


# Stanford

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## Roozbeh Dehghannasiri

Postdoctoral Scholar, Biochemistry

 Curriculum Vitae available Online

### Bio

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#### HONORS AND AWARDS

- Clinical Data Science Fellow, National Library of Medicine - National Institutes of Health (9/2019 - 9/2020)
- Cancer Systems Biology Scholars Fellow, National Institutes of Health - National Cancer Institute (8/2017 - 8/2019)

#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, Texas A&M University College Station (2016)
- Master of Applied Science(s), McMaster University (2012)
- Bachelor of Science, University Of Tehran (2010)

#### PATENTS

- Shahram Shirani, Roozbeh Dehghannasiri. "United States Patent 9,294,711 De-interlacing and frame rate upconversion for high definition video", McMaster University, Mar 22, 2016

#### LINKS

- Google Scholar: [https://scholar.google.com/citations?hl=en&user=zqRN1ZEAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.com/citations?hl=en&user=zqRN1ZEAAAAJ&view_op=list_works&sortby=pubdate)

### Research & Scholarship

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#### LAB AFFILIATIONS

- Julia Salzman, Salzman Lab (8/15/2017)

### Publications

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#### PUBLICATIONS

- **The Tabula Sapiens: A multiple-organ, single-cell transcriptomic atlas of humans.** *Science (New York, N.Y.)*  
Jones, R. C., Karkanias, J., Krasnow, M. A., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaupt, B., Brown, P., Harper, W., Hemenez, M., Ponnusamy, R., Salehi, et al  
2022; 376 (6594): eabl4896
- **The SpliZ generalizes 'percent spliced in' to reveal regulated splicing at single-cell resolution.** *Nature methods*  
Olivieri, J. E., Dehghannasiri, R., Salzman, J.  
2022
- **RNA splicing programs define tissue compartments and cell types at single cell resolution.** *eLife*  
Olivieri, J. E., Dehghannasiri, R., Wang, P. L., Jang, S., de Morree, A., Tan, S. Y., Ming, J., Ruohao Wu, A., Tabula Sapiens Consortium, Quake, S. R., Krasnow, M. A., Salzman, J.  
2021; 10

- **Specific splice junction detection in single cells with SICILIAN.** *Genome biology*  
Dehghannasiri, R., Olivieri, J. E., Damjanovic, A., Salzman, J.  
2021; 22 (1): 219
- **Improved detection of gene fusions by applying statistical methods reveals oncogenic RNA cancer drivers.** *Proceedings of the National Academy of Sciences of the United States of America*  
Dehghannasiri, R., Freeman, D. E., Jordanski, M., Hsieh, G. L., Damjanovic, A., Lehnert, E., Salzman, J.  
2019
- **Ambiguous splice sites distinguish circRNA and linear splicing in the human genome** *BIOINFORMATICS*  
Dehghannasiri, R., Szabo, L., Salzman, J.  
2019; 35 (8): 1263–68
- **Cell types of origin of the cell-free transcriptome.** *Nature biotechnology*  
Vorperian, S. K., Moufarrej, M. N., Tabula Sapiens Consortium, Quake, S. R., Jones, R. C., Karkanas, J., Krasnow, M., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaupt, B., Brown, P., et al  
2022
- **SICILIAN: Precise and unbiased detection of gene fusions at the resolution of single cells using improved statistical modeling**  
Dehghannasiri, R., Olivieri, J., Salzman, J.  
AMER ASSOC CANCER RESEARCH.2020
- **Towards precise and cost-effective fusion discovery: A landscape of druggable gene fusions across TCGA cancers**  
Dehghannasiri, R., Jordanski, M., Freeman, D. E., Hsieh, G. L., Howard, J. M., Lehnert, E., Salzman, J.  
AMER ASSOC CANCER RESEARCH.2019
- **An experimental design framework for Markovian gene regulatory networks under stationary control policy.** *BMC systems biology*  
Dehghannasiri, R., Shahrokh Esfahani, M., Dougherty, E. R.  
2018; 12 (Suppl 8): 137
- **A Bayesian robust Kalman smoothing framework for state-space models with uncertain noise statistics** *EURASIP JOURNAL ON ADVANCES IN SIGNAL PROCESSING*  
Dehghannasiri, R., Qian, X., Dougherty, E. R.  
2018
- **Sequential Experimental Design for Optimal Structural Intervention in Gene Regulatory Networks Based on the Mean Objective Cost of Uncertainty** *CANCER INFORMATICS*  
Imani, M., Dehghannasiri, R., Braga-Neto, U. M., Dougherty, E. R.  
2018; 17: 1176935118790247
- **Optimal Bayesian Kalman Filtering With Prior Update** *IEEE TRANSACTIONS ON SIGNAL PROCESSING*  
Dehghannasiri, R., Esfahani, M., Qian, X., Dougherty, E. R.  
2018; 66 (8): 1982–96
- **Intrinsically Bayesian robust Karhunen-Loève compression** *Signal Processing*  
Dehghannasiri, R., Qian, X., Dougherty, E. R.  
2018; 144: 311-322
- **Intrinsically Bayesian Robust Kalman Filter: An Innovation Process Approach** *IEEE TRANSACTIONS ON SIGNAL PROCESSING*  
Dehghannasiri, R., Esfahani, M. S., Dougherty, E. R.  
2017; 65 (10): 2531-2546
- **Optimal experimental design for materials discovery** *COMPUTATIONAL MATERIALS SCIENCE*  
Dehghannasiri, R., Xue, D., Balachandran, P. V., Yousefi, M. R., Dalton, L. A., Lookman, T., Dougherty, E. R.  
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- **Optimal experimental design in the context of canonical expansions** *IET Signal Processing*  
Dehghannasiri, R., Qian, X., Dougherty, E. R.  
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- **Optimal Objective-Based Experimental Design for Uncertain Dynamical Gene Networks with Experimental Error.** *IEEE/ACM transactions on computational biology and bioinformatics*  
Mohsenizadeh, D., Dehghannasiri, R., Dougherty, E.  
2016: -?
- **Efficient experimental design for uncertainty reduction in gene regulatory networks** *BMC BIOINFORMATICS*  
Dehghannasiri, R., Yoon, B., Dougherty, E. R.  
2015; 16
- **Optimal Experimental Design for Gene Regulatory Networks in the Presence of Uncertainty** *IEEE-ACM TRANSACTIONS ON COMPUTATIONAL BIOLOGY AND BIOINFORMATICS*  
Dehghannasiri, R., Yoon, B., Dougherty, E. R.  
2015; 12 (4): 938-950