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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-8031-2020

ScopusID: 55644398900

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Education Information

Doctorate, Iowa State University of Science and Technology, Fen Edebiyat, Biochemistry, United States Of America 2005 - 2012

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, Turkey 1999 - 2005

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, Deciphering the Details of RNA Aminoglycoside Interactions: From Atomistic Models to Biotechnological Applications, Middle East Technical University, Life Sciences, Biochemistry, Biophysics and Molecular Biology, 2012

Research Areas

Health Sciences, Medicine, Fundamental Medical Sciences, Biophysics, Biochemistry, Basic Sciences, Life Sciences, Biochemistry, Molecular Biochemistry

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty Of Arts And Sciences, Biological Sciences, 2017 - Continues

Academic and Administrative Experience

Deputy Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2019 - Continues

Courses

Biochemistry, Undergraduate, 2018 - 2019, 2017 - 2018

Advising Theses

İLGÜ M., The Impact of ions on RNA aptamer-aminoglycoside interactions, Postgraduate, R.Fazlıoğlu(Student), 2019

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Aptamers Targeting Membrane Proteins for Sensor and Diagnostic Applications**
Kara N., Ayoub N., Ilgu H., Fotiadis D., İLGÜ M.
Molecules, vol.28, no.9, 2023 (SCI-Expanded)
- II. **Aptamer Applications in Neuroscience**
Ozturk M., Nilsen-Hamilton M., Ilgu M.
PHARMACEUTICALS, vol.14, no.12, 2021 (SCI-Expanded)
- III. **Sampling Performance of Multiple Independent Molecular Dynamics Simulations of an RNA Aptamer**
Yan S., Peck J. M., Ilgu M., Nilsen-Hamilton M., Lamm M. H.
ACS OMEGA, vol.5, no.32, pp.20187-20201, 2020 (SCI-Expanded)
- IV. **Common Secondary and Tertiary Structural Features of Aptamer-Ligand Interaction Shared by RNA Aptamers with Different Primary Sequences**
Ilgu M., Yan S., Khounlo R. M., Lamm M. H., Nilsen-Hamilton M.
MOLECULES, vol.24, no.24, 2019 (SCI-Expanded)
- V. **Aptamer-enabled uptake of small molecule ligands**
Auwardt S. L., Seo Y., Ilgu M., Ray J., Feldges R. R., Shubham S., Bendickson L., Levine H. A., Nilsen-Hamilton M.
SCIENTIFIC REPORTS, vol.8, 2018 (SCI-Expanded)
- VI. **Specificity and Ligand Affinities of the Cocaine Aptamer: Impact of Structural Features and Physiological NaCl**
Sachan A., Ilgu M., Kempema A., Kraus G. A., Nilsen-Hamilton M.
ANALYTICAL CHEMISTRY, vol.88, no.15, pp.7715-7723, 2016 (SCI-Expanded)
- VII. **Light-up and FRET aptamer reporters; evaluating their applications for imaging transcription in eukaryotic cells**
Ilgu M., RAY J., BENDICKSON L., WANG T., Geraskin I. M., Kraus G. A., Nilsen-Hamilton M.
METHODS, vol.98, pp.26-33, 2016 (SCI-Expanded)
- VIII. **Aptamers in analytics**
Ilgu M., Nilsen-Hamilton M.
ANALYST, vol.141, no.5, pp.1551-1568, 2016 (SCI-Expanded)
- IX. **IMAGETags: Quantifying mRNA Transcription in Real Time with Multiaptamer Reporters**
Ray J., SHIN I., Ilgu M., BENDICKSON L., GUPTA V., KRAUS G. A., NILSEN-HAMILTON M.
VISUALIZING RNA DYNAMICS IN THE CELL, vol.572, pp.193-213, 2016 (SCI-Expanded)
- X. **An adaptable pentaloop defines a robust neomycin-B RNA aptamer with conditional ligand-bound structures**
Ilgu M., Fulton D. B., Yennamalli R. M., Lamm M. H., Sen T. Z., Nilsen-Hamilton M.
RNA, vol.20, no.6, pp.815-824, 2014 (SCI-Expanded)
- XI. **Live-cell imaging of Pol II promoter activity to monitor gene expression with RNA IMAGETag reporters**
SHIN I., RAY J., Gupta V., Ilgu M., Beasley J., BENDICKSON L., MEHANOVIC S., Kraus G. A., Nilsen-Hamilton M.
NUCLEIC ACIDS RESEARCH, vol.42, no.11, 2014 (SCI-Expanded)
- XII. **Investigating the malleability of RNA aptamers**

İlgu M., WANG T., Lamm M. H., Nilsen-Hamilton M.
METHODS, vol.63, no.2, pp.178-187, 2013 (SCI-Expanded)

Books & Book Chapters

I. Recent Advances in Analytical Chemistry

İlgü M., Nilsen-Hamilton M.
IntechOpen, London, 2019

Refereed Congress / Symposium Publications in Proceedings

I. Clinical validation of SERS metasurface SARS-CoV-2 biosensor

Bilgin B., Torun H., İLGÜ M., Yanık C., Batur S. N., Çelik S., Öztürk M., Dogan Ö., Ergönül Ö., Solaroglu I., et al.
Biomedical Vibrational Spectroscopy 2022: Advances in Research and Industry, Virtual, Online, 20 - 24 February 2022, vol.11957

Metrics

Publication: 14

Citation (WoS): 268

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