

CURRICULUM VITAE

Umut İnci Onat

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Acibadem Mehmet Ali Aydınlar University
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ACADEMIC DEGREES and EMPLOYMENT HISTORY

- 2022- Present *Assist.Prof*
Acibadem Mehmet Ali Aydınlar University
Faculty of Engineering and Natural Sciences
Molecular Biology and Genetics
- 2021-2022 *Postdoctoral Researcher*
Acibadem Mehmet Ali Aydınlar University
Institute of Science
- 2019-2021 *Post-Doctoral Fellow*
Bilkent University, Ankara, Turkey,
Laboratory of Assoc. Prof. Ebru Erbay,
Project: “Endoplasmic Reticulum-Mitochondria Communication in
Epigenetic Regulation Inflammation and Atherosclerosis”
- 2012-2019 *Doctor of Philosophy*
Bilkent University
Department of Molecular Biology and Genetics
High-Honor degree - CGPA: 3.80
Thesis Advisor: Assoc. Prof. Ebru Erbay
Thesis Project: “The Role of Lipid-Induced Integrated Stress Response in
Metaflammation and Atherosclerosis”
- 2008-2012 *Bachelor of Science*
Bilkent University
Department of Molecular Biology and Genetics
- 2006-2008 *Bachelor of Science*
Bilkent University
Department of Industrial Engineering

PROFESSIONAL AWARDS

- 2019 Molecular Biology Organization, Ph.D. Achievement Award

2012- 2019 Full Merit Scholarship,
Bilkent University,
Institute of Science and Engineering

SCHOLARLY PUBLICATIONS

1. Hamid SM, Citir M, Terzi EM, Cimen I, Yildirim Z, Dogan AE, Kocaturk B, **Onat UI**, Arditi M, Weber C, Traynor-Kaplan A, Schultz C, Erbay E. “Inositol-requiring enzyme-1 regulates phosphoinositide signaling lipids and macrophage growth.” *EMBO Rep.* 2020 Nov 2;21(12):e51462. PMID: 33140520.
2. Cimen I, Yildirim Z, Dogan AE, Yildirim AD, Tufanli O, **Onat UI**, Nguyen U, Watkins SM, Weber C, Erbay E. “Double bond configuration of palmitoleate is critical for atheroprotection.” *Mol Metab.* 2019 Oct;28:58-72. PMID: 31422082
3. **Onat UI**, Yildirim AD, Tufanli Ö, Çimen I, Kocaturk B, Veli Z, Hamid SM, Shimada K, Chen S, Sin J, Shah PK, Gottlieb RA, Arditi M, Erbay E. “Intercepting the Lipid-Induced Integrated Stress Response Reduces Atherosclerosis.” *J Am Coll Cardiol.* 2019 Mar 19;73(10):1149-1169. PMID: 30871699.
4. Tufanli O, Telkoparan Akillilar P, Acosta-Alvear D, Kocaturk B, **Onat UI**, Hamid SM, Çimen I, Walter P, Weber C, Erbay E. “Targeting IRE1 with small molecules counteracts progression of atherosclerosis.” *Proc Natl Acad Sci U S A.* 2017 Feb 21;114(8):E1395-E1404. doi: 10.1073/pnas.1621188114. PMID: 28137856.
5. Çimen I, Kocaturk B, Koyuncu S, Tufanlı Ö, **Onat UI**, Yıldırım AD, Apaydın O, Demirsoy Ş, Aykut ZG, Nguyen UT, Watkins SM, Hotamışlıgil GS, Erbay E. “Prevention of atherosclerosis by bioactive palmitoleate through suppression of organelle stress and inflammasome activation.” *Science Transl Med.* 2016 Sep 28;8(358):358ra126. PMID: 27683551.

CONFERENCE PAPERS WITH PROCEEDINGS

1. **Onat UI**. “Intercepting the Lipid-Induced Integrated Stress Response Reduces Atherosclerosis”, 7th International Congress of the Molecular Biology Association of Turkey, 2019, Istanbul, Turkey, Abstract Book, pp. 49.
2. Kocaturk B, Cimen İ, Tufanlı O, Koyuncu S, Apaydın O, **Onat UI**, Hotamisligil GS, Erbay E. “A bioactive lipid named Palmitoleate inhibits atherosclerosis via downregulation of ER stress and inflammasome activation.” Hacettepe 2nd lipid research workshop (HULIPAG), 2017, Ankara, Turkey, Abstract Book, pp. 14.
3. Kocaturk B, Cimen İ, Tufanlı O, Koyuncu S, Apaydın O, **Onat UI**, Hotamisligil GS, Erbay E. “Nutritional modification of endoplasmic reticulum stress and inflammasome

Umut İnci Onat, Ph.D.

activity by a bioactive lipokine prevents atherosclerosis.” 41st FEBS Congress on Molecular and Systems Biology for a Better Life, 2016, Kusadasi, Izmir, Turkey, Abstract book, Vol. 283, pp. 25.

4. **Onat UI**, Koyuncu S, Demirsoy S, Erbay E. “Characterization of PERK-directed endoplasmic reticulum stress response to lipids.” FEBS EMBO Anniversary Conference, 2014, Paris, France, Published in *The FEBS Journal*, 281 Suppl.1. 2014, SUN-118, pp 108.
5. O. Tufanli, **I.Şimşek**, S. Koyuncu, E. Erbay. “The role of macrophage inositol requiring enzyme-1 in lipid-induced inflammation”. ” FEBS EMBO Anniversary Conference, 2014, Paris, France, Published in *The FEBS Journal*, 281 Suppl.1. 2014, SUN -340, 181.

INVITED TALKS and ORAL PRESENTATIONS

1. “Intercepting the Lipid-Induced Integrated Stress Response Reduces Atherosclerosis” MolBioKon 2019: 7th International Congress of the Molecular Biology Association of Turkey, 2019, Istanbul, Turkey
2. “Intercepting the Lipid-Induced Integrated Stress Response Reduces Atherosclerosis” 3rd Cost-Action CardioRNA Working Group Meeting, 2019, Istanbul, Turkey
3. “Characterization of PERK-directed Endoplasmic Reticulum Stress Response to Lipids” Turkey – Singapore Joint Workshop on Molecular Biology, 2015, Ankara, Turkey

EDUCATIONAL AND TEACHING ACTIVITIES

- 2022- Present *Assist.Prof*
Acibadem Mehmet Ali Aydinlar University
Faculty of Engineering and Natural Sciences
Molecular Biology and Genetics
- 2021-present Post-Doctoral Researcher
Acibadem Mehmet Ali Aydinlar University
Department of Molecular Biology and Genetics
Institute of Science
- 2019-2021 Post-Doctoral Researcher,
Bilkent University,
Department of Molecular Biology and Genetics,
Institute of Science and Engineering

Umut İnci Onat, Ph.D.

Assisted in training of M.Sc. and Ph.D. students

2013 EMBO Young Investigator Program - Ph.D. Course
Heidelberg, Germany
Course Participant

2012-2019 Research Assistant,
Bilkent University
Department of Molecular Biology and Genetics
Institute of Science and Engineering

2022-2023 Assist.Prof.
Acibadem Mehmet Ali Aydinlar University
Department of Molecular Biology and Genetics
Fall 2022-2023

- Research Techniques in Molecular Biology and Genetics I (MBG305)
- Animal Models of Human Pathophysiology (MBG007)
- Introduction to Molecular and Translational Biomedicine (MTB 501) co-instructor
- Research Techniques and Ethics in Natural Sciences(MTB 531) co-instructor

2021-2022 Lecturer
Acibadem Mehmet Ali Aydinlar University
Department of Molecular Biology and Genetics

Fall 2021-2022

- Research Techniques in Molecular Biology and Genetics I (MBG305) Main Instructor
- General Biology 1 (MBG 109) co-instructor
- Introduction to Molecular and Translational Biomedicine (MTB 501) co-instructor
- Research Techniques and Ethics in Natural Sciences(MTB 531) co-instructor

Spring 2021-2022

- Research Techniques in Molecular Biology and Genetics II (MBG306) Main Instructor
- General Biology II (MBG 110) co-instructor
- Seminars (MTB 598) co-instructor
- Molecular and Translational Biomedicine (MTB 532) co-instructor

2012-2019 Teaching and Laboratory Assistant,
Bilkent University
Department of Molecular Biology and Genetics
Assisted in teaching or execution of experimental undergraduate courses

- Seminars in Molecular Biology(MBG 623)
Fall 2012-2013
Spring 2012-2013
- Molecular Biology of Gene Laboratory Session(MBG 324)
Fall 2013-2014
Fall 2014-2015
Fall 2015-2016
Fall 2016-2017
Fall 2017-2018
Fall 2018-2019
- Biochemistry (MBG 312),
Spring 2014-2015
Spring 2015-2016
Spring 2017-2018
- Introduction to Biology (MBG 110)
Spring 2013-2014

SCIENTIFIC PROJECTS

- 2022 Researcher/Specialist
Acibadem Mehmet Ali Aydinlar University ABAPKO Research Project
2022/01-14 “Investigating the role of PSTPIP1 protein variants in
PYRIN inflammasome Activation in *in-vitro* Cell Culture Model ”
- 2022 Researcher/specialist
TUBITAK 1001, SBAG 122S045 “ Phagocytosis Induced Chimeric
Proteins Against Atherosclerosis ” (2022-2025)
- 2019-2021 Post-Doctoral Researcher,
Bilkent University,
Mentor: Associate Prof. Ebru Erbay,
Research Project: “ER-Mitochondria Cross-talk and Epigenetic
Regulation of Inflammation and Atherosclerosis”
- 2012-2019 Ph.D Student,
Bilkent University
Ph.D. Mentor: Associate Prof. Ebru Erbay
Ph.D. Thesis Project: “The Role of Lipid-Induced Integrated stress
Response in Metaflammation and Atherosclerosis”
- 2013-2018 Ph.D Student
European Molecular Biology Organization (EMBO) Installation Grant
2012, “Lipotoxic Endoplasmic Reticulum Stress in Cardiometabolic
Syndrome”
- 2013-2016 Ph.D Student
TUBITAK COST, KBAG 113Z023, “Molecular Mechanisms of
Endoplasmic Reticulum Stress Induced Reactive Oxygen Species and
Inflammation”

- 2017-2019 Project Fellowship
ERC Starting Grant 2014, “The RNA bridge between IRE-1 and PKR leading to metaflammation: discovery and intervention in atherosclerosis”
- 2011-2012 Undergraduate Senior Thesis Research Intern,
Bilkent University
Department of Molecular Biology and Genetics
Mentor: Associate Prof. Ebru Erbay
Research Project: “ER stress related novel protein identification using chemical genetics method by generating analog-sensitive kinase allele (ASKA) proteins.”
- 2011 Internship,
Bilkent University,
Department of Molecular Biology and Genetics
Mentor: Associate Prof. Ebru Erbay
Research Project: “Generation of analog-sensitive kinase allele mutant of Protein kinase R”

MEMBERSHIPS and EXTRACURRICULAR ACTIVITIES

- 2022 8th International Congress of Molecular Biology Association of Turkey
MolBiyKon2022, 9-12 June 2022
ACU Scientific Committee Member and in Poster Evaluation Committee
- 2022 3rd Acugen Life Science Congress 26 February 2022, Poster Evaluation
Committee
- 2012-present Molecular Biology Organization (MBO)
- 2012-present Bilkent University Alumni Association (BILMED)
- 2012 Organization Committee Ph.D. Student Member,
Ihsan Dogramaci Memorial Conference