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EDUCATION

- Ph. D. (2012)**
(Oct. 2007 - Nov. 2012)
- Katholieke Universiteit Leuven, Belgium**
(Among World's Top 50 Universities as per THE World University Ranking)
Faculty of Pharmaceutical Sciences
Thesis Title: Comparison of different detectors for tobramycin and impurity profiling of tylosin and capreomycin by LC/MS.
- M. Pharm. (2007)**
78 % - Great distinction
- Katholieke Universiteit Leuven, Belgium**
(Among World's Top 50 Universities as per THE World University Ranking)
Faculty of Pharmaceutical Sciences (Pharmaceutical Analysis)
Thesis Title: Liquid chromatographic analysis of gentamicin and preservatives in an injectable formulation.
- B. Pharm. (2005)**
80.6% - Distinction
- Birla Institute of Technology, India**
Department of Pharmaceutical Science and Technology,
Mesra, Ranchi, Jharkhand, India
- 10+2 (1999)**
82.6% - Distinction
- Indian School Certificate Examination, India**
St. Mary's High School, Lucknow, India
- 10 (1997)**
85.3% - Distinction
- Indian Certificate of Secondary Education Examination, India**
St. Paul's School, Lucknow, India

PROFESSIONAL EXPERIENCE (TEACHING & RESEARCH)

Amity Institute of Pharmacy, Amity University, Noida, Uttar Pradesh

Assistant Professor

Aug. 2016 - Present

- Associate Faculty Member – Amity Institute of Indian System of Medicine (AIISM)
- Teaching UG and PG students
- Supervising PG and PhD scholars
- Mentoring UG students
- Coordinator/Team member – Entrepreneurship Club, International student Welfare Committee, Library committee

Division of Research and Development (DRD), Lovely Professional University, Phagwara, Punjab

Research Coordinator – DRD IV

Jan. 2016 – July 2016

- Drafting policies and coordination with Schools for research activities.
- Promoting research at LPU.
- Handling issues related to research from faculty of sciences and applied sciences

School of Pharmaceutical Sciences, Lovely Professional University, Phagwara, Punjab

Assistant Professor

July 2013 – July 2016

- Teaching UG and PG students.
- Supervising PG projects.
- Mentoring international sections

Laboratory for Pharmaceutical Analysis, Katholieke Universiteit, Leuven, Belgium

Research Assistant

Sep. 2006 – Nov. 2012

- Have worked with ion trap *mass spectrometer* for characterization of unknown impurities in various antibiotics.
- Learnt various aspects of *liquid chromatography and various detectors* like pulsed electrochemical, ultra-violet detector, evaporative light scattering detector, charged aerosol detector and capacitively coupled contactless conductivity detection (C⁴D).
- *Validated (as per regulatory guidelines)* two separate methods that were used to analyze gentamicin and preservatives in an injectable formulation. Carried out stability studies for the same formulation.
- Evaluated drug products from various *pharmaceutical companies for their content and impurities*.
- Developed methods for the analysis and stability of an infusion.
- Evaluated the quality of various drug substances as per *European Pharmacopoeia Standards*.
- Conducted quality-control tests like loss on drying, sulphated ash and Karl Fischer titration.
- Learnt *solid phase extraction* of phytosterolesters from functional foods to perform qualitative and quantitative analysis.

Department of Molecular & Cardiovascular Medicine, Katholieke Universiteit, Leuven, Belgium

Research Assistant

Dec. 2007- April 2008

- Performed Human Genome DNA extractions.
- Performed Rotarod experiments on mice.

Birla Institute of Technology (BIT), India

Project Fellow

July 2004 – June 2005

Phytopharmacological Studies of Methanolic extract of *Buchanania lanzan* leaves.

- Conducted experiments to study the effect of Methanolic extract of *Buchanania lanzan* leaves on rabbit jejunum.
- Documented and presented the results at the Department of Pharmaceutical Sciences BIT, India, In-house Seminar, 2005

Dabur India Limited, Pharmaceutical Company, India.

Summer Intern

May 2003 – June 2003

- Worked in the Production Sector and Quality-Control Department.
- Conducted experiments to ensure that the products complied with the industry standards.

RESEARCH EXPERTISE



Principal Investigator, Start Up Research Grant (Young Scientist) sanctioned by Science and Engineering Research Board (SERB), Department of Science and Technology, Government of India (Since February, 2016).

Supervised 4 Masters and supervising 3 PhD students.

Research areas:

- Development and validation of chromatographic methods for the assessment of quality and content of antibiotics, amino acids and various other drug substances using liquid chromatography in combination with various detection techniques such as ultra-violet detection, pulsed electrochemical detection, evaporative light scattering detection and capacitively coupled contactless conductivity detection.
- Assessing the content of the antibiotics in the biological samples of patients undergoing therapy at the university hospital.
- Drug regulatory affairs – India and international regulation.
- Ungual & transungual drug delivery systems and strategies.

PUBLICATIONS

Patent

1. **Chopra, S.**, Bhatia, A., Novel Therapeutic Bilayer Nail Lacquer for the Treatment of Nail Diseases and Disorders. **Indian Patent Application No. 201911001862 (E-101/4442/ 2019-DEL)**, 16.01.2019.

Book Chapter

1. Bhatia, A., **Chopra, S.**, Nagpal, K., Deb, P. K., Tekade, M., & Tekade, R. K. Polymorphism and its Implications in Pharmaceutical Product Development (Chapter 2). In Dosage Form Design Parameters (a volume in) *Advances in Pharmaceutical Product Development and Research*, **2018**, **31–65**. Academic Press, USA. ISBN: 9780128144213. (<https://doi.org/10.1016/B978-0-12-814421-3.00002-6>).

Research Articles

1. Abhishek Chatterjee, Dileep Singh Baghel, Amit Mittal, Saurabh Singh, Bimlesh Kumar, Narendra Kumar Pandey, Sachin Kumar Singh, Tamilvanan S, **Shruti Chopra**, Amit Bhatia, Anand Kumar Chaudhary. In Vitro Anti-Inflammatory and Antioxidant Activities of Hinguleswara Rasabased Herbomineral Formulations. *Asian Journal of Pharmaceutical and Clinical Research*, **11(14)**, (2018) **24-27**. [SJ: 0.22].
2. Péter Jankovics, **Shruti Chopra**, Mohamed N. El-Attug, Deirdre Cabooter, Kris Wolfs, Béla Noszál, Ann Van Schepdael, Erwin Adams. Exploring the possibilities of capacitively coupled contactless conductivity detection in combination with liquid chromatography for the analysis of polar compounds using aminoglycosides as test case. *Journal of Pharmaceutical and Biomedical Analysis* **112 (2015) 155-168**. [IF: 2.831].
3. Hui Chen, Xu Wang, **Shruti Chopra**, Erwin Adams, Ann Van Schepdael. Development and validation of an indirect pulsed electrochemical detection method for monitoring the inhibition reaction of Abl1 Tyrosine Kinase. *Journal of Pharmaceutical and Biomedical Analysis* **90 (2014) 52-57**. [IF: 2.831].
4. **Shruti Chopra**, Ann Van Schepdael, Jos Hoogmartens, Erwin Adams. Characterization of impurities in

- tylosin using dual liquid chromatography combined with ion trap mass spectrometry. *Talanta* **106** (2013) 29-38. [IF: 4.244].
5. Yaozuo Yuan, **Shruti Chopra**, XiaoLan Deng, Mei Zhang, XiaLei Fan, Changqin Hu, Shaohong Jin, Ann Van Schepdael, Erwin Adams. Analysis of micronomicin by liquid chromatography with pulsed electrochemical detection. *Journal of Chromatography A* **1295** (2013) 90-98. [IF: 3.716].
 6. **Shruti Chopra**, Vicky Manyanga, Jos Hoogmartens, Erwin Adams. LC with electrochemical and UV detection for analysis of a formulation containing gentamicin and parabens. *Analytical Methods* **5:10** (2013) 2491-2496. [IF: 2.073].
 7. **Shruti Chopra**, Murali Pendela, Jos Hoogmartens, Ann Van Schepdael, Erwin Adams. Impurity profiling of capreomycin using dual liquid chromatography coupled to mass spectrometry. *Talanta* **100** (2012) 113-122. [IF: 4.244].
 8. Mohamed Nouri El-Attug, **Shruti Chopra**, Rajya Lakshmi Dhulipalla, Karel Allegaert, Anne Smits, Ann Van Schepdael, Erwin Adams. Development and validation of a chromatographic and electrophoretic method for the determination of amikacin and urea in bronchial epithelial lining fluid. *Chromatographia* **75** (2012) 761-766. [IF: 1.4].
 9. Larissa Van den Bossche, Ann Van Schepdael, **Shruti Chopra**, Jos Hoogmartens, Erwin Adams. Identification of impurities in polymyxin B and colistin bulk sample using liquid chromatography coupled to mass spectrometry. *Talanta* **83** (2011) 1521-1529. [IF: 4.244].
 10. **Shruti Chopra**, Geert Vanderheyden, Jos Hoogmartens, Ann Van Schepdael, Erwin Adams. Comparative study on the analytical performance of different detectors for the analysis of tobramycin. *Journal of Pharmaceutical and Biomedical Analysis* **53** (2010) 151-157. [IF: 2.831].
 11. Dunge Ashenafi Mamade, Elise Van Hemelrijck, **Shruti Chopra**, Jos Hoogmartens, Erwin Adams. Liquid chromatographic analysis of oxytocin and its related substances. *Journal of Pharmaceutical and Biomedical Analysis* **51** (2010) 24-29. [IF: 2.831].

Review Articles

1. Dileep Singh Baghel, **Shruti Chopra**, Amit Bhatia, S Tamilvanan. Amalgamation of Ayurvedic Concept with Modern Medical Practice to Manage Kidney Stone Disease (Urolithiasis): An Abbreviated Review. *Indian Drugs* **55** (11), (2018) 7-18. [SJ: 0.13].
2. Supreet Kamboj, **Shruti Chopra**. Quality by Design (QbD) in Pharmaceutical Industry. *International Journal of Current Pharmaceutical Review and Research*. **6**(2), (2015) 142-148. [SJ: 0.32].
3. Minakshi Sharma, **Shruti Chopra**, Shyam Baboo Prasad, Guazuma tomentosa: A valuable medicinal plant. *International Journal of Pharmacognosy and Phytochemical Research* **7** (2015) 197-200. [SJ: 0.12].

CONFERENCES/SYMPOSIUM/MEETINGS

1. **Shruti Chopra**, Amit Bhatia. Novel Drug Delivery System for Transungual Delivery of Antiinfective Drug. 6th World Congress on Nanomedical Sciences (ISNSCON-2018), Vigyan Bhawan, New-Delhi, January 7-9, 2019.
2. Amit Bhatia, **Shruti Chopra**, Bhupinder Singh, Om Prakash Katare. Efficient Drug Delivery of an Anticancer Drug Through Flexible Nano-Vesicles. 6th World Congress on Nanomedical Sciences (ISNSCON-2018), Vigyan Bhawan, New-Delhi, January 7-9, 2019. **(Best Poster Award)**.
3. Karuna Jain, Unnati Garg, **Shruti Chopra**. Quality Assessment of Marketed Honey Samples. **IHPA National Conference on Role of Clinical Pharmacist in Advancing Health Care**, Amity University, Noida. October 26-27, 2018.

4. Ritika, **Shruti Chopra**, Amit Bhatia. Onychomycosis: Potential of Nail Lacquers in Transungual Delivery of Antifungals. **IHPA National Conference on Role of Clinical Pharmacist in Advancing Health Care**, Amity University, Noida. October 26-27, 2018.
5. Anjali Mishra, Vrinda Sharma, **Shruti Chopra**. Achieving Collaborative Treatment in the Healthcare System: A Patient Centered Approach. **IHPA National Conference on Role of Clinical Pharmacist in Advancing Health Care**, Amity University, Noida, October 26-27, 2018. **(Best Poster Award)**.
6. Ritika, **Shruti Chopra**, Amit Bhatia. Onychomycosis: Overview of Treatment Option and Future Prospects. 23rd Annual National Convention of Pharmaceutical Teachers of India (APTICON – 2018), APTI Rajasthan State Branch & Swami Keshvanand Institute of Pharmacy, Jaipur, Rajasthan, 5th – 6th Oct., 2018.
7. Siddhita Sagar, **Shruti Chopra**. Lifestyle Diseases Prevention: The role of the Pharmacist. **IPGA – World Pharmacist Day**, Delhi Pharmaceutical Sciences and Research University, New Delhi. September 25, 2018.
8. Anjali Mishra, **Shruti Chopra**. Digital India: Digital Pharmacy. **IPGA – World Pharmacist Day**, Delhi Pharmaceutical Sciences and Research University, New Delhi. September 25, 2018. **(2nd Best Poster Award)**.
9. Amrit Kaur Ballagan, **Shruti Chopra**. Challenges in Pharmacovigilance of Herbal Medicine. **International Seminar on Herbal Pharmacovigilance: Current Scenario and Future Strategies**, I.T.S College of Pharmacy, Ghaziabad, August 31, 2018.
10. **Shruti Chopra**. Development and Evaluation of Monolayered Matrix Nail Lacquer of Itraconazole. **Molecular Imaging and Drug Delivery (MIDD-2018)**, Institute of Molecular Medicine, Jamia Hamdard, New Delhi, March 26-27, 2018.
11. **Shruti Chopra**. Antimicrobial Resistance: Transmission Through Food Producing Animals. **International Seminar on Infectious Pulmonary Disorders: Strategies to Control Emergence & Spread of Antimicrobial – Resistant Microorganisms**, Amity University, Noida, May 23, 2018.
12. Ritika Kapoor, **Shruti Chopra**, Onychomycosis: Current Treatments and Potential of New Drug Delivery System. **IHPA 53rd Annual International Conference**, Rajaram and Tarabai Bandekar College of Pharmacy, Goa, February 17-18, 2018.
13. Unnati Garg, **Shruti Chopra**, Antimicrobial Resistance in Pulmonary Diseases: Causes and Prevention. **International Seminar on Infectious Pulmonary Disorders: Strategies to Control Emergence & Spread of Antimicrobial – Resistant Microorganisms**, Amity University, Noida, May 23, 2018.
14. Karuna Jain, Puneet Gupta, **Shruti Chopra**. Quality Control of Biotechnological Derived Food Products. **IHPA – National Conference**, Sunder Deep Pharmacy College, Ghaziabad, November 11, 2017.
15. Péter Jankovics, **Shruti Chopra**, Mohamed N. El-Attug, Deirdre Cabooter, Kris Wolfs, Béla Noszál, Ann Van Schepdael, Erwin Adams. Exploring the possibilities of capacitively coupled contactless conductivity detection in combination with liquid chromatography for the analysis of polar compounds using aminoglycosides as test case, **10th International Symposium on Drug Analysis**, Liege, Belgium, June 22-25, 2014.
16. **Shruti Chopra**, Ann Van Schepdael, Erwin Adams. Characterization of impurities in tylosin using liquid chromatography/ ion trap mass spectrometry, **Annual Meeting of Belgian Society for Mass Spectrometry**, Hornu (Mons), Belgium, April 29, 2011.
17. **Shruti Chopra**, Murali Pendela, Jos Hoogmartens, Ann Van Schepdael, Erwin Adams, Characterization of impurities in capreomycin by liquid chromatography/ion trap mass spectrometry, **9th International Symposium on Drug Analysis and 22nd International Symposium on Pharmaceutical and Biomedical Analysis**, University of Antwerp, Antwerp, Belgium, September 21-24, 2010.

18. **Shruti Chopra**, G. Vanderheyden, Larissa Van den Bossche, Jos Hoogmartens, Erwin Adams, Comparison of different detection methods with liquid chromatography for the detection of molecules with no strong UV absorbing chromophore, **13th International Meeting on Recent Developments in Pharmaceutical Analysis (RDPA)**, University of Milan, Milan, Italy, September 9-12, 2009.
19. **Shruti Chopra**, Larissa Van den Bossche, Ann Van Schepdael, Jos Hoogmartens, Erwin Adams, Correlation of volatile LC-MS and non-volatile LC-UV methods for the analysis of polymyxin and its related substances, **International Conference on Mass Spectrometry**, Rolduc, Kerkrade, The Netherlands, March 26-27, 2009.
20. Vicky Manyanga, **Shruti Chopra**, Jos Hoogmartens, Erwin Adams, Comparative study on the analytical performance of two pulsed electrochemical detectors for the analysis of tobramycin with high performance liquid chromatography, **31st International Symposium on High Performance Liquid Phase Separations and Related Techniques (HPLC 2007)**, Ghent, Belgium, June 17-21, 2007.
21. **Shruti Chopra**, Vicky Manyanga, Jos Hoogmartens, Ann Van Schepdael, Erwin Adams, Liquid chromatographic analysis of gentamicin and preservatives in an injectable formulation, **13th Forum of Pharmaceutical Sciences**, Belgian Society of Pharmaceutical Sciences, Spa, Belgium, October 11-12, 2007.
22. Vicky Manyanga, **Shruti Chopra**, Jos Hoogmartens, Erwin Adams, Comparative study on the analytical performance of two pulsed electrochemical detectors for the analysis of tobramycin with high performance liquid chromatography. **12th International Meeting on Recent Developments in Pharmaceutical Analysis (RDPA)**, Elba, Italy, September 23-26, 2007.
23. **Shruti Chopra**, Ann Van Schepdael, F. Léon-Tamariz, M. Van Boven, Quantitative and qualitative control of phytosterolesters in functional foods, **International Development in Science and Health Claims**, Malta, May 9-11, 2007.

MEMBERSHIPS, AWARDS AND RECOGNITIONS

- **Expert Technical Lecture** at Faculty Development Program on Advances in Research Methodology and Data Analysis at Manav Rachna International Institute of Research and Studies (04 Jan., 2019).
- **International Travel Grant** by Council for Scientific and Industrial Research, New Delhi (August 2018).
- **Member (Women Empowerment Committee)** – 70th Indian Pharmaceutical Congress, Amity University, Noida. December 21-23, 2018.
- **Member (Scientific Committee)** - IHPA National Conference on Role of Clinical Pharmacist in Advancing Health Care, Amity University, Noida. October 26-27, 2018.
- **Registered Pharmacist**, Uttar Pradesh Pharmacy Council, Lucknow, Uttar Pradesh
- **Senior member** – Chemical, Biological and Environmental Engineering Society, Hong Kong
- **Member** - European Federation of Biotechnology (EFB), Spain
- **Member** - Emerging Antimicrobial Resistance Society (EARS), Mohali, Punjab
- **Member (Scientific Committee)** - 3rd Annual Conference of SPER at Lovely Professional University, Phagwara. March 8, 2014
- **Resource Person** – 1st Convention of APTI, Punjab State Branch at Rayat Bahra Institute of Pharmacy, Hoshiarpur, Punjab, April, 2015.
- **Resource Person** – 2nd Convention of APTI, Punjab State Branch, Govt. Polytechnic College for Girls, Patiala, Punjab, March, 2016.

- **Resource Person** – IPGA National Seminar on Pradhan Mantri Bhartiya Janaushadhi Pariyojana: Role of Pharmacist, Baba Mast Nath University, March, 2017.
- **Resource Person** – 3rd Convention of APTI, Punjab State Branch at Rayat Bahra Institute of Pharmacy, Mohali, Punjab, April, 2017.

Editorial/Reviewer

- **Editorial board** - International Journal of Drug Regulatory Affairs (ISSN: 2321-6794).
- **Reviewer** – American Association of Pharmaceutical Scientists Annual Meeting – PharmSci 360, Washington, DC, USA (2018).
- **Reviewer** - Asian Journal of Pharmaceutical and Clinical Research (ISSN: 0974–2441).
- **Reviewer** - International Journal of Pharmacy and Pharmaceutical Sciences (ISSN: 0975–1491).
- **Reviewer** - International Journal of Green Pharmacy (ISSN: 09738258).
- **Reviewer** - International Journal of Applied Pharmaceutics (ISSN: 09757058).
- **Reviewer** - Pertanika Journal of Science & Technology (ISSN: 0128-7680).
- **Reviewer** - Advances in Science, Technology and Engineering Systems Journal (ISSN: 2415-6698).

REFERENCES

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