

Ilgem Mender, PhD

EDUCATION

Hacettepe University, Graduate School of Health Sciences, Ankara, Turkey

2009-2014 PhD in Biochemistry Program, December 2014.

Dissertation: Induction of Telomere Dysfunction Mediated by the Telomerase Substrate Precursor 6-thio-2'-deoxyguanosine.

Hacettepe University, Graduate School of Health Sciences, Ankara, Turkey

2007-2009 MS in Biochemistry Program, August 2009.

Dissertation: The Effects of Telomerase Inhibitor GRN163L (Imetelstat) on Cell Cytoskeleton and Cell Cycle.

Ankara University, Faculty of Science, Ankara, Turkey

2003-2007 BS in Biology Program, June 2007.

ACADEMIC HONORS&AWARDS

2017- Cancer Intervention and Prevention Discoveries Program Training Grant (CPRIT)-Postdoctoral trainee

2015-2017 University of Texas SPORE in Lung Cancer-Postdoctoral trainee

2015 TUBITAK Incentive Award for International Scientific Publications.

2012-2015 University of Texas SPORE in Lung Cancer

2012 TUBITAK (BIDEB) 2214-International Research Fellowship.

2009-2014 TUBITAK (BIDEB) 2211-National Scholarship for PhD Students.

2007-2009 TUBITAK (BIDEB) 2210-National Scholarship for MS Students.

RESEARCH EXPERIENCE

University of Texas Southwestern Medical Center, Department of Cell Biology, Shay/Wright Lab, Dallas, Texas, USA.

2015-present **Postdoctoral Researcher** in Postdoctoral Scholar Program for Certificate in Research and Educational Techniques.

Sponsor: Jerry W. Shay, PhD.

- Targeting first-line chemotherapy resistant non-small cell lung cancer cells with 6-thio-2'-deoxyguanosine.
- Prediction of 6-thio-2'-deoxyguanosine resistance mechanisms in non-small cell lung cancer cells.

University of Texas Southwestern Medical Center, Department of Cell Biology, Shay/Wright Lab, Dallas, Texas, USA.

2012-2015 **Jr. Visiting Researcher** in Cancer Biology Program.

Sponsor: Jerry W. Shay, PhD.

- Conducted my PhD dissertation in Shay/Wright lab.
- Investigated a novel telomerase targeted approach of 6-thio-2'-deoxyguanosine in telomerase positive cancer cells.

National Center of Scientific Research “Demokritos”, Cell Proliferation and Aging Lab, Athens, Greece

2010 (3 months) **Visiting Researcher.**

Sponsor: Dimitris Kletsas, PhD

- Studied the effects of telomerase inhibitor GRN163L on matrix metalloproteinase.

TEACHING EXPERIENCE

Hacettepe University, Faculty of Medicine, Ankara, Turkey

2011 Spring-Fall semesters, Graduate Assistant, Biochemistry Laboratory Class for Medical Students (program in English).

The American Society for Biochemistry and Molecular Biology (ASBMB) sponsored workshop at UT Southwestern Medical Center, Dallas, Texas

Feb 20, 2016 Developing and Sharing Best Practices: From Concept to Classroom

Emporer Science Award Program for High School Students mentored a high school student with hands-on experience in lab between June 1, 2017-September 1, 2017 (Lekhitha Ammaresh).

Hacettepe University, Faculty of Medicine, Biochemistry Department, Ankara, Turkey

2018 Summer, Instructor, led a discussion group in summer research training program for medical students.

Mentoring an undergraduate student from UTDallas (Aishwarya Vemula) (1-17-2018-1-14-2019)

Mentoring UTDallas Green Fellow (Aishwarya Vemula) (1-14-2019-5-14-2019)

Postdoctoral Researcher in Postdoctoral Scholar Program for Certificate in Educational Techniques

Adjunct Professor at Richland College (Jan22-)

PUBLICATIONS

Peer-Reviewed Journal Articles

1. Ludlow AT., Wong MS., Robin JD., Batten K., Yuan L., Lai TP, Dahlson N., Lu Zhang L., **Mender I.**, Tedone E., Sayed ME., Wright WE. and Shay JW. NOVA1 regulates hTERT splicing and cell growth in non-small cell lung cancer. *Nature Communications*, 2018.
2. **Mender I.**, LaRanger R., Luitel K., Peyton M., Girard L., Lai TP., Batten K., Cornelius C., Dalvi MP., Ramirez M., Du W., Wu LF., Altschuler SJ., Brekken R., Martinez ED., Minna JD., Wright WE. and Shay JW. Telomerase-mediated Strategy for Overcoming Non-Small Cell Lung Cancer Targeted Therapy and Chemotherapy Resistance. *Neoplasia*, 2018.
3. Zhang G., Wu L., **Mender I.**, et al. Induction of Telomere Dysfunction Prolongs Disease Control of Therapy-Resistant Melanoma. *Clinical Cancer Research*, 2018.

4. Sengupta S., Sobo M., Kumar S., **Mender I.**, Shay JW., Drissi R. Targeting Telomeres to treat therapy-Resistant Pediatric Brain Tumors. *Molecular and Cancer Therapeutics*, 2018.
5. Exploiting TERT Dependency as a Therapeutic Strategy For NRAS Mutant Melanoma. Jessie Villanueva, Patricia Reyes-Uribe, Maria Paz Adrianzen-Ruesta, Zhong Deng, Ileabett Echevarria-Vargas, **Ilgen Mender**, Steven Saheb, Qin Liu, Dario Altieri, Maureen Murphy, Jerry Shay, and Paul Lieberman and Jessie Villanueva. *Oncogene*, 2018.
6. Lai TP., Zhang N., Noh J., **Mender I.**, Tedone E., Huang E., Wright WE., Garcia CK, Danuser G., and Shay JW. TeSLA: A Method for Measuring the Distribution of the Shortest Telomeres in Cells and Tissues. *Nature Communications*, 8:1356, 2017.
7. Kim W, Ludlow AT, Min J, Robin JD, Stadler G, **Mender I**, Lai TP, Zhang N, Wright WE, Shay JW. Regulation of the Human Telomerase Gene TERT by Telomere Position Effect-Over Long Distances (TPE-OLD): Implications for Aging and Cancer. *Plos Biology*, 14(12):e2000016, 2016.
8. **Mender I.**, Gryaznov S., Dikmen ZG, Wright WE, Shay JW. Induction of telomere dysfunction mediated by the telomerase substrate precursor 6-thio-2'-deoxyguanosine. *Cancer Discovery*, 5 (1); 82-95, 2015.
9. **Mender I.**, Shay JW. (2015). Telomere Dysfunction Induced Foci (TIF) Analysis. Bio-protocol 5(22): e1656 (*Protocol*).
10. **Mender I.**, Shay JW. (2015). Telomerase Repeated Amplification Protocol (TRAP). Bio-protocol 5(22): e1657 (*Protocol*).
11. **Mender I.**, Shay JW. (2015). Telomere Restriction Fragment (TRF) Analysis. Bio-protocol 5(22): e1658 (*Protocol*).
12. Hosler GA, Davoli T, **Mender I**, Litzner B, Choi J, Kapur P, Shay JW, Wang RC. A primary melanoma and its asynchronous metastasis highlight the role of BRAF, CDKN2A, and TERT. *J Cutan Pathol*. 2014, 42 (2); 108-117, 2015.
13. **Mender I**, Senturk S, Ozgunes N, Akcalı KC, Kletsas D, Gryaznov S, Can A, Shay JW, Dikmen ZG. Imetelstat (a telomerase antagonist) exerts off-target effects on the cytoskeleton. *International Journal of Oncology*, 42 (5); 1709-1715, 2013.

Invited Reviews/Book Chapter

14. Dikmen ZG, **Mender I**. How can I protect my telomeres and slow aging? *Turkish Journal of Biochemistry*. 42(6), 587-590 (*Opinion paper*).
15. **Mender I.**, Dikmen ZG., Shay JW. Cancer cell immortality: targeting telomerase. Holland-Frei *Cancer Medicine*, 9th edition, Chapter 14, March 2017 (*Book Chapter*).
16. **Mender I.**, Gryaznov S., Shay JW. (2015). A novel telomerase substrate precursor rapidly induces telomere dysfunction in telomerase positive cancer cells but not telomerase silent normal cells. *Oncoscience*, 2(8); 693-695 (*Research Perspective*)
17. **Mender I.**, Dikmen ZG., Dogan P. (2008). Diseases related with dysfunctional telomeres. *Hacettepe Medical Journal*. 39(4), 163-167 (*Review*).

PRESENTATIONS

- Hamon Center for Therapeutic Oncology Research&Simmons Cancer Center Experimental Therapeutics Program at UT Southwestern Medical Center, Dallas, TX, May 17, 2018(Invited Speaker)

- Inaugural Celebration of Women in Science and Medicine at UT Southwestern, Dallas, Texas, Feb 7, 2018 (Poster presentation, assigned #8)
- Cancer Prevention and Research Institute of Texas (CPRIT) Conference, Austin, Texas, Nov 13-14, 2017 (Poster presentation, assigned ID#92)
- UT Southwestern Medical Center Cell Biology Scientific Retreat, Lone Star Park, Dallas, TX, USA, Oct 24, 2017 (Oral Presentation)
- UT Southwestern Medical Center Cell Biology Retreat, Dallas World Aquarium, Dallas, TX, USA, Oct 27, 2015 (Poster)
- UT Southwestern Medical Center Cell Biology Retreat, Dallas World Aquarium, Dallas, TX, USA, Oct 28, 2014 (Poster)
- UT Southwestern Medical Center Cell Biology Retreat, TopGolf, Dallas, TX, USA, Oct 2013 (Poster)
- AACR 104th Annual Meeting, Washington DC, USA, Apr 6-10, 2013 (Poster, Abstract LB-125).
- XXII. National Biochemistry Meeting, Eskisehir, Turkey, 2010 (Poster).
- XXI. National Biochemistry Meeting, Istanbul, Turkey, 2009 (Oral Presentation).
- Matrix Pathobiology, Signaling and Molecular Targets, Patras, Greece, July 11-16, 2009.
- XX. National Biochemistry Meeting, Cappadocia, Turkey, 2008 (Poster Abstract Pages 174-175).

MEMBERSHIPS

2015-2016 American Society for Microbiology
2013-present American Association for Cancer Research (AACR)
2008 Turkish Biochemistry Association

OTHER EXPERIENCES

Invited Reviewer for Bioprotocol Journal, Cancer Research and DNA and Cell Biology
3 protocol papers and 2 research article

Stanford University Online Course

September, 2016 Statement of Accomplishment for Writing in the Sciences

Business Strategy Workshop for Life Scientists Training in Academic and Industry Settings

April 8, 2016 In collaboration with the Office of Career and Professional Development at University of California San Francisco (UCSF) and University of Texas Southwestern Medical Center (UTSW)

University of Texas Arlington (UTA) Software Carpentry Workshop

April 2-3, 2016 Linux, Git/Github, SQL and data analysis in Python

Propath, an Immersive Program at UTSouthwestern Medical Center for Career Exploration, Job Search Preparation, and Soft Skills Acquisition

September-December, 2017 Participated in workshops, learned work readiness skills, and collaborated with a team on a 2 day case study hosted by Health Wildcatters in Dallas, TX.

December 11-12, 2017 Consulted DUALAMS on utilizing existing collaborations to identify outstanding patient needs compatible with PrepAir therapeutic delivery. Our team suggested to nebulize drugs with PrepAir in localized area of lung and brain cancer.

ADDITIONAL INFORMATION

Nationality: Turkish, US Permanent Resident/Green Card holder

Languages: Fluent in Turkish and English

Interests: Education, yoga, travel, social networking