CURRICULUM VITAE

NIKHIL BISWAS

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SYNOPSIS

- **Over 11 years** of teaching and research experience in **Pharmaceutical Sciences**.
- **Ph.D. in Pharmaceutical Sciences** (*Jadavpur University, Kolkata*) with **5 years of Postdoctoral Research Experience** at *The Hebrew University of Jerusalem, Israel*.
- **Expertise** in Cancer nanomedicine development and targeted drug delivery systems.
- 25 research publications (Cumulative Impact Factor: 127; **h-index: 13; Citations: 1826**).
- **Serving as NBA Coordinator** for the *School of Pharmaceutical Sciences* and successfully achieved **NBA accreditation (2025–2028)** for the **B. Pharm program**.
- Served as **Assistant Director, IQAC**, *Girijananda Chowdhury University.*
- Actively **guiding M. Pharm and Ph.D. students** in advanced pharmaceutical research.

EDUCATION

- Jadavpur University, Kolkata, India, 2010-2016
  Ph.D. in Pharmaceutical Sciences (SGPA 8.5)
- Dibrugarh University, Assam, India, 2005-2007
  Masters in Pharmacy (M. Pharm, Pharmaceutics, First class)
- Jadavpur University, Kolkata, India, 2000-2004
  Bachelor in Pharmacy (B. Pharm, First class)

PROFESSIONAL EXPERIENCE

- **Professor:** GCU, Guwahati, India (Feb, 2026 – Present)
- **Associate Professor**: GCU, Guwahati, India (Feb, 2023 – Present)
- **Assistant Professor:** GIPS, Guwahati, India (Apr, 2022 – Jan, 2023)
- **Post doctoral fellow:** The Hebrew University of Jerusalem, Israel (May, 2017-Feb, 2022)
- **Research Associate (CSIR-SRF):** Jadavpur University, Kolkata (April, 2011- April 2015)
- **Lecturer:** Trinity College of Pharmaceutical Sciences, India (Oct, 2007 – Jan, 2010).

AWARDS and HONORS

- Post doctoral fellowship, The Hebrew university of Jerusalem, Israel (2017-2022)
- CSIR-SRF, India (2011 – 2015)
- AICTE - PG scholarship, India (2005 – 2007)

- Graduate Aptitude Test in Engineering, GATE (AIR, 243 in 2005

RESEARCH EXPERIENCE

Postdoctoral Research: The Institute for Drug Research, The Hebrew University of Jerusalem, Israel, (research advisor: **Prof. Simon Benita**)
2017-2022

- Designed liposomes and NPs to improve the safety and efficacy of the anticancer drug OPA, a lipophilic Pt (IV) derivative of oxaliplatin in different murine cancer models.
- Investigated the effect of OPA as various Nano formulations on BCC/SCC lesioned human skin and permeation ex vivo.
- Designed various Cannabidiol (CBD) formulations to improve the bioavailability in rat and pig models.

Doctoral Research: Department of Pharmaceutical Technology, Jadavpur University, India, (research advisor: **Dr. Ketousetuo Kuotsu**)
2011-2016

- Developed multi pulsatile release tablets, microparticles and NPs for a variety of antihypertensive drugs to achieve improved therapeutic outcomes in essential hypertension.
- Formulation, optimization by pharmacokinetics, pharmacodynamic activity (PK/PD modelling) and *in vitro in vivo* correlation (IVIVC) in rabbits and rat.
- Designed mesoporous silica nanoparticle for controlled delivery of insulin.

PUBLICATIONS

A. Research Publications (SCI indexed Journals)

1. Ghose, S., Bhattacharya, K., Baruah, S., Singh, N. K., Kumar, S., Prasad, S. K., Sahu, B. P., Laloo, D., & **Biswas, N.** (2025). Bioactive catechins from *Potentilla fulgens* Wall. ex Sims roots ameliorate oral carcinogenesis through modulation of oxidative stress, inflammatory, and apoptotic pathways. Journal of Ethnopharmacology, 353, 120446.
2. Das, J., Lahan, M., Bharali, A., Ghose, S., Sahu, B. P., Laloo, D., & **Biswas, N.** (2024). Enhancing resveratrol pharmacokinetics and cytotoxicity in ovarian cancer cells via nanostructured lipid carriers. Journal of Dispersion Science and Technology, 1–12.
3. Sonowal A, Bharali A, Saikia T, Kushari S, Lahon M, Kalita JK, **Biswas N**, Laloo D, Sahu BP. Citrus aurantifolia-derived carbon quantum dots with red fluorescence emission for codelivery with curcumin as theranostic liposomes for lung cancer. Futur J Pharm Sci 10, 116 (2024).
4. Borah, C.; Saikia, T.; Bharali, A.; Lahan, M.; Biswas, N.; Sahu, B.P. Development of Paclitaxel Proliposomal Dry Powder Inhaler (PTX-PLM-DPI) by Freeze-Drying Method for Lung Cancer. Drugs Drug Candidates 2024, 3, 275-290.
5. Sarma H, Dutta A, Bharali A, Rahman SS, Baruah S, **Biswas N**, & Sahu BP. (2024). pH sensitive lipid polymeric hybrid nanoparticle (LPHNP) of paclitaxel and curcumin for targeted delivery in breast cancer. Drug Development and Industrial Pharmacy, 50(10), 856–864.
6. Borah C, Saikia T, Bharali A, Lahan M, Biswas N, Sahu BP. Development of Paclitaxel Proliposomal Dry Powder Inhaler (PTX-PLM-DPI) by Freeze-Drying Method for Lung Cancer. Drugs and Drug Candidates. 2024; 3(1):275-290.

7. Bharali A, Sarma H, Biswas N, Kalita JM, Das B, Sahu BP, Prasad SK, Laloo D. Green synthesis of silver nanoparticles using hydroalcoholic root extract of Potentilla fulgens and evaluation of its cutaneous wound healing potential, Mater. Today Commun, 2023, 35: 106050. [IF: 3.66].
8. **Biswas N**, Abu Ammar A, Frušić-Zlotkin M, Adi-Hen N, Lehman-Katabi Y, Levi-KalismanY, Nassar T, Benita S. Biodistribution and efficacy of the anticancer drug, oxaliplatin palmitate acetate, in mice. Int J Pharm. 2021, 604:120740. **[IF: 6.51]**.
9. **Biswas N**. Modified mesoporous silica nanoparticles for enhancing oral bioavailability and antihypertensive activity of poorly water soluble valsartan. Eur J Pharm Sci. 2017, 99:152- 160. **[IF: 5.11]**.
10. **Biswas N**, Kuotsu K. Chronotherapeutically Modulated Pulsatile System of Valsartan Nanocrystals-an In Vitro and In Vivo Evaluation. AAPS PharmSciTech. 2017, 18(2):349- 357. **[IF: 4.02]**.
11. **Biswas N**, Sahoo RK. Tapioca starch blended alginate mucoadhesive-floating beads for intragastric deliveryof Metoprolol Tartrate. Int J Biol Macromol. 2016, 83:61-70 **[IF: 8.02]**.
12. **Biswas N**, Guha A, Sahoo RK, Kuotsu K. Pulse release of doxazosin from hydroxyethylcellulose compression coated tablet: mechanistic and in vivo study. Int J Biol Macromol. 2015, 72:537-43. **[IF: 8.02]**.
13. **Biswas N**, Sahoo RK, Guha A, Kuotsu K. Chronotherapeutic delivery hydroxypropylmethylcellulose based mini-tablets: An in vitro–in vivo correlation. Int J BiolMacromol. 2014, 66: 179–185. **[IF: 8.02]**.
14. Guha A, **Biswas N**, Bhattacharjee K, Sahoo N and Kuotsu K. pH responsive cylindrical MSN for oral delivery of insulin – Design, Fabrication and Evaluation. Drug Deliv. 2016, 23(9): 3552–3561. **[IF: 6.41]**.
15. Guha A, **Biswas N**, Bhattacharjee K, Das P, Kuotsu K. In Vitro Evaluation of pH Responsive Doxazosin Loaded Mesoporous Silica Nanoparticles: A Smart Approach in Drug Delivery. Curr Drug Deliv. 2016, 13(4):574-81. **[IF: 3.75]**.
16. Sahoo RK, **Biswas N**, Guha A, Kuotsu K. Maltodextrin based proniosomes of nateglinide: bioavailability assessment. Int J Biol Macromol. 2014, 69:430-4. **[IF: 8.02]**.
17. Sahoo RK, **Biswas N**, Guha A, Sahoo N, Kuotsu K. Development and in vitro/in vivo evaluation of controlled release provesicles of a nateglinide-maltodextrin complex. Acta Pharm Sin B. 2014, 4(5):408-16. **[IF: 14.90]**.
18. Mandal AS, Chatterjee S, Karim KM, **Biswas N**, Guha A, Behera M, Kuotsu K. Fabricationand in vitro evaluation of bidirectional release and stability studies of mucoadhesive donut-shaped captopril tablets. Drug Dev Ind Pharm. 2012, 38(6):706-17. **[IF: 3.04]**.
19. Mandal AS, Chatterjee S, Kundu S, **Biswas N**, Guha A, Paul S, Kuotsu K. In vitro-in vivo correlation and bioavailability studies of captopril from novel controlled release donut shaped tablet. Int J Pharm. 2011, 421(1):145-50. **[IF: 6.41]**.
20. Sarkar MK, Ghosh TK, Goswami N, **Biswas N**, Roy N. In Vitro and In Vivo Evaluation of Hydroxypropylmethylcellulose Based Matrix Tablets of Prazosin HCl. LAT AM J PHARM. 2016, 35 (3): 519-28. **[IF: 0.25]**.

B. Review Publications (SCI indexed)

1. Sahu BP, Baishya R, Hatiboruah JL, Laloo D, **Biswas N**. A comprehensive review on different approaches for tumor targeting using nanocarriers and recent developments with special focus on multifunctional approaches. J. Pharm. Investig. (2022). **[IF: 5.23]**
2. Sahoo N, Sahoo RK, **Biswas N**, Guha A, Kuotsu K. Recent advancement of gelatin nanoparticles in drug and vaccine delivery. Int J Biol Macromol. 2015, 81:317-31 **[IF: 8.02]**.
3. Sahoo RK, **Biswas N**, Guha A, Sahoo N, Kuotsu K. Nonionic surfactant vesicles in ocular

delivery: innovative approaches and perspectives. Biomed Res Int. 2014, 2014:263604. **[IF:3.41]**.

4. Mandal AS, **Biswas N**, Karim KM, Guha A, Chatterjee S, Behera M, Kuotsu K. Drug delivery system based on chronobiology--A review. J Control Release. 2010, 147(3):314- 25. **[IF: 11.47]**.
5. Kazi KM, Mandal AS, **Biswas N**, Guha A, Chatterjee S, Behera M, Kuotsu K. Niosome: A future of targeted drug delivery systems. J Adv Pharm Technol Res. 2010, 1(4):374-80.

Book Chapter

1. **Biswas N**, Sahu BP and Das MK. Nanobiotechnology for Therapeutic Targeting of Circulating Tumor Cells in the Blood, in Das MK and Pathak YV (Eds.), Nano Medicine and Nano Safety Recent Trends and Clinical Evidences. Springer Nature, Singapore, pp. 27-48.
2. Sahu BP, **Biswas N** and Das MK. Multifunctional Nanoscale Particles for Theranostic Application in Healthcare, in Das MK and Pathak YV (Eds.), Nano Medicine and Nano safety Recent Trends and Clinical Evidences. Springer Nature, Singapore, pp. 357-376.
3. Sahu BP, **Biswas N** and Das MK. Multifunctional nanotheranostics for cancer diagnosis and treatments, in Das MK (Eds.), Multifunctional Theranostic Nanomedicines in Cancer. Elsevier, pp. 25-55.
4. Kuotsu K, Guha A, **Biswas N**, Mandal AS, Chatterjee S, Behera M, Kundu S, and Paul S, 2012. Circadian Variations: an overview, in: Golovkin L and Maliszkewicz A (Eds.), Circadian Rhythms: Biology, Cognition and Disorders. Nova Science Publishers, New York, pp. 327-346.

CONFERENCE PRESENTATIONS

- Biswas N, Frušić-Zlotkin M, Soroka Y, Badihi A, Bohbot-Shoshani E, Tzur T, Nassar T, Benita S. The effect of lipophilicity of a novel oxaliplatin derivative on the ex-vivoskin penetration and efficacy. Poster presentation delivered at NANO.IL.2018.

PERSONAL VIATE

- **Date of Birth:** 3rd January 1980
- **Civil Status:** Married, one child
- **Permanent Address:** Garia, Kolkata - 700084

REFERENCES

1. Prof. Emeritus Simon Benita, The Institute for Drug Research, School of Pharmacy, The HebrewUniversity of Jerusalem, Israel.
   Tel: +**972.2.6758668,**
   Email: simonb@ekmd.huji.ac.il

2. Dr. Ketousetuo Kuotsu, Associate Professor, Department of Pharmaceutical Technology, JadavpurUniversity, Kolkata, India
   Tel: **+91-8981099151**
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