abhishek.chaudhary@juit.ac.in; abhishekcbt@gmail.com

Abhishek Chaudhary, Ph.D., Assistant Professor

Education

Ph.D., Nano-Bioptechnology, Indian Institute of Technology Mandi, India, **2010-2016**
M.Tech., Biotechnology, Anna University Chennai, India, **2008 -2010**

Professional Experience

07/2016 – Present Assistant Professor, Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology, Waknaghat, Solan 173 243, Himachal Pradesh, India.

Teaching

NanoBiotechnology, Bioresources and Industrial Product, Stem Cell and Regenerative Medicine, Fundamental Biology courses to B. Tech and M. Tech students

Research Interests:

- Nano Biotechnology: Nanoparticle mediated Sustained Drug Delivery
- Protein nanoparticle interactions.
- Nanobiosensor.

.

Research guidance

Ph.D. – 01 Submited, **01** (currently enrolled); B. Tech (biotechnology) – 10 completed, 03 currently enrolled; M. Tech (Biotechnology) – 1 completed, M. Sc (Biotechnology) – 1 (currently enrolled).

.*Awards and Fellowships:*

- **2012-2016** Senior Research fellowship from MHRD ,Govt of India
- **2010-2012** Junior research Fellowship from MHRD,Govt of India
- Qualified **GATE 2008** with percentile 97.6 (held by IISc Bangalore India).
- Qualified **ICMR (Indian Council of Medical Research)** JRF 2008
- Qualified JNU-DBT exam (Combine entrance examination for biotechnology for M.Tech). (**AIR 1**)
- CSIR India (LS) June 2012
- Best Poster award at National Symposium on Nano-Biotechnology 2013 held at IIT Mandi India

Membership of Professional Bodies:

- Life member, Society for Tissue Engineering & Regenerative Medicine (India)
- Life member, British Society for Nanomedicine

▪ Member Editorial Board of:

- American Journal of Nano Research and Applications

Book Chapter:

- Sharma D., Sharma R., **Chaudhary A*.** (**2020**) Microbial Cell Factories in Nanotechnology. In: Sharma S., Sharma N., Sharma M. (eds) Microbial Diversity, Interventions and Scope. Springer, Singapore. *DOI https://doi.org/10.1007/978-981-15-4099-8_6*

- Kumar R., Gupta A., Chawla M., Aadil K.R., Dutt S., Kumar K. R., **Chaudhary A.(2020)** Advances in Nanotechnology based Strategies for Synthesis of Nanoparticles of Lignin. In: Sharma S., Kumar A. (eds) Lignin. Springer Series on Polymer and Composite Materials. Springer, Cham. https://doi.org/10.1007/978-3-030-40663-9_7

Publications:

(Total publications – 12; Citations: >225; H-index: 10; i10 index: 10)

1. One pot synthesis of gentamicin conjugated gold nanoparticles as an efficient antibacterial agent, D. Sharma, **A.Chaudhary*,** *Journal of Cluster Science,* ***2020.*** https://doi.org/10.1007/s10876-020-01864-x
2. One pot synthesis of Dox conjugated gold nanoparticle for sustained drug release, A.Chaudhary, C. Dwivedi, A. Gupta, C. K. Nandi, ***RSC Advances***, *2015*, 5,97330-97334. (**Impact Factor- 3.840)**
3. Polymer Stabilized Bimetallic Alloy Nanoparticles: Synthesis and Catalytic Application, C. Dwivedia, **A. Chaudhary**, S. Srinivasan, C. K. Nandi, *Colloid and Interface Science Communications, 2018, 24, 62–67.*
4. Lysine and dithiothreitol promoted ultrasensitive optical and colorimetric detection of mercury using anisotropic gold nanoparticles, A Chaudhary, C. Dwivedi, M. Chawla, A. Gupta, C. K. Nandi, **RSC-*Journal of Materials Chemistry C,*** *2015,* 3, 6962-6965. **(Impact Factor- 4.696)**
5. Effect of Surface Chemistry and Morphology of Gold Nanoparticleon the Structure and Activity of Common Blood Proteins, A.Chaudhary, S. Khan, A. Gupta, C. K. Nandi, *New Journal of Chemistry***,**2016 (***DOI: 10.1039/c5nj03720d***)
6. Anisotropic gold nanoparticles for the highly sensitive colorimetric detection of glucose in human urine, A. Chaudhary, A. Gupta, C. K. Nandi, ***RSC Advances*****, 2015,** 5, 40849-40855. **(Impact Factor- 3.840)**
7. Morphological effect of gold nanoparticles on the adsorption of bovine serum albumin, A.Chaudhary, A. Gupta, S. Khan, C. K. Nandi, ***RSC-Physical Chemistry Chemical Physics, 2014,***16, 20471-20482.**(Impact Factor- 4.493)**
8. Nitrogen Doped Thiol Functionalized Carbon Dots for Ultrasensitive Hg (II) Detection, A. Gupta,A. Chaudhary, P. Mehta, C. Dwivedi, S. Khan, N. C. Verma, C. K. Nandi, **RSC-*Chemical Communications*****,** 2015,51, 10750-10753.**Impact Factor- 6.834)**
9. Direct visualization of lead corona and its nanomolar colorimetric detection using anisotropic gold nanoparticles, C. Dwivedi, A. Chaudhary, A. Gupta, C. K Nandi, ***ACS Applied Materials & Interfaces,*** *2015,* 7, 5039-5044. **(Impact Factor- 6.723)**
10. Orientational switching of protein conformation as a function of nanoparticles curvature and their geometrical fitting, S. Khan, A. Gupta, A. Chaudhary, C. K. Nandi, ***AIP- The Journal of Chemical Physics,*** 2014, 141, 084707.**(Impact Factor- 2.952)**
11. Gold nanoparticle chitosan composite hydrogel beads show efficient removal of methyl parathion from waste water, C. Dwivedi, A. Gupta, A. Chaudhary, C. K. Nandi, ***RSC Advances, 2014,*** 4, 39830-39838. **(Impact Factor- 3.840)**
12. Functional Molecular Lumino-Materials to Probe Serum Albumins: Solid Phase Selective Staining Through Noncovalent Fluorescent Labeling, G. Dey, A. Gupta, T. Mukherjee, P. Gaur, A. Chaudhary, S. K. Mukhopadhyay, C. K. Nandi, S. Ghosh, ***ACS Applied Materials & Interfaces*** 2014, 6, 10231-10237.**(Impact Factor- 6.723)**
13. Paper strip based and live cell ultrasensitive lead sensor using carbon dots synthesized from biological media, A Gupta, NC Verma, S Khan, S Tiwari, A Chaudhary, CK Nandi. **Sensors and Actuators B**: Chemical 232, 107-114.

Attended Workshops and Seminars

- Participated and presented a Poster entitled " Structure and functional relationship of adsorbed protein on gold nanoparticle surface: a molecular level morphological effect" in National conference on Photo Sciences: Contemporary challenges and future perspective held at Department of Chemistry**, Jadavpur University Kolkata organized by Indian Photobiology society** from 12_{th} – 14_{th} December 2013.

- Participated and presented a poster entitled "Morphology dependent surface chemistry of gold nanoparticles shows contrasting biological response: a Molecular level study" in National Symposium on Nano-Biotechnology (NSNB-2013) held at **Indian Institute of Technology Mandi** HP from 9_{th}-11_{th} December 2013.
- Participated and presented a poster entitled "Conformation study of serum protein with anisotropic Au@Ag core shell nanoparticles" in New Directions in Chemical Sciences held **at Indian Institute of Technology Delhi**, Delhi from 7_{th}- 9_{th} December 2012.
- Participated and presented a poster entitled "Controlling the Fate of Protein Corona by Tuning Surface Properties of Nanoparticles" in National Symposium on Recent Trends in Chemical Science & Technology held at **Indian Institute of Technology Patna** Bihar from 3_{rd} – 4_{th} March 2012.