

Curriculum Vitae

Sahar Salehi

EDUCATION

06/2018-present	Habilitation Faculty of Engineering, Department of Biomaterials, University of Bayreuth
01/2009- 08/2013	Ph.D. Biomaterials Department of Materials Engineering, Isfahan University of Technology/Department of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran
09/2006- 01/2009	M.Sc. Materials Engineering (Materials Characterization & Selection) Department of Materials Engineering, Isfahan University of Technology, Isfahan, Iran
09/2002- 09/2006	B.Sc. Materials Engineering (Industrial metallurgy) Department of Materials Engineering, Isfahan University of Technology, Isfahan, Iran

EMPLOYMENTS

04/2017-present	Leader of Subgroup “Biomaterials for Tissue Regeneration” Department of Biomaterials, University of Bayreuth, Bayreuth, Germany
09/2014-03/2017	Postdoctoral Associate World Premier International (WPI)-Advanced Institute for Materials Research, Tohoku University, Sendai, Japan Postdoc Advisor: Prof. Ali Khademhosseini
08/2013-08/2014	Postdoctoral Associate Department of Ophthalmology, University Hospital of Düsseldorf, Düsseldorf, Germany- German Textile Research Institute North-West (DTNW) Duisburg-Essen University, Krefeld, Germany Postdoc Advisor: Dr. med. Thomas A. Fuchsluger, Prof. Jochen S. Gutmann
09/2012-08/2013	Research Associate Institute of Anatomy, University Hospital of Essen, Duisburg-Essen University, Essen, Germany - German Textile Research Institute Nord-West (DTNW), Krefeld, Germany Principle Investigator: Dr. med. Thomas A. Fuchsluger, Prof. Jochen S. Gutmann
10/2011-08/2012	Visiting Scholar (DAAD) Institute of Anatomy, University Hospital of Essen, Duisburg-Essen University, Essen, Germany - German Textile Research Institute Nord-West (DTNW), Krefeld, Germany Principle Investigator: Dr. med. Thomas A. Fuchsluger, Prof. Jochen S. Gutmann
03/2006-09/2011	Research Assistant, Laboratory coordinator Biomaterials Laboratory, Department of Materials Science and Engineering, Isfahan University of Technology, Isfahan, Iran.

TEACHING

Since 2018	Lecturer “Fundamental of cell biology” and practical course, Winter Semester, University of Bayreuth.
Since 2018	Lecturer at Summer school Biofabrication master program, Colloids/Polymer Network Bayreuth-Melbourne, University of Bayreuth.
Since 2018	Lecturer “Bioengineering for tissue regeneration”, Summer Semester, University of Bayreuth.
Since 2018	Lecturer at Elite study program Macromolecular Science, Winter Semester, University of Bayreuth.

AWARDS

- **Travel Grant**, WiN-UBT, University of Bayreuth
- **Travel Grant**, Equal Opportunities, University of Bayreuth
- **Travel Grant**, Overseas Dispatch Program for young researchers of Advanced Institute of Materials Research (AIMR)
- **Travel Grant**, Advanced Institute of Materials Research (AIMR)

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- **Travel Grant**, Overseas Dispatch Program for young researchers of Advanced Institute of Materials Research (AIMR), Visitor of Biomaterials Innovation Research Center (BIRC), Brigham and Women's Hospital, Harvard-MIT Health Science and Technology, 2015.
- **2nd Place winner** in Falling Walls Lab Sendai and Finalist of Falling Walls Lab Berlin, 2015.
- **Cover Picture** of *Klinische Monatsblätter für Augenheilkunde*, 2014; 231
- **Highlighted research**, Textile research of Germany (www.textileforschung.de), 2014.
- **Research Promotion Award**, Association of German Ophthalmologists, Sicca Symposium, Berlin, Germany, 2013.
- **Hot topic abstract**, The annual meeting program committee of the Association for Research in Vision and Ophthalmology (ARVO) representing the newest and most innovative research, 2014.
- **Ranked 1st graduated Ph.D.** in Biomaterials, Isfahan University of Technology, Isfahan, Iran, 2013.
- **2nd Place poster Award**, Iranian Metallurgical Engineers Society Annual Congress, Isfahan, Iran, 2006.

GRANTS

- **Research Grant (2019-2021)**, Forschungsgemeinschaft (DFG, German Research Foundation) – Grant number SA 3575/1-1. Sahar Salehi
- **Research Grant (2018-2021)** Sonderforschungsbereiche (SFB) Transregio, DFG TRR-SFB 225 consortium. Project N 326998133 – TRR 225 (subproject B03)). <http://trr225biofab.de/>
- **Completed Research Grant (2011-2013)**, Ministry of Health and Medical Education
- **DAAD Fellowship**, German Academic Exchange Service, 6 months, April 2012-Sep. 2012.
- **Scholarship**, Sabbatical leave, Iranian Ministry of Science and Education, 6 months, Oct. 2011-March 2012.

PEER REVIEWED PUBLICATIONS

1. I. Apsite, J. Manuel Uribe, A. Fernando Posada, S. Rosenfeldt, **S. Salehi**, L. Ionov, 4D biofabrication of skeletal muscle microtissues, *Biofabrication*, **2019**, <https://doi.org/10.1088/1758-5090/ab4cc4>.
2. M. A. Mohamed, A. Fallahi, A. M. A. El-sokkary, **S. Salehi**, M. A. Akl, A. Jafari, A. Tamayol, H. Fenniri, A. Khademhosseini, S. T. Andreadis, C. Cheng, “Stimuli-Responsive Scaffolds for Tissue Engineering Applications: From Chemistry to Biofabrication Technology”, *Progress in Polymer Science* 98, **2019**, 101147.
3. S. Ostrovidov, **S. Salehi**, M. Costantini, K. Suthiwanish, M. Ebrahimi, R. B. Sadeghian, T. Fujie, X. Shi, S. Cannata, C. Gargioli, A. Tamayol, M. R. Dokmeci, G. Orive, W. Swieszkowski, A. Khademhosseini, 3D Bioprinting in Skeletal Muscle, *Small*, 15(24), **2019**, 1805530
4. M. Ebrahimi, S. Ostrovidov, **S. Salehi**, S. Bok Kim, H. Bae, A. Khademhosseini, Enhanced Skeletal Muscle Formation on Microfluidic Spun Gelatin Methacryloyl (GelMA) Fibers Using Surface Patterning and Agrin Treatment, *J Tissue Eng. Regen. Med.* **2018**. 12(11), 2151-2163
5. **S. Salehi**, T. Scheibel, Biomimetic spider silk fibers – from vision to reality, *Biochemist.* **2018** 40 (1) 4.
6. M. Amirnejad, A. Afshar, **S. Salehi**, The effect of titanium dioxide (TiO₂) nanoparticles on hydroxyapatite (HA)/TiO₂ composite coating fabricated by electrophoretic deposition (EPD), *J Mater. Eng. Performance* **2018**, 27(5): 2338–2344.
7. S. Ostrovidov, M. Ebrahimi, H. Bae, H. K. Nguyen, **S. Salehi**, S. Bok Kim, A. Kumatani, T. Matsue, X. Shi, K. Nakajima, S. Hidema, M. Osanai, A. Khademhosseini, Gelatin- Polyaniline

- Composite Nanofibers Enhanced Excitation/ Contraction Coupling System Maturation in Myotubes, *ACS Appl. Mater. Interfaces*, **2017**, 9 (49), 42444–42458.
8. R. Banan Sadeghian, M. Ebrahimi, **S. Salehi**, Electrical Stimulation of Microengineered Skeletal Muscle Tissue: Effect of Stimulus Parameters on Myotube Contractility and Maturation. *J Tissue Eng. Regen. Med.* **2018**, 12(4):912-922.
 9. **S. Salehi**, M. Czugala, P. Stafiej, M.H. Fathi, T. Banners, J.S. Gutmann, B.B Singer, T.A. Fuchsluger, Poly (glycerol sebacate)-Poly (ϵ -caprolactone) Blend Nanofibrous Scaffold as Intrinsic Bio- and Immunocompatible System for Corneal Repair, *Acta Biomaterialia* **2017**, 50C, 370-380.
 10. **S. Salehi**, S. Ostrovidov, R. Banan Sadeghian, M. Ebrahimi, X. Liang, H. Bae, K. Nakajima, T. Fujie, A. Khademhosseini, Development of Flexible Cell Loaded Ultrathin Ribbons for Minimally Invasive Delivery of Skeletal Muscle Cells, *ACS Biomaterials Science & Engineering* **2017**, 3 (4), 579–589.
 11. R. Banan Sadeghian, J. Han, J. Ribas, A. Nasajpour, M. Duchamp, A. Mousavi Shaegh, S. Ostrovidov, **S. Salehi**, M. Chen, A. Khademhosseini, Application of nanoporous gold in planar and mesh forms in electrochemical biosensing, *IEEE*, **2016**: 19-21.
 12. R. Banan Sadeghian, S. Ostrovidov, J. Han, **S. Salehi**, H. Bae, M. Chen, A. Khademhosseini, Macroporous Mesh of Nanoporous Gold in Electrochemical Monitoring of Superoxide Release from Cells. *Biosensors and Bioelectronics*, **2017**, 88, 41-47. (*equal Contribution). **§ Highlighted in the AIMResearch magazine, Dec. 2016 Issue.** <https://research.wpi-aimr.tohoku.ac.jp/en/research/1089>
 13. R. Banan Sadeghian, S. Ostrovidov, J. Han, **S. Salehi**, H. Bae, M. Chen, A. Khademhosseini, Online Monitoring of Super Oxide Anion Release from Skeletal Muscle Tissue using an Electrochemical Biosensor based on Thick-film Nanoporous Gold, *ACS Sensors*, **2016**, 1 (7), 921–928.
 14. S. Ostrovidov, X. Shi, R. Banan Sadeghian, **S. Salehi**, T. Fujie, H. Bae, M. Ramalingam, A. Khademhosseini, Stem Cell Differentiation Toward the Myogenic Lineage for Muscle Tissue Regeneration: A Focus on Muscular Dystrophy, *Journal of Stem cells, Reviews and Reports*. **2015**, 11(6), 866-84.
 15. S. Ahadian, R. Banan Sadeghian, **S. Salehi**, S. Ostrovidov, H. Bae, M. Ramalingam, A. Khademhosseini, Bioconjugated Hydrogels for Tissue Engineering and Regenerative Medicine, *ACS Bioconjugate Chemistry* **2015**, 26(10), 1984-2001.
 16. R. Banan Sadeghian, S. Ostrovidov, **S. Salehi**, J. Han, M. Chen, A. Khademhosseini, An electrochemical biosensor based on gold microsphere and nanoporous gold for real- time detection of superoxide anion in skeletal muscle tissue, **2015**, *IEEE*: 7962-7965.
 17. S. Altinpinar, H. Zhao, W. Ali, R. Kappes, P. Schuchardt, **S. Salehi**, G. Santoro, P. Theato, S. Roth, J. Gutmann, Distorsion of Ultrathin Photocleavable Block Copolymer Films During Photocleavage and Nanopore Formation, *Langmuir* **2015**, 31(32), 8947-52.
 18. **S. Salehi**, M.H. Fathi, Sh. HaghjooyJavanmard, M. Moshayedi, F. Barneh, Fabrication and Characterization of Biodegradable Polymeric Films for Corneal Stroma Tissue Engineering, *Journal of Advanced Biomedical Research*, **2015**, 4:9.
 19. **S. Salehi**, T. Banners, J.S. Gutmann, E. Mäder, S.L. Gao, T.A. Fuchsluger, Characterization of Structural, Mechanical and Nano-Mechanical Properties of Electrospun PGS/PCL Fibers, *RSC Advances*, **2014**, 4, 16951. **§ Highlighted research in Textile research of Germany**
 20. **S. Salehi**, M.H. Fathi, Sh. HaghjooyJavanmard, T. Banners, J.S. Gutmann, S. Ergün, K.P. Steuhl, T.A. Fuchsluger, Generation of PGS/PCL-Blend Nanofibrous Scaffolds Mimicking Corneal Stroma Structure, *Macromolar Materials Engineering* **2014**, 299, 455–69.

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21. S. Khorsand, M.H. Fathi, **S. Salehi**, S. Amirkhanlou, Hydroxyapatite/Alumina Nanocrystalline Composite Powder Synthesized by Sol-Gel Process for Biomedical Applications, *International Journal of Minerals, Metallurgy and Materials*, **2014**, 21(10), 1033-36.
22. T. Fuchsluger, **S. Salehi**, C. Petsch, B. Bachmann, New possibilities for ocular surface reconstruction: collagen membranes and biocompatible elastomer nanofibers, *Ophthalmologie*, **2014**, 111 (11), 1019–26.
23. **S. Salehi**, A. Grünert, T. Bahners, J.S. Gutmann, K.P. Steuhl, M. Czugala, B.B. Singer, T.A. Fuchsluger, New Nanofibrous Scaffold for Corneal Tissue Engineering, *Klinische Monatsblätter für Augenheilkunde*, **2014**, 231, 626–30. § **Highlighted on the Journal's cover.**
24. **S. Salehi**, M.H. Fathi, Fabrication and Characterization of Sol-gel Derived Hydroxyapatite/Zirconia Composite Nanopowders with Various Contents of Yttria, *Ceramics International*, 36, **2010**, 1659–67.
25. **S. Salehi**, M.H. Fathi, Elaboration of Sol-Gel Derived Hydroxyapatite/Yttria Stabilized Zirconia Composite Coatings Obtained for Biomedical Application, *Defect and Diffusion Forum*, **2011**, 312-315, 894-99.

BOOK CHAPTERS

1. Wicklein V.J., Singer B.B., Scheibel T., **Salehi S.**, Chapter 17: Nanoengineered biomaterials for corneal regeneration, 379-415, Book title: “Nanoengineered Biomaterials for Regenerative Medicine” 1st Edition, edited by Kaplan D., Rajadas J. and Mozafari M., Publisher: Elsevier **2019**. ISBN: 9780128133552.
2. **Salehi S.**, Kharaziha M., Fallahi A., Masoumi N., Tamayol A., Chapter 11: Medical Textiles as substrates for Tissue Engineering. Book title: “Textile Finishing: Recent Developments and Future Trends” edited by Mittal K. and Bahners T., Publisher: John Wiley & Sons **2017**. ISBN 978-1-119-42676-9, Page 363.

Complete List of Published Work in My Bibliography

<https://scholar.google.de/citations?user=Xd6aUKoAAAAJ&hl=en>