

1. PERSONAL DETAILS

Date of Birth: 06 July 1982

Address: Systems Biology Group, Department of Chemical and Biological Engineering, Chalmers University of Technology, Kemivägen 10, Gothenburg, SE-412 96, Sweden.

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Publications: <https://scholar.google.se/citations?user=WzjzuNwAAAAJ&hl=en&oi=ao>

2. HIGHER EDUCATION

September 2005 - December 2009: PhD in Engineering (Computational Biology), Waterford Institute of Technology, Ireland. The project was supervised by Dr PJ Cregg and Dr Kieran Murphy.

- My PhD thesis entitled "Inclusion of Interactions in Mathematical Modelling of Implant Assisted Magnetic Drug Targeting (IA-MDT)" was accepted successfully without any corrections by Prof. Edward R. Flynn, University New Mexico Cancer Research and Treatment Centre in USA and Prof. John Waldron, Computer Architecture Group, Trinity College Dublin (TCD), Ireland.

September 2004 - August 2005: Bachelor of Engineering in Electronic Engineering, Waterford Institute of Technology (WIT), Ireland.

September 2000 - August 2004: Bachelor of Engineering in Electronic & Telecommunication Engineering, Istanbul Technical University (ITU), Turkey.

3. POST-DOCTORAL WORK

September 2018 - To date: Professor of Systems Biology/Medicine, Centre for Host–Microbiome Interactions, Dental Institute, King's College London, London, SE1 9RT, United Kingdom

- Main supervisor of 3 PhD students and co-supervisor of 2 postdocs and 2 PhD students.

May 2018 - To date: Associate Professor in Systems Biology/Medicine, KTH-Royal Institute of Technology, Stockholm, Sweden.

- Main supervisor of 12 postdocs, 3 PhD students, 2 research engineers, 2 Master Thesis students and 4 visiting researchers.

August 2015: Assistant Professor of Systems Biology/Medicine, KTH-Royal Institute of Technology, Stockholm, Sweden.

April 2015: Assistant Professor of Systems Biology/Medicine, Chalmers University of Technology, Gothenburg, Sweden.

- Main supervisor of 1 PhD student and co-supervisor of 2 PhD students.

September 2010- March 2015: Senior researcher at Systems and Synthetic Biology Group, Chalmers University of Technology, Gothenburg, Sweden.

- Project leader on the project entitled "Mathematical models of tissue metabolism in response to malnutrition" funded by Bill & Melinda Gates Foundation.
- Involved in the establishment of Human Metabolic Atlas (HMA), a computational platform for modeling human metabolism and for integrative analysis of clinical data with the objectives of identifying prognostic biomarkers and discovering novel drug targets. I reconstructed simulation ready genome-scale metabolic models (GEMs) for healthy cell-types, cancer and cell lines. These integrative models can be employed for the analysis of the high throughput omics data related to obesity, Nonalcoholic Fatty Liver Disease, Type 2 Diabetes and cancer (e.g. HCC and colon cancer).

January 2010-August 2010: Post-doctoral researcher in Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN) Research Centre, TCD, Ireland.

- Employed by Telecommunications Software & Systems Group (TSSG), WIT, Ireland. I worked in the area of neuroscience and nanotechnology and studied the structure of the neuronal networks. I learnt more about the fundamentals of network medicine.

June 2009-December 2009: Visiting post-doctoral researcher in CRANN Research Centre, TCD, Ireland.

- applied IA-MDT models to several other bioengineering applications. Firstly, I included the stretch forces and compared the mathematical model results with the *in vitro* experiments that were performed in CRANN Research Centre, TCD. Secondly, I implanted a magnetizable wire in to the cell seeded biological scaffold in Bone Tissue Engineering applications and created stronger bone scaffolds. I simulated the attachment and the mechanical stimulation of the cells.

4. TUTORING EXPERIENCE

I taught 160 hours in undergraduate and Master level courses. I have also had guest lectures in other European and American universities (20 hours). Recently, I also started to work on the preparation of the course content for a new Master level Systems Biology course at KTH.

Currently main supervisor of 12 postdocs, 3 PhD student, 2 research engineers, 2 Master Thesis students and 4 visiting researchers. Also co-supervisor of 2 PhD students

PhD Thesis students: Muhammad Arif, Elias Bjornson, Dorines Rosario, Parizad Babaei (Graduated), Avlant Nilsson (Graduated), Saeed Shoaie (Graduated), Pouyan Ghaffari (Graduated).

Master Thesis students: Mohammad AlShokby, Feride Eren, Ida Larsson (Graduated), Alen Lovric (Graduated), Sumit Deshmukh (Graduated), Dorines Rosario (Graduated), Pisanu Buphamalai (Graduated), Tim Kuijpers (Graduated), Elias Bjornson (Graduated), Sebastian Hofer (Graduated).

Details can be found at www.sysmedicine.com

5. SKILLS

- Have a strong interest and experience in Systems biology, computational biology and background in bioengineering, neuroscience, nanotechnology and computer science.
- Reconstructed number of GEMs and analyzed transcriptomics, proteomics and metabolomics data in health and disease states using R and MATLAB.
- Modeled number of dynamic biological and chemical systems and created my own algorithms using C++ programming language.
- Performed sets of experiments in the area of nanotechnology and neuroscience.
- Good at using MATLAB, R, Python and Linux based programs.
- Extensive knowledge of OpenFOAM, C++ open source library, used in my PhD work. OpenFOAM can be used for simulating problems about complex fluid flows involving chemical reactions, turbulence, heat transfer and solid dynamics in 2D and 3D.

6. AWARDS & GRANTS

Research Grants as PI and Co-PI

- PI, 18 M SEK for starting an independent Research Group at SciLifeLab, KTH during 2015-2023.
- PI, 5M SEK proof of concept grant for HCC treatment from Knut and Alice Wallenberg Foundation during 2019-2021.
- PI, 5M SEK proof of concept grant for NAFLD treatment from Knut and Alice Wallenberg Foundation during 2018-2020.
- Co-PI, 4M SEK proof of concept grant for NAFLD treatment from Knut and Alice Wallenberg

Foundation during 2018-2020.

- Co-PI, 4 M SEK from Vinnova Grant during 2018-2022.
- Co-PI, 120.000 USD from Chan Zuckerberg Initiative in 2018.
- Co-PI, ~20 M SEK from Wallenberg Centre for Protein Research, Knut and Alice Wallenberg Foundation, total of 320 MSEK during 2016-2023.
- Co-PI, 281.982 Euros from Polymers in the Liver: Metabolism and Regulation, Horizon 2020 - Research and Innovation Framework Programme during 2019-2021.

Other Grants

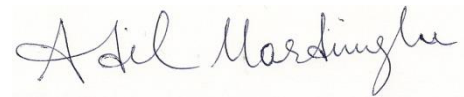
- Nils Pihlblads stipendiefond to attend Keystone Symposia on Integrating Metabolism and Tumor Biology, January 13th -18th, Vancouver, Canada, 2015.
- Assar Gabrielssons Fond to attend the 22nd Annual International Conference on Intelligent Systems for Molecular Biology (ISMB2014) in July 11-15, 2014.
- Knut and Alice Wallenberg Foundation Award, to attend Keystone Symposia on Big Data in Biology, March 23rd -25th, San Francisco, USA, 2014.
- Assar Gabrielssons Fond to attend the conference on Cancer Therapeutics 2013: From bench to bedside, November 4th – 6th, La Jolla, USA, 2013.
- InnoCentive Challenge winner, Propose a Biomarker that Could Predict Potential for Plexiform Neurofibroma Growth, 2013.
- Knut and Alice Wallenberg Foundation Award, to attend Keystone Symposia on Human Genomics and Personalized Medicine, June 17th – 21st, Stockholm, Sweden, 2013.
- Abcam Travel Scholarships to attend Programming Obesity meeting, April 14th – 16th, Cambridge, UK, 2013.
- InnoCentive Challenge winner, Advancing Research into Facial Fat Redistribution, 2012.
- Adlerbertska forskningsstiftelsen fellowship, Gothenburg, Sweden, 2012.
- EMBL Corporate Partnership fellowship to attend EMBO|EMBL Symposium Diabetes and Obesity, Leipzig, Germany, 2012.
- Knut and Alice Wallenberg Foundation Award, Chalmers to attend ISMB 8th Student Council Symposium, California, USA, 2012.
- Knut and Alice Wallenberg Foundation Award, Chalmers to attend Conference on Constraint-based Reconstruction and Analyses, June 24th-26th, Reykjavik, Iceland, 2011.
- The Society for Biological Engineering Award to attend the 3rd International Conference on Biomolecular Engineering, January 16th-19th, San Francisco, USA, 2011.
- Enterprise Ireland for three years support for PhD research project under the Applied Research Enhancement programme as part of the SEAM Research Centre at WIT.
- Cancer Research Ireland (Irish Cancer Society) for an Oncology Scholars Award, 2009.
- Travel award for the 7th International Scientific and Clinical Applications of Magnetic Carriers, Vancouver, Canada, 2008.
- Travel award for the 6th International Scientific and Clinical Applications of Magnetic Carriers, Krems, Austria, 2006.
- ERASMUS scholarship during the ERASMUS Socrates Program between 2004 and 2005.
- Tekfen, Zorlu and Koc Foundations scholarships during the fellow's education in ITU.

7. REFERENCES

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I declare that the answers and particulars given by me are to the best of my knowledge true in every detail. I understand that if, subsequent to engagement, any particulars furnished by me are found to have been false within my knowledge and I shall be liable to instant dismissal.



Dr. ADIL MARDINOGLU