

# Bio-Data

## Anwasha Barik

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anwasha.barik.in@gmail.com: Proficient in Bengali and English

Presently submitted PhD thesis (awaiting review) at the School of Medical Science & Technology, IIT Kharagpur under the broad area of Tissue engineering, Biomaterials and Drug delivery. University Gold Medalist during M.Pharm, holds active research and academic interest in the field of Regenerative Medicine, Development of novel drug delivery modules, *in vitro* and *in vivo* Pharmacology.

## Education

Indian Institute of Technology, Kharagpur, India Doctorate of philosophy (Ph. D), Degree expected by 2020

Jadavpur University, Kolkata, India

Master of Pharmaceutical Technology (M. Pharm: Major in Pharm. Engg. and minor in Pharmaceutics, Microbiology ),2012 – 2014, CGPA: 9.16/10

Jadavpur University, Kolkata, India

Bachelor of Pharmacy (B. Pharm), 2008 – 2012, CGPA: 8.29/10

Bethune Collegiate School, Kolkata, India

Higher Secondary Examination, WBCHSE, 2008, 79.20% (Best of Four)

Bethune Collegiate School, Kolkata, India Secondary Examination, 2006, WBBSE, 86.25%

## Research Experience

Indian Institute of Technology, Kharagpur, India

- “Evaluation of *in vitro* and *in vivo* pharmacological effects of drug-coated titanium implants” under the guidance of Dr. Nishant Chakravorty, School of Medical Science and Technology, IIT KGP for the fulfillment of doctor in Philosophy (thesis submitted)
- Technical Knowledge acquired during Ph.D:
  - Biomaterials fabrication and preparation of nano-formulation
  - Basic tissue culture techniques, qPCR, DNA gel electrophoresis, cell based assays and basic idea of western blotting
  - Rodent handling and surgery (surgical placement of bone implants and ovariectomy etc.)
  - Working experience of GraphPad, Design Expert, Origin and preliminary handling experience of MATLAB and Overleaf
- Transferable skills acquired:
  - Writing for research grants to DST-SERB, IMPRINT funded by MHRD (the proposal made to top 50), STARS by IISc. with supervisor Dr. Nishant Chakravorty.
  - Experience in setting up experimental facility and cell culture facility for laboratory from scratch being involved with all technical, non-technical and official procedures
  - Experience in taking up few practical and theoretical sessions of masters level students, invigilation duty in departmental as well as central examinations assigned by the institute.

Bioequivalence Study Centre, Jadavpur University, Kolkata, India

- Bioanalyst (Responsibilities included Biostatistics, Method development and validation of various

compounds in LC-MS/MS, HPLC ) for the duration of 2014-2015

- Acquired basic knowledge about Regulatory affairs needed to conduct Clinical Research and BA/BE Studies

Jadavpur University, Kolkata, India

- “Bioanalytical Method Development and Validation of Verapamil by LC-MS/MS with a Context of Matrix Effects” under the guidance of Prof. (Dr.) Tapan Kumar Pal, department of Pharmaceutical Technology, Jadavpur University for the partial fulfillment of M.Pharm.

Area: Elucidation of pharmacokinetic parameters of drug on administration to the human volunteers

Journal publications:

- **Barik A.**, Ray S K., Byram P K., Sinha R., Chakravorty N., “Localized delivery of Tibolone via silk- fibroin coated titanium implant promotes faster peri-implant bone formation in osteoporosis”, under Review (First revision submitted) in ‘Biomedical Materials’, IOPscience.
- **Barik A.**, Banerjee S., Dhara S., Chakravorty N., “A reductionist approach to extract robust molecular markers from microarray data series–Isolating markers to track osseointegration”, Journal of Biomedical Informatics, Vol 68, pp. 104-111, Apr 2017.
- Dan S., Halder D., **Barik A.**, Biswas E., Pal M. M., Ghosh B., Sarkar P., Das C., Chakravorty P., Pradhan S., Pal T. K. “Bio-analytical Method Development and Validation of Tadalafil with a Special Emphasis on Pharmacokinetic Study in Healthy Indian Subjects for the ODS Formulation”. Current Analytical Chemistry, 2015, Vol 11, Issue 3, pp. 175-183
- Dan S., Choudhury H., Sarkar P., Gorain B., **Barik A.**, Ghosh B., Pal T. K. “A randomized two-way crossover comparative pharmacokinetic study of two different tablet formulations containing ilaprazole in healthy human Indian volunteers”. Archives of Medicine and Health Sciences , 2014 , Vol 2, Issue 2, pp. 160-164
- Gorain B., Choudhury H., Biswas E., **Barik A.**, Jaisankar P., Pal T. K. “A novel approach for nanoemulsion components screening and nanoemulsion assay of olmesartanmedoxomil through a developed and validated HPLC method”. RSC Advances, 2013, Vol 3, pp. 10887–10893

Conference Paper(s):

- **Barik A.**, Choudhury I. N. and Chakravorty N., "Parameter optimization of injectable polycaprolactone microspheres containing curcumin using Response Surface Methodology," 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Honolulu, HI, 2018, pp. 147-150. doi:10.1109/EMBC.2018.8512225

Conference Abstract(s):

- **Barik A.**, Chakravorty N., “Characterization and biocompatibility of titanium implants coated with polycaprolactone microsphere embedded silk fibroin,” TERMIS-AP and ABMC72019, 14th -17th October, 2019, Brisbane, Queensland, Australia.

Book Chapter(s):

- **Barik A.**, Chakravorty N. “Targeted Drug Delivery from Titanium Implants: A Review of Challenges and Approaches”, Part of the Book Series “Clinical & Experimental Biomedicine”, pp. 1-17, Springer, New York, USA.

## Academic Achievements

- Received Financial Assistance from IIT Kharagpur for attending EMBC 2018 in Honolulu, Hawaii and TERMIS-AP 2019 & ABMC7 Symposia in Brisbane, Australia.

- Awarded with MHRD Fellowship (July, 2015- July, 2020) for the commencement of Ph. D from School of Medical Science and Technology, IIT Kharagpur.
- Recipient of Gold medal in M.Pharm (Pharmaceutical Technology) from Jadavpur University, 2014.
- Qualified in GPAT (Graduate Pharmacy Aptitude Test), 2012 (AIR 1087) and 2014 (AIR 81) conducted by AICTE and qualified NIPERJEE 2012 (AIR 460).

### **Positions of Responsibilities**

- Actively volunteered for International Conference of systems in Medicine and Biology (IIT KGP), 2016 and IEEE Techsym (organized by IEEE student branch IIT KGP) 2016
- Treasurer of IEEE Engineering in Medicine & Biology Society student branch chapter of IIT KGP, 2018-19
- Secretary of IEEE Kharagpur Student Branch, 2019-20 and 2020-ongoing

I hereby declare that all the information furnished above in the curriculum vitae are true to best of my knowledge and belief.

Place: Shibpur, Howrah

Date: 15<sup>th</sup> August, 2020

References:

Dr. Nishant Chakravorty  
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School of Medical Science and  
Technology,  
IIT Kharagpur.  
Phn no. +919880188877  
Email id: nishant@smst.iitkgp.ac.in

Prof. (Dr.) Tapan Kumar Pal  
Retired Professor  
Department of Pharmaceutical Technology,  
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Phn no. +919830036297  
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