Eylon Yavin

CMI-P-43

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Research Keywords

PNA, RNA sensors, Antisense, Fluorogenic dyes

Academic Career

Sc., 1994, Hebrew University of Jerusalem, M.Sc. and Ph.D., 2003, Weizmann Institute of Science (Advisor – Abraham Shanzer), Postdoc, 2003-2006, Caltech (Advisor – Jacqueline K. Barton), Lecturer, Hebrew University of Jerusalem, 2006-2012, Senior lecturer (tenured), 2012-2018 Hebrew University of Jerusalem, 2018-to date, Associate Prof., Hebrew University of Jerusalem.

Selected Publications

D. Hashoul et. al., Red-emitting FIT-PNAs: "On Site" Detection of RNA Biomarkers in Fresh Human Cancer Tissues, Biosensors & Bioelect. 2019, 137, 271-278.

T. Soudah et. al., AntimiR-155 Cyclic Peptide–PNA Conjugate: Synthesis, Cellular Uptake, and Biological Activity, ACS Omega 2019, 4, 13954-13961

O. Tepper et. al., Cyclopentane FIT-PNAs: bright RNA sensors, Chem. Commun., 2021, 57, 540-543. Erratum: 2023, 59, 11593.

O. Tepper et. al., FIT-PNAs as RNA sensing probes for drug-resistant Plasmodium falciparum, ACS Sensors, 2022, 7(1), 50-59.

O. Tepper et. al., A Biotinylated cpFIT-PNA Platform for the Facile Detection of Drug Resistance to Artemisinin in Plasmodium falciparum, ACS Sensors, 2024, 9, 1458-1464.

S. T. Mannully et. ai., Detecting the FLJ22447 lncRNA in Ovarian Cancer with Cyclopentane based FIT-PNAs (cpFIT-PNAs), Biomolecules, 2024, 14, 609.

Why My Lab?

My lab can offer...

My lab can offer PNA molecules as therapeutic (gene silencing) and diagnostic (RNA detection) agents. PNAs are stable oligos that may be readily cell permeable and are highly stable in biological media. In the diagnostic field, these FIT-PNAs (forced-intercalation PNAs) light up (fluoresce) only upon RNA hybridization.