Forouhe Zahir-Jouzdani

PharmD, Pharmaceutical Nanotechnology PhD

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City: Tehran

Marital Status: Single

Birth Date: 10th July, 1986

Education

2013-2018: Pharmaceutical Nanotechnology PhD, Tehran University of Medical Science (TUMS), Tehran, Iran.

Thesis title: "TGFβ1 siRNA delivery through thiolated chitosan nanoparticles for reducing scar formation after corneal burn injuries". The thesis was done under supervision of: Prof. Fatemeh Atyabi (Department of Pharmaceutical Nanotechnology, Faculty of Pharmacy, TUMS, Tehran, Iran), Prof. Rasoul Dinarvand (Department of Pharmaceutical Nanotechnology, Faculty of Pharmacy, TUMS, Tehran, Iran)

2004-2009: PharmD, Mazandaran University of Medical Science (MAZUMS), Faculty of Pharmacy, Mazandaran, Iran.

Thesis title: "Formulation of doxorubicin HCl in ascorbyl palmitate niosomes". The thesis was done under supervision of: Prof. Soheila Honary (Department of Pharmaceutics, Faculty of Pharmacy, MAZUMS, Mazandaran, Iran) and Prof. Majid Tabbakhian (Department of Pharmaceutics, Faculty of Pharmacy, Isfahan University of Medical Sciences (IUMS), Isfahan, Iran).

2004: Graduated from high school.

Work

2019 to present: Co-founder, member of the board and R&D manager at Salamat Bina Pharmed Co.

2018 to March 2020: Working as R&D expert and project manager at NanoDaru Pajuhan Pardis Pharmaceutical Co.

2016-2017: Working as guest researcher at Innsbruck University under supervision of Prof. Andreas Bernkop, Department of Pharmaceutical Technology, Innsbruck, Austria.

2014-2015: Working as assistant at Tehran Drug & Poison Information Center, Tehran, Iran.

2012-2013: Responsible pharmacist of Shahid Montazeri pharmacy, Isfahan University of Medical Sciences, Isfahan, Iran.

2010-2011: Responsible pharmacist of Shohada pharmacy, Shahr-e Kord University of Medical Sciences, Boroujen, Iran.

Skills

- Generic drug development (sterile eye drops, nasal sprays, oral solutions, liquid skin care products and solid dosage forms)
- Niosome and Liposome
- PLGA micro- and nanoparticle
- In situ forming gels
- In situ forming implants
- Self-emulsifying drug delivery systems (SEDDS)
- Nano-Emulsions
- Nano-structured lipid carriers (NLCs)
- Nanocrystals
- Thiolation of polymers
- siRNA delivery
- Ocular drug delivery
- Buccal drug delivery
- Nasal drug delivery
- Cell culture

Languages

- **English:** Fluent
- **French:** Start to learn

Projects

- Generic development of Sublocade®; Buprenorphine in situ implant (1 month depot).
- Generic development of Diphereline®; Triptorelin microspheres (1 month and 6 months depots).
- Generic development of more than 25 sterile eye drops (simple solution, nano-emulsion, in situ gel, resin exchange sustained release eye drop, nano-suspension and polymeric based eye drops) with CTD preparation.
- Generic development of more than 6 nasal spray formulations with CTD preparation.
- Generic development of more than 8 supplementary oral solutions with PMF preparation.
- Preparation of *Quality Assurance* documents for sterile and non-sterile liquid production lines.
- Preparation of *Quality Control* documents for analysis of raw materials, secondary packaging and finished products.
- Participating in *Validation Processes* (equipment, facilities, cleaning and processes) for sterile and non-sterile liquid production lines.

Recent Researches

- A comprehensive review on fibronectin: from chemical and mechanical properties to medical applications.
- A comprehensive review on potential of radiolabeled carbon-based nano-structures for cancer therapy.
- Triamcinolone acetonide nano-suspension preparation coated with poloxamer 407 as topical anti-inflammatory eye drop.
- Triamcinolone acetonide loaded in self nano-emulsifying drug delivery systems (SNEDDs) as topical eye drop.
- Aprepitant loaded in self nano-emulsifying drug delivery systems (SNEDDs) as topical eye drop for treating age related macular degeneration (AMD).
- Rapamycin loaded in Niosome as a topical anti-wrinkle agent.

- Dapsone loaded in Nano-emulsion for reducing scar formation after skin injuries.
- Cannabis oil loaded in Nano-emulsion for treating dry eye disease.

Published Researches

1. RA Baus, F Zahir-Jouzdani, S Dünnhaupt, F Atyabi, A Bernkop-Schnürch, “Mucoadhesive hydrogels for buccal drug delivery: In vitro-in vivo correlation study” European Journal of Pharmaceutics and Biopharmaceutic, 2019, 42, 498-505.

2. Zahir-Jouzdani, Forouhe, et al. "Glyceryl ester surfactants: Promising excipients to enhance the cell permeating properties of SEDDS." European Journal of Pharmaceutics and Biopharmaceutics (2018) 129, 154-161.

3. Zahir-Jouzdani, Forouhe, et al. "Corneal chemical burn treatment through a delivery system consisting of TGF-β 1 siRNA: in vitro and in vivo." Drug Delivery and Translational Research (2018) 8 (5), 1127-1138.

4. Zahir, Forouhe, et al. "siRNA delivery for treatment of degenerative diseases, new hopes and challenges." Journal of Drug Delivery Science and Technology (2018) 45, 428-441.

5. Zahir-Jouzdani, Forouhe, et al. "Chitosan and thiolated chitosan: Novel therapeutic approach for preventing corneal haze after chemical injuries." Carbohydrate polymers “179 (2018): 42-49.

6. Forouhe Zahir-Jouzdani, Fatemeh Khonsari, Masoud Soleimani, Mirgholamreza Mahbod, Ehsan Arefian, Saeed Shahhosseini, Rasoul Dinarvand, Fatemeh Atyabi. “Rapamycin loaded nanostructured lipid carriers (NLCs) for prevention of corneal haze and fibrosis after burn injuries: in vitro and in vivo evaluation”Journal of Cellular Physiology” 234(4) (2019), 5702-4712.

7. Forouhe Zahir-Jouzdani, Julian Wolf, Fatemeh Atyabi, Andreas Bernkop-Schnürch.” Mucoadhesive and in situ gelling polymers: Why do they need each other?” Expert Opinions on Drug Delivery 15(10) (2018): 1007-1019.

8. Esmail Salimi, Bao Levinh, Forouhe Zahir-Jouzdani, Barbara Matuszczak, Andreas Bernkop.“ Self-emulsifying drug delivery systems changing their zeta potential via a flip-flop mechanism, “International journal of pharmaceutics” 550 (1-2), 200-206.

9. Zahir-Jouzdani, Forouhe, Fatemeh Atyabi, and Nazanin Mojtabavi. "Interleukin-6 participation in pathology of ocular diseases." Pathophysiology” 24 (2017): 123-131.

10. Honary, Soheyla, and Foruhe Zahir. "Effect of zeta potential on the properties of nanodrug delivery systems-a review (Part 2)." Tropical Journal of Pharmaceutical Research”12.2 (2013): 265-273.

11. Honary, Soheyla, and Foruhe Zahir. "Effect of zeta potential on the properties of nanodrug delivery systems-a review (Part 1)."Tropical Journal of Pharmaceutical Research”12.2 (2013): 255-264.

12. Honary, S., and F. Zahir. "Effect of process factors on the properties of doxycycline nanovesicles."Tropical Journal of Pharmaceutical Research”11.2 (2012): 169-175.

13. Honary, S. Zahir, F. et al. "Formulation and characterization of doxorubicin nanovesicles." Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures Processing, Measurement, and Phenomena”27.3 (2009): 1573- 1577.

14. Bekhradnia, Ahmad R., Forohe Zahir, and Sattar Arshadi. "Selective oxidation of organic compounds using pyridinium-1-sulfonate fluorochromate, C 5 H 5 NSO 3 H [CrO 3 F](PSFC)."Monatshefte für Chemie/Chemical Monthly” 139.5 (2008): 521-523.

Book Chapter

1. Fatemeh Atyabi, Forouhe Zahir-Jouzdani, Fatemeh Khonsari, Akram Shafiee, Fatemeh MottaghiTalab.” Combination therapy of macromolecules and small molecules: Approaches, advantages and limitations” Nanostructures for Cancer therapy (nanostructures in therapeutic medicine series), Elsevier publications.

Presentations

1. Forouhe Zahir, S. Honary.” Formulation of doxorubicin nanoniosomes, optimization preparation method:” Iran-Indian joint conference on nanotechnology (2009), Esfahan, Iran .

2. S .Honary, F. Zahir, M. Tabbakhian.”Formulation and characterization of Adriamycine in nanovesicels” Nano Man (the first international conference on nano manufacturing) (2008), Singapore.

3. Ahmad Reza Bekhradnia, Forouhe Zahir.“Spectroscopic study usage for description of fluorine replacement reaction progressing” Proceeding of the 10th Iranian physical chemistry seminar (2007), Isfahan, Iran.

4. Forouhe Zahir, Ahmad. R Bekhradnia. “Study of thermodynamic stability of warfarin configuration and its biologic activity” The 13th seminar of Iranian pharmacy students (2007), Tabriz, Iran.

5. Forouhe Zahir, Majid Saedi. “Effect of HPMC LV 100 on dissolution of carbamazepine” The 12th seminar of Iranian pharmacy students (2006), Mazandaran, Iran.

Honors

2009: The best researcher award in the field of novel sciences from "The Best Researchers of Medical Science Students" Seminar, Mazandaran, Iran.

2008: Introduced as "The Best Researcher and Student" by the board of directors of Mazandaran University, Faculty of pharmacy.

Socials

- http://scholar.google.com/citations?user=5yZ7SZEAAAAJ&hl=en
- https://ir.linkedin.com/in/forouhe-zahir-jouzdani-5b50b9168