

# SUBHAM BANERJEE, Ph.D.

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**Research Interests:** Nanomedicines, Targeted Drug Delivery Systems, Pharmacoengineering, Molecular Pharmaceutics, Biopharmaceutics & Pharmacokinetics.

**Teaching Interests:** Advanced Drug Delivery Systems, Biopharmaceutics & Pharmacokinetics.

## Post-doctoral Research Experiences:

- *DST-SERB Young Scientist*: Dec, 2015-Dec, 2017.
  - *Innovation Awardee*: March, 2015-Dec, 2015.
- } Translational Health Science & Technology Institute (THSTI), Faridabad, Haryana.

## Doctoral Research Experiences:

- *Senior Research Fellow*: May, 2013-Feb, 2015.
  - *Junior Research Fellow*: May, 2011-May, 2013.
- } Joint Ph.D. Programme with Defence Research Laboratory (DRL), DRDO, Tezpur, Assam & BIT-Mesra, Ranchi.

## Awards, Recognitions & Fellowships:

- *Gandhian Young Technological Innovation Award (2017)*, Rashtrapati Bhawan, New Delhi.
- *Innovators Under 35 Award (2017)*, MIT-Technology Review, USA & Mint, India.
- *Best Oral Presentation Award (2017)*, AASP Conference, JSS University, Mysuru, Karnataka.
- *Best Oral Presentation Award (2016)*, NanoBio Interface Conference, JNU, New Delhi.
- *Fast Track Young Scientist (2015)*, Dept. of Science & Technology (DST), Govt. of India.
- *Innovation Awardee (2015)*, THSTI, Min. of Science & Technology, Govt. of India.
- *SERB International Travel Support (2015)*, Min. of Science & Technology, Govt. of India.
- *International Travel Award (2015)*, Asian Association School of Pharmacy, Taiwan, China.
- *ICMR International Travel Support (2013)*, Min. of Health & Family Welfare, Govt. of India.
- *DRDO Junior & Senior Research Fellowship (2011-2015)*, Min. of Defence, Govt. of India.
- *GATE Scholarship in Pharmacy (2007-2009)*, Min. of Human Resource Dev., Govt. of India.

## Grant/Project Funding's:

1. *Title*: Prophylactic transdermal patch against neurotoxin poisoning in biological warfare situations.

*Role*: Co- Principal Investigator (2017-2019)

*Funding Agency*: BIRAC-SRISTI GYTI Award, Dept. of Biotechnology (DBT), Govt. of India.

*Funding Amount*: INR 15.00 Lakh [Ongoing]

2. *Title*: Oral lipid nanoparticle formulations of antitubercular drugs for chemical stabilization

*Role*: Principal Investigator (2015-2017)

*Funding Agency*: Science & Engineering Research Board (SERB), DST, Govt. of India.

*Funding Amount*: INR 27.50 Lakh [Completed]

### **Indian Patent Filed:**

**Subham Banerjee**, Pronobesh Chattopadhyay, Animesh Ghosh and Vijay Veer. “*Matrix type transdermal patch formulations*”. 3033/DEL/2013.

### **Invited Book Chapters:**

**Subham Banerjee** and Jonathan Pillai. “*Smart polymeric nanocarriers for drug delivery.*” Apple Academic Press book titled Nanoconjugate Nanocarriers for Drug Delivery, Chapter-03, 2018, 69-95. [ISBN: 9781771886772].

**Subham Banerjee.** “*Transdermal Patches: An Overview.*” Wiley-Scrivener book titled Adhesion in Pharmaceutical, Biomedical and Dental Fields, Chapter-06, 2017, 115-140 [ISBN: 9781119323501].

**Subham Banerjee** and Jonathan Pillai. “*Lipid Nanoparticle Formulations for Enhanced Antituberculosis Therapy*”. ELSEVIER book titled Nanoarchitectonics for Smart Delivery and Drug Targeting, Chapter-11, 2016, 285-313 [ISBN: 9780323473477].

### **Important Peer-Reviewed Publications:** (Google Scholar Citations>656 & h-index: 16)

**Subham Banerjee**, Subhadeep Roy, Kaushik Nath Bhaumik, Pallavi Kshetrapal, Jonathan Pillai. Comparative study of oral lipid nanoparticle formulations (LNFs) for chemical stabilization of antitubercular drugs: Physicochemical and cellular evaluation. *Artificial Cells, Nanomedicines and Biotechnology*. Accepted. 2018. **(IF-5.62)**

**Subham Banerjee**, Pronobesh Chattopadhyay, Animesh Ghosh, Aseem Bhatnagar and Vijay Veer. Pharmacokinetic and biodistribution study of eserine and pralidoxime chloride in rabbits following a single application of a transdermal patch. *European Journal of Drug Metabolism and Pharmacokinetics*. 41:219-230, 2016. **(IF-1.600)**

**Subham Banerjee**, Pronobesh Chattopadhyay, Animesh Ghosh, Shiv Sankar Bhattacharya, Amit Kundu and Vijay Veer. Accelerated stability testing study of a transdermal patch composed of eserine and pralidoxime chloride for prophylaxis against (±)-Anatoxin A poisoning. *Journal of Food & Drug Analysis*, 22:264-270, 2014. **(IF-3.048)**

**Subham Banerjee**, Pronobesh Chattopadhyay, Animesh Ghosh, Manash Pratim Pathak, Jyotchna Gogoi and Vijay Veer. Protection by a transdermal patch containing eserine and pralidoxime chloride for prophylaxis against (±)-Anatoxin A poisoning in rats. *European Journal of Pharmaceutical Sciences*. 56:28-36, 2014. **(IF-3.866)**

**Subham Banerjee**, Pronobesh Chattopadhyay, Animesh Ghosh, Dangswarg Goyary, Sanjeev Karmakar, and Vijay Veer. Influence of process variables on essential oil microcapsule properties by carbohydrate polymer-protein blends; *Carbohydrate Polymers*. 93:691-697, 2013. **(IF-5.130)**

**Subham Banerjee**, Lubna Siddiqui, Shiv Shankar Bhattacharya, Santanu Kaity, Animesh Ghosh, Pronobesh Chattopadhyay, Anurag Pandey and Lokendra Singh. Interpenetrating polymer network (IPN) hydrogel microspheres for oral controlled release application. *International Journal of Biological Macromolecules*, 50:198-206, 2012. **(IF-3.857)**

Somasree Ray, *Subham Banerjee*, Sabyasachi Maiti, Bibek Laha, Saikat Barik, Biswanath Sa and Uttam Kumar Bhattacharyya. Novel interpenetrating network microspheres of xanthan gum–poly(vinyl alcohol) for the delivery of diclofenac sodium to the intestine-in vitro and in vivo evaluation. *Drug Delivery*, 17:508-519, 2010. **(IF-6.402)**

**Invited Talks/Oral Presentations in Conferences:**

Delivered an oral presentation in FACT-2018 Conference at Panjab University, Punjab from 28-29<sup>th</sup> April, 2018.

Delivered an oral presentation in 8<sup>th</sup> Asian Association of Schools of Pharmacy (AASP) held at JSS University, Mysore from 27-29<sup>th</sup> October, 2017.

Delivered an oral presentation and secured first position in Nano-Biointerface Conference-2016, Jawaharlal Nehru University, New Delhi, India from 18-20<sup>th</sup> March, 2016.

**International Poster Presentations in Conferences/Seminars:**

Presented a poster in 7<sup>th</sup> Asian Association of Schools of Pharmacy (AASP) held at National Taiwan University, Taiwan from 30<sup>th</sup> October, 2015-02<sup>nd</sup> November, 2015.

Presented a poster in 6<sup>th</sup> Asian Association of Schools of Pharmacy (AASP) held at National University of Singapore, Singapore from 14-17<sup>th</sup> November, 2013.

**Professional Memberships:**

- Asian Association School of Pharmacy (Life Member: ID: 36504972)
- Controlled Release Society, USA (2016-18, ID: 141851)
- American Association of Pharmaceutical Scientists (2016-18, ID: 240785)
- The Indian Science Congress Association (Life Member: L-21498)

**Reviewer Recognition:**

- Materials Science and Engineering C as Recognized Reviewer-2016.
- International Journal of Pharmaceutics both Outstanding & Recognized Reviewer-2015.
- Journal of Industrial and Engineering Chemistry as a Recognized Reviewer-2015.

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