

CURRICULUM VITAE S.Erfan Moussavi-Torshizi

Date of Birth: 11 February 1993

Place of Birth: Tehran, Iran

Family Status: Married

Citizenship: Iranian



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SELF INTRODUCTION

I am a doctoral researcher at the Neuro- and Sensory Physiology Institute of Heinrich Heine University. With a Master's degree in Biochemistry, I specialize in Cardiac Electrophysiology and Ion Channel Remodeling. My research interests revolve around the mechanisms of cardiac arrhythmias and electrophysiological remodeling, with a focus on understanding how ion channels modulate the electrical activity of the heart. I have extensive experience in Optical Mapping, which is a powerful technique for studying the spatiotemporal dynamics of cardiac electrophysiology. My aim is to apply my expertise to advance our understanding of cardiovascular physiology and to develop novel therapeutic strategies for cardiac arrhythmias.

WORK EXPERIENCE

Since 10/2019 [Institute for Neuro and Sensory physiology, Universitätsklinikum Düsseldorf, Germany](#)

Research Associate and Doctoral Candidate

Title of thesis: "Ventricular arrhythmogenesis by ion channel remodeling after acute myocardial infarction (AMI) "

- Improving Optical Mapping method to combine the electrical activity of the cardiac sample with RNAscope data
- Participation in meetings to report and discuss about the data
- Organization of the financial fees of the CaVaD 2021 symposium
- Teaching practical courses in German to medical students

- Collaboration with other working groups
- Writing scientific articles for international journals

09/2016 – 10/2019 **Institute of Biochemistry and Biophysics, University of Tehran, Iran**

Research Associate

- Establishing the methods
- Teaching and consulting other researchers
- Organizing and leading different research projects
- Participation in meetings to report and discuss about the data
- Presenting the results at national conferences

EDUCATION

09/2015 – 09/2018 **Institute of Biochemistry and Biophysics, University of Tehran, Iran**

Master program in Biochemistry

Title of thesis: “Investigating the anticancer secondary metabolite production by *Dendrostellera lessertii* cell culture technique”

- Final grade: 1.0
- First student honor

09/2011 – 02/2015 **Institute of Biology, University of Tehran, Iran**

Bachelor program in Biology

- Final grade: 1.75
- First student honor

06/2007 – 07/2011 **The National Organization for Development of Exceptional Talents (NODET or SAMPAD), Karaj, Iran**

High School Degree

- Final grade: 1.41

PUBLICATION

- Moussavi-Torshizi, S. E., Amin, E., & Klöcker, N. (2023). Sex-specific repolarization heterogeneity in mouse left ventricle: optical mapping combined with mathematical modeling predict the contribution of specific ionic currents. *Physiological Reports*. Advance online publication. <https://doi.org/10.14814/phy2.15670>
- Amin, E., Moussavi-Torshizi, S. E., Heinen, A., Scherschel, K., Gödecke, A., Meyer, C., & Klöcker, N. (under review). L-type calcium channel isoform remodeling promotes spatial action potential heterogeneity after acute myocardial infarction/reperfusion injury. *Cardiovascular Research*. Advance online publication.
- Fehrentz, T., Amin, E., Görldt, N., Strasdeit, T., Moussavi-Torshizi, S. E., Leippe, P., Trauner, D., Meyer, C., Frey, N., Sasse, P., & Klöcker, N. (under submission). Optical Defibrillation of Ventricular Arrhythmias by the Photochromic Ligand AB2.
- Bottermann, K., Spychal, A., Eliacik, A., Amin, E., Moussavi-Torshizi, S. E., Klöcker, N., Gödecke, A., & Heinen, A. (under submission). Extracellular flux analysis in intact cardiac tissue slices – a novel tool to investigate cardiac substrate metabolism.