

CURRICULUM VITAE

Mr. Rakesh Swain

PhD (Pharmaceutical Sciences)

M. Pharm (Pharmaceutics)

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CAREER OBJECTIVE

To be a part of a reputed organization where I can effectively contribute my skills and that shall yield the twin benefits to enhance my knowledge and a steady professional growth and prosperity of the organization. To strive for excellence in the field of Pharmacy with dedication, focus, proactive approach, positive attitude and passion, to utilize my knowledge and skills in the best possible way for the fulfilment of organizational goals.

EDUCATIONAL QUALIFICATION

- Pursuing **PhD** in School of Pharmaceutical sciences in Siksha ‘O’ Anusandhan deemed to be University. Holding as **INSPIRE Fellow IF: IF180581**.
- Ph. D course work examination in Pharmaceutical sciences in Siksha ‘O’ Anusandhan Deemed to be University, **December 2018; CGPA-8.50**
- **Completed M. Pharm** in Pharmaceutics, School of Pharmaceutical sciences in Siksha ‘O’ Anusandhan deemed to be University, **(2016-2018); Percentage 97.5%**
- **Completed B. Pharm** in Institute of Pharmacy and Technology, Salipur, BPUT, Odisha, **(2012-2016); CGPA- 8.3.**

ACADEMIC AWARDS & FELLOWSHIP

- The University Gold Medal for the Best Academic Performance in Master of Pharmacy for the Academic Year 2017-2018
- Department Of Science & Technology, Govt of India-INSPIRE Fellowship (IF-180581)

ACHIEVEMENTS

- International conference “Trimetazidine ophthalmic delivery and retinal ganglionic cell protection potential: in vitro drug release, ex vivo permeation and histological analysis”- (**Rakesh Swain**, Ashirbad Nanda, Rudra N Sahoo, Souvik Nandi, Sujata

Mohapatra, Subrata Mallick) Presented in the 6th International conference on Pharmaceutical R&D and Biopharmaceutics, organized by Bio Leagues, On 27th – 28th Nov 2019 Kuala Lumpur, Malaysia (**Best poster presentation**)

- International conference “Ocular hypotensive potential of trimetazidine using bentonite clay-based film formulation for topical delivery: molecular docking study”- (**Rakesh Swain**, Souvik Nandi, Sujata Mohapatra, Subrata Mallick) Presented in the International seminar organized by JNTUH Hyderabad, India, On 10th-11th March 2022 (**Best Poster Presentation**)
- National Seminar: “A Prophylactic role of trimetazidine against carrageenan induced ocular inflammation in the form of in-situ gel” – (**Rakesh Swain**, Banoj Kumar Sahoo, Subrata Mallick) Presented in the National seminar organized by Faculty of Pharmaceutical Sciences, Siksha O Anusandhan (Deemed to be University) on 20th & 21st September 2019 (**Best oral presentation**)
- National Conference: “Bentonite incorporated trimetazidine thin film as a novel biomaterial for drug delivery system” - (**Rakesh Swain**, Banoj Kumar Sahoo, Subrata Mallick) Presented in the National seminar organized by Semiconductor Research Laboratory, Department of Physics, Siksha O Anusandhan (Deemed to be University) on 1st – 2nd, December, 2018 (**Third prize winner for poster presentation**)

RESEARCH AREA OF INTEREST/EXPERTISE

Transdermal Drug Delivery Systems, Transmucosal Drug Delivery Systems, Polymer-clay nano composite as drug delivery carrier, repurposing use drug delivery, Drug Degradation Kinetics and Stabilization, Drug-drug, drug-excipient interaction.

PATENTS

1. **Innovative and Alternative Ocular Drug Delivery System for Efficient Response**
(Application No- 202311036013; Date of publication- 30/06/2023)
2. **Implementation of novel techniques of non-rigid image registration for high dose rate brachytherapy in inter-fraction cervical cancer**
(Applcation Number-202241077044; Date of publication-06/01/2023)
3. **Transdermal drug delivery film composition and method for synthesis thereof**
(Application No- IN202231024247; Date of Filing: 25/04/2022)

RESEARCH PUBLICATION

1. **Swain, R.**, Nandi, S., Swain, S.S., Pattanaik, K.P., Mohapatra, S., Panigrahi, D. and Mallick, S., 2023. Bentonite-in hypromellose-poloxamer sol-gel for corneal application of trimetazidine: Study of rheology and ocular anti inflammatory potential. *International Journal of Biological Macromolecules*, p.124628.[**IF-8.025**]
2. **Swain, R.**, Moharana, A., Habibullah, S., Nandi, S., Bose, A., Mohapatra, S. and Mallick, S., 2023. Ocular delivery of felodipine for the management of intraocular pressure and inflammation: Effect of film plasticizer and in vitro in vivo evaluation. *International Journal of Pharmaceutics*, p.123153. [**IF-6.51**]
3. **Swain, R.**, Nandi, S., Sahoo, R.N., Swain, S.S., Mohapatra, S. and Mallick, S., 2022. Bentonite clay incorporated topical film formulation for delivery of trimetazidine: Control of ocular pressure and in vitro-in vivo correlation. *Journal of Drug Delivery Science and Technology*, 67, p.102956. [**IF- 5.063**]
4. **Swain, R.**, Nandi, S., Mohapatra, S. and Mallick, S., Engineered Clay-Polymer Composite for Biomedical Drug Delivery and Future Challenges: A Survey". *Current Drug Delivery*. [**IF-3.758**]
5. **Rakesh Swain**, Souvik Nandi, Pallavi Bardhan, Shasank Sekhar Swain, Sujata Mohapatra, Subrata Mallick. Aerosil in solid state buccal film for improved and sustained delivery of valsartan: Molecular docking studies chemical and biochemical engineering quarterly. [**IF-1.67**]
6. Gangopadhyay, A., Saha, R., Bose, A., Sahoo, R.N., Nandi, S., **Swain, R.**, Paul, M., Biswas, S. and Mohapatra, R., 2022. Effect of annealing time on the applicability of potato starch as an excipient for the fast disintegrating propranolol hydrochloride tablet. *Journal of Drug Delivery Science and Technology*, 67, p.103002. [**SCIE IF-5.063**]
7. Nandi, S., Nanda, A., Sahoo, R.N., **Swain, R.** and Mallick, S., 2022. Formulation and administration of ramipril prodrug for improving bioactivity significantly: In vitro and in vivo correlation. *Journal of Drug Delivery Science and Technology*, 74, p.103597. [**SCIE IF-5.063**]
8. Evaluation of tableting properties of model fillers by direct compression, *Revista Cubana de Farmacia*.
9. Nandi, S., Ojha, A., Nanda, A., Sahoo, R.N., **Swain, R.**, Pattnaik, K.P. and Mallick, S., 2022. Vildagliptin plasticized hydrogel film in the control of ocular inflammation

- after topical application: study of hydration and erosion behaviour. **Zeitschrift für Physikalische Chemie**, 236(2), pp.275-290. [SCIE IF- 4.315]
10. Nanda, A., Das, S., Sahoo, R.N., Nandi, S., **Swain, R.**, Pattanaik, S., Das, D. and Mallick, S., 2022. Aspirin hydrogel ocular film for topical delivery and ophthalmic anti-inflammation. **Journal of the Serbian Chemical Society**, (00), pp.19-19. [SCIE IF- 1.240]
 11. **Swain, R.**, Nandi, S., Sahoo, R.N., Mohapatra, S. and Mallick, S., 2021. Trimetazidine Topical Delivery Prevents Carrageenan Induced Retinal Damage and Glucose Induced Lens Opacification by Decreasing Drop of Protein Level. [Pre print- Research square]
 12. Pattanaik, S., Nandi, S., Sahoo, R.N., Nanda, A., **Swain, R.**, Das, S. and MALLICK, S., 2020. Budesonide-cyclodextrin in hydrogel system: impact of quaternary surfactant on in vitro-in vivo assessment of mucosal drug delivery. **Rev Chim**, 71, pp.332-45. [SCIE IF- 1.755]
 13. Nandi, S., Mishra, S.A., Sahoo, R.N., **Swain, R.** and Mallick, S., 2020. Quantitative Estimation of Tabletability of Aceclofenac after Incorporation of Titanium Dioxide using Area under the Curve. **Indian J of Pharmaceutical Education and Research**, 54(1), pp.68-72. [SCIE IF- 0.638]
 14. Nandi, S., Mishra, S.A., Sahoo, R.N., **Swain, R.** and Mallick, S., 2020. Influence of TiO₂ on mucosal permeation of aceclofenac: Analysis of crystal strain and dislocation density. **Acta Chimica Slovenica**, 67(4), pp.1227-1232. [SCIE IF-1.735]
 15. Sahoo, R.N., Nanda, A., Pramanik, A., Nandi, S., **Swain, R.**, Pradhan, S.K. and Mallick, S., 2019. Interactions between Ibuprofen and Silicified-MCC: characterization, drug release and modeling approaches. **Acta Chimica Slovenica**, 66(4), pp.923-933. [SCIE IF-1.735]
 16. Dash, R., Sahoo, R.N., Nandi, S., **Swain, R.** and Mallick, S., 2019. Sustained release bioadhesive suppository formulation for systemic delivery of ornidazole: in-silico docking study. **Indian Journal of Pharmaceutical Education and Research**, 53(4), pp.S580-S586. [SCIE IF- 0.638]

SYMPOSIUM AND CONFERENCE PARTICIPATED

- International Conference on Trimetazidine ophthalmic film formulation: prevents carrageenan induced retinal damage and glucose induced cataract formation, **Rakesh Swain**, Sk Habibullah, Sujata Mohapatra, Subrata Mallick* “Technological

Innovations in Animal Science Research and Social Transformation” supported by SERB, RUSA, WB-OHEPEE in association with ZSO organised by the Department of Zoology, Utkal University.

- National conference: A Survey on Ciprofloxacin Photo-Stability and the Future Scope for Overall Stabilization, - (**Rakesh Swain**, Subrata Mallick, Sujata Mohapatra) Presented at “IPA Annual Convention-2018” organized by IPA Jeypore Local Branch held on 3rd - 4th November 2018 at Bhubaneswar, Odisha.
- Webinar by ACS on campus India Virtual Event on 10th August, 2020.
- Webinar on Response of the DBT’s Autonomous Institute to COVID-19 (Part-III), organize by India Alliance, on 15th October 2020.
- International Webinar on drug discovery & drug development, organized by Tripura Central University, held on 27th - 28th August 2020.
- International Conference on climate change, water & food security, organized by ORRISIS, held at the Hotel new Marrion, Bhubaneswar, 19th January, 2019.
- Seminar on Clinical Research and clinical data management, (Rakesh Swain) organized by School of Pharmaceutical Sciences, Siksha O Anusandhan (Deemed to be University) held on 16th February 2019.
- Webinar on Tricks and techniques of quick publications, organized by Central research laboratory, Institute of medical sciences and sum hospital, SOA Deemed to be University, Bhubaneswar, Odisha, India.

TRAINING ATTENDED

1. “Techniques on Advanced Imaging And Mass Spectroscopy” organized by the Amity University, UP under the scheme of **Department Of Science & Technology-STUTI**, with the **Banaras Hindu University from 1st June to 7th June 2022**.
2. Selected for “Analytical and Bio-analytical Techniques For Pharmaceuticals” organized by the Institute of Chemical Technology, Mumbai under the scheme of **Department Of Science & Technology -STUTI**, with the School of Pharmaceutical Sciences, **Siksha 'O' Anusandhan deemed to be a University from 31st October to 6th November 2022**.
3. Workshop on Recent Advancement on Drug Development for GI Disorder, organised by Central Ayurveda Research Institute, Bhubaneswar, CCRAS, **Ministry of Ayush, Govt. Of India. On 27th September, 2022**.

4. “Clinical Trials: Procedures, Design and Interpretation of Results” Sponsored by All India Council for Technical Education, Organized by School of Pharmaceutical Sciences, SOA Deemed to be University from 23rd to 28th August, 2021.
5. Web of Science Certification for successfully completing ‘Advanced Series’ of the Web of Science Training & Certification Program, 1 October, 2020.

EXTRA CURRICULAR ACTIVITIES

- Actively participate as Volunteer in 26th **National Children’s Science Congress**, Programme of NCSTC, Department of Science & Technology, and Government of India. Held on 27-31 December 2018.

PERSONAL INFO

- Fathers Name : Rabindra Nath Swain
- D.O.B : 25/12/1994
- Blood Group : B+
- Social Caste : General
- Nationality : Indian
- Marital Status : Un-Married
- Hobbies : Reading comics, playing outdoor games etc.

DECLARATION:

I do hereby declare that all the information furnished above are true to the best of my knowledge & if anything found incorrect/false, my resume is liable to be rejected at any point of time.

Place : Bhubaneswar

Date : 21-08-2023

Rakesh Swain

(Signature)