

James Chuang, PhD

77 Avenue Louis Pasteur
New Research Building Room 239
Boston, MA 02215

james_chuang@hms.harvard.edu
(617) 432-7557

github.com/james-chuang
james-chuang.github.io

areas of interest

- data science, data engineering, data visualization
- statistics, machine learning
- genomics, synthetic biology

education

2019 PhD, Biomedical Engineering, Boston University

research advisor: Fred Winston, PhD
Professor of Genetics
Harvard Medical School

co-advisor: Ahmad Khalil, PhD
Associate Professor of Biomedical Engineering
Boston University

2013 BSc, Biomedical Engineering, Johns Hopkins University

research advisor: Jef D. Boeke, PhD, Dsc
Director, Institute for Systems Genetics
Professor of Biochemistry and Molecular Pharmacology
NYU Langone Health

publications (*equal contribution)

2018 Doris SM*, **Chuang J***, Viktorovskaya O, Murawska M, Spatt D, Churchman LS, Winston F (2018). Spt6 is required for the fidelity of promoter selection. **Molecular Cell**, doi:[10.1016/j.molcel.2018.09.005](https://doi.org/10.1016/j.molcel.2018.09.005)

2018 **Chuang J**, Boeke JD, Mitchell LA (2018) Coupling yeast golden gate and VEGAS for efficient assembly of the violacein pathway in *Saccharomyces cerevisiae*. **Synthetic Metabolic Pathways**, doi:[10.1007/978-1-4939-7295-1_14](https://doi.org/10.1007/978-1-4939-7295-1_14)

2017 Aquino P, Honda B, Jaini S, Lyubetskaya A, Hosur K, Chiu JG, Ekladios I, Hu D, Jin L, Sayeg MK, Stettner AI, Wang J, Wong BG, Wong WS, Alexander SL, Ba C, Bensussen SI, Chou K, **Chuang J**, Gastler DE, Grasso DJ, Greifenberger JS, Guo C, Hawes AK, Israni DV, Jain SR, Kim J, Lei J, Li H, Li D, Li Q, Mancuso CP, Mao N, Masud SF, Meisel CL, Mi J, Nykyforchyn CS, Park M, Peterson HM, Ramirez AK, Reynolds DS, Rim NG, Saffie JC, Su H, Su WR, Su Y, Sun M, Thommes MM, Tu T, Varongchayakul N, Wagner TE, Weinberg BH, Yang R, Yaroslavsky A, Yoon C, Zhao Y, Zollinger AJ, Stringer AM, Foster JW, Wade J, Raman S, Broude N, Wong WW, Galagan JE (2017).

Coordinated regulation of acid resistance in *Escherichia coli*. **BMC Systems Biology**, doi:[10.1186/s12918-016-0376-y](https://doi.org/10.1186/s12918-016-0376-y)

- 2015** Mitchell, LA*, **Chuang J***, Agmon N, Khunsriraksakul C, Phillips NA, Cai Y, Truong DM, Veerakumar A, Wang Y, Mayorga M, Blomquist P, Sadda P, Trueheart J, Boeke JD (2015). Versatile genetic assembly system (VEGAS) to assemble pathways for expression in *S. cerevisiae*. **Nucleic Acids Research**, doi:[10.1093/nar/gkv466](https://doi.org/10.1093/nar/gkv466)
- 2015** Agmon N, Mitchell LA, Cai Y, Ikushima S, **Chuang J**, Zheng A, Choi W, Martin JA, Caravelli K, Stracquadanio G, Boeke JD (2015). Yeast golden gate (yGG) for the efficient assembly of *S. cerevisiae* transcription units. **ACS Synthetic Biology**, doi:[10.1021/sb500372z](https://doi.org/10.1021/sb500372z)
- 2013** Mitchell LA, Cai Y, Taylor M, Noronha AM, **Chuang J**, Dai L, Boeke JD (2013). Multi-change isothermal mutagenesis: a new strategy for multiple site-directed mutations in plasmid DNA. **ACS Synthetic Biology**, doi:[10.1021/sb300131w](https://doi.org/10.1021/sb300131w)

teaching

- 2016** Teaching Assistant, ENG BE 402: Control Systems in Biomedical Engineering, Prof. Ahmad Khalil
- 2015** Teaching Assistant, ENG BE 492: Biomedical Measurements II, Prof. Andrew C. Jackson