

Curriculum Vitae

Dr. Batakriشنا Jana

Assistant Professor

Department of Chemistry, School of Basic and Applied Sciences

Adamas University

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Personal Details:

❖ Date of Birth:	9 th November, 1988
❖ Father's name:	Benucharan Jana
❖ Sex:	Male
❖ Nationality:	Indian

Education:

Name of the Degree	Board/University	Name of Institution	Year of Passing	Percentage
PhD (Sc.) in Chemistry Thesis title: "Development of Functionalised Nanomaterials for Delivery of Multiple Biomolecules into the Cell"	Degree awarded by University of Calcutta	CSIR-Indian Institute of Chemical Biology Advisor: Prof. Surajit Ghosh (Current Position: Professor, Department of Bioscience & Bioengineering Indian Institute of Technology Jodhpur)	July, 2011- November, 2016	N. A.
M. Sc. in Chemistry (Organic Chemistry Specialization) Project: "Extraction of Gymnemic Acid from the leaves of Ziziphus jujuba and its Medicinal Uses"	Vidyasagar University, West Bengal Advisor: Prof. Braja Gopal Bag.	Vidyasagar University, West Bengal	August, 2009- June, 2011	82.5 (First class*, within top ten in the University)

B.Sc. (Honours/Major) in Chemistry	Midnapore College, West Bengal	Vidyasagar University	July, 2006- June, 2009	69% (First Class, within top ten in the University)
12 th	W. B. C. H. S. E., West Bengal	Garh Haripur G. N. High School	May, 2004- June, 2006	86.7% (First Class*, School Topper)
10 th	W. B. B. S. E., West Bengal	Garh Haripur G. N. High School	April, 2004	85.37% (First Class*, School Topper)

Professional Experience:

- April, 2025-till date
Assistant Professor
Department of Chemistry, School of Basic and Applied Sciences,
Adamas University
Adamas Knowledge City, Kolkata, West Bengal 700126

Research Experience:

- April, 2024- March, 2025
Ramanujan Fellow
Department of Chemical Sciences
Indian Institute of Science Education and Research-Kolkata
Prof. Amitava Das's Lab
Research topic: Development of supramolecular materials for cancer therapeutic application
- August, 2023-March, 2024
Senior Research Associate (Scientist' Pool Scheme)
Department of Chemical Sciences
Indian Institute of Science Education and Research-Kolkata
Prof. Amitava Das's Lab
Research topic: Development of supramolecular materials for cancer therapeutic application

- July, 2020-July, 2023

Assistant Research Professor, Department of Chemistry, Ulsan National Institute of Science & Technology (UNIST), Republic of Korea

Prof. Ja-Hyoung Ryu's Lab

Research topic: Development of supramolecular materials for cancer therapeutic application

- April, 2017-June, 2020.

Post-doctoral Research Associate, Department of Chemistry, Ulsan National Institute of Science & Technology (UNIST), Republic of Korea

Advisor: Prof. Ja-Hyoung Ryu

Research topic: Functionalisation of gold nanoparticles for biomedical application, Development of small molecules for cancer photodynamic therapy and anti-aging therapy

- December, 2016-February, 2017.

Research Assistant, CSIR-Indian Institute of Chemical Biology, India

Advisor: Prof. Surajit Ghosh

Future Research Plan:

Development of bioengineered advanced supramolecular materials and nanomaterials for potential biomedical application such as cancer therapy and anti-aging therapy.

Research area:

Chemical biology, Nanobiotechnology and nanomedicine, Supramolecular Chemistry, Peptide, Drug delivery, Cancer therapy

Research Expertise:

- Design and synthesis of peptides and small molecules for cancer therapeutic application.
- Synthesis and multi-functionalization of nanomaterials for various biomedical application.
- Intracellular peptide self-assembly for cancer therapeutic application.
- Application of potential small molecules for killing the senescence cell (cellular senescence in aging and age-related disease).
- Design of various drug delivery vehicles for increasing the efficacy of the anticancer drugs.
- Experience in various *in vitro* and cell based assay.
- Experience in Photodynamic therapy.
- Expert in mammalian cell culture (2D & 3D spheroid) and various cell based assay (e. g.- cytotoxicity study, cellular uptake, flow cytometry, apoptosis study, co-localization study, immunocytochemistry/immunofluorescence, western blotting)
- Experience in *in vivo* experiment (making xenograft tumor model in mice, antitumor effect study, intravenous and subcutaneous injection, *in vivo* imaging, biodistribution study, and histopathology).

Instrumentation and Techniques:

- Confocal microscope
 - Inverted fluorescence microscope
 - Automated High-performance Flow Cytometer (FACSVerse)
 - Western Blotting
 - High pressure liquid chromatography (HPLC)
 - Peptide synthesizer CEM Liberty 1 and Liberty blue
 - *In vivo* optical imaging system (Bruker Xtreme model)
 - TEM
 - NMR
 - UV-Vis spectrophotometer
 - Fluorimeter
 - MALDI-TOF/TOF, ESI-MASS
 - Dynamic light scattering (DLS)
 - FT-IR
 - Proficient in PC handling and application software's such as: MS office, Chem Draw, OriginPro 8.5, Image J, ZEN (blue edition), Cell Sens, NIS-Elements AR.
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Teaching Expertise:

- Chemical-biology
 - Organic chemistry
 - Bio-organic chemistry
 - Supramolecular chemistry
 - Nanobiotechnology and nanomedicine
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Awards and Grants:

- Received **Ramanujan Fellowship**, 2024, SERB-India.
- Received **Senior Research Associate (Scientist' Pool Scheme)**, 2023, CSIR-India.
- Received **research grant (Creative research challenge) as a PI** from National Research Foundation of Republic of Korea for **three years (01.06.2021-31.05.2024)** for the project entitled "CAIX-targeted AND Cathepsin-B-instructed Lysosomal Self-Assembly for Selective Cancer Cell Death". (**Total budget sanctioned -1.35 Crores INR**). The project completed on 31.07.2023.
- Received **research grant (young researcher program) as a PI** from National Research Foundation of Republic of Korea for **three years (01.06.2018-31.05.2021)** for the project entitled "De Novo Anticancer Therapy by Intra-Nucleus Molecular Assembly". (**Total budget sanctioned -90 lakhs INR**)

- Awarded **PBC Program of Fellowships for Outstanding Post-doctoral Researchers from China and India - 2017/2018** for three years. Host institute- Ben-Gurion University, Israel.
- Awarded scholarship for **Kreitman Foundation Post-doctoral Fellowship** from Ben-Gurion University, Israel.
- Qualified CSIR-UGC-NET (December, 2010) for doctoral studies (All India Rank-CSIR-0185)
- Qualified Graduate Aptitude Test (GATE-2011) with All India rank-141.
- Qualified Joint Admission Test for M.Sc. (JAM-2009) with All India rank-367.

List of Publications:

Total Published article: **53** (Corresponding author-**3**, First author- **15**, co-author-**35**); book chapter-**1**; Patent-**1**; total citation-**1793**; h-index-**21**, i10-index-**39**. Google scholar link-
<https://scholar.google.co.in/citations?user=R3p-FXEAAAAAJ&hl=en>; ORCID ID-
<https://orcid.org/0000-0003-2944-0109> ; Scopus Author ID linked to ORCID -**7006521719**)

Best of five Publications:

1. A. Chatterjee, S. Sarkar, S. Bhattacharjee, A. Bhattacharyya, S. Barman, U. Pal, R. Pandey, A. Ethirajan*, **B. Jana***, B. B. Das*, A. Das*, Microtubule-targeting NAP Peptide-Ru(II)-polypyridyl Conjugate as a Bimodal Therapeutic Agent for Triple Negative Breast Carcinoma, *J. Am. Chem. Soc.* **2025**, *147*, 532-547 [**Impact factor: 16.38**].
2. **B. Jana**, S. Jin, E. M. Go, Y. Cho, D. Kim, S. Kim, S. K. Kwak, J. -H. Ryu, Intralysosomal Peptides Assembly for the High Selectivity Index against Cancer, *J. Am. Chem. Soc.* **2023**, *145*, 18414-18431, (selected as a supplementary cover) [**Impact factor: 16.38**].
3. J. Y. Oh,[‡] **B. Jana**,[‡] J. Seong,[‡] E. -K. An, E. M. Go, S. Jin, H. W. Ok, M. -S. Seu, J. Bae, C. Lee, S. Lee, T. -H. Kwon, J. K. Seo, E. Choi, J. -O. Jin, S. K. Kwak, M. S. Lah, J. -H. Ryu, Unveiling the Power of Cloaking Metal-organic Framework Platforms via Supramolecular Antibody Conjugation, *ACS. Nano*, **2024**, *18*, 15790-15801 ([‡] denotes equal contribution) [**Impact factor: 18.03**].
4. S. Kim[‡], **B. Jana**[‡], E. M. Go[‡], J. E. Lee, S. Jin, E.-K. An, J. Hwang, Y. Sim, S. Son, D. Kim, C. Kim, J.-O. Jin, S. K. Kwak, J.-H. Ryu, Intramitochondrial Disulfide Polymerization Controls Cancer Cell Fate, *ACS. Nano*, **2021**, *15*, 14492-14508 ([‡] denotes equal contribution) [**Impact factor: 18.03**].
5. J. Y. Oh[‡], E. Choi[‡], **B. Jana**[‡], E. M. Go, E. Jin, S. Jin, J. Lee, J. Bae, G. Yang, S. K. Kwak, W. Choe, J.-H. Ryu, Protein-precoated surface of metal-organic framework nanoparticles for targeted delivery, *Small*, **2023**, *19*, 2300218 ([‡] denotes equal contribution) [**Impact factor: 15.15**].

All Publications:

53. A. Chatterjee, S. Sarkar, S. Bhattacharjee, A. Bhattacharyya, S. Barman, U. Pal, R. Pandey, A. Ethirajan*, **B. Jana***, B. B. Das*, A. Das*, Microtubule-targeting NAP Peptide-Ru(II)-polypyridyl Conjugate as a Bimodal Therapeutic Agent for Triple Negative Breast Carcinoma, *J. Am. Chem. Soc.* **2025**, *147*, 532-547 [Impact factor: 16.38].
52. S. Sarkar, A. Chatterjee, D. Kim, C. Saritha, S. Barman, **B. Jana***, J. -H. Ryu*, A. Das*, Host-Guest Adduct as a Stimuli-Responsive Prodrug: Enzyme-Triggered Self-Assembly Process of a Short Peptide Within Mitochondria to Induce Cell Apoptosis, *Adv Healthcare Mater.*, **2024**, 2403243 [Impact factor: 10.0].
51. H. W. Ok, S. Jin, G. Park, **B. Jana***, J. -H. Ryu*, Folic acid Functionalized β -cyclodextrin for Delivery of Organelle-Targeted Peptide Chemotherapeutics in Cancer, *Mol. Pharmaceutics*. **2024**, *21*, 4498-4509 [Impact factor: 4.5].
50. **B. Jana**, S. Jin, E. M. Go, Y. Cho, D. Kim, S. Kim, S. K. Kwak, J. -H. Ryu, Intra-Lysosomal Peptides Assembly for the High Selectivity Index against Cancer, *J. Am. Chem. Soc.* **2023**, *145*, 18414-18431, (selected as a supplementary cover) [Impact factor: 16.38].
49. J. Y. Oh,[‡] **B. Jana**,[‡] J. Seong,[‡] E. -K. An, E. M. Go, S. Jin, H. W. Ok, M. -S. Seu, J. Bae, C. Lee, S. Lee, T. -H. Kwon, J. K. Seo, E. Choi, J. -O. Jin, S. K. Kwak, M. S. Lah, J. -H. Ryu, Unveiling the Power of Cloaking Metal-organic Framework Platforms via Supramolecular Antibody Conjugation, *ACS. Nano*, **2024**, *18*, 15790-15801 ([‡] denotes equal contribution) [Impact factor: 18.03].
48. S. Kim[‡], **B. Jana**[‡], E. M. Go[‡], J. E. Lee, S. Jin, E.-K. An, J. Hwang, Y. Sim, S. Son, D. Kim, C. Kim, J.-O Jin, S. K. Kwak, J.-H. Ryu, Intramitochondrial Disulfide Polymerization Controls Cancer Cell Fate, *ACS. Nano*, **2021**, *15*, 14492-14508 ([‡] denotes equal contribution) [Impact factor: 18.03].
47. J. Y. Oh[‡], E. Choi[‡], **B. Jana**[‡], E. M. Go, E. Jin, S. Jin, J. Lee, J. Bae, G. Yang, S. K. Kwak, W. Choe, J.-H. Ryu, Protein-precoated surface of metal-organic framework nanoparticles for targeted delivery, *Small*, **2023**, *19*, 2300218 ([‡] denotes equal contribution) [Impact factor: 15.15].
46. **B. Jana**, S. Kim, J.-B. Chae, H. Chung, C. Kim, J.-H. Ryu, Mitochondrial Membrane Disrupting Molecules for Selective Killing of Senescent Cells, *ChemBioChem*. **2021**, *22*, 3391-3397 [Impact factor: 3.46].
45. **B. Jana**, S. Barman, R. Roy, G. Das, N. Mukherjee, A. Adak and S. Ghosh, Fluorine Substituted Proline Enhances Tubulin Binding Potential of a Tetrapeptide at GTP Binding Pocket Causing Inhibition of Microtubule Motility and Antimitotic Effect, *J. Phys. Chem. B.*, **2021**, *125*, 8768-8780 [Impact factor: 3.46].
44. **B. Jana**, A. P. Thomas, S. Kim, I. S. Lee, H. Choi, S. Jin, S. A. Park, S. K. Min, C. Kim, J.-H. Ryu, Self-Assembly of Mitochondria-Targeted Photosensitizer to Increase Photostability and Photodynamic Therapeutic Efficacy in Hypoxia, *Chem. Eur. J.* **2020**, *26*, 10695-10701. [Impact factor: 5.02].

43. **B. Jana**, P. Mondal, A. Saha, A. Adak, G. Das, S. Mohapatra, P. Kurkute, S. Ghosh. Designed Tetrapeptide Interacts with Tubulin and Microtubule, *Langmuir*, **2018**, *34*, 1123-1132. [Impact factor: 4.33].
42. **B. Jana**, D. Kim, H. Choi, M. Kim, K. Kim, S. Kim, S. Jin, M. -H. Park, K. H. Lee, C. Yoon, B. -S. Lee, M. -S. Kang, H. -J. Lim, E. -J. Park, Y. Jeong, J. -H. Ryu and C. Kim, Drug resistance-free cytotoxic nanodrug in composite for cancer therapy, *J. Mater. Chem. B.*, **2021**, *9*, 3143-3152. [Impact factor: 7.57].
41. **B. Jana**, S. Kim, H. Choi, S. Jin, K. Kim, M. Kim, H. Lee, K. H. Lee, J. Lee, M. -H. Park, Y. Jeong, J. -H. Ryu, C. Kim, Supramolecular protection-mediated one-pot synthesis of cationic gold nanoparticles, *Journal of Industrial and Engineering Chemistry*, **2020**, *81*, 303-308. [Impact factor: 6.76].
40. **B. Jana**, S. Mohapatra, P. Mondal, S. Barman, K. Pradhan, A. Saha, S. Ghosh. α -Cyclodextrin Interacts at Vinblastine Site of Tubulin and Delivers Curcumin Preferentially to the Tubulin Surface of Cancer Cell, *ACS Appl. Mater. Interfaces* **2016**, *8*, 13793-13803. [Impact factor: 10.38].
39. **B. Jana**, J. Sarkar, P. Mondal, S. Barman, S. Mohapatra, D. Bhunia, K. Pradhan, A. Saha, A. Adak, S. Ghosh, S. Ghosh. A short GC rich DNA derived from microbial origin targets tubulin/microtubules and induces apoptotic death of cancer cells, *Chem. Commun.* **2015**, *51*, 12024-12027. [Impact factor: 6.06].
38. **B. Jana**, A. Biswas, S. Mohapatra, A. Saha, S. Ghosh. Single functionalized graphene oxide reconstitutes kinesin mediated intracellular cargo transport, delivers multiple cytoskeleton proteins and therapeutic molecule into the cell, *Chem. Commun.* **2014**, *50*, 11595-11598. [Impact factor: 6.06].
37. **B. Jana**, G. Mondal, A. Biswas, I. Chakraborty, A. Saha, P. Kurkute, S. Ghosh. Dual functionalised graphene oxide serves as a carrier for delivering oligo-histidine and biotin tagged biomolecules into cell, *Macromol. Biosci.* **2013**, *13*, 1478-1484 (Accepted in Front Cover). [Impact factor: 5.85].
36. **B. Jana**, G. Mondal, A. Biswas, I. Chakraborty, S. Ghosh. Functionalised TiO₂ nanoparticles deliver oligo-histidine and avidin tagged biomolecules simultaneously into the cell, *RSC Adv.* **2013**, *3*, 8215-8219. [Impact factor: 4.03].
35. S. Kim, J. -B. Chae, D. Kim, C.-W. Park, Y. Sim, J. Kim, H. Lee, G. Park, J. Lee, S. Hong, **B. Jana**, C. Kim, H. Chung, J.-H. Ryu. Supramolecular Senolytics via Intracellular Oligomerization of Peptides in Response to Elevated Reactive Oxygen Species Levels in Aging Cells, *J. Am. Chem. Soc.* **2023**, *145*, 21991-22008. [Impact factor: 16.38].
34. J. Y. Oh, E.K. An, **B. Jana**, H. Kim, S. Jin, G. Yang, J. Kim, E. Choi, J.-O. Jin, J.-H. Ryu, Antibody plug-and-playable nanoparticles as a facile and versatile platform for targeted drug delivery, *Chem. Eng. J.* **2023**, *470*, 144357 [Impact factor: 15.1].
33. J. Y. Oh, H. S. Kim, L. Palanikumar, E. M. Go, **B. Jana**, S. A. Park, H. Y. Kim, K. Kim, J. K. Seo, S. K. Kwak, C. Kim, S. Kang, J.-H. Ryu. Cloaking Nanoparticles with Protein Corona Shield for Targeted Drug Delivery, *Nat. Commun.* **2018**, *9*, 4548. [Impact factor: 17.69].

32. Y. Jeong, S. Jin, L. Palanikumar, H. Choi, E. Shin, E. M. Go, C. Keum, S. Bang, D. Kim, S. Lee, M. Kim, H. Kim, K. H. Lee, **B. Jana**, M.-H. Park, S. K. Kwak, C. Kim, J.-H. Ryu, Stimuli-Responsive Adaptive Nanotoxin to Directly Penetrate the Cellular Membrane by Molecular Folding and Unfolding, *J. Am. Chem. Soc.* **2022**, *144*, 5503-5516 [**Impact factor: 16.38**].
31. H. Choi, G. Park, E. Shin, S. W. Shin, **B. Jana**, S. Jin, S. Kim, H. Wang, S. K. Kwak, B. Xu, J.-H. Ryu, Intramitochondrial Co-assembly between ATP and Nucleopeptide Induces Cancer Cell Apoptosis" *Chem. Sci.* **2022**, *13*, 6197-6204. [**Impact factor: 9.97**].
30. U. R. Gandra, **B. Jana**, P. Hammer, M. I. H. Mohideen, U. Neugebauer, A. Schiller, Lysosome targeted visible light-induced photo-CORM for simultaneous CO-release and singlet oxygen generation, *Chem. Commun.*, **2024**, *60*, 2098-2101. [**Impact factor: 6.06**].
29. M. T. Jeena, S. Jin, **B. Jana**, J. -H. Ryu, Enzyme-instructed morphology transformation of mitochondria-targeting peptide for the selective eradication of osteosarcoma, *RSC Chem. Biol.*, **2022**, *3*, 1416-1421.
28. S. Jin, M. T. Jeena, **B. Jana**, M. Moon, H. Choi, E. Lee, J. -H. Ryu, Spatiotemporal Self-Assembling Peptides Dictates Cancer-Selective Toxicity, *Biomacromolecules*, **2020**, *21*, 4806-4813. [**Impact factor: 6.98**].
27. S. Kim, J. Kim, **B. Jana** and J. -H. Ryu, Intra-mitochondrial reaction for cancer cell imaging and anti-cancer therapy by aggregation induced emission, *RSC Adv.*, **2020**, *10*, 43383-43388 [**Impact factor: 4.03**].
26. A. K. Barui, J. Y. Oh, **B. Jana**, C. Kim, J. -H. Ryu, Cancer-Targeted Nanomedicine: Overcoming the Barrier of the Protein Corona, *Adv. Therap.* **2020**, *3*, 1900124.
25. A. P. Thomas, A.-J. Lee, L. Palanikumar, **B. Jana**, K. Kim, S. Kim, H. Ok, J. Seol, D. Kim, B. H. Kang, J.-H. Ryu, Mitochondrial Heat Shock Protein-Guided Photodynamic Therapy, *Chem. Commun.* **2019**, *55*, 12631-12634. [**Impact factor: 6.06**].
24. K. Kim, S. Lee, E. Jin, L. Palanikumar, J. H. Lee, J. C. Kim, J. S. Nam, **B. Jana**, T. -H. Kwon, S. K. Kwak, W. Choe, J. -H. Ryu, MOF×Biopolymer: Collaborative Combination of Metal-Organic Framework and Biopolymer for Advanced Anticancer Therapy, *ACS Appl. Mater. Interfaces* **2019**, *11*, 27512-27520. [**Impact factor: 10.38**].
23. S. Barman, G. Das, V. Gupta, P. Mondal, **B. Jana**, D. Bhunia, J. Khan, D. Mukherjee, S. Ghosh. Dual-Arm Nanocapsule Targets Neuropilin-1 Receptor and Microtubule: A Potential Nanomedicine Platform. *Mol. Pharmaceutics* **2019**, *16*, 2522-2531. [**Impact factor: 5.36**].
22. P. Mondal, G. Das, J. Khan, K. Pradhan, R. Mallesh, A. Saha, **B. Jana**, S. Ghosh. Potential Neuroprotective Peptide Emerged from Dual Neurotherapeutic Targets: A Fusion Approach for the Development of anti-Alzheimer's Lead. *ACS Chem Neurosci.* **2019**, *10*, 2609-2620. [**Impact factor: 5.78**].
21. S. Barman, G. Das, P. Mondal, K. Pradhan, **B. Jana**, D. Bhunia, A. Saha, C. Kar, S. Ghosh. Tripodal Molecular Propeller Perturbs Microtubule Dynamics: Indole acts as a

Blade and Plays Crucial Role in Anticancer Activity. *Chem. Commun.*, **2019**, 55, 2356-2359. [Impact factor: 6.06].

20. A. Adak, G. Das, S. Barman, S. Mohapatra, D. Bhunia, **B. Jana**, S. Ghosh, Biodegradable Neuro-Compatible Peptide Hydrogel Promotes Neurite Outgrowth, Shows Significant Neuroprotection, and Delivers Anti-Alzheimer Drug, *ACS Appl. Mater. Interfaces*, **2017**, 9, 5067-5076. [Impact factor: 10.38].
19. A. Saha, S. Mohapatra, G. Das, **B. Jana**, S. Ghosh, D. Bhunia, S. Ghosh, Cancer cell specific delivery of Photosystem I through integrin targeted liposome shows significant anticancer activity, *ACS Appl. Mater. Interfaces*, **2017**, 9, 176-188. [Impact factor: 10.38].
18. S. Mohapatra, A. Saha, P. Mondal, **B. Jana**, S. Ghosh, A. Biswas, S. Ghosh. Synergistic anticancer effect of peptide-docetaxel nano-assembly targeted to tubulin: Towards development of dual warhead containing nanomedicine. *Adv Healthcare Mater.*, **2017**, 6, 1600718. [Impact factor: 10.26].
17. S. Ghosh, S. Mohapatra, A. Thomas, D. Bhunia, A. Saha, G. Das, **B. Jana**, S. Ghosh, Apoferritin-nanocage delivers combination of microtubule and nucleus targeting anticancer drugs. *ACS Appl. Mater. Interfaces*, **2016**, 8, 30824-30832. [Impact factor: 10.38].
16. D. Bhunia, S. Mohapatra, P. Kurkute, S. Ghosh, **B. Jana**, P. Mondal, A. Saha, G. Das, S. Ghosh. Novel Tubulin-targeted Cell Penetrating Antimitotic Octapeptide. *Chem. Commun.*, **2016**, 52, 12657-12660. [Impact factor: 6.06].
15. C. Ghosh, D. Bhunia, S. Ghosh, **B. Jana**, S. Ghosh, K. Bhattacharyya, Fluorescence Probing of Fluctuating Microtubule using a Covalent Fluorescent Probe: Effect of Taxol, *Chem. Select* **2016**, 1, 1841-1847. [Impact factor: 2.31].
14. A. Adak, S. Mohapatra, P. Mondal, **B. Jana**, S. Ghosh, Design of novel microtubule targeted peptide vesicle for delivering different anticancer drugs, *Chem. Commun.* **2016**, 52, 7549-7552. (Accepted in Back Cover). [Impact factor: 6.06].
13. S. Chattoraj, A. Amin, **B. Jana**, S. Mohapatra, S. Ghosh, K. Bhattacharyya. Selective Killing of Breast Cancer Cells by Doxorubicin-Loaded Fluorescent Gold Nanoclusters: Confocal Microscopy and FRET, *ChemPhysChem*. **2016**, 17, 253-259. [Impact factor: 3.52].
12. A. Saha, S. Mohapatra, P Kurkute, **B. Jana**, J. Sarkar, P. Mondal, S. Ghosh. Targeted delivery of a novel peptide-docetaxel conjugate to MCF-7 cells through neuropilin-1 receptor: reduced toxicity and enhanced efficacy of docetaxel, *RSC Advances* **2015**, 5, 92596-92601. [Impact factor: 4.03].
11. A. Biswas, P. Kurkute, S. Saleem, **B. Jana**, S. Mohapatra, P. Mondal, A. Adak, S. Ghosh, A. Saha, D. Bhunia, S. C. Biswas, S. Ghosh. Novel Hexapeptide Interacts with Tubulin and Microtubules, Inhibits A β Fibrillation, and Shows Significant Neuroprotection, *ACS Chem. Neurosci.* **2015**, 6, 1309-1316 (Accepted in Front Cover). [Impact factor: 5.78].

10. A. Saha, S. Mohapatra, P. Kurkute, **B. Jana**, P. Mondal, D. Bhunia, S. Ghosh, S. Ghosh. Interaction of A β peptide with tubulin causes inhibition of tubulin polymerization and apoptotic death of cancer cells, *Chem. Commun.* **2015**, 51, 2249-2252. (Accepted in Back Cover). [Impact factor: 6.06].
9. S. Roy, A. Baral, R. Bhattacharjee, **B. Jana**, A. Datta, S. Ghosh, A. Banerjee. Preparation of Multi coloured Different sized Fluorescent Gold Clusters from Blue to NIR, Structural Analysis of the Blue Emitting Au7 Cluster and Cell-Imaging by the NIR Gold Cluster, *Nanoscale* **2015**, 7, 1912-1920. [Impact factor: 8.3].
8. R. Chowdhury, A. Saha, A. K. Mandal, **B. Jana**, S. Ghosh, K. Bhattacharyya. Excited State Proton Transfer in the Lysosome of Live Lung Cells: Normal and Cancer Cell, *J. Phys. Chem. B* **2015**, 119, 2149-2156. [Impact factor: 3.46].
7. S. Khanna, **B. Jana**, A. Saha, P. Kurkute, S. Ghosh, S. Verma. Targeting Cytotoxicity and Tubulin Polymerization by Metal-Carbene Complexes on a Purine Tautomer Platform, *Dalton Trans.* **2014**, 43, 9838-9842. [Impact factor: 4.57].
6. R. Chowdhury, **B. Jana**, A. Saha, S. Ghosh, K. Bhattacharyya. Confocal Microscopy of Cytoplasmic Lipid Droplets in a Live Cancer Cell: Number, Polarity, Diffusion and Solvation Dynamics, *MedChemComm.* **2014**, 5, 536-539. [Impact factor: 5.12]
5. A. Ghosh, R. K. Kar, J. Jana, A. Saha, **B. Jana**, J. Krishnamoorthy, D. Kumar, S. Ghosh, S. Chatterjee, A. Bhunia. Indolicidin Targets Duplex DNA: Structural and Mechanistic Insight through a Combination of Spectroscopy and Microscopy, *ChemMedChem.* **2014**, 9, 2052-2058. [Impact factor: 3.54].
4. A. Biswas, P. Kurkute, **B. Jana**, A. Laskar, S. Ghosh. Amyloid inhibitor octapeptide forms amyloid type fibrous aggregate and affect in microtubule motility, *Chem. Commun.*, **2014**, 50, 2604-2607. [Impact factor: 6.06].
3. A. Biswas, A. Saha, D. Ghosh, **B. Jana**, S. Ghosh. Co- and distinct existence of Tris-NTA and biotin functionalities on individual and adjacent micropatterned surfaces generated by photo-destruction, *Soft Matter* **2014**, 10, 2341-2345 (Accepted in Front Cover). [Impact factor: 4.04].
2. A. Saha, G. Mondal, A. Biswas, I. Chakraborty, **B. Jana**, S. Ghosh. *In vitro* reconstitution of a cellular like environment using liposome for amyloid beta peptide aggregation and its propagation, *Chem. Commun.* **2013**, 49, 6119-6121 (Accepted in Front Cover). [Impact factor: 6.06].
1. A. Biswas, A. Saha, **B. Jana**, P. Kurkute, G. Mondal, S. Ghosh. A Biotin Micropatterned Surface Generated by Photodestruction Serves as a Novel Platform for Microtubule Organisation and DNA Hybridisation, *ChemBioChem.* **2013**, 14, 689-694. [Impact factor: 3.46].

Patent:

1. “A LDV peptide liposomal formulation of Photosystem-1 for treatment of cancer” by S. Ghosh, A. Saha, S. Ghosh, S. Mohapatra, **B. Jana**, D. Bhunia. PCT Int. Appl. (2018), WO 2018065993 A1 20180412.

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Book Chapter:

1. An Insight into Characterizations and Applications of Nanoparticulate Targeted Drug Delivery Systems, A. K. Barui,[†] **B. Jana**,[†] J. -H. Ryu, Book name-Nanotechnology Characterization Tools for Tissue Engineering and Medical Therapy, Springer, Berlin, Heidelberg, 2019, 417-453. († denotes equal contribution).

Meetings and Presentation:

- **Oral presentation** titled “*Functionalized graphene oxide targets tubulin and causes significant anticancer activity*”, 11th J-NOST CONFERENCE FOR RESEARCH SCHOLARS (J-NOST 2015) at School of Chemical Sciences, NISER Bhubaneswar, India, 14th -17th December, 2015.
- **Poster presentation** in International symposium on “Advances in Spectroscopy and Ultrafast Dynamics” at IACS, Kolkata, India, 12th -14th December, 2014.
- **Poster presentation** in “International Symposium on Challenges in Chemical Biology (ISCCB-2013) at CSIR-IICB, Kolkata, India, 27th-29th January, 2013.
- CARBO-XXVI “*Symposium on Carbohydrates at the Interface of Chemistry and Biology*” at IICB, Kolkata, India, 23rd-25th November, 2011.

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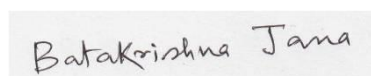
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I hereby declare that the information furnished above is true to the best of my knowledge.



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