

Stanford



Syamantak Khan

Postdoctoral Research Fellow, Radiation Physics

 NIH Biosketch available Online

Bio

BIO

Syamantak is a postdoctoral researcher in the Pratz Lab at Stanford University. He is involved in developing in-vitro bio-mimetic models of cancer and cancer metastasis for investigating diagnostic and therapeutic agents. Syamantak grew up in a small town in India and had schooling at Ramakrishna Mission Vidyalaya Narendrapur in Kolkata. He completed his Bachelor of Technology (B.Tech), Master of Technology (M.Tech) in Biotechnology and Biochemical Engineering from Indian Institute of Technology, and obtained his PhD in Chemistry from Indian Institute of Technology Mandi. He was trained in molecular biology techniques and drug delivery systems in the lab of Prof. Sudip Ghosh. He worked with Dr. Chayan Nandi to investigate the optical properties of carbon nanodots using ensemble and single molecule spectroscopic techniques. He worked in Joerg Enderlein's group in the University of Goettingen, Germany before joining Stanford.

HONORS AND AWARDS

- Young Investigator Award, AAPM, California Chapter (2020)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Associate Member, American Association for Cancer Research (AACR) (2019 - present)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Indian Institute of Technology, Mandi, Chemistry, Nanoscience (2018)
- Bachelor of Technology, Indian Institute of Technology, Kharagpur (2012)
- Master of Technology, Indian Institute of Technology, Kharagpur (2012)

STANFORD ADVISORS

- Guillem Pratz, Postdoctoral Faculty Sponsor
- Guillem Pratz, Postdoctoral Research Mentor

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My current research interest involves developing in-vitro bio-mimetic models of cancer and cancer metastasis for investigating diagnostic and therapeutic agents.

LAB AFFILIATIONS

- Guillem Pratz, Physical Onchology Laboratory (11/5/2018)

Publications

PUBLICATIONS

- **Lanthanide Metal-Organic Frameworks for Multispectral Radioluminescent Imaging.** *ACS applied materials & interfaces*
Neufeld, M. J., Winter, H., Landry, M. R., Goforth, A. M., Khan, S., Pratz, G., Sun, C.
2020
- **Small molecular organic nanocrystals resemble carbon nanodots in terms of their properties** *CHEMICAL SCIENCE*
Khan, S., Sharma, A., Ghoshal, S., Jain, S., Hazra, M. K., Nandi, C. K.
2018; 9 (1): 175–80
- **Labelling Proteins with Carbon Nanodots** *CHEMBIOCHEM*
Rao, C., Khan, S., Verma, N. C., Nandi, C.
2017; 18 (24): 2385–89
- **Charge-Driven Fluorescence Blinking in Carbon Nanodots** *JOURNAL OF PHYSICAL CHEMISTRY LETTERS*
Khan, S., Li, W., Karedla, N., Thiart, J., Gregor, I., Chizhik, A. M., Enderlein, J., Nandi, C. K., Chizhik, A. I.
2017; 8 (23): 5751–57
- **Single-molecule analysis of fluorescent carbon dots towards localization-based super-resolution microscopy** *METHODS AND APPLICATIONS IN FLUORESCENCE*
Verma, N. C., Khan, S., Nandi, C. K.
2016; 4 (4): 044006
- **Paper strip based and live cell ultrasensitive lead sensor using carbon dots synthesized from biological media** *SENSORS AND ACTUATORS B-CHEMICAL*
Gupta, A., Verma, N., Khan, S., Tiwari, S., Chaudhary, A., Nandi, C.
2016; 232: 107–14
- **Carbon dots for naked eye colorimetric ultrasensitive arsenic and glutathione detection** *BIOSENSORS & BIOELECTRONICS*
Gupta, A., Verma, N., Khan, S., Nandi, C.
2016; 81: 465–72
- **Time-Resolved Emission Reveals Ensemble of Emissive States as the Origin of Multicolor Fluorescence in Carbon Dots** *NANO LETTERS*
Khan, S., Gupta, A., Verma, N. C., Nandi, C. K.
2015; 15 (12): 8300–8305
- **Kinetics of protein adsorption on gold nanoparticle with variable protein structure and nanoparticle size** *JOURNAL OF CHEMICAL PHYSICS*
Khan, S., Gupta, A., Verma, N. C., Nandi, C. K.
2015; 143 (16): 164709
- **Reversible Photoswitching of Carbon Dots** *SCIENTIFIC REPORTS*
Khan, S., Verma, N., Gupta, A., Nandi, C.
2015; 5: 11423
- **Nitrogen-doped, thiol-functionalized carbon dots for ultrasensitive Hg(II) detection** *CHEMICAL COMMUNICATIONS*
Gupta, A., Chaudhary, A., Mehta, P., Dwivedi, C., Khan, S., Verma, N., Nandi, C.
2015; 51 (53): 10750–53
- **Orientational switching of protein conformation as a function of nanoparticle curvature and their geometrical fitting** *JOURNAL OF CHEMICAL PHYSICS*
Khan, S., Gupta, A., Chaudhary, A., Nandi, C. K.
2014; 141 (8): 084707
- **Morphological effect of gold nanoparticles on the adsorption of bovine serum albumin** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*
Chaudhary, A., Gupta, A., Khan, S., Nandi, C.
2014; 16 (38): 20471–82
- **Controlling the Fate of Protein Corona by Tuning Surface Properties of Nanoparticles** *JOURNAL OF PHYSICAL CHEMISTRY LETTERS*
Khan, S., Gupta, A., Nandi, C.

