

EDUCATION

National Institutes of Health, Bethesda, MD, USA	2018-present
Postdoctoral fellow, National Institute of Diabetes and Digestive and Kidney Diseases; Postdoctoral Research Associate Training (PRAT) Fellow, National Institute of General Medical Sciences	
University of Illinois at Chicago (UIC), IL, USA	2013-2018
Ph.D., Center for Biomolecular Sciences	
Hacettepe University (leading state university in Turkey), Ankara, Turkey	2008-2013
M.S., B.Pharm, College of Pharmacy	

PEER-REVIEWED PUBLICATIONS**Research Papers:**

Svetlov M, Koller TO, **Meydan S**, Shankar V, Klepacki D, Polacek N, Guydosh NR, Vazquez-Laslop N, Wilson DN, Mankin AS. Context-specific action of macrolide antibiotics on the eukaryotic ribosome. *Nature Communications*. 2021;12, 2803. <http://doi.org/10.1038/s41467-021-23068-1>

- Highlighted in ScienceDaily website

Young D, **Meydan S**, Guydosh NR. 40S ribosome profiling reveals distinct roles for Tma20/Tma22 (MCT-1/DENR) and Tma64 (eIF2D) in 40S subunit recycling. *Nature Communications*. 2021; 12, 2976. <http://doi.org/10.1038/s41467-021-23223-8>

Meydan S, Guydosh NR. Disome and trisome profiling reveal genome-wide targets of ribosome quality control. *Molecular Cell*. 2020; 79, 588-602. <http://doi.org/10.1016/j.molcel.2020.06.010>

- Previewed by Olson AN, Dinman JD.

Meydan S, Marks J, Klepacki D, Sharma V, Baranov P, Firth A, Margus T, Kefi A, Vazquez-Laslop N, Mankin AS. Retapamulin-assisted ribosome profiling reveals the alternative bacterial proteome. *Molecular Cell*. 2019; 74, 481–493. <http://doi.org/10.1016/j.molcel.2019.02.017>

- Highlighted in ScienceDaily website
- Recommended in Faculty of 1000

Meydan S, Klepacki D, Karthikeyan S, Margus T, Thomas P, Jones JE, Khan Y, Briggs J, Dinman JD, Vazquez-Laslop N, Mankin AS. Programmed frameshifting generates a copper transporter and a copper chaperone from the same gene, *Molecular Cell*. 2017; 65(2), 207–219. <http://doi.org/10.1016/j.molcel.2016.12.008>

- Chosen as **featured article** and **featured author**.
- Previewed by Atkins JF, Loughran G, Baranov PV.
- Highlighted in NSF blog
- Recommended in Faculty of 1000
- For an update to a figure, also see *Matters Arising* by Loughran G et al, 2022 and related *Letter* response by Meydan et al, 2022 in *Molecular Cell*

Arenz S, **Meydan S**, Starosta AL, Berninghausen O, Beckmann R, Vazquez-Laslop N, Wilson DN. Drug sensing by the ribosome induces translational arrest via active site perturbation. *Molecular Cell*. 2014; 56(3): 446-452. <http://doi.org/10.1016/j.molcel.2014.09.014>

- Commented by Hudson BH and Zaher HS.

Reviews/Book Chapters:

Meydan S, Klepacki D, Vazquez-Laslop N, Mankin AS. Identification of Translation Start Sites in Bacterial Genomes. In: Labunskyy V.M. (eds) Ribosome Profiling. *Methods in Molecular Biology, vol 2252*. Springer Nature. 2021; 2252, 27-55. http://doi.org/10.1007/978-1-0716-1150-0_2

Meydan S, Guydosh NR. A cellular handbook for collided ribosomes: surveillance pathways and collision types. *Current Genetics*. 2020. <http://doi.org/10.1007/s00294-020-01111-w>

Meydan S, Vazquez-Laslop N, Mankin AS. Genes within Genes in Bacterial Genomes. *Microbiology Spectrum*. 2018; 6(4). <http://doi.org/doi: 10.1128/microbiolspec.RWR-0020-2018>

- Separately published as a book chapter: **Meydan S**, Vazquez-Laslop N, Mankin AS. (2018) Genes within Genes in Bacterial Genomes. Gisela Storz, Kai Papenfort (Eds.), *Regulating with RNA in Bacteria and Archaea* (pp.133-154). American Society of Microbiology.

PREPRINTS, AND MANUSCRIPTS IN PROGRESS

Meydan S*, Barros GC*, Simoes V, Harley L, Cizubu BK, Guydosh NR[#], Silva GM[#]. The ubiquitin conjugase Rad6 mediates ribosome stalling during oxidative stress. (*co-first authors, [#]co-corresponding authors). *Biorxiv*. 2022. <https://doi.org/10.1101/2022.09.27.509727>

Meydan S and Guydosh NR. Is there a localized role for mRNA quality control? Invited review paper from *RNA*, submitted.

Gasparski AN, Moissoglu K, **Meydan S**, Guydosh NR, Mili S. mRNA Location and Translation Rate Determine Protein Targeting to Dual Destinations. *Submitted*.

Meydan S and Guydosh NR. MCTS1, DENR and EIF2D act as ribosome recycling factors in mammalian cells. *In preparation*.

Fernandopulle MS, Ryan VH, Almsned F, Qi A, Yuan H, **Meydan S**, Drerup C, Ward ME. Principles of lysosome-associated translation in neurons. *In preparation*.

RESEARCH EXPERIENCE

National Institute of Diabetes and Digestive and Kidney Diseases Jul. 2018-Present
National Institutes of Health, Bethesda, MD

Postdoctoral fellow

Advisor: Dr. Nicholas Guydosh

Studying eukaryotic translation regulation mechanisms and its consequences on cellular homeostasis by using next generation sequencing (Ribo-seq, Disome/trisome-seq, RNA-seq), and biochemistry.

Center for Biomolecular Sciences Jun. 2015-Jul. 2018
University of Illinois at Chicago (UIC), Chicago, IL

Graduate Research Assistant

Advisors: Dr. Alexander S. Mankin and Dr. Nora Vazquez-Laslop

Studied unusual translation regulation events diversifying the bacterial proteome by using Ribo-seq, genetics, microbiology and biochemistry techniques.

College of Pharmacy Aug. 2013-Jun. 2015
University of Illinois at Chicago (UIC), Chicago, IL

Teaching Assistant

Employer: University of Illinois at Chicago

Assisted in preparation of lecture materials and graded quizzes of PharmD courses, Principles of Drug Action and Therapeutics, Fundamentals of Drug Action and Non-Prescription Pharmaceuticals and Herbal Medicinals.

RESEARCH GRANTS

Name: 1FI2GM137845, NIGMS Postdoctoral Research Associate Training (PRAT) Program Fellowship

Role: Meydan Marks, Fatma Sezen, (Primary Investigator)

Date: 09/01/2020-09/01/2023

Title: Understanding genome-wide and single-molecule dynamics of colliding ribosomes during health and disease

AWARDS AND ACHIEVEMENTS

RNA Society Meeting Poster Prize	2021
NIH Future Research Leaders Conference, Selected Fellow	2021
NIDDK Director's Award on behalf of Fellows Advisory Board	2020
NIDDK Nancy Nossal Fellowship Award	2020
NIH Fellows Award for Research Excellence (FARE)	2019
NIDDK Scientific Conference Travel Award	2019
RNA Society Meeting Poster Prize	2017
UIC College of Pharmacy Research Day, Poster Award	2017
Paul Sang Award	2017
UIC Chancellor's Graduate Research Award	2016
UIC Graduate Student Presenter Awards	2015, 2016 and 2017
UIC Graduate Student Council Travel Awards	2015, 2016 and 2017
Myron Goldsmith Scholarship	2016
UIC Van Doren Scholarship	2015
UIC College of Pharmacy Research Day, Excellence in Research Poster Award	2015
Chancellor's Travel Fellowship, Hacettepe University, Turkey	2012
Erasmus-Mundus Scholarship, University of Lille II, France	2010

ORAL PRESENTATIONS

- Rad6 mediates ribosome pausing during oxidative stress.
Washington Area Yeast Club, NIH, USA, 2022.
- Genome-wide regulation of ribosome stalling during oxidative stress.
Cold Spring Harbor Translational Control Meeting, NY, USA, 2022.
- Multiple cellular surveillance pathways detect collided ribosomes.
Annual PRAT Symposium, NIH, USA, 2022.
NIDDK Scientific Conference, NIH, USA, 2022.
Future Leaders Research Conference, NIH, USA, 2021.
- Disome profiling reveals targets of ribosome quality control.
EMBO Protein Synthesis and Translational Control Conference, Germany, 2019.
- Collided ribosomes reveal targets of ribosome quality control.
Washington Area Yeast Club, NIH, USA, 2019.
- Genes within genes in bacteria.
Lambda Lunch Seminar Series, NIH, USA, 2019.
NIDDK LCMB Seminar Series, NIH, USA, 2019.
- Unconventional translation as a strategy to diversify the bacterial proteome.
Chicago RNA Club, USA, 2017.

MENTORING, OUTREACH AND LEADERSHIP ACTIVITIES

Mentoring and Teaching Experiences:

- Volunteer, King's Glen Elementary School (Virginia)** Feb. 2022-Jun. 2022
Prepared scientific outreach materials and taught biweekly virtual science classes for 4th grade students
- Mentor, NIH Summer Internship Program (SIP)** Jun. 2021-Jul.2021
Mentored Ayse Ecer (Georgetown University student)

Leader, NIH Summer Intern Journal Club

Jun. 2019-Jul. 2019

Taught weekly journal club sessions for undergrad summer interns in NIH

Mentor, Science Club at Boys & Girls Club of Chicago

Jan. 2016-Jun. 2018

Led scientific experiments for the elementary and middle school students coming from underprivileged communities of Chicago.

Mentor, Graduate Research Assistant

Jun. 2015-Jun. 2018

Mentored students in Mankin Lab:

Andrew Jin, Ali Rahman (both Adlai E. Stevenson High School students, summer internship)

Guliz Clare (rotation student)

Leader and Facilitator, Expanding Your Horizons Workshop

Spring, 2015-2018

Led (2018) and assisted (2015-2017) hands-on experiment workshops in this one-day symposium for middle school girls to engage them in STEM careers.

Judging Experiences:

NIH FARE abstract judging, Chief Judge (2022)

NIH-NIDDK Scientific Conference (2022)

UIC Research Day (2020)

NIH FARE abstract judging (2020)

NIH-NIDDK Scientific Conference (2019)

Chicago Public Schools City Science Fair (2017)

Chicago Public Schools Regional Science Fair (2016)

Skinner West Elementary School Science Fair (2015)

Gunsaulus Scholastic Academy Science Fair (2015)

Leadership Experiences:**NIDDK Fellows Advisory Board (FAB) Advertising Committee Chair (2021-2022):**

As Chair of the Advertising Committee within FAB, I led a committee of 3 fellows to create advertising materials such as posters, abstract book and multimedia graphics to promote aforementioned FAB activities.

NIDDK Fellows Advisory Board (FAB) Chair (2020-2021), Chair-elect (2019-2020):

As Chair of FAB, I led a diverse group of 24 NIDDK fellows to create career development, networking and wellness opportunities for fellows. FAB organized 16th Annual NIDDK Scientific Conference, 2-day research event with over 150 participants; arranged five Career Events with invited panelists; organized career workshops; created surveys and town halls to monitor fellows' wellness during the COVID-19 pandemic and communicated the issues to the NIDDK administration. FAB team received NIDDK Director's Award in 2020.

Other Experiences:

Moderator and organizer, PRAT Career Panel (May 2022)

Moderator, PRAT Annual Symposium (June 2021)

Coordinator and organizer, UIC Center for Biomolecular Sciences Seminars (2014-2016)

Other Memberships:

RNA Society (2022-present)

National Postdoctoral Association (2021-2022)

NIH NIDDK Fellowship Office Working Group (2021-2022)

NIH Fellows Committee (FelCom), NIDDK Representative (2021-2022)

NIH Fellows Committee (FelCom), Service & Outreach Committee (2021-2022)

RNA Society (2017-2018)

Graduate Women in Science Eta Chapter-Chicago (2017-2018)