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

- Biomass derived nanomaterials for applications in food and agriculture
- Development of nanomaterials for biomass valorization
- Development of nanonutraceuticals for food fortification and/or food safety

List of Publications

1. Thakur, N. S.; **Bhaumik, J;*** Kirar, S; and Banerjee, U. C.* ‘’Development of gold-based phototheranostic nanoagents through bioinspired route and their applications in photodynamic therapy’’, ***ACS Sus. Chem. Eng***, **2017,** *ASAP article*. [Impact factor: 5.95] *Corresponding author
2. Dwivedee, B. P.; **Bhaumik, J.*;** Rai, S. K.; Laha, J. K. Banerjee, U. C. “Development of nanobiocatalysts employing statistical design as an optimization tool for efficient immobilization of biocatalysts”, ***Bioresource Technology*** **2017**, 239, 464-471. [Impact factor: 6.10] *Corresponding author
3. **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.* [Impact factor: 3.27] *Corresponding author
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***, *35, 4957-4972.* [Impact factor: 8.46]
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.* [Impact factor: 3.11]
6. Thakur, N. S.; **Bhaumik, J.**; Banesh, S.; Banoth, L.; Banerjee, U. C. ‘Synthesis of Enantiopure Drugs and Drug Intermediates Using In Silico cum Biocatalytic Green Archetype: Screening, Optimization and Synthesis Using Alprenolol as a Model Drug”, ***ChemistrySelect (Wiley)*** **2016***, 1,* 871-876.
7. Ghosh, S.; **Bhaumik, J.**;# Banoth, L.;# Banesh, S.; Banerjee, U. C. “Chemoenzymatic Route for the Synthesis of (*S*)-Moprolol, a Potential β-Blocker”, ***Chirality*** **2016***, 28,* 313-318. [Impact factor: 1.96] #equal authorship
8. **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. *Corresponding author [Impact factor: 3.23] *‘this article has been selected as* ***featured cover*** *for the sixth issue of the journal, June 2015’*
9. **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. [Impact factor: 7.35] *Corresponding author

10. Mulik, S.[#]; Ghosh, S.[#]; **Bhaumik, J.**; Banerjee, U. C. "Biocatalytic Synthesis of (S)-Practolol, a Selective β-Blocker", ***Biocatalysis* 2015***, 1,* 130-140. [#]equal authorship
11. Banoth, L.[#]; Thakur, N. S.[#]; **Bhaumik J.;** Banerjee, U. C. "Biocatalytic Approach for the Synthesis of Enatiopure Acebutolol as β1-Selective Agents", ***Chirality* 2015**, *27*, 382-391. [Impact factor: 1.96] [#]equal authorship
12. 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. [Impact factor: 10.41]
13. 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. [Impact factor: 3.11]
14. 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. [Impact factor: 3.27]
15. Mittal, A. K.; **Bhaumik, J.;** Kumar, S.; Banerjee, U. C. "Biosynthesis of Silver Nanoparticles: Elucidation of Prospective Mechanism and Therapeutic Potential", ***J. Coll. Int. Sc.* 2014**, *415*, 39-47. *"Top-10 most cited articles" as published in Journal of Colloid and Interface Science (2014 - 2015)* [Impact factor: 3.99]
16. **Bhaumik, J.*** Bhimpuria, R. Shah, P. Kaurav, S., Singh, S., Laha, J. K.* "Synthesis and Therapeutic Applications of 1,2,4-Triazoles", ***CRIPS* 2012**, 13, 22-28. [Impact factor: N/A] **Corresponding author*
17. 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. [Impact factor: 5.65] **Corresponding author*
18. **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. [Impact factor: 4.85]
19. **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. [Impact factor: 3.56] * *Equal contribution (first author)*
20. 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. [Impact factor: 6.38]
21. Kee, H. L.; **Bhaumik, J.**; Diers, J. R.; Mroz, P.; Hamblin, M. R.; Bocian, D. F.; Lindsey, J. S.; Holten, D. "Photophysical Characterization of Imidazolium-Substituted Pd(II), In(III), and Zn(II) Porphyrins as Photosensitizers for Photodynamic Therapy", ***J. Photochem. Photobiol A. Chemistry* 2008**, *200*, 346-355. [Impact factor: 2.62]
22. Laha, J. K.; **Bhaumik, J.** "Further Developments of the Chemistry of 1,3-Dipolar Cycloaddition Reactions Involving Porphyrins", **Chemtracts-Organic Chemistry 2007**, *20,* 9-13. [Impact factor: N/A]
23. 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. [Impact factor: 2.65]
24. Muthiah, C.; **Bhaumik, J.**; Lindsey, J. S. "Rational Routes to Formyl-Substituted Chlorins", ***J. Org. Chem.* 2007**, *72*, 5839-5842. [Impact factor: 4.85]
25. **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. [Impact factor: 4.85]
26. Ptaszek, M.; **Bhaumik, J.**; Kim, H.-J.; Taniguchi, M.; Lindsey, J. S. "Refined Synthesis of 2,3,4,5-Tetrahydro-1,3,3-trimethyldipyrrin, a Deceptively Simple Precursor to Hydroporphyrins", ***Org. Proc. Res. Dev.* 2005**, *9*, 651-658. [Impact factor: 2.86]

List of Book Chapters

1. **Bhaumik, J.;*** Kirar, S.; Laha, J. K. "Theranostic nanoconjugates of tetrapyrrolic macrocycles and their applications in photodynamic therapy", Book chapter no 22, , Publisher: **Springer**, Book Title: Redox-Active Therapeutics, **2016**, 509-524. **Corresponding author*
2. 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 2017** (In Press). **Corresponding author*