

CV

Kaan Adacan, PhD student

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EDUCATION

2021 – Present: PhD in Molecular Oncology, Istinye University, Istanbul/Turkey

2016 – 2019: MS in Molecular Biology and Genetics, Istanbul Kultur University, Istanbul/Turkey
Thesis No: 544487

2011 – 2016: BS in Molecular Biology and Genetics, Istanbul Kultur University, Istanbul/Turkey

PUBLICATIONS & PRESENTATIONS

- Obakan-Yerlikaya P, **Adacan, K**, Karatug-Kacar A, Coker-Gurkan A, Arisan ED. (2022). Epibrassinolide impaired colon tumor progression and induced autophagy in SCID mouse xenograft model via acting on cell cycle progression without affecting endoplasmic reticulum stress observed in vitro. *The International Journal of Biochemistry & Cell Biology*, 106360.(Research)
- Remzi Okan Akar*, **Kaan Adacan**, Engin Ulukaya. “In ovo: Dinosaurs’ offspring as an alternative in vivo model” 2 nd International Multidisciplinary Cancer Research Congress, July 21-24, 2022 (Presentation)
- **Kaan Adacan***, Remzi Okan Akar, Engin Ulukaya. “Etoposide Counteracts Against VEGF-Enhanced CAM Surfaces to Regulate Neovascularization” 2 nd International Multidisciplinary Cancer Research Congress, July 21-24, 2022 (Poster)
- **Kaan Adacan**^{1*}, Merve Erkisa Genel^{1,2*}, Selin Selvi¹, Ayca Uvez³, Deniz Erol Kutucu⁴, Elif Ilkay Armutak³, Abdurrahman Sengul⁵, Ebru Gurel Gurevin⁴, Engin Ulukaya⁶. “One Molecule With Two Faces: Cellular Response Of Dinuclear Pd(II) Complex On Breast Cancer Cell Lines” XIII. AZIZ SANCAR INSTITUTE OF EXPERIMENTAL MEDICINE DAYS, December 21-22, 2021 (Poster Proceeding)
- **Adacan K**, Obakan-Yerlikaya P, Arisan ED, Coker-Gurkan A, Kaya RI, Palavan-Unsal N. “Epibrassinolide-induced autophagy occurs in an Atg5-independent manner due to endoplasmic stress induction in MEF cells” 2020, *Amino Acids*. doi:10.1007/s00726-020-02857-w (Research)
- Obakan-Yerlikaya P, Arisan ED, Coker-Gurkan A, **Adacan K**, Ozbey U, Somuncu B, Baran D, Palavan-Unsal N. “Calreticulin is a fine tuning molecule in epibrassinolide-induced apoptosis through activating endoplasmic reticulum stress in colon cancer cells” 2017, *Molecular Carcinogenesis*. doi: 10.1002/mc.22616. (Research)
- Obakan P, **Adacan K**, Arisan ED, Coker-Gurkan A, Unsal NP. “Epibrassinolide Treatment Caused Autophagy or Apoptosis Decision in a Time-Dependent Manner through ER Stress in Colon Cancer Cells” 2017, *Nutrients Proceedings*, 1(10), 986; doi:10.3390/proceedings1100986 (Proceedings)
- Obakan P, Barrero C, Coker-Gurkan A, Arisan ED, Merali S, et al. “SILAC-Based Mass Spectrometry Analysis Reveals That Epibrassinolide Induces Apoptosis via Activating Endoplasmic Reticulum Stress in Prostate Cancer Cells” 2015, *Plos One* 10(9):e0135788. doi.org/10.1371/journal.pone.0135788 (In acknowledgments)
- **Adacan K**, Obakan-Yerlikaya P, Arisan ED, Coker-Gurkan A, Unsal NP. Endoplasmic reticulum stress is activated after epibrassinolide treatment leading autophagy in wild type and Atg5^{-/-} mouse embryonic fibroblasts: a survival mechanism in nonmalignant cells. *FEBS JOURNAL*, Volume: 284 Pages: 369 Supplement: 1 Special Issue: SI Meeting Abstract: P.4.3.B008, EP 2017 (Poster)
- Nebiler E, **Adacan K**, Arisan ED, Coker-Gurkan A, Obakan-Yerlikaya P, Unsal NP. Orlistat is a fatty acid synthase (FASN) inhibitor caused the modulation of AMPK and lipogenesis signaling axis in PC3 prostate cancer cells but not in PNT1A prostate epithelial cells. *FEBS JOURNAL*, Volume: 284 Pages: 369 Supplement: 1 Special Issue: SI Meeting Abstract: P.4.3.B008, EP 2017 (Poster)
- **Adacan, K**, Obakan-Yerlikaya P, Arisan ED, Coker-Gurkan A, Unsal NP. Epibrassinolide controls polyamine levels to induce autophagy in Mouse Embryonic Fibroblasts, 4th International Conference on Polyamines: Biochemical, Physiological and Clinical Perspectives, September 4-9, 2016, Rome-Italy (Poster)
- **Adacan, K**, Obakan-Yerlikaya P, Arisan ED, Coker-Gurkan A, Unsal NP. EBR induced autophagy in colon carcinoma cell lines. 41st FEBS Congress, September 03-08, 2016. Kusadası, Turkey (Poster)
- **Adacan K**, Obakan-Yerlikaya P, Arisan ED, Coker-Gurkan A, Unsal NP. “EBR induced autophagy in colon

carcinoma cell lines”, 40th FEBS Congress, The Biochemical Basis of Life, P09-015, p:110, 4-9 July, 2015, Berlin, Germany (Poster)

- Obakan-Yerlikaya P, **Adacan K**, Arisan ED, Coker-Gurkan A, Unsal NP. “Poliamin metabolism is involved in EBR induced autophagy in DLD-1 and SW480 colon carcinoma cell lines” Gordon Research Seminar: “Role of Polyamines in Biology and Disease”, June 13-14, 2015, Waterville Valley, NH, USA. (Poster)

PROJECTS

- Investigation of angiogenic effects of various drugs in ovo culture; Personalized treatment approach with 3D tumor development from cancer cell lines and patient tissues (1512-TUBITAK, Project No: 2220020 , 2022-2023, Co-Founder/Researcher – Contributed in writing)
- Investigation Of Effectiveness of Tepotinib-Temozolomide Combination in iPSC-Derived Cerebral Organoids by Mimicking Stage Four Glioblastoma Multiforme-Like Cancer Model in 3D Environment (1001-TUBITAK, Project No: 221S914, 2021-2023, Researcher - Contributed in writing)
- In vitro and in vivo investigation of the effect of the patented compound Palladium (II) barbiturate complex on different genetic subtypes of colon cancer (BRAFmut Vs KRASmut) (TUSEB, Project No: 6691, 2021-2023, Reseacher)
- in ovo Evaluation of anti-angiogenic effects of well known anti-cancer agent Etoposide (BAP, Project No: 2022/14B, 2020-2022, Researcher)
- Demonstration of Anti-Tumoral Effect of Epibrassinolide Against Colon Cancer in SCID Mouse Xenograft Model (1002-TUBITAK, Project No: 117Z727, 2018-2019, scholarship)
- Therapeutic investigation of molecular targets of Epibrassinolide and (or) Roscovitin as a potential GSK3b inhibitor in *Caenorhabditis elegans* model (COST Action BM1408 (GENIE), Project No: 115Z037, 2015-2018, scholarship)
- Investigation of the Relationship Between Epibrassinolide-Induced Cell Death and Endoplasmic Reticulum Stress in Colon Cancer Cell Lines (3001-TUBITAK, Project No:113Z845, 2014-2016, Undergraduate student volunteer)

DEGREES & AWARDS

- October 2022, Co-Founder of OVOBOARD BIOTECHNOLOGY.
- July 2022, best poster award from MOKAD.
- July 2022, Full travel and accommodation suport from Pak Tavuk.
- July 2022, young researcher bursary from MOKAD.
- October 2021, graduate scholarship (%100) from Istinye University.
- September 2019, graduate scholarship (%50) from Istanbul Kultur University.
- June 2019, graduated with 3.80/4.00 GPA.
- September 2016, partial travel support from ICGEB.
- September 2016, graduate scholarship (%50) from Istanbul Kultur University.
- June 2014, internationally valid certificate for animal use in experimental research
- September 2011, undergraduate scholarship (%25 + %15) from Istanbul Kultur University.

LABORATORY EXPERIENCE

September 2013 – 2019: Istanbul Kultur University, Molecular Cancer Biology Laboratory

Topic: Epibrassinolide in Prostate cancer

Research Details: Determining the molecular targets of ER stress following Epibrassinolide administration

Topic: Epibrassinolide in Colorectal cancer (CRC)

Research Details: Understanding the molecular mechanism of ER stress-regulated apoptosis and autophagic induction following Epibrassinolide administration in 2d and 3d cell culture applications

Topic: Epibrassinolide and Autophagy in MEF models

Research Details: Epibrassinolide triggered autophagy regardless of Atg5/7 protein expression due to ER stress induction

Topic: Effects of Epibrassinolide in SW480 SCID mice xenografts

Research Details: Discovery of a novel role of Epibrassinolide in CRC xenografts and determining specific

effects in cell cycle progression in addition to autophagy, apoptosis, ER stress, survival, metastasis and polyamine pathways following both in vivo and in vitro administrations

2020 – Present: Istinye University, ISUMKAM

Topic: *In Ovo* culturing

Research Details: Optimizing the In Ovo culturing system in ISUKAM laboratory and focusing on future experiments regarding cancer and angiogenesis.

Topic: *In vitro* and *in vivo* effects of Palladium(II) complex in CRC

Research Details: Evaluation of palladium(II) derived drug efficacy in ISUKAM laboratory with project that supported by TUSEB.

Topic: Cerebral Organoid generation and 3D GBM culturing.

Research Details: Generation of cerebral organoid and implementing GBM co-culture methods in ISUKAM laboratory with project that supported by TUBITAK.

CONFERENCES

- 1 st Istinye University Cancer Symposium, Istinye University Topkapı – Istanbul/Turkey, 2022 (scientific committee)
- Cancer Neuroscience Symposium, MD Anderson - Virtual, Houston, TX, 2022 (participant)
- 1st International Advances in Molecular Biology Congress, Istanbul/Turkey, 2022 (participant)
- 2nd International Multidisciplinary Cancer Research Congress, Giresun/Turkey, 2022 (participant)
- 1st International CAM-conference, Virtual, 2022 (participant)
- 8th Multidisciplinary Cancer Research Congress, Istinye University, 2021 (participant)
- Genetically modified organisms and judicial processes workshop, Istanbul Kultur University, 2017 (participant)
- 2nd Current topics in stem cell-based therapies, Istanbul Kultur University, 2016 (participant)
- 1st Current topics in stem cell-based therapies, Istanbul Kultur University, 2015 (participant)
- 2nd Nanotechnology & Tissue Engineering: Current Challenges and Future Prospects, Istanbul Kultur University, 2014 (participant)
- 1st Nanotechnology & Tissue Engineering: Current Challenges and Future Prospects, Istanbul Kultur University, 2013 (participant)
- DNA Damage, Repair, and Relation with Diseases, MOBIGEN DNA School, Istanbul Kultur University, 2013 (participant)
- 42nd FEBS Congress, September 10-14, 2017, From Molecules To Cells and Back, Jerusalem, Isreal (poster presenter)
- 4th International Conference on Poliamins: Biochemical, Physiological and Clinical Perspectives, September 4-9, 2016, Rome, Italy (poster presenter)
- 41st FEBS Congress, September 03-08, 2016, Kusadası, Turkey (poster presenter)
- 40th FEBS Congress, The Biochemical Basis of Life, 2015, Berlin, Germany (poster presenter)

LABORATORY SKILLS

- Use of laboratory animals
- Cell culture techniques
- Transfection, transformation
- Western blotting (Immunoprecipitation)
- PCR applications
- Flow cytometer applications
- DNA, RNA and protein isolation
- In OVO culture techniques
- HPLC
- ELISA
- Immunofluorescence
- Immunohistochemistry
- 2D Gel electrophoresis
- CRISPR and RNA