

SHAYAN AHMED

Professional summary

Researcher with 7 years of experience in the field of nanotechnology in France and Canada. Currently, I am a research engineer, serving Micro-pep enterprise, responsible of developing different nano formulations prototype for peptides deliver at MINT's Lab. I have a PhD in Pharmaceutical chemistry for developing hybrid liposomes/polymer nanoparticles for drug/siRNA delivery. I have strong research experience in nanoparticles, their characterization, imaging, delivery, microfluidic technique for nano-formulations production, siRNA transfection and 2d/3d cell culture. Moreover, I have two master's degrees; one in Biotherapy and the other is MBA in general management (organizational skills) with bachelor's in pharmacy.

Experience

June 2024 – June 2026	Researcher at LBP, Faculty of Pharmacy, University of Strasbourg. Research project: "siRNA loaded nanoliposomes guided by Aptamers for the gene inhibition.
September 2022-	Research engineer at MINT lab, working on Nano formulations for Peptides delivery at University of Angers, Maine-et-Loire, France.
Feburary 2024	Research project: "Development and characterization of nano formulations for Peptide delivery".
August 2021 –March 2022	Assistant professor (Pharmaceutical chemistry) at faculty of Pharmacy, Iqra University north campus, Karachi, Pakistan.
2017-2021	Supervisor at British Council for conducting IELTS test, France.
June 2020-	Researcher contract for research project at UTCBS laboratory, Faculty of Pharmacy, University of
Oct 2020	Paris, France.
	Research project: "Viscous core liposomes increase siRNA encapsulation and provides gene inhibition when slightly positively charged".
2017- 26 May 2020	PhD research in pharmaceutical chemistry at UTCBS laboratory, Faculty of Pharmacy, University of Paris, France under the supervision of Nathalie Mignet.
,	Research project: "Conception of nanosized hybrid liposome/polymer particles for hydrophilic drugs delivery".
2018-2020	Teaching Nanomed Master practical courses on nano and micro-formulations at University of Paris.
Oct -Dec	Visiting PhD student at Biomat'x lab, McGILL University, Canada. FFCR Project: "Hybrid

2019	liposome/poloxamer nanoparticles encapsulating siRNA to knockdown GFP expression in
	endothelial cells on 3D culture chip (Microfludics)".
2016	Master's Internship in the laboratory IGR, "Institut Gustave Roussy", Paris, France.
	Project: "New therapeutic approaches for CMT 1A disease by knocking down PMP22 gene".
2015	Novartis Pharmaceuticals, Jamshoro, Pakistan. (Position: Production Officer in solid/oral section)
2012-2013	Novartis Pharmaceuticals, Jamshoro, Pakistan. (Position: Production Officer in semisolid section)

Education

2017- May 2020	Ph.D "Doctor of Philosophy in Pharmacochemistry" "Faculty of Pharmacy", University of Paris, France
2015-2016	Master 2 "Biothérapies Tissulaires, Cellulaires et Génétiques" Faculty of Medicine, Université Paris 12
2012-2014	MBA, "Management" Master of Business Administration, University of Sindh, Jamshoro, Pakistan
2007-2011	Doctor of Pharmacy Faculty of Pharmacy, University of Sindh, Jamshoro, Pakistan

Skills

Physicochemical characterization: DLS, Mastersizer, DSA, Nanoparticle tracking analysis, Tunable resistive pulse sensing, Turbiscan, Tensiometry, Transmission electron microscope, DSC, Viscometry, Densitometry, Thermal camera microscopy, Fluorescence spectrometry, UV spectrometry, HPLC, UPLC, and TGA.

Pharmaceutics: Lipid nano capsules, Nanoemulsions, lipidic nano-particles Hybrid Liposomes/polymer nanoparticle preparation, Hydrogel preparation, Liposome's formation, nanocrystals, Chromatographic techniques, Tablet preparation, testing and packaging, Semi-solid preparation, testing and packaging.

Microfluidics: Micro chip fabrication, 3D cell culture in microchip and liposomes preparation with microfluidics. **Molecular Biology:** Cell culture, siRNA transfection (cell transfection), Electrophoresis, qPCR, Western Blot, confocal microscopy, Fluorescence microscopy, RNA extraction, MTT assay for cell viability, *in vitro* and *in vivo* testing. **Data analyses:** MS office skill, ImageJ and Prism G-Pad.

Other: Benchling, Advance oral and written communication skills (Presentations, publication, abstract, reports) and I was responsible for managing social media and dissemination of information within the organization.

Publication

2024	Advances in active substances delivery in plants by foliar application: The recent research and future prospectives. (submitted)
	Shayan Ahmed, Stephanie Roucal, Zeeshan Ahmed, Patrick Saulnier.
2023	A clinical trial of virtual reality in physical therapy for burn patients: effects on pain perception,
	https://doi.org/10.54112/bcsrj.v2023i1.425
	S ahmed, MH Waseem, Z Ahmed, R Tabassum, B Ahmed, S Siyal, B Mustafa, Z Hassan, AA Mangi, W Ashraf, S
	Muhammad, R Saleem, FJ Siyal
2023	Quality Analysis of Various National and International Brands of Glimepirides Available in Pakistan
	https://doi.org/10.53350/pjmhs2023172714

	Salman Ahmed, Imran Suheryani, Muhammad Ali Ghoto, Shaib Muhammad, Ubed-Ur-Rehman Mughal, Zeeshan Ahmed, Shayan Ahmed, Razia Sultana, Rabeia, Jameela Jamali
	Knowledge and Awareness of Community People on Dengue Fever Infection: A Cross-Sectional
2023	Study, https://doi.org/10.53350/pjmhs2023172711
	Erum Akhter, Bilal Jawed, Azfar Athar Ishaqui, Zeeshan Ahmed, Salman Ahmed, Bilal Mustafa, Imran Ali, Moeen
	Ahmed, Muhammad Imran, Sadia Ghousia Baig, Afshan Siddiq, Shayan Ahmed
2022	Cepharanthine action in preventing obesity and hyperlipidemia in rats on a high-fat high sucrose diet,
	https://doi.org/10.1016/j.jsps.2022.09.013
	Adnan Iqbal, Rahila Najam, Shabana Simjee, Azfar Athar Ishaqui, Salman Ashfaq Ahmad, Zeeshan Ahmed, Shayan Ahmed, Salman Ahmed, Lailoona Jaweed, Madiha Maboos, Mir Muhammad Uzairullah, Suleha Jabeen, Muhammad
	Imran
2022	The Potential of Sorafenib in Preventing Metabolic Syndrome in Rats Fed a High-Fat High-Sucrose
	Diet, <u>https://doi.org/10.55463/issn.1674-2974.49.8.13</u>
	Adnan Iqbal, Rahila Najam, Shabana Simjee, Saira Saeed Khan, Azfar Ather Ishaqui, Salman Ashfaq Ahmed, Zeeshan
	Ahmed, Shayan Ahmed, Salman Ahmed, Muhammad Osama, Bilal Jawed
2022	Assessment of COVID-19 vaccine booster dose acceptance, reluctance and concerns among elderly
	diabetes patients in Pakistan, doi.org/10.36721/PJPS.2022.35.4.SP.1269-1274.1
	Lailoona Jaweed, Zeeshan Ahmed, Salman Ashfaq Ahmad, Muhammad Imran, Saira Faraz, Tuba Sahar, Joohum Jaweed,
	Muhammad Bilal Maqsood, Salman Ahmed, Adnan Iqbal , Ammara Khalid, Shayan Ahmed and Azfar Athar Ishaqui.
2021	Viscous core liposomes increase siRNA encapsulation and provides gene inhibition when slightly
	positively charged, https://doi.org/10.3390/pharmaceutics13040479
	Shayan Ahmed, Hugo Salmon, Nicholas Distasio, Hai Doan Do Daniel Scherman, Khair Alhareth, Maryam Tabrizian, Nathalie Mignet
2020	Advancement in Nanogel formulations provides controlled drug release.
	https://doi.org/10.1016/j.ijpharm.2020.119435
	Shayan Ahmed, Khair Alhareth, Nathalie Mignet
2019	Conception of nanosized hybrid liposome/poloxamer particles to thicken the interior core of
	liposomes and delay hydrophilic drug delivery, <u>https://doi.org/10.1016/j.ijpharm.2019.118488</u> .
	Shayan Ahmed, Yohann Corvis, Rabah Gahoual, Arlen Euan, Rene Lai-Kuen, Brice Martin Couillaud, Johanne Seguin,
	Khair Alhareth, Nathalie Mignet
2017	Myalgia association with atorvastatin, rosuvastatin and simvastatin. March 2017 Medical Forum
	Monthly 28(3):98-101
	Salman Ahmed, Naheed Memon, Ahsan Ali Memon, Syed Shafquat Shah, Maria Memon, Zeshan Ahmed, Shayan Ahmed

Awards and achievements

France-Canada Research Fund (FFCR) for PhD research project (2019)

International scholarship for PhD, Higher education commission Pakistan (2017-20)

International scholarship for Master, Higher education commission Pakistan (2015-16)

Languages

English (Bilingual), French (B1), Urdu (Mother tongue), Sindhi, Punjabi and Hindi.

References

Dr Nathalie Mignet	Directress of the UTCBS lab at faculty of pharmacy, University of Paris			
Email	nathalie.mignet@parisdescartes.fr or nathalie.mignet@u-paris.fr			
Tel: number	///////////////////////////////////////			
Pr Yohann Corvis Email	Professor at faculty of pharmacy, University of Paris, <u>yohann.corvis@u-paris.fr</u>			
Pr Patrcik Saulnier	Director of MINT lab, University of Angers,			
Email	patrick.saulnier@univ-angers.fr			