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## CV

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NAME <b>Amin Ardestani, Ph.D.</b>	POSITION TITLE Project leader/senior postdoc, Islet Biology Laboratory
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EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Tarbeiat moalem, Tehran, Iran.	Bachelors of Science in Biology	2000-2004	Biology
University of Tehran, Tehran, Iran	M.Sc. Degree of Science in Biochemistry	2005-2007	Biochemistry
University of Bremen, Bremen, Germany	PhD. Degree of Biology	2008-2013	Biochemistry, Molecular diabetology

### Positions and Honors.

#### Positions

2005 –2007 Asst. researcher, *Laboratory of Genetic engineering, Institute of biochemistry and biophysics, University of Tehran, Tehran, Iran.*

2007 – 2008 Biology teacher, *Department of Medical Science, Faculty of Medicine, Iran University of medical Science, Tehran, Iran.* The aim of this course is to give a general view of biology to undergraduate students.

2008-2012 PhD student, *Islet Biology Laboratory, Centre for Biomolecular Interactions, University of Bremen, Germany.*

2015 Visiting researcher at PO Berggren's lab at Rolf Luft Research Center for Diabetes and Endocrinology, Karolinska Institutet, Stockholm, Sweden.

2013-present Junior group leader, *Islet Biology Laboratory, Centre for Biomolecular Interactions, University of Bremen, Germany.*

#### Honors

2004-Ranked 3<sup>th</sup> in Biochemistry among up to 7200 participants In the National Exam for Entering Nationwide M.Sc Programs in Biochemistry.

2004- Ranked 3<sup>th</sup> in Clinical Biochemistry among up to 12000 participants in the National Exam for Entering Nationwide M.Sc. Programs in Clinical Biochemistry.

2007- Razi award for young scientists at the 9<sup>th</sup> Iranian Congress of Biochemistry & the 2<sup>nd</sup> International Congress of Biochemistry and Molecular Biology. Shiraz-Iran.

2008- Young scientist award at the 8<sup>th</sup> FEBS-IUBMB YOUNG SCIENTISTS FORUM in the the 33rd FEBS CONGRESS & 11th IUBMB CONFERENCE. Athens, Greece.

2008- Student prize for Master thesis, University of Tehran, Iran.

2013- Young scientist at 1<sup>st</sup> DZD Diabetes Research School. Barcelona, Spain.

2014- Student prize "Bremer Studienpreis" for PhD dissertation, University of Bremen, Bremen, Germany.

2014- Albert Renold travel fellowship award, EFSD.

2015- University of Bremen award for first successful DFG grant.

2017- EFSD/Lilly Fellowship Programme.

2017- Early Investigators awards, Endocrine Society (supported by Lilly USA, LLC).

2018- Journal of Molecular Biology (JMB) Career Advancement Initiative.

2018- Impulse grant award, University of Bremen, Bremen, Germany.

2019- \*JDRF Advanced Postdoctoral Fellowship.

\* Upon successful advancement to a faculty position, the advanced postdoctoral fellowship awardee receives a transition award in an amount up to USD 110,000 total costs for 1 year supporting their first year as a faculty member of an academic institution.

### **Teaching Experiences**

2009-present: **Project supervisor** for master students of the M.Sc. program "Biochemistry and Molecular Biology, and PhD students at Centre for Biomolecular Interactions, University of Bremen, Bremen, Germany.

March 2007-Feb 2008. **Biology teacher**, Department of Medical Science, Faculty of Medicine, Iran University of medical Science, Tehran, Iran. The aim of this course is to give a general view of biology to undergraduate students.

### **Professional Membership**

European Association for the Study of diabetes (EASD)  
Endocrine Society

### **Invited talks & oral presentations**

Amin Ardestani: LATS2 signaling: a potential apoptosis regulation pathway in pancreatic  $\beta$ -cell. The Hippo pathway across species and disciplines. October 2017, Rome, Italy.

Amin Ardestani: Novel targets to protect pancreatic  $\beta$ -cells in diabetes. Rolf Luft Research Center for Diabetes and Endocrinology, Karolinska Institutet, Stockholm, Sweden. January 2015.

Amin Ardestani: Novel targets to block  $\beta$ -cell apoptosis in diabetes. "Novel aspects of islet biology" symposium. DDZ/German Diabetes Center, Düsseldorf, Germany. October 2014.

Amin Ardestani: Targeting Hippo signaling pathway to restore  $\beta$ -cell function and survival in diabetes. Medizinische Klinik IV, Universität Tübingen. December 2013.

Amin Ardestani: Mammalian sterile 20-like kinase 1 (MST1) mediates pancreatic  $\beta$ -cell apoptosis. 10th German islet workshop, Freiburg, Germany, 2011.

Ardestani, A; Sauter, NS; Kerr-Conte, Maedler K: PDX-1 translocates to the cytosol in type 2 diabetes. 45<sup>th</sup> EASD, Vienna, Austria. 2009.

### **Editor and Referee Assignments**

Scientific Reports editorial board member.

Invited reviewer for more than 10 Journals in the field (*PLOS One*, *Biochimie*, *Journal of Gastroenterology*, *Scientific Reports*, *Molecular Cancer* ...).

### **Funding**

#### Completed:

EFSD/Lilly European Diabetes Research Programme 2013: Targeting MST1 for the treatment of Type 2 diabetes 2014-2015, **Co-PI**.

DFG (German research foundation): PHLPP1/2 phosphatases protein as new targets for  $\beta$ -cell-directed therapy in diabetes 2015-2017, **PI**.

EFSD/Lilly Research Fellowship Programme 2017: Targeting Hippo effector YAP for  $\beta$ -cell protection in diabetes 2017-2018, **PI**.

#### Current:

JDRF: MST1 inhibitors for diabetes. Collaboration with CALIBR (San Diego) 2014-, **Co-PI**.

DFG (German research foundation): Renewal: PHLPP1/2 phosphatases protein as new targets for  $\beta$ -cell-directed therapy in diabetes 2018-2021, **PI**.

JDRF-APF: Targeting Hippo kinase LATS2 for  $\beta$ -cell protection in diabetes 2019-2021, **PI**.

#### Pending:

EFSD/JDRF/Lilly European Programme in Type 1 Diabetes 2019: Restoration of YAP for  $\beta$ -cell regeneration. **PI**.

## **Patent**

- 1) **Amin Ardestani**, Kathrin Maedler, & Matthew. S Tremblay, 2016: Composition and methods for inhibiting mammalian sterile kinase 1.
- 2) **Amin Ardestani** & Kathrin Maedler, 2014: Novel treatment of metabolic diseases.

## **Publications**

### **Senior author:**

- 1- Gorrepati,KDD, Yuan,T, He,W, Maedler,K, **Ardestani, A.** An SCF<sup>FBXO28</sup> E3 ligase protects pancreatic  $\beta$ -cells from apoptosis. *International Journal of Molecular Sciences*, 2018, 24;19(4).
- 2- Yuan,T, Lupse,B, Maedler,K, **Ardestani, A.** mTORC2 Signaling: A Path for Pancreatic  $\beta$ -Cell's growth and function. *Journal of Molecular Biology*, 2018, 430(7):904-918.
- 3- Gorrepati,KDD, Lupse,B, Annamalai,K, Yuan,T, Maedler,K, **Ardestani, A.** Loss of deubiquitinase USP1 blocks pancreatic  $\beta$ -cell apoptosis by inhibiting DNA damage response. *iScience*, 2018 Mar 23;1:72-86.
- 4- Maedler, K & **Ardestani, A.** mTORC in  $\beta$  cells: more Than Only Recognizing Comestibles. *Journal of Cell Biology*. 2017 Jul 3;216(7):1883-1885.
- 5- Yuan,T, Rafizadeh,S, Gorrepati,KDD, Lupse,B, Oberholzer,J, Maedler,K, **Ardestani, A.** Reciprocal regulation of mTOR complexes in pancreatic islets from humans with type 2 diabetes. *Diabetologia*, 2017 Apr;60(4):668-678.
- 6- Yuan,T, Maedler,K & **Ardestani, A.** Pancreatic  $\beta$ -cell rescue in diabetes by targeting Merlin. *Expert Review of Endocrinology & Metabolism*, 2017, 12(2): 97-99.
- 7- Yuan,T, Rafizadeh,S, Azizi,Z, Lupse,B, Gorrepati,KDD, Awal,S, Oberholzer,J, Maedler,K, **Ardestani, A.** Pro-proliferative and anti-apoptotic action of exogenously introduced YAP in pancreatic  $\beta$ -cells. *Journal of Clinical Investigation Insight*, 2016, Nov 3;1(18):e86326.
- 8- Yuan,T, Gorrepati,KDD, Maedler,K & **Ardestani, A.** Loss of Merlin/NF2 protects pancreatic  $\beta$ -cells from apoptosis by inhibiting LATS2. *Cell Death & Disease*, Feb 18;7:e2107, 2016.

### **First- & co-author:**

- 9- **Ardestani, A\*** & Maedler, K\*. mTORC1 and IRS1: Another Deadly Kiss. *Trends in Endocrinology & Metabolism*, 2018 Nov;29(11):737-739.. \* shared corresponding author.
- 10- **Ardestani, A\***, Lupse,B & Maedler, K\*. Hippo Signaling: Key Emerging Pathway in Cellular and Whole-Body Metabolism. *Trends in Endocrinology & Metabolism*, 2018 Jul;29(7):492-509. \* shared corresponding author.
- 11- **Ardestani, A\***, Lupse,B Yoshiaki,K, Leibowitz,G, & Maedler, K\*. mTORC1 Signaling: A Double Edge Sword in Diabetic  $\beta$ -cells. *Cell Metabolism*, 2018 Feb 6;27(2):314-331. \* shared corresponding author.
- 12- **Ardestani, A\***. & Maedler, K\*. The Hippo signaling pathway in pancreatic  $\beta$ -cells: functions and regulations. *Endocrine Review*, 2018 Feb 1;39(1):21-35. \* shared corresponding author.
- 13- **Ardestani, A\***, Maedler,K\*. MST1: a promising therapeutic target to restore functional beta cell mass in diabetes. *Diabetologia*, Sep;59(9):1843-9, 2016.\* shared corresponding author.
- 14- Shah,P, Lueschen,N, **Ardestani,A**, Oberholzer,J, Olerud,J, Carlsson,PO, Maedler,K. Angiopoetin-2 signals do not mediate the hypervascularization of islets in Type 2 Diabetes. *PLOS One*, 2016, Sep 12;11(9):e0161834.
- 15- Azizi,Z, Lange,C, Paroni,F, **Ardestani,A**, Meyer,A, Wu,Y, Zander,AR, Westenfelder,C, Maedler,K.  $\beta$ -MSCs: successful fusion of MSCs with  $\beta$ -cells results in a  $\beta$ -cell like phenotype. *Oncotarget*, 2016 Aug 2;7(31):48963-48977.
- 16- **Ardestani, A\***, Paroni,F, Azizi,Z, Kaur,S, Khobragade,V, Yuan,T, Frogne,T, Tao,W, Oberholzer,J, Pattou,F, Kerr-Conte,J, Maedler,K\*. MST1 is a key regulator of  $\beta$ -cell apoptosis and dysfunction in diabetes. *Nature Medicine*, 20, 385-397, 2014.\* shared corresponding author.
- 17- Shah,P\*, **Ardestani, A\***, Dharmadhikari,G, Laue,S, Schumann,DM, Kerr-Conte,J, Pattout,F, Klein,T, Maedler,K. The DPP-4 inhibitor linagliptin restores  $\beta$ -cell function & survival in human isolated

islets through GLP-1 stabilization, *J Clin Endocrinol Metab* 98, E1163-1172, 2013. \* **shared first author**.

18- **Ardestani, A.** Shu, L, Maedler, K. Targeting the metabolic syndrome and type 2 diabetes by preventing inflammation. Elsevier Book: NUTRITIONAL AND THERAPEUTIC INTERVENTIONS OF DIABETES AND METABOLIC SYNDROME, 233-252, 2012.

19- Schulthess, FT, Katz, S, **Ardestani, A.** Kawahira, H, Georgia, S, Bosco, D, Bhushan, A, Maedler, K. Deletion of the mitochondrial flavoprotein apoptosis inducing factor (AIF) induces  $\beta$ -cell apoptosis and impairs  $\beta$ -cell mass. *PLoS One* 4, e4394, 2009.

20- Bahramikia, S, **Ardestani, A.** Yazdanparast, R. Protective effects of some Iranian medicinal plants against free radical-mediated protein oxidation. *Food Chemistry*, 115, 137-142, 2009.

21- **Ardestani, A.** Yazdanparast, R. Suppressive effect of ethyl acetate extract *Teucrium polium* on cellular oxidative damage and apoptosis induced by 2-Deoxy-D-ribose: role of *de novo* synthesis of glutathione. *Food Chemistry*, 114, 1222-1230, 2009.

22- **Ardestani, A.** Yazdanparast, R, Sarraf Nejad, A. 2-Deoxy-D-ribose-induced oxidative stress causes apoptosis in human monocytic cells: prevention by pyridoxal-5'-phosphate. *Toxicology In vitro*, 22: 968-979, 2008.

23- Yazdanparast, R, Bahramikia, S, **Ardestani, A.** *Nasturtium officinalis* reduces oxidative stress and enhances antioxidant capacity in hypercholesterolemic rats. *Chemico-biological Interaction Journal*, 172, 176-184, 2008.

24- **Ardestani, A.** Yazdanparast, R, Jamshidi, S. Therapeutic effects of *Teucrium polium* extract on oxidative stress in pancreas of streptozotocin-induced diabetic rats. *Journal of Medicinal Food*, 11: 525-532, 2008.

25- **Ardestani, A.** Yazdanparast, R. Inhibitory effects of ethyl acetate extract of *Teucrium polium* on in vitro protein glycoxidation. *Food and Chemical Toxicology*, 45, 2402-2011, 2007.

26- **Ardestani, A.** Yazdanparast, R. *Cyperus rotundus* suppresses AGE formation and protein oxidation in a model of fructose-mediated protein glycoxidation. *International Journal of Biological Macromolecules*, 41, 572-578, 2007.

27- Yazdanparast, R, **Ardestani, A.** Jamshidi, R. Experimental diabetes treated with *Achillea santolina*: effect on pancreatic oxidative parameters. *Journal of Ethnopharmacology*, 112, 13-18, 2007.

28- **Ardestani, A.** Yazdanparast, R. Antioxidant and free radical scavenging potential of *Achillea santolina* extracts. *Food Chemistry*, 104, 21-29, 2007.

29- **Ardestani, A.** Yazdanparast, R. Flavonoids as potential therapeutic agents for type 1 diabetes. *Medical Hypotheses*, 69:955, 2007.

30- **Ardestani, A.** Yazdanparast, R. In vitro antioxidant and free radical scavenging activity of *Cyperus rotundus*. *Journal of Medicinal Food*, 10(4), 667-674, 2007.

31- **Ardestani, A.** Yazdanparast, R. Down regulation of NF-kappa B as therapeutic strategy for type 1 diabetes: effect of flavonoids. *Iranian Journal of Medical Hypotheses and Ideas*, 1:8, 2007.

32- **Ardestani, A.** Yazdanparast, R. PLASMA PROTEIN OXIDATION IN DIABETIC RATS AFTER SUPPLEMENTATION WITH *Teucrium polium* EXTRACT. *Pharmacologyonline*, 3: 342-347, 2006.

33- **Ardestani, A.** Yazdanparast, R. ACHILLEA SANTOLINA REDUCED OXIDATIVE STRESS IN THE LIVER OF STREPTOZOTOCIN-INDUCED DIABETIC RATS. *Pharmacologyonline*, 3: 298-308, 2006.