

Alexander R. Nectow

Russ Berrie Medical Science Pavilion
Columbia University Medical Center
New York, NY 10032

Telephone: (212) 851-5303
Email: arn2136@columbia.edu
URL: www.alexandernectow.com

ACADEMIC APPOINTMENTS

07/2019 - Present **Columbia University**, Department of Medicine • New York, NY
Principal Investigator, Nectow Lab

EDUCATION AND TRAINING

02/2016 - 07/2019 **Princeton University**, Princeton Neuroscience Institute • Princeton, NJ
CV Starr Fellow, Associate Research Scholar
Principal Investigator, Nectow Lab

05/2015 - 02/2016 **The Rockefeller University**, Molecular Genetics • New York, NY
Postdoctoral Fellow, Advisor: Prof. Jeffrey Friedman

09/2011 - 05/2015 **The Rockefeller University**, Molecular Genetics • New York, NY
Ph.D., Neuroscience, Advisor: Prof. Jeffrey Friedman

09/2007 - 05/2011 **Tufts University**, School of Engineering • Medford, MA
B.S. Engineering Science, *magna cum laude*
M.S. Biomedical Engineering, Advisor: Prof. David Kaplan

AWARDS AND HONORS

2018 - 2022 Pathway to Stop Diabetes Accelerator Award, American Diabetes Association

2018 - 2021 Innovative Basic Science Award, Core Program, American Diabetes Association

2017 - 2020 Dean's Scholarship, College of Physicians and Surgeons, Columbia University

2017 - 2019 Investigator, Foundation for Prader-Willi Research

2017 - 2019 NARSAD Young Investigator, Brain and Behavior Research Foundation

2016 - 2019 Innovation Fund Award, Princeton Neuroscience Institute, Princeton University

2016 - 2019 CV Starr Fellowship, Princeton Neuroscience Institute, Princeton University

2016 - 2017 Clinical and Translational Science Award, Shapiro-Silverberg Fund, The Rockefeller University

2016 Pilot Award, Robertson Therapeutic Development Fund, The Rockefeller University

- 2016** Salk Helmsley Fellowship, Salk Institute for Biological Studies (*declined*)
- 2015** Travel Award, Postdoctoral Association, The Rockefeller University
- 2014** Finalist, Collegiate Inventors Competition
- 2014 - 2015** David Rockefeller Fellowship, The Rockefeller University

KEY PUBLICATIONS (* denotes equal contribution; #denotes correspondence)

- 2019** Marc Schneeberger^{*,*}, Luca Parolari^{*}, Tania Das Banerjee^{*}, Varun Bhave, Putianqi Wang, Thomas Topilko, Bindiben Patel, Zhuhao Wu, Chan Hee J. Choi, Paul Cohen, Nicolas Renier, Jeffrey M. Friedman[#], **Alexander R. Nectow^{#,##}**. “Regulation of Energy Expenditure by Brainstem GABA Neurons,” *Cell*, **178**, 672-685. (^{##}Lead contact)
- 2017** Malavika Murugan, Hee Jae Jang, Michelle Park, Ellia Miller, Julia Cox, Joshua Taliaferro, Nathan F. Parker, Varun Bhave, Hong Hur, Yupu Liang, **Alexander R. Nectow**, Jonathan W. Pillow, Ilana B. Witten[#]. “Combined Social and Spatial Coding in a Descending Projection from the Prefrontal Cortex,” *Cell*, **171**, 1663-1667.
- 2017** **Alexander R. Nectow[#]**, Marc Schneeberger, Hongxing Zhang, Bianca C. Field, Nico Renier, Estefania Azevedo, Bindiben Patel, Yupu Liang, Siddhartha Mitra, Marc Tessier-Lavigne, Ming-Hu Han, Jeffrey M. Friedman[#]. “Identification of a Brainstem Circuit Controlling Feeding,” *Cell*, **170**, 429-442.
- 2017** **Alexander R. Nectow[#]**, Maria V. Moya, Mats I. Ekstrand, Awni Mousa, Kelly L. McGuire, Caroline E. Sferrazza, Bianca C. Field, Gabrielle S. Rabinowitz, Kirsty Sawicka, Yupu Liang, Jeffrey M. Friedman, Nathaniel Heintz[#], Eric F. Schmidt[#]. “Rapid Molecular Profiling of Defined Cell Types Using Viral TRAP,” *Cell Reports* **19**, 655-667.
- 2015** **Alexander R. Nectow[#]**, Mats I. Ekstrand, Jeffrey M. Friedman. “Molecular Characterization of Cell Types Based on Patterns of Projection,” *Nature Protocols* **10**, 1319-1327.
- 2014** Mats I. Ekstrand^{*}, **Alexander R. Nectow^{*}**, Zachary A. Knight, Kaamashri N. Latcha, Lisa E. Pomeranz, Jeffrey M. Friedman[#]. “Molecular Profiling of Neurons Based on Connectivity,” *Cell* **157**, 1230-1242.
- 2013** Christoph Borgers[#] and **Alexander R. Nectow[#]**. “Exponential Time Differencing for Hodgkin-Huxley-like ODEs,” *SIAM Journal on Scientific Computing* **35**, B623-B643.
- 2012** **Alexander R. Nectow**, Kacey G. Marra, David L. Kaplan[#]. “Biomaterials for the Development of Peripheral Nerve Guidance Conduits,” *Tissue Engineering Part B: Reviews* **18**, 40-50.

OTHER PUBLICATIONS

(* denotes equal contribution; #denotes correspondence)

- 2019** Efrain A. Ribeiro, **Alexander R. Nectow**, Mats I. Ekstrand, Lisa E. Pomeranz, Ja Wook Koo, Rosemary C. Bagot, Eric J. Nestler#. “Viral Labeling of Neurons Synaptically Connected to Nucleus Accumbens Somatostatin Interneurons,” *PLoS One*, **14**, e0213476.
- 2018** Hongxing Zhang, Dipesh Chaudhury, **Alexander R. Nectow**, et al. “Alpha1 and Beta3 Adrenergic Receptors Mediate Resilience to Social Stress,” *Biological Psychiatry*, **85**, 226-236.
- 2018** Marc Schneeberger*, Keith Tan*, **Alexander R. Nectow**, Luca Parolari, Caner Calgar, Estefania Azevedo, Zhiying Li, Ana Domingos, Jeffrey M. Friedman#. “Functional Analysis Reveals Differential Effects of Glutamate and MCH Neuropeptide in MCH Neurons,” *Molecular Metabolism*, **13**, 83-89.
- 2016** Sarah A. Stanley, Leah Kelly, Kaamashri N. Latcha, Sarah F. Schmidt, Xiaofei Yu, **Alexander R. Nectow**, Jeremy Sauer, Jonathan P. Dyke, Jonathan S. Dordick, Jeffrey M. Friedman#. “Bidirectional Electromagnetic Control of the Hypothalamus Regulates Feeding and Metabolism,” *Nature* **531**, 647-650.
- 2014** **Alexander R. Nectow**, Misha E. Kilmer, David L. Kaplan#. “Quantifying Cellular Alignment on Anisotropic Biomaterial Platforms,” *Journal of Biomedical Materials Research: Part A* **102**, 420-428.
- 2013** **Alexander R. Nectow**, Eun Seok Gil, David L. Kaplan, Misha E. Kilmer#. “A Statistical Algorithm for Assessing Cellular Alignment,” *Journal of Biomedical Materials Research: Part A* **101**, 884-891.
- 2013** Dipesh Chaudhury*, Jessica J. Walsh*, Allyson K. Friedman, Barbara Juarez, Stacy M. Ku, Ja Wook Koo, Deveroux Ferguson, Hsing-Chen Tsai, Lisa Pomeranz, Daniel J. Christoffel, **Alexander R. Nectow**, et al. “Rapid Regulation of Depression-Related Behaviours by Control of Midbrain Dopamine Neurons,” *Nature* **493**, 532-536.

ADVANCED COURSEWORK

- 2014** Microelectrode Techniques for Cell Physiology. Marine Biological Association. Plymouth, UK. September 2014.