

Curriculum Vitae

ARIHANT KUMAR SINGH

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Academic Profile

Ph.D. (Pharmaceutical Science):

From 2018 - ongoing (CGPA- 7.79)

Title of thesis: Combination delivery of C-peptide and lisofylline for the treatment of diabetic nephropathy

University: Birla Institute of Technology and Science Pilani (BITS PILANI), Pilani Campus, Rajasthan, India.

M. Pharm. (Pharmaceutics):

2015-2017 (CGPA- 8.55)

Title of thesis: Development and evaluation of topical formulation of anti-hypertensive drug

University: Savitribai Phule Pune University, Pune, Maharashtra, India

B. Pharm. (Pharmacy):

2010-2015 (CGPA- 6.63)

University: Gujarat Technological University, Ahmedabad, Gujarat, India

Work / Research Experience

Doctoral Research Experience:

Birla Institute of Technology and Science
Pilani (BITS PILANI), Pilani Campus,
Rajasthan, India.

May 2018 - ongoing

Supervisor: Dr. Anupama Mittal (Assoc. Professor)

Research/ Industrial Trainee:

Nano drug delivery system, M. S. University
of Baroda, Vadodara, Gujarat, India
Supervisor: Dr. A. N. Misra (Professor)

Jan - April 2018

R&D Department, Serum Institute of India
Pvt. Ltd., Pune, Maharashtra, India
Supervisor: Dr. S.S. Pisal

Feb - March 2016

QA/QA & Manufacturing Department,
Health Care Formulations Pvt. Ltd., Vadodara,
Gujarat, India

June - July 2013

Work Experience:

Techpedia, Sristi Organisation, Ahmedabad,
Gujarat, India (Research associate)

Oct 2014 - July 2015

Tele and Generic Medicines, E-Swasthya
Mediserve Pvt. Ltd., Ahmedabad, Gujarat,
India (Researcher)

June 2014 - March 2015

List of Patents (Filed)

1. WIPO Patent- A lipid-polymer hybrid nanoparticles (Filed on 2 Feb 2019, WO/2020/157729)
2. Indian Patent- Novel technique for particle detection & clarity (Filed on 28 Apr 2015, 1687/MUM/2015- Under examination)
3. Indian Patent- An animal model useful to determine extra pyramidal effect induced by the drugs (Filed on- 14 Jun 2014, 144/MUM/2014- Examination completed/Result awaited)

List of Publications

1. **Arihant Kumar Singh**, Kishan Italiya, Saibhargav Narisepalli, Deepak Chitkara, Anupama Mittal, Role of chain length and degree of unsaturation of fatty acids on physicochemical and pharmacological behaviour of drug-fatty acid conjugates in diabetes, *Journal of Medicinal Chemistry* (2021) 64, 14217-29. (IF- 7.447)
2. Kishan S. Italiya, **Arihant Kumar Singh**, Deepak Chitkara, Anupama Mittal, Nanoparticulate tablet dosage form of lisofylline-linoleic acid conjugate for type 1 diabetes: in situ single-pass intestinal perfusion (SPIP) studies and pharmacokinetics in rat, *AAPS PharmSciTech* (2021) 22, 1-12. (IF- 3.246)
3. Tania Nandi, Sai Pradyuth, **Arihant Kumar Singh**, Deepak Chitkara, Anupama Mittal, Therapeutic agents for targeting desmoplasia: Current status and emerging trends, *Drug Discovery Today* (2020) 25, 2046-55. (IF- 7.851)
4. Sudeep Pukale, Saurabh Sharma, Manu Dalela, **Arihant Kumar Singh**, Sujata Mohanty, Anupama Mittal, Deepak Chitkara, Multi-component clobetasol-loaded monolithic lipid-polymer hybrid nanoparticles ameliorate imiquimod-induced psoriasis-like skin inflammation in Swiss albino mice, *Acta Biomaterialia* (2020) 115, 393-409. (IF- 8.947)
5. Ashutosh Tripathi, Kasturi, **Arihant Kumar Singh**, Indrajeet Chaudhary, 3D Organ Printing: A Future Prospect of Medical Science in Organ Transplantation, *Innovare Journal of Life Science* (2013) 3, 1-16.

Technical Skills

- **Nano Technology based drug delivery system:**
 - Synthesis & evaluation of fatty acid based pro drugs. Design, development & evaluation of polymeric micelle based Nano-formulations.
 - Carrying out Scale-up trial of lab scale micelle based Nano-formulation. Conducting and interpreting Preformulation studies. Good knowledge on developmental and evaluation aspects of NDDS (Micelles) and familiar with knowledge of formulation of conventional dosage forms (NPs loaded tablet dosage form).
- **Instrumental Skill:**
 - Proficiency in handling Shimadzu HPLC-UV and HPLC-PDA, fluorescence plate reader, Shimadzu UV Visible spectroscopy, Spectrofluorimeter, Shimadzu GC, Horiba Flurolog, Shimadzu DSC and TGA, Shimadzu FT-IR, Anton paar FT-IR, Zetasizer (Malvern), Gel Permeation Chromatography (GPC, Waters), Flash Chromatography (Agela Technologies), Zeiss Microscope (Bright field and fluorescence) etc.
 - Pharmaceutical formulations: Microwave synthesizer (Monowave 400, Anton paar), Tablet punching machine, Dissolution Apparatus (Labindia), Diffusion cell apparatus, Batch Lyophilizer (Freezone Triad Benchtop), Sonicator (Vibracell 500), Homogeniser (HPH (Panda Plus) and HSH (Cole parmer), Rota Evaporator (Buchi R210, R100) and Ultra Centrifuge (Thermofisher).
- **Animal Studies:** Well versed with dosing, sampling in mice and rat and animal models like- Diabetes, SPIP model, psoriasis, EAC tumor model and wound healing.
- **Software Skills:** Design of Experiments (DoE), Phoenix WinNonlin, LCsolution, LabSolution, Chromeleon, IRsolution, GCSolution, Breeze2, TA60, Technical software (Scientific software) Chemdraw, Reference Management Software, Malvern Zetasizer software, NMR interpretation software (MestreNova, NUTS), Flowcytometry analysis (FCS Express, FlowJo), Histopathological imaging analysis software (ImageJ), Graph pad Prism.

Awards & Achievements

1. Poster presented at Society of Biological Engineering's **6th Bioengineering & Translational Medicine conference 2021** organized by American Institute of Chemical Engineers (AIChE) sponsored by Wiley on 18-20 October 2021.
2. Awarded with **Innovative Student's Co-Creation Award for Leadership & Excellence (i-SCALE) award 2015** for founding & working "Pharma Innovators" group from 2013 GTU Innovation Council, Gujarat Technological University, Ahmedabad in Feb 2015.
3. **Special appreciation prize** from MIP, Pune for the academic year 2016-2017.
4. Qualified at Zonal and University level **Avishkar-2016** research poster competition for the project 'Neem Gum' in January 2017 at SPPU University, Pune, Maharashtra.
5. 1st prize in **National level poster competition** (Review category) titled 'Peptidomimetics' in PharmaVista 2016 at MIP, Pune, Maharashtra.

6. 1st prize in **Kalakari- Chemistry** (Innovative Model Competition) at GTU TechFest 2014 at BITS, Vadodara, Gujarat.
7. 1st and 2nd prize in **State level Quiz and Model competition** for the project on 'Modified catatonial model' at PharmaVision 2013, Mehsana, Gujarat.
8. 1st prize in **State level poster competition** at PPDC, Vadodara in February 2012.

Personal Details

1. Date of Birth:	09 th August 1991
2. Language Known:	English, Hindi
3. Category:	General
4. Father's Name:	Ajay Kumar Singh (Ex-IAF serviceman)
5. Permanent Address:	A-12, Dream Villa Society, Opp. APMC, Ajwa Road, Vadodara, Gujarat- 390019

References

1. Dr. Anupama Mittal, Ph.D.

Associate Professor, Department of Pharmacy,
Birla Institute of Technology and Science Pilani (BITS-Pilani),
Vidya Vihar, Pilani Campus, Pilani - 333031 Rajasthan, India
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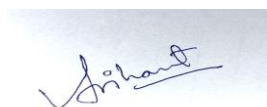
2. Dr. Deepak Chitkara, Ph.D.

Associate Professor, Department of Pharmacy,
Birla Institute of Technology and Science Pilani (BITS-Pilani),
Vidya Vihar, Pilani Campus, Pilani - 333031 Rajasthan, India
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3. Dr. Sapna Desai, Ph.D.

Associate Professor, Pharmacology Department,
Pioneer Pharmacy Degree College, Ajwa Road, Vadodara - 390019, Gujarat, India
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I hereby declare that above information given by me is true to the best of my knowledge and belief.



Arihant Kumar Singh

Date: October 30, 2021