Name: **JAYEETA BHAUMIK**
Qualification: M.S., Ph.D. (Organic Chemistry, North Carolina State University, USA, 2007)
Date of joining: August 12, 2016
Designation: Scientist-D
Discipline: *Nanomaterials and Application Technology*

Previous Professional Experience

- 3/2016-8/2016, *Assistant Professor,* NIPER Kolkata, West Bengal, India
- 9/2012-8/2015, *DST sponsored Scientist*, NIPER Mohali, Punjab, India
- 1/2012- 12/2013, *Visiting Scientist,* Harvard Medical School, Boston, USA
- 5/2007–5/2010 & 8/2010–12/2011, *US National Institute of Health (NIH) Postdoctoral Fellow,* Massachusetts General Hospital and Harvard Medical School, Boston, USA.
- 8/2002–4/2007, *Research and Teaching Assistant,* North Carolina State University, Raleigh, USA

Research Responsibilities

- Development of nanomaterials conjugation and encapsulation of important chemical entities leading to biomass transformation
- Development of nanomaterials for application in food and agricultural nanotechnology to develop value added products

Significant Publications (Total Publications 25)

1. **Bhaumik, J.;*** Gogia, G.; Kirar, S.; Vijay, L. Thakur, N. S.; Banerjee, U. C.; Laha, J. K.* "Bioinspired nanophotosensitizers: synthesis and characterization of porphyrin–noble metal nanoparticle conjugates", ***New J. Chem.*** **2016***, 40, 724-731.*
2. **Bhaumik J.;*** Thakur, N. S.; Aili, P. K.; Ghanghoriya, A.; Mittal, A. K.; Banerjee, U. C.* "Bioinspired Nanotheranostic Agents: Synthesis, Surface Functionalization and Antioxidant Potential", ***ACS Biomat. Sc. and Engg.*** **2015**, *1,* 382-392.
3. **Bhaumik, J.**;* Mittal, A. K.; Banerjee, A.; Chisti, Y.; Banerjee, U. C.* "Applications of Phototheranostic Nanoagents in Photodynamic Therapy", ***Nano Research*** **2015**, *8,* 1373-1394.
4. Patil M. D., **Bhaumik, J.**; Babykutty, S. Fukumura, D.; Banerjee, U. C. "Arginine Dependence of Tumor Cells: Targeting a Chink in Cancer's Armor", ***Oncogene (Nature Publishing Group) 2016***, *Advance online publication.*
5. Sawant, G.; Ghosh, S.; Banesh, S.; **Bhaumik, J.**; Banerjee, U. C.* **"***In-Silico* Approach Towards Lipase Mediated Chemoenzymatic Synthesis of (*S*)-Ranolazine, an Anti-Anginal Drug*", **RSC advances 2016**, **6**, 49150-49157.*
6. Han, H.-S.; Niemeyer, E.; Huang, Y.; Kamoun, W. S.; Martin, J. D.; **Bhaumik, J.**; Chen, Y.; Roberge, S.; Cui, J.; Martin, M. R.; Fukumura, D.; Jain, R. K.; Bawendi, M. G.; Duda, D. G. "Quantum Dot/Antibody Conjugates for In Vivo Cytometric Imaging in Mice", ***Proc. Natl. Acad. Sci.*** **USA 2015**, *112*, 1350-1355.
7. Dwivedee, B. P.; Ghosh, S.; **Bhaumik, J.**; Banoth, L.; Banerjee, U. C. "Lipase Catalyzed Green Synthesis of Enantiopure Atenolol", ***RSC Adv.*** **2015**, *5,* 15850-15860.
8. Liu, M.; Ptaszek, M.; Mass, O.; Minkler, D. F. Sommer, R. D.; **Bhaumik, J.**; Lindsey, J. S. "Regioselective β-Pyrrolic Bromination of Hydrodipyrrin–Dialkylboron Complexes Facilitates Access to Synthetic Models for Chlorophyll *f", **New J. Chem.*** **2014**, *38,* 1717-1730.
9. McCarthy, J. R.*; **Bhaumik, J.**; Karver, M. R.; Erdem, S. S.; Weissleder, R. "Targeted Nanoagents for the Detection of Cancers", ***Mol. Oncol.*** **2010**, *4*, 511-528.

10. **Bhaumik, J.**; McCarthy, J. R.; Weissleder, R. "Synthesis and Photophysical Properties of Sulfonamidophenyl Porphyrins as Models for Activatable Photosensitizers", ***J. Org. Chem.*** **2009**, 74, 5894-5901.
11. **Bhaumik, J.***; McCarthy, J. R.*; Merbouh, N.; Weissleder, R. "High-yielding Syntheses of Hydrophilic, Conjugatable Chlorins and Bacteriochlorins", ***Org. Biomol. Chem.*** **2009**, *7*, 3430-3436.
12. Mroz, P.; **Bhaumik, J.**; Dogutan, D. K.; Aly, Z.; Kamal, Z.; Khalid, L.; Kee, H. L.; Bocian, D. F.; Holten, D.; Lindsey, J. S.; Hamblin, M. R. "Imidazole Metalloporphyrins as Photosensitizers for Photodynamic Therapy: Role of Molecular Charge, Central Metal and Hydroxyl Radical Production", ***Cancer Lett.*** **2009**, *282*, 63-76.
13. Yao, Z.; **Bhaumik, J.**; Dhanalekshmi, S.; Ptaszek, M.; Rodriguez, P. R.; Lindsey, J. S. "Synthesis of Porphyrins Bearing 1-4 Hydroxymethyl Groups and Other One Carbon Oxygenic Substituents in Distinct Pattern", ***Tetrahedron*** **2007**, *63,* 10657-10670.
14. Muthiah, C.; **Bhaumik, J.**; Lindsey, J. S. "Rational Routes to Formyl-Substituted Chlorins", ***J. Org. Chem.*** **2007**, *72*, 5839-5842.
15. **Bhaumik, J.**; Yao, Z.; Borbas, K. E.; Taniguchi, M.; Lindsey, J. S. "Masked Imidazolyl-Dipyrromethanes in the Synthesis of Imidazole-Substituted Porphyrins", ***J. Org. Chem.*** **2006**, *71*, 8807-8817.

**Corresponding author*

List of Book Chapters

1. Thakur, N. S.; Dwivedee, B. P.; Banerjee, U. C.; **Bhaumik, J.*** **"**Bioinspired Synthesis of Silver Nanoparticles: Characterization, Mechanism and Applications", book chapter, Book title: 'Silver Nanoparticles for Antibacterial Devices'; publisher: CRC Press/**Taylor and Francis Group 2016** (In Press).
2. **Bhaumik, J.;*** Kirar, S.; Laha, J. K. "Theranostic nanoconjugates of tetrapyrrolic macrocycles and their applications in photodynamic therapy", Book chapter, Book Title: Redox-Active Therapeutics, **2016**, Publisher: **Springer**.

Significant Fellowships, Awards and Honors

1. '*Chemistry Ambassador'* appointed by American Chemical Society (ACS) since 2015
2. Research article on bioinspired noble metal nanoparticles has been selected to be featured on the cover of the sixth issue of *ACS Biomaterial Science and Engineering journal*, June 2015
3. Research article recognized as "Top-10 most cited articles" as published in *Journal of Colloid and Interface Science* (2014 - 2015)
4. Research work on bioinspired noble metal nanoparticles was highlighted in 'India Bioscience News', 2015
5. 'International Travel Award' to attend an international conference in USA by Department of Science and Technology and Department of Biotechnology (DBT), Govt. of India
6. Awarded research fellowship by Department of Science and Technology (DST, Govt. of India) (Rs. 23 lakhs, 2012-2015)
7. Research work highlighted as 'Highly rated paper' at the 102nd Annual American Association for Cancer Research (AACR) Meeting, Florida, USA, 2011.
8. Served as 'Associate Member' of the American Association of Cancer Research (AACR)
9. United States National Institute of Health (NIH) and National Cancer Institute (NCI) sponsored postdoctoral research fellowship, 2007-2011
10. Award winner of 'Poster of Excellence', 4th Annual Research Fellows Poster Celebration, Massachusetts General Hospital, Boston, USA, 2009
11. Member of the American Chemical Society (ACS), 2006-till date (Received 10-year membership key-chain)
12. Awarded *'Graduate Research Scholarship'* (full tuition waiver) to attend PhD program in USA, 2002-2007

Research Presentations: 17 International, 18 National