Stanford

Noa Katz

Research Professional, Chemical Engineering

Bio

BIO

Noa Katz is a Stanford Science Fellow and an EMBO and Fulbright postdoctoral scholar at Stanford University. She implements biomolecular gene circuits to study and manipulate the central nervous system to promote therapeutic applications for neural repair and autism.

INSTITUTE AFFILIATIONS

- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Stanford.Berkeley.UCSF Next Generation Faculty Symposium, Stanford, Berkeley and UCSF universities (2025)
- Future Leaders in Bioengineering seminar series, Rice University (2024)
- Women's Postdoctoral Career Development Award in Science, Weizmann Institute of Science (2024)
- Rising Stars in Engineering in Health, Biomedical Eng. at Boston, Cornell, Columbia, and Johns Hopkins Universities (2024)
- Exceptional Scholars Workshop, Rockefeller University (2024)
- Stanford Science Fellow, Stanford University (2022-present)
- Postdoctoral Fellowship, European Molecular Biology Organization (2022-2023)
- Postdoctoral Award, Israel National Postdoctoral Award for Advancing Women in Science (2021-2023)
- Postdoctoral Fellowship, Fulbright Program (2021-2022)
- Conference Scholarship, Keystone Symposia- Noncoding RNAs in Health and Disease (2016)
- Best Presentation, 2nd Synthetic Systems Biology Summer School (2015)
- Special Doctorate Program for outstanding BSc graduates, Technion, Israel Institute of Technology (2013-2019)
- Bachelor of Science, highest honors, Technion, Israel Institute of Technology (2013)
- Excellence Scholarship, PEF Israel Endowment Funds (2009-2012)

PATENTS

- Gao, X., Kaseniit, E., Katz, N., Kolber, N., Wolfsberg, E.. "United States Patent 164630 RNA Sensors in Living Cells Utilizing ADAR Editing for Sense-Response Application", Leland Stanford Junior University, Aug 31, 2023
- Roee Amit, Noa Katz. "United States Patent 20210095296 Synthetic non-coding RNAs", TECHNION RESEARCH & DEVELOPMENT FOUNDATION LTD., Apr 1, 2021
- Roee Amit, Alexey Tomsov, Orna Atar, Liron Abrahami, Yael Annis, Roni Cohen, Alexandra Ereskovsky, Noa Katz, Lior Levy, Maayan Lufton, Tal Ofek, Sagi Sheinkman, Nitzan Shmuel, Inbal Vaknin, Ruth Veksler, Adi Yannai. "United States Patent 10240132 Composition and method for treating androgen-dependent disorders", TECHNION RESEARCH & DEVELOPMENT FOUNDATION LTD., Mar 26, 2019

Publications

PUBLICATIONS

- **Designing quantitative gene therapy on ComMAND.** *Cell systems*
  An, C., Katz, N., Gao, X. J.
  2025; 16 (6): 101323

- **Tunable, self-contained gene dosage control via proteolytic cleavage of CRISPR-Cas systems.** *bioRxiv : the preprint server for biology*
  Katz, N., An, C., Lee, Y. J., Tycko, J., Zhang, M., Kang, J., Bintu, L., Bassik, M. C., Huang, W. H., Gao, X. J.
  2024

- **Cell-Type Specific In Vivo Delivery Using RNA Sensors**
  Kolber, N., Kaseniit, E., Katz, N., Wolfsberg, E., Zhang, M., Gao, X.
  CELL PRESS.2024: 889

- **Formation of synthetic RNA protein granules using engineered phage-coat-protein -RNA complexes.** *Nature communications*
  Granik, N., Katz, N., Willinger, O., Goldberg, S., Amit, R.
  2022; 13 (1): 6811

- **Modular, programmable RNA sensing using ADAR editing in living cells.** *Nature biotechnology*
  Kaseniit, K. E., Katz, N., Kolber, N. S., Call, C. C., Wengier, D. L., Cody, W. B., Sattely, E. S., Gao, X. J.
  2022

- **A Cell-Free Assay for Rapid Screening of Inhibitors of hACE2-Receptor-SARS-CoV-2-Spike Binding** *ACS SYNTHETIC BIOLOGY*
  Kikuchi, N., Willinger, O., Granik, N., Gal, R., Navon, N., Ackerman, S., Samuel, E., Antman, T., Katz, N., Goldberg, S., Amit, R.
  2022; 11 (4): 1389-1396

- **Overcoming the design, build, test bottleneck for synthesis of nonrepetitive protein-RNA cassettes** *NATURE COMMUNICATIONS*
  Katz, N., Tripto, E., Granik, N., Goldberg, S., Atar, O., Yakhini, Z., Orenstein, Y., Amit, R.
  2021; 12 (1): 1576

- **Synthetic 5 ' UTRs Can Either Up- or Downregulate Expression upon RNA-Binding Protein Binding** *CELL SYSTEMS*
  Katz, N., Cohen, R., Solomon, O., Kaufmann, B., Atar, O., Yakhini, Z., Goldberg, S., Amit, R.
  2019; 9 (1): 93-+

- **An Assay for Quantifying Protein-RNA Binding in Bacteria** *JOVE-JOURNAL OF VISUALIZED EXPERIMENTS*
  Katz, N., Cohen, R., Atar, O., Goldberg, S., Amit, R.
  2019

- **Designing Bacterial Chemotactic Receptors Guided by Photonic Femtoliter Well Arrays for Quantifiable, Label-Free Measurement of Bacterial Chemotaxis** *ACS BIOMATERIALS SCIENCE & ENGINEERING*
  Davidov, T., Granik, N., Zahran, S., Leonard, H., Adir, I., Elul, O., Fried, T., Gil, A., Mayo, B., Ohayon, S., Sarig, S., Shasha, N., Tsedef, et al
  2019; 5 (2): 603-612

- **An in Vivo Binding Assay for RNA-Binding Proteins Based on Repression of a Reporter Gene** *ACS SYNTHETIC BIOLOGY*
  Katz, N., Cohen, R., Solomon, O., Kaufmann, B., Atar, O., Yakhini, Z., Goldberg, S., Amit, R.
  2018; 7 (12): 2765-2774