

In the name of God
Curriculum Vita (CV)



Personal Information

Name: Elham Khodaverdi
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https://scholar.google.com/citations?hl=en&user=HLcLqk4AAAAJ&view_op=list_works&sortby=pubdate

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Professional Summary

Accomplished and dedicated Professor of Pharmaceutics with over 18 years of academic, research, and leadership experience in pharmaceutical sciences. Head of a dynamic research team focused on novel drug delivery systems and nano-formulations. Proven record of excellence in teaching at undergraduate and postgraduate levels, curriculum development, interdisciplinary collaboration, and leading laboratory-based pharmaceutical research. Passionate about student mentorship, innovation in pharmacy education, and translational research that bridges academia and industry.

Education

1994 to 2000

Pharm.D, Pharmacy

Faculty of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran

2000 to 2006

Ph.D., Pharmaceutics

Faculty of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran

2005 to 2006

Visiting Scholar

Dept. of Pharmacy, Toronto University, Toronto, Canada

2015-2016

Visiting Professor

Nanomedicine Research Center, University of Utah, United States of America

Academic Appointments

Professor of Pharmaceutics

School of Pharmacy, Mashhad University of Medical Sciences

2006 – Present

- Teach a wide range of courses in pharmaceutics and pharmaceutical technology.
- Supervise MSc and PhD theses (more than 30 graduate students).
- Develop course materials and revise curriculum to meet international educational standards.
- Spearhead international collaborations and joint research initiatives.
- Integrate virtual learning environments and digital platforms into course delivery.

Head of Research Laboratory in Drug Delivery & Nanotechnology

School of Pharmacy, MUMS

2006 – Present

- Lead a multidisciplinary research team working on nano-drug delivery, in situ forming drug delivery, hydrogels, lipid liquid crystals, and stimuli-sensitive and targeted therapies.
- Publish extensively in peer-reviewed journals (over 80 publications).
- Collaborate with industry on applied pharmaceutical research.
- Secure competitive research grants and supervise national and international research projects.
- Conduct applied research in collaboration with pharmaceutical companies on formulation development, drug stability, and nanocarriers.
- Oversight of an academic lab producing pilot-scale formulations.
- Expert in product characterization, scale-up, and regulatory documentation.
- Mentor students working on industry-relevant research projects and internships.
- Teaching Interests and Courses Delivered
 - Pharmaceutical Technology I & II
 - Advanced Drug Delivery Systems
 - Industrial Pharmacy
 - Nanotechnology in Pharmaceutics
 - Research Interests

- Smart and targeted drug delivery systems
- Nanotechnology in drug formulation
- Hydrogel-based and injectable delivery systems
- Transdermal and mucosal drug delivery
- Biocompatible polymeric systems

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Peer reviewing

More than 150 reviews for peer-reviewed international journals like ACS Applied Materials & Interface, International Journal of Pharmaceutics and Carbohydrate Polymer and ...

Selected Publications

1. Andisheh F, Oroojalian F, Shakour N, Ramezani M, Shamsara J, **Khodaverdi E**, et al. Docetaxel encapsulation in nanoscale assembly micelles of folate-PEG-docetaxel conjugates for targeted fighting against metastatic breast cancer in vitro and in vivo. *International Journal of Pharmaceutics*. 2021;605:120822 %@ 0378-5173.
2. Ghasemi Tahrir F, Ganji F, Mani AR, **Khodaverdi E**. In vitro and in vivo evaluation of thermosensitive chitosan hydrogel for sustained release of insulin. *Drug delivery*. 2016;23(3):1028-36 %@ 71-7544.
3. Hadizadeh F, **Khodaverdi E**, Oroojalian F, Rahmanian-Devin P, Hashemi SHM, Omidkhah N, et al. Preparation of porous PCL-PEG-PCL scaffolds using supercritical carbon dioxide. *International Journal of Pharmaceutics*. 2023;631:122507 %@ 0378-5173.
4. Kamali H, Karimi M, Abbaspour M, Nadim A, Hadizadeh F, **Khodaverdi E**, et al. Comparison of lipid liquid crystal formulation and Vivitrol® for sustained release of Naltrexone: in vitro evaluation and pharmacokinetics in rats. *International Journal of Pharmaceutics*. 2022;611:121275 %@ 0378-5173.
5. **Khodaverdi E**, Hadizadeh F, Hoseini N, Eisvand F, Tayebi M, Kamali H, et al. In-vitro and in-vivo evaluation of sustained-release buprenorphine using in-situ forming lipid-liquid crystal gels. *Life Sciences*. 2023;314:121324 %@ 0024-3205.
6. **Khodaverdi E**, Tafaghodi M, Ganji F, Abnoos K, Naghizadeh H. In vitro insulin release from thermosensitive chitosan hydrogel. *Aaps Pharmscitech*. 2012;13:460-6.
7. Sepahi S, Ghorani-Azam A, Hossieni SM, Mohajeri SA, **Khodaverdi E**. Pharmacological effects of saffron and its constituents in ocular disorders from in vitro studies to clinical trials: a systematic review. *Current Neuropharmacology*. 2021;19(3):392-401 %@ 1570-159X.

8. Sepahi S, Mohajeri SA, Hosseini SM, **Khodaverdi E**, Shoeibi N, Namdari M, et al. Effects of crocin on diabetic maculopathy: a placebo-controlled randomized clinical trial. *American journal of ophthalmology*. 2018;190:89-98 %@ 0002-9394.

For other publications please refer to:

https://scholar.google.com/citations?hl=en&user=HLcLqk4AAAAJ&view_op=list_works&sortby=pubdate

Conferences & Presentations

1. E. Khodaverdi, R. Dinarvand, F. Atyabi, liquid crystals as new stimuli materials for temperature-sensitive drug delivery, 14th International Pharmaceutical Technology Symposium (IPTS 2008), 8-10 Sep. 2008, Antalya, Turkey.
2. E. Khodaverdi, M.J. Abdekhodai, X.Y. Wu, Drug Permeation through A Composite Membrane consisting of pH-sensitive NIPPAM: MAA nanoparticles, Iran's first International Conference on Biomaterials, Nov. 12-15, 2007.
3. E. Khodaverdi, R. Dinarvand, F. Atyabi, Thermotropic Liquid crystalline blends embedded in cellulose nitrate membranes as temperature modulated drug permeation system. 10th Iranian Pharmaceutical Sciences Conference (IPSC), 21-24 Aug 2006, Tehran, Iran. (1st award winner).
4. E. Khodaverdi, R. Dinarvand, F. Atyabi, Temperature modulated transport of drugs through a triple layer membrane composed of a thermotropic liquid crystal and cellulose nitrate membranes, 9th Iranian Seminar of Pharmaceutical Sciences, 23-26 Aug 2004. Tabriz, Iran (1st award winner).
5. E. Khodaverdi, M.J. Abdekhodai, X.Y. Wu, pH-sensitive permeation through NIPPAM/MAA Composite Membranes. Iranian Controlled Release Seminar (Iran CRS), 21-22 June 2007, Tehran, Iran, (Oral Presentation).
6. E. Khodaverdi, R. Dinarvand, F. Atyabi, Temperature Modulated Drug Permeation through Liquid Crystal Embedded Membranes. 11th Iranian Seminar of Pharmaceutical Sciences, 23-26 Aug 2008. Kerman, Iran.
7. E. Khodaverdi, Afshin Jalili, Mahmoud Seifi, Farzin Hadizadeh, Preparation and investigation of poly (N-isopropyl acrylamide – acrylamide) membranes in temperature-responsive drug delivery, ICRC (4th Iranian Controlled Release Conference), Zanzan, Oct 2009.
8. E. Khodaverdi, Stimuli Sensitive Nanocarriers: The Role of Hydrogel Nanoparticles in Responsive Drug Delivery, nanomedicine, nanobiotechnology, nano biosensors & nanomaterials in medical sciences, July 2009.

Honors & Awards

- Founder of Targeted Drug Delivery Research Center
- First Award Winner at the Board Exam of Ph.D. Student, School of Pharmacy, Tehran University of Medical Sciences
- First Award winner at 9th Iranian Seminar of Pharmaceutical Sciences, 2004, Tabriz, Iran
- First Award winner at 10th Iranian Seminar of Pharmaceutical Sciences, 2006, Tehran, Iran

Top Cited Article Recognition, Elsevier, 2020

Chapter books cited my listed papers above:

1. Fimberger, M. and F. Wiesbrock (2016). Microwave-Assisted Synthesis of Polyesters and Polyamides by Ring-Opening Polymerization. Microwave-assisted Polymer Synthesis. R. Hoogenboom, U. S. Schubert and F. Wiesbrock. Cham, Springer International Publishing: 149-182.
1. Loh, X. J., et al. (2019). "Biodegradable Thermogelling Polymers." Small Methods 3(3): 1800313.
2. Agrawal, G. and A. Pich (2016). Polymer Gels as EAPs: Materials. Electromechanically Active Polymers: A Concise Reference. F. Carpi. Cham, Springer International Publishing: 27-52.
3. Padmanabhan, A. and L. S. Nair (2016). Chitosan Hydrogels for Regenerative Engineering. Chitin and Chitosan for Regenerative Medicine. P. K. Dutta. New Delhi, Springer India: 3-40.
4. Riaz, M. K., et al. (2017). Surface Engineering: Incorporation of Bioactive Compound. Bioactivity of Engineered Nanoparticles. B. Yan, H. Zhou and J. L. Gardea-Torresdey. Singapore, Springer Singapore: 111-143.
5. Wu, J., et al. (2015). Biomedical Application of Soft Nano-/Microparticles. Nano/Micro Science and Technology in Biorheology: Principles, Methods, and Applications. R. Kita and T. Dobashi. Tokyo, Springer Japan: 261-294.
6. Balakrishnan, B. and A. Jayakrishnan (2015). Injectable Hydrogels for Biomedical Applications. Injectable Hydrogels for Regenerative Engineering, IMPERIAL COLLEGE PRESS: 33-96.
7. Argueles Monal, W. and Recillas Mota, M. (2017). Chitosan Based Thermosensitive Materials: Biological Activities and Application of Marine Polysaccharides. London. Intech Open Limited.
8. Tu, J., et al. (2010). Polymers in oral modified release systems. Oral controlled release formulation design and drug delivery: theory to practice, John Wiley & Sons, Inc. Hoboken, NJ, USA: 71-88.
9. Reduwan Billah, S. M., et al. (2019). Cellulose-Based Hydrogel for Industrial Applications. Cellulose-Based Superabsorbent Hydrogels. M. I. H. Mondal. Cham, Springer International Publishing: 909-949.

10. Nayan Ashok, G., et al. (2017). Liquid Crystalline System: A Novel Approach in Drug Delivery. Novel Approaches for Drug Delivery. K. K. Raj, K. S. Anil, and K. Rajesh Kumar. Hershey, PA, USA, IGI Global: 190-216.
11. Bajpai, A., et al. (2013). "Biological Stimulus-Responsive." Polymeric Biomaterials: Medicinal and Pharmaceutical Applications 2: 245
12. Misra, A., et al. (2010). "Surfactants and block copolymers in drug delivery." Colloids in drug delivery: 1-53.
13. Shelton, L. J., et al. (2007). Actuators and Delivery Systems. Liquid Crystals: Frontiers In Biomedical Applications, World Scientific: 441-478.

My Notable Citations in Journals

1. Hu, J., et al. (2019). "Advances in Biomaterials and Technologies for Vascular Embolization." Advanced Materials 31(33): 1901071. (impact factor 25.81)
2. Nakagawa, H., et al. (2015). "Design of high-performance anti-adhesion agent using injectable gel with an anti-oxidative stress function." Biomaterials 69(Supplement C): 165-173. (Impact Factor 10.27)
3. Li, X., et al. (2018). "Potent Anti-adhesion Barrier Combined Biodegradable Hydrogel with Multifunctional Turkish Galls Extract." ACS applied materials & interfaces 10(29): 24469-24479. (impact factor 8.46)
4. Li, X., et al. (2014). "Controlled Release of Protein from Biodegradable Multi-sensitive Injectable Poly(ether-urethane) Hydrogel." ACS Applied Materials & Interfaces 6(5): 3640-3647. (impact factor 8.46)
5. Zhang, K., et al. (2014). "PEG–PLGA copolymers: Their structure and structure-influenced drug delivery applications." Journal of Controlled Release 183 (Supplement C): 77-86. (Impact Factor 8.78)
- 6.
7. Alexander, A., et al. (2013). "Poly(ethylene glycol)–poly(lactic-co-glycolic acid) based thermosensitive injectable hydrogels for biomedical applications." Journal of Controlled Release 172(3): 715-729. (Impact Factor 8.87)
8. Li, X., et al. (2019). "Self-assembly of Amphiphilic Peptides for Recognizing Furin High-expressed Cancer Cells." ACS applied materials & interfaces. (Impact Factor 8.46)
9. Li Volsi, A., et al. (2017). "Near-infrared light-responsive folate targeted gold nanorods for combined photothermal-chemotherapy of osteosarcoma." ACS applied materials & interfaces 9(16): 14453-14469. (Impact 8.097)
10. Maestro, L. M., et al. (2013). "Heating efficiency of multi-walled carbon nanotubes in the first and second biological windows." Nanoscale 5(17): 7882-7889. (Impact 7.23)
11. Hadar, J., et al. (2019). "Characterization of branched poly(lactide-co-glycolide) polymers used in injectable, long-acting formulations." Journal of Controlled Release 304: 75-89. (Impact Factor 7.88)

12. Gårdebjer, S., et al. (2018). "An overview of the transport of liquid molecules through structured polymer films, barriers, and composites – Experiments correlated to structure-based simulations." Advances in Colloid and Interface Science 256: 48-64. (Impact 7.78)

Professional Memberships

Member, Iranian Controlled Release Society (CRS)

Technical Skills & Tools

- Familiar with online education platforms (Moodle, Adobe Connect)
- Advanced laboratory techniques: HPLC, DSC, FTIR, SEM, in vitro/in vivo release studies
- Statistical analysis using SPSS

Languages

Persian (Native)

English (Fluent)