

# Benjamin Gaudio

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**Harvard Medical School**  
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200 Longwood Ave.  
Boston, MA 02115

## Education

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**Harvard University Extension School**

CANDIDATE FOR MASTER OF LIBERAL ARTS IN BIOLOGICAL SCIENCES

Jan 2019 – Present  
Cambridge, MA

**Northeastern University**

BACHELOR OF SCIENCE IN BIOLOGY

Sep 2013 – Dec 2017  
Boston, MA

## Research Experience

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**HARVARD MEDICAL SCHOOL**

RESEARCH TECHNICIAN

Mar 2018 – Present  
Boston, MA

- Conducted high-throughput small molecule screens to produce data for the NIH LINCS project.
- Worked to develop a detection test for SARS-COV-2 (COVID-19).
- Characterized the functions of genes involved in cancer and cellular metabolism.
- Manage and maintain a tissue culture facility for the Laboratory of Systems Pharmacology.

**PFIZER Inc.**

CO-OP RESEARCH ASSISTANT - NEURODEGENERATION II UNIT

Jan 2017 – Feb 2018  
Cambridge, MA

- Engineered cell lines with CRISPR and performed functional assays to investigate the role of microglia in Alzheimer's disease.
- Designed a CRISPR library screen to identify genes interacting with the transferrin receptor.
- Identified receptor ligands through immunoprecipitation assays.

**NORTHEASTERN UNIVERSITY**

UNDERGRADUATE RESEARCH ASSISTANT - CENTER FOR DRUG DISCOVERY

Jan 2016 – Sep 2016  
Boston, MA

- Investigated the function of the TAAR1 receptor through the use of basic molecular biology techniques.
- Maintained mammalian cell lines, performed antibiotic kill curve assays, and presented data.

**REPLIGEN CORPORATION**

CO-OP RESEARCH ASSISTANT - UPSTREAM BIOPROCESSING

Jul 2015 – Jan 2016  
Waltham, MA

- Set up and maintained perfusion bioreactors to test novel filtration systems under development.
- Recorded, interpreted, and presented data from collected samples.
- Maintained a clean and orderly lab environment and was responsible for ordering supplies.

**GENERAL DIGITAL**

DATA ENTRY CLERK

May 2013 – Sep 2013  
South Windsor, CT

- Organized files for safety critical software and assisted in organizing inventory.

# Teaching Experience

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NORTHEASTERN UNIVERSITY

TEACHING ASSISTANT FOR GENERAL BIOLOGY II LAB – BIOLOGY DEPARTMENT

Sep 2016 – Dec 2016

Boston, MA

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- Taught course material for the laboratory portion of Gen. Bio. II, including dissection demonstrations.
- Created and graded exam materials.
- Held office hours and proctored exams.

## Skills and Techniques

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- CRISPR gene editing
- Mammalian cell culture
- Fluorescence Activated Cell Sorting (FACS)
- Plasmid cloning (Gibson Assembly, Endonuclease, etc.)
- Lentivirus generation and transduction
- Transfection (Electroporation and lipid-based)
- Nucleic Acid purification and reverse transcription
- RT-qPCR and PCR based assays (e.g. Surveyor)
- Western Blot
- Immunoprecipitation Assay
- Tissue Staining
- High content imaging and image analysis
- R programming
- Graphpad Prism
- Image J / FIJI

## Publications

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### **Multiplexed and reproducible high content screening of live and fixed cells using the Dye Drop method**

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Mills, C. E., Subramanian, K., Hafner, M., Niepel, M., Gerosa, L., Chung, M., Victor, C., Gaudio, B., Yapp, C., & Sorger, P. K. (2021). Multiplexed and reproducible high content screening of live and fixed cells using the Dye drop method. Preprint. <https://doi.org/10.1101/2021.08.27.457854>

### **Proteomic profiling of breast cancer cell lines and models**

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Kalocsay, M., Berberich, M., Everley, R., Nariya, M., Chung, M., Gaudio, B., Victor, C., Bradshaw, G., Hafner, M., Sorger, P. K., Mills, C., & Subramanian, K. (2020). Proteomic profiling of breast cancer cell lines and models. Preprint. <https://doi.org/10.1101/2020.12.15.422823>

### **An enhanced isothermal amplification assay for viral detection**

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Qian, J., Boswell, S. A., Chidley, C., Lu, Z.-xiang, Pettit, M. E., Gaudio, B. L., Fajnzylber, J. M., Ingram, R. T., Ward, R. H., Li, J. Z., & Springer, M. (2020). An enhanced isothermal amplification assay for viral detection. *Nature Communications*, 11(1). <https://doi.org/10.1038/s41467-020-19258-y>

### **A Multi-center Study on the Reproducibility of Drug-Response Assays in Mammalian Cell Lines**

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Niepel, M., Hafner, M., Mills, C. E., Subramanian, K., Williams, E. H., Chung, M., Gaudio, B., Barrette, A. M., Stern, A. D., Hu, B., Korkola, J. E., Gray, J. W., Birtwistle, M. R., Heiser, L. M., Sorger, P. K., Shamu, C. E., Jayaraman, G., Azeloglu, E. U., Iyengar, R., ... Devlin, K. (2019). A multi-center study on the reproducibility of drug-response assays in mammalian cell lines. *Cell Systems*, 9(1). <https://doi.org/10.1016/j.cels.2019.06.005>