driven mechanisms governing the pancreatic tumor-immune landscape, with a particular focus on ROCK signaling and its role in desmoplasia, a critical driver of tumor progression, metastasis, and therapeutic resistance.

Dr. Jinka is a recipient of the NRI/PIO/OCI Fellowship from the Department of Health Research, Government of India, and joined the Amity Institute of Molecular Medicine and Stem Cell Research, Amity University Uttar Pradesh, in March 2026 as an Assistant Professor and DHR-NRI/PIO/OCI Fellow. His current research focuses on exploring the tumor microenvironment-particularly desmoplasia and immunosuppression-as a therapeutic niche, and on understanding the signaling pathways regulating therapy-associated collateral damage in colon and pancreatic cancers.

## Funded Project

*“Modulation of ROCK-CXCL1 axis dependent inflammation reduces the colorectal cancer progression and attenuates the therapy induced gastrointestinal toxicity.” Funded through the DHR-NRI/PIO/OCI-Research Programme.*

## SELECTED PUBLICATIONS

1. **Jinka, S.** #, Rachamalla, H.K.#, Bhattacharyya, T., Sridharan, K., Jaggarapu, M.M.C.S., Yakati, V. and Banerjee, R., 2021. Glucocorticoid receptor-targeted liposomal delivery system for delivering small molecule ESC8 and anti-miR-Hsp90 gene construct to combat colon cancer. *Biomedical Materials*, 16(2), p.024105. (# **Equal contribution**). (I. F=3.715).
2. **Jinka, S.** and Banerjee, R., 2017. Small Molecule–Mediated Simultaneous Induction of Apoptosis and Autophagy. In *Autophagy: Cancer, Other Pathologies, Inflammation, Immunity, Infection, and Aging* (pp. 269-290). Academic Press.
3. Yousuf, M. #, **Jinka, S.** #, Adhikari, S. and Banerjee, R., 2020. Methoxy-enriched cationic stilbenes as anticancer therapeutics. *Bioorganic Chemistry*, p.103719. (# **Equal contribution**). (I. F=4.831).
4. Mondal, S.K.#, **Jinka, S.**, # Shankar, G., Srinivas, R. and Banerjee, R., 2022. Modification with tumor- targeting peptide conjugate of  $\alpha$ -tocopherol succinate enhances anti-tumor efficacy of paclitaxel loaded lipid aggregate. *Chemistry–An Asian Journal*. (# **Equal contribution**). (I. F=4.568).
5. Srinivasan, S., Mehra, S., **Jinka, S.**, Bianchi, A., Singh, S., Dosch, A.R., Amirian, H., Krishnamoorthy, V., Silva, I.D.C., Patel, M. and Box III, E.W., 2025. CREB drives acinar to ductal cells reprogramming and promotes pancreatic cancer progression in preclinical models of alcoholic pancreatitis. *Cellular and molecular gastroenterology and hepatology*, p.101606. (I. F=7.4).

## PATENTS

1. Mondal, S.K., **Jinka, S.** and Banerjee, R., Council of Scientific and Industrial Research (CSIR), 2018. Progesterone-cationic lipid hybrid as an anticancer agent and the process of synthesis thereof. *Indian patent IN201611025818, U.S. Patent 10,100,079 and European patent EP 3 275 888 A. (Awarded)*.

## AWARDS AND ACCOMPLISHMENTS

- **NRI/PIO/OCI Research Support Programme** fellowship from department of Health Research.
- **Bio-Techne AACR-2025 Travel Grant**, 2025.
- **Omaida Velazquez preclinical Award in Surgery Research Day** symposium held at the University of Miami, 2024.
- **Sylvester Comprehensive Cancer Center (SCCC)** travel award for AACR-2024 and AACR-2025 annual meeting.
- **CSIR-Junior Research Fellowship** with 56<sup>th</sup> rank for the year 2012.
- **ICMR-Junior Research Fellowship** for the year 2012.
- Cleared **APSET** exam for state-level assistant professor/lectureship conducted in 2012.