

Ned S. Wingreen
Howard A. Prior Professor in the Life Sciences
Department of Molecular Biology & Lewis-Sigler Institute for Integrative Genomics
PRINCETON UNIVERSITY
Princeton, NJ 08544-1014
PHONE: 609-258-8476 EMAIL: wingreen@princeton.edu

EDUCATION

| | | | |
|------------------------------------|---------|-------|------|
| California Institute of Technology | Physics | B.S. | 1984 |
| Cornell University | Physics | M.S. | 1988 |
| Cornell University | Physics | Ph.D. | 1989 |

PROFESSIONAL EMPLOYMENT

9/84 – 5/89 Fannie and John Hertz Foundation Fellow, Lab of Atomic and Solid State Physics, Cornell University

5/89 – 9/89 Visiting Scientist, Weizmann Institute of Science, Israel

9/89 – 9/91 Postdoctoral Associate, Physics Department, MIT

9/91 – 3/99 Research Scientist, Physical Sciences Division, NEC Research Institute

4/99 – 10/02 Senior Research Scientist, Physical Sciences Division, NEC Research Institute

8/99 – 5/00 Sabbatical Visitor, University of California, Berkeley

11/02 – 1/04 Senior Research Staff Member, NEC Laboratories America, Inc.

2/04 – Present Professor, Department of Molecular Biology, Princeton University

10/06 – Present Associated Faculty, Department of Physics, Princeton University

8/07 – 8/17 General Member, Aspen Center for Physics

5/08 – Present Member, Lewis-Sigler Institute, Princeton University

7/11 – 6/18 Associate Director, Lewis-Sigler Institute, Princeton University

1/13 – 7/15 Acting Director, Lewis-Sigler Institute, Princeton University

7/16 – Present Faculty Fellow, Princeton Center for Theoretical Science

2/17 – 6/19 Member, KITP Advisory Board

7/19 – Present Associate Director, Princeton Center for Theoretical Science

8/20 – Present Director of Graduate Studies, QCB Graduate Program

7/21 – 6/22 Acting Director, Princeton Center for Theoretical Science

HONORS

Academic:

California Institute of Technology (1980-1984)

Presidential Scholar (1980)

Carnation Merit Scholarship (1982-1983)

Caltech Merit Scholarship (1983-1984)

Jack E. Froehlich Memorial Award (1983)

McKinney Prize in Literature (1984)

Cornell University (1984-1989)

Fannie and John Hertz Foundation Fellowship (1984-1989)

Princeton University (2004-Present)

President's Award for Distinguished Teaching (2019)

Professional:

Fellow of the American Physical Society

Fellow of the American Association for the Advancement of Science (AAAS)

PATENTS

U.S. Patent No. 5,963,571, October 5, 1999, "Quantum-Dot Cascade Laser, Ned S. Wingreen

U.S. Patent No. 5,699,215, December 16, 1997, "Non-Magnetic Magnetoresistive Reading Head Using Corbino Structure," Stuart A. Solin, Ned S. Wingreen

U.S. Patent No. 5,692,003, November 25, 1997, "Quantum-Dot Cascade Laser," Ned S. Wingreen, Charles A. Stafford

U.S. Patent No. 7,405,050, July 29, 2008, "Small RNAs and Bacterial Strains Involved in Quorum Sensing," Derrick H. Lenz, Kenny C. Mok, Ned S. Wingreen, Bonnie L. Bassler

PUBLICATIONS

235. Martínez-Calvo A, Bhattacharjee T, Bay RK, Luu HN, Hancock AM, Wingreen NS, Datta SS,
Morphological instability and roughening of growing 3D bacterial colonies,
Proc Natl Acad Sci U S A. 2022 Oct 25;119(43):e2208019119. doi:
10.1073/pnas.2208019119. Epub 2022 Oct 18. PMID: 36256809; PMCID:
PMC9618147.
234. Ellison CK, Fei C, Dalia TN, Wingreen NS, Dalia AB, Shaevitz JW, Gitai Z,
**Subcellular localization of type IV pili regulates bacterial multicellular
development,**
Nat Commun. 2022 Oct 25;13(1):6334. doi: 10.1038/s41467-022-33564-7. PMID:
36284096; PMCID: PMC9596432.
233. Zhang D, Li SH, King CG, Wingreen NS, Gitai Z, Li Z,
**Global and gene-specific translational regulation in Escherichia coli across different
conditions,**
PLoS Comput Biol. 2022 Oct 20;18(10):e1010641. doi: 10.1371/journal.pcbi.1010641.
PMID: 36264977; PMCID: PMC9624429.
232. Landajuela A, Braun M, Martínez-Calvo A, Rodrigues CDA, Gomis Perez C, Doan T,
Rudner DZ, Wingreen NS, Karatekin E,
**Membrane fission during bacterial spore development requires cellular inflation
driven by DNA translocation,**
Curr Biol. 2022 Oct 10;32(19):4186-4200.e8. doi: 10.1016/j.cub.2022.08.014. Epub 2022
Aug 29. PMID: 36041438; PMCID: PMC9730832.

231. Bridges A, Prentice JA, Wingreen NS, Bassler BL, **Signal Transduction Network Principles Underlying Bacterial Collective Behaviors**, *Annual Review of Microbiology*. 2022 Sep 8. Doi: 10.1146/Annurev-Micro-042922-122020.
230. Fei C, Wilson AT, Mangan NM, Wingreen NS, Jonikas MC, **Modelling the pyrenoid-based CO₂-concentrating mechanism provides insights into its operating principles and a roadmap for its engineering into crops**, *Nature Plants*. 2022 May;8(5):583-595. doi: 10.1038/s41477-022-01153-7. PMID: 35596080; PMCID: PMC9122830.
229. Lopez JG, Wingreen NS, **Noisy metabolism can promote microbial cross-feeding**, *Elife*. 2022 Apr 5;11:e70694. doi: 10.7554/eLife.70694. PMID: 35380535; PMCID: PMC8983042.
228. Bridges AA, Prentice JA, Fei C, Wingreen NS, Bassler BL, **Quantitative input-output dynamics of a c-di-GMP signal transduction cascade in *Vibrio cholerae***, *PLoS Biology*. 2022 Mar 18;20(3):e3001585. doi: 10.1371/journal.pbio.3001585. PMID: 35302986; PMCID: PMC8967002.
227. Pyo AGT, Zhang Y, Wingreen NS, **Surface tension and super-stoichiometric surface enrichment in two-component biomolecular condensates**, *iScience*. 2022 Feb 1;25(2):103852. doi: 10.1016/j.isci.2022.103852. PMID: 35198903; PMCID: PMC8851291.
226. Ronceray P, Zhang Y, Liu X, Wingreen NS, **Stoichiometry Controls the Dynamics of Liquid Condensates of Associative Proteins**, *Physical Review Letters* Jan 21;128(3):038102. doi: 10.1103/PhysRevLett.128.038102. PMID: 35119898 (2022)
225. McEnany J, Meir Y, Wingreen NS, **piRNAs of *Caenorhabditis elegans* broadly silence nonself sequences through functionally random targeting**, *Nucleic Acids Research* Jan 17:gkab1290. doi: 10.1093/nar/gkab1290. Online ahead of print. PMID: 35037068 (2022)
224. Weiner BG, Pyo AGT, Meir Y, Wingreen NS, **Motif-pattern dependence of biomolecular phase separation driven by specific interactions**, *PLoS Computational Biology* Dec 29;17(12):e1009748. doi: 10.1371/journal.pcbi.1009748 (2021) eCollection Dec. PMID: 34965250 (2021)

223. Jemielita M, Mashruwala AA, Valastyan JS, Wingreen NS, Bassler BL, **Secreted proteases control the timing of aggregative community formation in *Vibrio cholerae***, *mBio*12, e0151821 (2021)
222. Memet E, Wingreen NS, Meir Y, **Dynamics of local adaptation in a stable environmental gradient**, *Physical Review Research* 3, L042026 (2021)
221. Erez A, Lopez JG, Meir Y, Wingreen NS, **Enzyme regulation and mutation in a model serial-dilution ecosystem**, *Physical Review E* 104, 044412 (2021)
220. Miangolarra AM, Li SH, Joanny JF, Wingreen NS, Castellana M, **Steric interactions and out-of-equilibrium processes control the internal organization of bacteria**, *Proceedings of the National Academy of Sciences USA* Oct 26;118(43):e2106014118. doi: 10.1073/pnas.2106014118.PMID: 34675077 (2021)
219. Pareek V, Sha Z, He J, Wingreen NS, Benkovic SJ, **Metabolic channeling: predictions, deductions, and evidence**, *Molecular Cell* Sep 16;81(18):3775-3785. doi:10.1016/j.molcel.2021.08.030. PMID: 34547238 (2021)
218. Saad-Roy CM, Grenfell BT, Levin SA, van den Driessche P, Wingreen NS, **Evolution of an asymptomatic first stage of infection in a heterogeneous population**, *Journal of the Royal Society Interface* Jun;18(179):20210175. doi: 10.1098/rsif.2021.0175. Epub 2021 Jun 16.PMID: 34129793 (2021)
217. Landajuela A, Braun M, Rodrigues CDA, Martínez-Calvo A, Doan T, Horenkamp F, Andronicos A, Shteyn V, Williams ND, Lin C, Wingreen NS, Rudner DZ, Karatekin E, **FisB Relies on Homo-Oligomerization and Lipid Binding to Catalyze Membrane Fission in Bacteria**, *PLoS Biology* Jun 29;19(6):E3001314. Doi:10.1371/Journal.PBio.3001314. PMID: 34185788; PMCID: PMC8274934. (2021)
216. Wong GCL, Antani JD, Lele PP, Chen J, Nan B, Kühn MJ, Persat A, Bru JL, Høyland-Kroghsbo NM, Siryaporn A, Conrad JC, Carrara F, Yawata Y, Stocker R, V Brun Y, Whitfield GB, Lee CK, De Anda J, Schmidt WC, Golestanian R, O'Toole GA, Floyd KA, Yildiz FH, Yang S, Jin F, Toyofuku M, Eberl L, Nomura N, Zacharoff LA, El-Naggar MY, Yalcin SE, Malvankar NS, Rojas-Andrade MD, Hochbaum AI, Yan J, Stone HA, Wingreen NS, Bassler BL, Wu Y, Xu H, Drescher K, Dunkel J, **Roadmap on Emerging Concepts in the Physical Biology of Bacterial Biofilms: From Surface Sensing to Community Formation**, *Physical Biology* Jun 23;18(5). Doi: 10.1088/1478-3975/Abdc0e. PMID: 33462162. (2021)

215. Zhang Y, Lee DSW, Meir Y, Brangwynne CP, Wingreen NS,
Mechanical Frustration of Phase Separation in the Cell Nucleus by Chromatin,
Physical Review Letters Jun 25;126(25):258102. Doi: 10.1103/Physrevlett.126.258102.
PMID: 34241518. (2021)
214. Zhang J, Alert R, Yan J, Wingreen NS, Granick S,
Active Phase Separation by Turning Towards Regions of Higher Density,
Nature Physics 17, 961–967. Doi.Org/10.1038/S41567-021-01238-8 (2021)
213. Narla AV, Borenstein DB, Wingreen NS,
A Biophysical Limit for Quorum Sensing in Biofilms,
Proceedings of the National Academy of Sciences USA May 25;118(21):E2022818118.
Doi: 10.1073/PNAS.2022818118. PMID: 34006640; PMCID: PMC8166027. (2021)
212. Qin B, Fei C, Wang B, Stone HA, Wingreen NS, Bassler BL,
**Hierarchical Transitions and Fractal Wrinkling Drive Bacterial Pellicle
Morphogenesis,**
Proceedings of the National Academy of Sciences USA May 18;118(20):E2023504118.
Doi: 10.1073/PNAS.2023504118. PMID: 33972433; PMCID: Pmc8157956. (2021)
211. Lopez JG, Donia MS, Wingreen NS,
Modeling the Ecology of Parasitic Plasmids,
ISME Journal Oct;15(10):2843-2852. Doi: 10.1038/S41396-021-00954-6. Epub 2021 Apr
8. Erratum In: *Isme J.* 2021 Jun 30;; PMID: 33833414. (2021)
210. Zhang Y, Xu B, Weiner BG, Meir Y, Wingreen NS,
**Decoding the Physical Principles of Two-Component Biomolecular Phase
Separation,**
Elife Mar 11;10:E62403. Doi: 10.7554/Elife.62403. PMID: 33704061; PMCID:
PMC7952089. (2021)
209. Koch MD, Fei C, Wingreen NS, Shaevitz JW, Gitai Z,
**Competitive binding of independent extension and retraction motors explains the
quantitative dynamics of type iv pili,**
Proceedings of the National Academy of Sciences USA. Feb 23;118(8):e2014926118.
Doi: 10.1073/PNAS.2014926118. PMID: 33593905; PMCID: PMC7923367. (2021)
208. Saad-Roy CM, Grenfell BT, Levin SA, Pellis L, Stage HB, van den Driessche P, Wingreen
NS,
Superinfection and the evolution of an initial asymptomatic stage,
Royal Society Open Science Jan 27;8(1):202212. doi: 10.1098/rsos.202212. PMID:
33614103; PMCID: PMC7890506. (2021)
207. Lee DSW, Wingreen NS, Brangwynne CP,
**Chromatin mechanics dictates subdiffusion and coarsening dynamics of embedded
condensates,**
Nature Physics 17, 531-538 <https://doi.org/10.1038/s41567-020-01125-8> Jan 11 (2021)

206. Copenhagen K, Alert R, Wingreen NS, Shaevitz JW, **Topological defects promote layer formation in *Myxococcus xanthus* colonies**, *Nature Physics* 17, 211-215, Nov 23 (2020).
205. Grimm J, Shi H, Wang W, Mitchell AM, Wingreen NS, Huang KC, Silhavy TJ, **The inner membrane protein YhdP modulates the rate of anterograde phospholipid flow in *Escherichia coli***, *Proceedings of the National Academy of Sciences USA*. Oct 12:202015556. doi: 10.1073/pnas.2015556117. PMID: 33046656 (2020)
204. Erez A, Lopez JG, Weiner BG, Meir Y, Wingreen NS, **Nutrient levels and trade-offs control diversity in a serial dilution ecosystem**, *Elife*. Sep 11;9:e57790. doi: 10.7554/eLife.57790. PMID: 32915132 (2020)
203. Li Z, Liu B, Li SH, King CG, Gitai Z, Wingreen NS, **Modeling microbial metabolic trade-offs in a chemostat**, *PLoS Computational Biology*. Aug 28;16(8):e1008156. doi: 10.1371/journal.pcbi.1008156. eCollection 2020 Aug. PMID: 32857772 (2020)
202. Saad-Roy CM, Arinaminpathy N, Wingreen NS, Levin SA, Akey JM, Grenfell BT, **Implications of localized charge for human influenza A H1N1 hemagglutinin evolution: insights from deep mutational scans**, *PLoS Computational Biology*. 2020 Jun 25;16(6):e1007892. doi: 10.1371/journal.pcbi.1007892. eCollection Jun. PMID: 32584807 (2020)
201. Tareen A, Wingreen NS, Mukhopadhyay R, **Asymmetry between activators and deactivators in functional protein networks**, *Scientific Reports*. Jun 23;10(1):10131. doi: 10.1038/s41598-020-66699-y. PMID: 32576941 (2020)
200. Qin B, Fei C, Bridges AA, Mashruwala AA, Stone HA, Wingreen NS, Bassler BL, **Cell position fates and collective fountain flow in bacterial biofilms revealed by light-sheet microscopy**, *Science* 11 Jun: eabb8501 DOI: 10.1126/science.abb8501(2020)
199. Fei C, Mao S, Yan J, Alert R, Stone HA, Bassler BL, Wingreen NS, Košmrlj A, **Nonuniform growth and surface friction determine bacterial biofilm morphology on soft substrates**, *Proceedings of the National Academy of Sciences U.S.A.* Mar 19. pii: 201919607. doi: 10.1073/pnas.1919607117. (2020)
198. Saad-Roy CM, Wingreen NS, Levin SA, Grenfell BT, **Dynamics in a simple evolutionary-epidemiological model for the evolution of an initial asymptomatic infection stage**,

- Proceedings of the National Academy of Sciences USA*. May 26;117(21):11541-11550. (2020)
197. Xu B, He G, Weiner BG, Ronceray P, Meir Y, Jonikas MC, Wingreen NS, **Rigidity enhances a magic-number effect in polymer phase separation**, *Nature Communications*. Mar 25;11(1):1561. (2020)
196. Weiner BG, Posfai A, Wingreen NS, **Spatial ecology of territorial populations**, *Proceedings of the National Academy of Sciences USA*. Sep 3;116(36):17874-17879. (2019)
195. Rath S, Prangley E, Donovan J, Demarest K, Wingreen NS, Meir Y, Korennykh A, **Concerted 2-5a-mediated mrna decay and transcription reprogram protein synthesis in the dsrna response**, *Molecular Cell*. Sep 19;75(6):1218-1228.e6. (2019)
194. Wang SW, Bitbol AF, Wingreen NS, **Revealing evolutionary constraints on proteins through sequence analysis**, *PLoS Computational Biology*. Apr 24;15(4):e1007010. (2019)
193. Mayer A, Zhang Y, Perelson AS, Wingreen NS, **Regulation of T cell expansion by antigen presentation dynamics**, *Proceedings of the National Academy of Sciences USA*. Mar 26;116(13):5914-5919. (2019)
192. Yan J, Fei C, Mao S, Moreau A, Wingreen NS, Košmrlj A, Stone HA, Bassler BL, **Mechanical instability and interfacial energy drive biofilm morphogenesis**, *Elife*. Mar 8;8. pii: e43920. (2019)
191. Ali MZ, Huang KC, Wingreen NS, Mukhopadhyay R, **Cell geometry and leaflet bilayer asymmetry regulate domain formation in plasma membranes**, *Physical Review E*. Jan;99(1-1):012401. (2019)
190. Yan J, Moreau A, Khodaparast S, Perazzo A, Feng J, Fei C, Mao S, Mukherjee S, Košmrlj A, Wingreen NS, Bassler BL, Stone HA, **Bacterial biofilm material properties enable removal and transfer by capillary peeling**, *Advanced Materials*. Jan;31(4):e1807586. (2019)
189. Chitrakar A, Rath S, Donovan J, Demarest K, Li Y, Sridhar RR, Weiss SR, Kotenko SV, Wingreen NS, Korennykh A, **Real-time 2-5A kinetics suggest that interferons β and λ evade global arrest of translation by RNase L**, *Proceedings of the National Academy of Sciences USA*. Feb 5;116(6):2103-2111. (2019)
188. Jemielita M, Wingreen NS, Bassler BL, **Quorum sensing controls *Vibrio cholerae* multicellular aggregate formation**, *Elife*. Dec 24;7. pii: e42057. (2018)

187. Shin Y, Chang YC, Lee DSW, Berry J, Sanders DW, Ronceray P, Wingreen NS, Haataja M, Brangwynne CP,
Liquid nuclear condensates mechanically sense and restructure the genome,
Cell. Nov 29;175(6):1481-1491.e13. doi: 10.1016/j.cell.2018.10.057 (2018)
186. Beroz F, Yan J, Meir Y, Sabass B, Stone HA, Bassler BL, Wingreen NS,
Verticalization of bacterial biofilms,
Nature Physics. 14: 954–960. (2018)
185. Walter J-C, Walliser N-O, David G, Dorignac J, Geniet F, Palmeri J, Parmeggiani A, Wingreen NS, Broedersz CP,
Looping and clustering model for the organization of protein-DNA complexes on the bacterial genome,
New Journal of Physics, 20:035002. (2018)
184. Li SH, Li Z, Park JO, King CG, Rabinowitz JD, Wingreen NS, Gitai Z,
Escherichia coli translation strategies differ across carbon, nitrogen and phosphorus limitation conditions,
Nature Microbiology. Aug;3(8):939-947. doi: 10.1038/s41564-018-0199-2. PMID: 6278830 (2018)
183. Ali MZ, Wingreen NS, Mukhopadhyay R,
Hidden long evolutionary memory in a model biochemical network,
Physical Review E. Apr;97(4-1):040401. doi: 10.1103/PhysRevE.97.040401(2018)
182. Tareen A, Wingreen NS, Mukhopadhyay R,
Modeling evolution of crosstalk in noisy signal transduction networks,
Physical Review E. Feb;97(2-1):020402. doi: 10.1103/PhysRevE.97.020402 (2018)
181. Freeman Rosenzweig ES, Xu B, Kuhn Cuellar L, Martinez-Sanchez A, Schaffer M, Strauss M, Cartwright HN, Ronceray P, Plitzko JM, Förster F, Wingreen NS, Engel BD, Mackinder LCM, Jonikas MC,
The eukaryotic CO₂-concentrating organelle is liquid-like and exhibits dynamic reorganization,
Cell. Sep 21;171(1):148-162 (2017)
180. Yan J, Nadell CD, Stone HA, Wingreen NS, Bassler BL,
Extracellular-matrix-mediated osmotic pressure drives Vibrio cholerae biofilm expansion and cheater exclusion,
Nature Communications. Aug 23;8(1):327. doi: 10.1038/s41467-017-00401-1. (2017)
179. Paulick A, Jakovljevic V, Zhang S, Erickstad M, Groisman A, Meir Y, Ryu WS, Wingreen NS, Sourjik V,
Mechanism of bidirectional thermotaxis in Escherichia coli,
Elife. Aug 3;6. pii: e26607. doi: 10.7554/eLife.26607 (2017)
178. Beroz F, Jawerth LM, Munster S, Weitz DA, Broedersz CP, Wingreen NS,
Physical limits to biomechanical sensing in disordered fibre networks,

- Nature Communications*. Jul 18;8:16096. doi: 10.1038/ncomms16096. PMID: 28719577 (2017)
177. Taillefumier T, Posfai A, Meir Y, Wingreen NS,
Microbial consortia at steady supply,
Elife. May 5;6 pii: e22644. doi: 10.7554/eLife.22644. PMID: 28473032 (2017)
176. Posfai A, Taillefumier T, Wingreen NS,
Metabolic trade-offs promote diversity in a model ecosystem,
Physical Review Letters. Jan 13;118(2):028103. Doi: 10.1103/PhysRevLett.118.028103. Epub 2017 Jan 12. PMID: 28128613. (2017)
175. Bitbol A-F, Dwyer RS, Colwell LJ, Wingreen NS,
Inferring interaction partners from protein sequences,
Proceedings of the National Academy of Science. Oct. 25; 113(43):12180. (2016)
174. Yan J, Sharo AG, Stone H, Wingreen NS, Bassler BL,
Vibrio cholerae biofilm growth program and architecture revealed by single-cell live imaging,
Proceedings of the National Academy of Science. 2016 Sep 6;113(36):E5337-43. doi: 10.1073/pnas.1611494113 Epub Aug 23. PMID: 27555592 (2016)
173. Castellana M, Li H-J, Wingreen NS,
Spatial structure of bacterial transcription and translation,
Proceedings of the National Academy of Science. 2016 Aug 16;113(33):9286-91. doi: 10.1073/pnas.1604995113. Epub Aug 2. PMID: 27486246 (2016)
172. Aquino G, Wingreen NS, Endres RG,
Know the single-receptor sensing limit? Think again,
Journal of Statistical Physics.;162:1353-1364. Epub 2015 Nov 23. PMID: 26941467 (2016)
171. Drescher K, Dunkel J, Nadell CD, van Teeffelen S, Grnja I, Wingreen NS, Stone HA, Bassler BL,
Architectural transitions in Vibrio cholerae biofilms at single-cell resolution,
Proceedings of the National Academy of Science. 2016 Apr 5;113(14):E2066-72. doi: 10.1073/pnas.1601702113. Epub Mar 1. PMID: 26933214 (2016)
170. Sonnenburg ED, Smits SA, Tikhonov M, Higginbottom SK, Wingreen NS, Sonnenburg JL,
Diet-induced extinctions in the gut microbiota compound over generations,
Nature. Jan 14;529(7585):212-5. doi: 10.1038/nature16504. (2016)
169. Ned S. Wingreen, KC Huang.
Physics of intracellular organization in bacteria,
Annual Review of Microbiology. Oct 15;69:361-79. doi: 10.1146/annurev-micro-091014-104313. PMID: 26488278 (2015)
168. David B. Borenstein, Peter Ringel, Marek Basler, Ned S. Wingreen.

- Established microbial colonies can survive Type VI secretion assault,**
PLoS Computational Biology. 2015 Oct 20;11(10):e1004520. doi:
10.1371/journal.pcbi.1004520. eCollection Oct. PMID: 26485125 (2015)
167. Steven T. Rutherford, Julie S. Valastyan, Thibaud Tallefumier, Ned S. Wingreen, Bonnie Bassler.
Comprehensive analysis reveals how single nucleotides contribute to noncoding RNA function in bacterial quorum sensing,
Proceedings of the National Academy of Sciences. Nov 3;112(44):E6038-47. doi:
10.1073/pnas.1518958112. Epub 2015 Oct 19. PMID: 26483489 (2015)
166. Thibaud Tallefumier, Ned S. Wingreen.
Optimal census by quorum sensing,
PLoS Computational Biology. 2015 May 12;11(5):e1004238. doi:
10.1371/journal.pcbi.1004238. eCollection May. PMID: 25965377 (2015)
165. A Persat, CD Nadell, MK Kim, F Ingremeau, A Siryaporn, K Drescher, NS Wingreen, BL Bassler, Z Gitai, HA Stone.
The mechanical world of bacteria,
Cell. May 21;161(5):988-97. doi: 10.1016/j.cell.2015.05.005. Review.
PMID: 26000479 (2015)
164. Anne Florence Bitbol, Ned S. Wingreen.
Fundamental constraints on the abundances of chemotaxis proteins,
Biophysical Journal. Mar 10;108(5):1293-305. doi: 10.1016/j.bpj.2015.01.024. PMID:
25762341 [PubMed - in process] (2015)
163. V. Wasnik, Ned S. Wingreen, R. Mukhopadhyay.
Modeling curvature-dependent subcellular localization of the small sporulation protein spovm in bacillus subtilis,
PLOS ONE. Jan 27;10(1):e0111971. doi: 10.1371/journal.pone.0111971.
eCollection 2015. PMID: 25625300 [PubMed - in process] (2015)
162. C.D. Nadell, Knut Drescher, Ned S. Wingreen, Bonnie L. Bassler.
Extracellular matrix structure governs invasion resistance in bacterial biofilms,
ISME Journal. Multidisciplinary Journal of Microbial Ecology. Jan 20. doi:
10.1038/ismej.2014.246. [Epub ahead of print]
PMID: 25603396 [PubMed - as supplied by publisher] (2015)
161. L Feng, ST Rutherford, K Papenfort, JD Bagert, JC van Kessel, DA Tirrell, Ned S. Wingreen, Bonnie L. Bassler.
A qrr noncoding RNA deploys four different regulatory mechanisms to optimize quorum-sensing dynamics,
Cell. 2015 Jan 15;160(1-2):228-40. doi: 10.1016/j.cell.2014.11.051. Epub Jan 8. PMID:
25579683 [PubMed - in process] (2015)
160. Christoph A. Haselwandter, Ned S. Wingreen.

- The role of membrane-mediated interactions in the assembly and architecture of chemoreceptor lattices,**
PLoS Computational Biology. Dec 11;10(12):e1003932. doi: 10.1371/journal.pcbi.1003932. eCollection 2014 Dec. PMID: 25503274 [PubMed - in process] (2014)
159. Bonnie L. Bassler, Ned S. Wingreen.
Working together at the interface of physics and biology,
Physical Biology Oct 8;11(5):053010. doi: 10.1088/1478-3975/11/5/053010. PMID: 25294092 (2014)
158. Michele Castellana, Maxwell Z. Wilson, Yifan Xu, Preeti Joshi, Ileana M Cristea, Joshua D. Rabinowitz, Zemer Gitai, Ned S. Wingreen.
Enzyme clustering accelerates processing of intermediates through metabolic channeling,
Nature Biotechnology. Oct; 32(10):1011-1018. PMID: 25262299 (2014)
157. Rachael M. Barry, Anne-Florence Bitbol, Alexander Lorestani, Emeric J. Charles, Chris H. Habrian, Jesse M. Hansen, Hsin-Jung Li, Enoch P. Baldwin, Ned S. Wingreen, Justin M. Kollman, Zemer Gitai.
Large-scale filament formation inhibits the activity of CTP synthetase,
Elife. Jul 16;3:e03638. PMCID: PMC4126345 (2014)
156. Mikhail Tikhonov, Robert W Leach, Ned S, Wingreen.
Interpreting 16S metagenomic data without clustering to achieve sub-OTU resolution,
ISME Journal Multidisciplinary Journal of Microbial Ecology. Jul 11. doi: 10.1038/ismej.2014.117. [Epub ahead of print] PMID: 25012900 (2014)
155. Chase P. Broedersz, Xindan Wang, Yigal Meir, Joseph J. Loparo, David Z. Rudner, Ned S. Wingreen.
Condensation and localization of the partitioning protein ParB on the bacterial chromosome,
Proceedings of the National Academy of Sciences. Jun 17;111(24):8809-14. (2014)
154. Knut Drescher, Carey D. Nadell, Howard A. Stone, Ned S. Wingreen, Bonnie L. Bassler.
Solutions to the public goods dilemma in bacterial biofilms,
Current Biology. Jan 6;24(1): PMCID: PMC3935403 (2014)
153. Silke Neumann, Nikita Vladimirov, Anna K. Krembel, Ned S. Wingreen, Victor Sourjik.
Imprecision of adaptation in Escherichia coli chemotaxis,
PLOS ONE. Jan 8;9(1):e84904, PMCID: PMC3885661 (2014)
152. Robert S. Dwyer, Dante P. Ricci, Lucy J. Colwell, Thomas J. Silhavy, Ned S. Wingreen.
Predicting functionally informative mutations in Escherichia coli BamA using evolutionary covariance analysis,
Genetics 195: 443-55. PMID:23934888 (2013)
151. Monica Skoge, Sahin Naqvi, Yigal Meir, Ned S. Wingreen.
Chemical sensing by nonequilibrium cooperative receptors,

Physical Review Letters 110: 248102 (2013)

150. David B. Borenstein, Yigal Meir, Joshua W. Shaevitz, Ned S. Wingreen.
Non-local interaction via diffusible resource prevents coexistence of cooperators and cheaters in a lattice model,
PLoS One 8(5):e63304. PMID:PMC3656920 (2013)
149. Siyuan Wang, Ned S. Wingreen.
Cell shape can mediate the spatial organization of the bacterial cytoskeleton.
Biophysical Journal 104(3):541-52. PMID:PMC3566457 (2013)
148. Victor Sourjik, Ned S. Wingreen.
Responding to chemical gradients: bacterial chemotaxis,
Current Opinion in Cell Biology Apr;24(2):262-8. Epub 2011 Dec 9.
PMCID:PMC3320702 (2012)
147. Robert M. Cooper, Ned S. Wingreen, Edward C. Cox.
An excitable cortex and memory model successfully predicts new pseudopod dynamics,
PLoS One ;7(3):e33528. Epub 2012 Mar 22. PMID:PMC3310873 (2012)
146. Douglas Swanson, Ned S. Wingreen.
Active biopolymers confer fast reorganization kinetics,
Physical Review Letters 107, 218103. PMID: 22181930 (2011)
145. Monica L. Skoge, Yigal Meir, Ned S. Wingreen.
Dynamics of cooperativity in chemical sensing among cell-surface receptors,
Physical Review Letters Oct 21;107(17):178101. Epub 2011 Oct 18 PMID:22107586 (2011)
144. Christopher D. Doucette, David J. Schwab, Ned S. Wingreen, Joshua D. Rabinowitz.
 α -ketoglutarate coordinates carbon and nitrogen utilization via enzyme I inhibition,
Nature Chemical Biology. Oct 16. doi: 10.1038/nchembio.685. PMID: PMC3218208 (2011)
143. Edward J. Banigan, Michael A. Gelbart, Zemer Gitai, Ned S. Wingreen, Andrea J. Liu.
Filament depolymerization can explain chromosome pulling during bacterial mitosis,
PLoS Computational Biology. Sep; 7 (9):e1002145. PMID: PMC3178632 (2011)
142. Sven van Teeffelen, Siyuan Wang, Leon Furchtgott, Kerwyn Casey Huang, Ned S. Wingreen, Joshua W. Shaevitz, Zemer Gitai.
The bacterial actin MreB rotates, and rotation depends on cell-wall assembly,
Proceedings of the National Academy of Sciences. Sep 20;108 (38):15822-7 PMID: PMC3179079 (2011)
141. R. Scott McIsaac, Kerwyn Casey Huang, Anirvan Sengupta, Ned S. Wingreen.
Does the potential for chaos constrain the embryonic cell-cycle oscillator?,
PLoS Computational Biology. Jul;7(7):e1002109. Epub 2011 Jul 14. PMID: PMC3136431 (2011)

140. Yufang Wang, Kimberly C. Tu, Nai Phuan Ong, Bonnie L. Bassler, Ned S. Wingreen.
Protein-level fluctuation correlation at the microcolony level and its application to the *Vibrio harveyi* quorum-sensing circuit,
Biophysics Journal; 100(12):3045-53. PMID: PMC3123921 (2011)
139. Shu-Wen Teng, Jessica N Schaffer, Kimberley C. Tu, Pankaj Mehta, Wenyun Lu, Nai Phuan Ong, Bonnie L. Bassler, Ned S. Wingreen.
Active regulation of receptor ratios controls integration of quorum-sensing signals in *Vibrio harveyi*,
Molecular Systems Biology;7:491. PMID: PMC3130561 (2011)
138. Kristopher E. Daly, Kerwyn C. Huang, Ned S. Wingreen, Ranjan Mukhopadhyay.
Mechanics of membrane bulging during cell-wall disruption in Gram-negative bacteria,
Physical Review E;83(4-1):041922. Epub 2011 Apr 25. PMID:PMC3134142 (2011)
137. Leon Furchtgott, Ned S. Wingreen, Kerwyn C. Huang.
Mechanisms for maintaining cell shape in rod-shaped Gram-negative bacteria,
Molecular Microbiology..1365-2958.2011.07616.x. PMID: PMC3134142 (2011)
136. Olga Oleksiuk, Vladimir Jakovljevic, Nikita Vladimirov, Ricardo Carvalho, Eli Paster, William S. Ryu, Yigal Meir, Ned S. Wingreen, Markus Kollmann, Victor Sourjik.
Thermal robustness of signaling in bacterial chemotaxis,
Cell.;145(2):312-21. PMID: PMC3098529 (2011)
135. Thierry Mora, Fan Bai, Yong-Suk Che, Tohru Minamino, Keiichi Namba, Ned S Wingreen.
Non-genetic individuality in *Escherichia coli* motor switching,
Physical Biology. Apr;8(2):024001. PMID: PMC3140400 (2011)
134. Peter L. Nara, Gregory J. Tobin, A. Ray Chaudhuri, Jessie D. Trujillo, George Lin, Michael W. Cho, Simon A. Levin, Wilfred Ndifon, and Ned S. Wingreen.
How can vaccines against influenza and other viral diseases be made more effective?,
PLoS Biology.;8(12):e1000571. PMID: PMC3006352. (2010)
133. Matthieu Wyart, David Botstein, Ned S. Wingreen.
Evaluating gene expression dynamics using pairwise RNA FISH data,
PLoS Computational Biology.;6(11):e1000979. PMID: PMC2973809 (2010)
132. Yigal Meir, Vladimir Jakovljevic, Olga Oleksiuk, Victor Sourjik, Ned S. Wingreen.
Precision and kinetics of adaptation in bacterial chemotaxis,
Biophysical Journal 99(9):2766-74. PMID: PMC2965943 (2010)
131. Thierry Mora, Ned S. Wingreen.
Limits of sensing temporal concentration changes by single cells,
Physical Review Letters 104(24):248101 (2010).
130. Clinton H. Hansen, Victor Sourjik, Ned S. Wingreen.
A dynamic-signaling-team model for chemotaxis receptors in *Escherichia coli*,
Proceedings of the National Academy of Sciences 107(40):17170-5. PMID: PMC2951395 (2010)

129. Silke Neumann, Clinton H. Hansen, Ned S. Wingreen, Victor Sourjik.
Differences in signalling by directly and indirectly binding ligands in bacterial chemotaxis,
EMBO Journal 29(20):3484-95. PMID: PMC2964171 (2010)
128. Sidhartha Goyal, Jie Yuan, Thomas Chen, Joshua D. Rabinowitz, Ned S. Wingreen.
Achieving optimal growth through product feedback inhibition in metabolism,
PLoS Computational Biology 6(6):e1000802. PMID: PMC2880561(2010)
127. Barry M. Zee, Rebecca S. Levin, Bo Xu, Gary LeRoy, Ned S. Wingreen, Benjamin A. Garcia.
In vivo residue-specific histone methylation dynamics,
Journal of Biological Chemistry 285(5):3341-5. PMID: PMC2823435 (2010)
126. Kimberly C. Tu, Tao Long, Sine L. Svenningsen, Ned S. Wingreen, Bonnie L. Bassler.
Negative feedback loops involving small regulatory RNAs precisely control the *Vibrio harveyi* quorum-sensing response,
Molecular Cell 37(4):567-79. PMID: PMC2844700 (2010)
125. Shu-Wen Teng, Yufang Wang, Kimberly C. Tu, Tao Long, Pankaj Mehta, Ned S. Wingreen, Bonnie L. Bassler, N.P. Ong.
Measurement of the copy number of the master quorum-sensing regulator of a bacterial cell,
Biophysical Journal 98(9):2024-31. PMID: PMC2862190 (2010)
124. Wai-Leung Ng, Yunzhou Wei, Lark J. Perez, Jianping Cong, Tao Long, Matthew Koch, Martin F. Semmelhack, Ned S. Wingreen, Bonnie L. Bassler.
Probing bacterial transmembrane histidine kinase receptor-ligand interactions with natural and synthetic molecules,
Proceedings of the National Academy of Sciences 107(12):5575-80. PMID: PMC2851778 (2010)
123. Phillip B. Kidd, Ned S. Wingreen.
Modeling the role of covalent enzyme modification in *Escherichia coli* nitrogen metabolism,
Physical Biology 7:16006. PubMed - as supplied by publisher (2010)
122. Ranjan Mukhopadhyay, Ned S. Wingreen.
Curvature and shape determination of growing bacteria,
Physical Review E 80:06290. PMID: PMC2873841(2009)
121. Thierry Mora, Howard Yu, Ned S. Wingreen.
Modeling torque versus speed, shot noise, and rotational diffusion of the bacterial flagellar motor,
Physical Review Letters 103, 248102:1-4. PMID: PMC2874687 (2009)
120. Pankaj Mehta, Sidhartha Goyal, Bonnie L. Bassler, Ned S. Wingreen.
Information processing and signal integration in bacteria quorum sensing,
Molecular System Biology 5:325. PMID: PMC2795473 (2009)
119. Thierry Mora, Howard Yu, Yoshiyuki Sowa, Ned S. Wingreen.

- Steps in bacterial flagellar motor,**
PLoS Computational Biology 5(10):e1000540. PMID: PMC2759076 (2009)
118. Jie Yuan, Christopher D Doucette, William U Fowler, Xiao-Jiang Feng, Matthew Piazza, Herschel A Rabitz, Ned S Wingreen, Joshua D Rabinowitz,
Metabolomics-driven quantitative analysis of ammonia assimilation in E. coli,
Molecular System Biology 5:302. PMID: PMC2736657 (2009)
117. Robert G. Endres, Ned S. Wingreen.
Maximum likelihood and the single receptor,
Physical Review Letters 103, 158101. PubMed - indexed for MEDLINE (2009)
116. Derek Greenfield, Ann L. McEvoy, Hari Shroff, Gavin E. Crooks, Ned S. Wingreen, Eric Betzig, Jan Liphardt.
Self-organization of the Escherichia coli chemotaxis network imaged with super-resolution light microscopy,
PLoS Biology 7(6):e1000137. PMID: PMC2691949 (2009)
115. Robert G. Endres, Ned S. Wingreen,
Accuracy of direct gradient sensing by cell-surface receptors,
Progress in Biophysics and Molecular Biology 100:33-39. PubMed - indexed for MEDLINE (2009)
114. Wilfred Ndifon, Ned S. Wingreen, Simon A. Levin.
Differential neutralization efficiency of hemagglutinin epitopes, antibody interference, and the design of influenza vaccines,
Proceedings of the National Academy of Sciences 106(21):8701-6. PMID: PMC2688967 (2009)
113. Tao Long, Kimberly C. Tu, Yufang Wang, Pankaj Mehta, Nai Phuan Ong, Bonnie L. Bassler, Ned S. Wingreen.
Quantifying the integration of quorum-sensing signals with single-cell resolution,
PLoS Biology 7(3):e68, 0640-0649. PMID: PMC2661960 (2009)
112. Kerwyn C. Huang, Ranjan Mukhopadhyay, Bingni Wen, Zemer Gitai, Ned S. Wingreen.
Cell shape and cell-wall organization in Gram-negative bacteria,
Proceedings of the National Academy of Sciences 105(49):19282-7. PMID: PMC2592989 (2008)
111. Jonathan M. Guberman, Allison Fay, Jonathan Dworkin, Ned S. Wingreen, Zemer Gitai.
Psicic: noise and asymmetry in bacterial division revealed by computational image analysis at sub-pixel resolution,
PLoS Computational Biology 4: e1000233. PMID: PMC2581597 (2008)
110. Hui Wang, Ned S. Wingreen, Ranjan Mukhopadhyay.
Self-organized periodicity of protein clusters in growing bacteria,
Physical Review Letters 101: 21. PMID:19113453 [PubMed - indexed for MEDLINE (2008)
109. Pankaj Mehta, Sidhartha Goyal, Ned S. Wingreen.

- A quantitative comparison of sRNA-based and protein-based gene regulation,**
Molecular System Biology. **4**: 221. PMID: PMC2583084 (2008)
108. Robert G. Endres, Ned S. Wingreen.
Accuracy of direct gradient sensing by single cells,
Proceedings of the National Academy of Sciences **105** (41): pp. 15749-54. PMID: PMC2572938 (2008)
107. Lee R. Swem, Danielle L. Swem, Ned S. Wingreen, Bonnie L. Bassler.
Deducing receptor signaling parameters from in vivo analysis: LuxN/AI-1 quorum sensing in *Vibrio harveyi*,
Cell **134** (3): pp. 461-73.. PMID: PMC2585989 (2008)
106. Robert G. Endres, Olga Oleksiuk, Clinton H. Hansen, Yigal Meir, Victor Sourjik, Ned S. Wingreen.
Variable sizes of *Escherichia coli* chemoreceptor signaling teams,
Molecular System Biology **4**: 211. PMID: PMC2538909 (2008)
105. Audra J. Pompeani, Joseph J. Irgon, Michael F. Berger, Martha L. Bulyk, Ned S. Wingreen, Bonnie L. Bassler.
The *Vibrio harveyi* master quorum-sensing regulator, LuxR, a TetR-type protein is both an activator and a repressor: DNA recognition and binding specificity at target promoters,
Molecular Microbiology **70** (1): pp. 76-88. PMID: PMC2628434 (2008)
104. Pankaj Mehta, Ranjan Mukhopadhyay, Ned S. Wingreen.
Exponential sensitivity of noise-driven switching in genetic networks,
Physical Biology **5** (2): 26005. PMID:18560045 (2008)
103. Ranjan Mukhopadhyay, Kerwyn C. Huang, Ned S. Wingreen.
Lipid localization in bacterial cells through curvature-mediated microphase separation,
Biophysical Journal **95** (3): pp.1034-49. PMID: PMC2479595 (2008)
102. Clinton H. Hansen, Robert G. Endres, Ned S. Wingreen.
Chemotaxis in *Escherichia coli*: a molecular model for robust precise adaptation,
PLoS Computational Biology **4**: pp. 14-27. PMID: PMC2174977 (2008)
101. Christina L. Vizcarra, Naigong Zhang, Shannon A. Marshall, Ned S. Wingreen, Chen Zeng, Stephen L. Mayo.
An improved pairwise decomposable finite-difference poisson-boltzmann method for computational protein design,
Journal of Computational Chemistry **29**: pp. 1153-62. PMID:18074340 (2008)
100. Victor Sourjik, Ned S. Wingreen.
Turning to the Cold,
Nature Cell Biology **9**: pp. 1029-31. PMID: 17762896 (2007)
99. Robert G. Endres, Joseph J. Falke, Ned S. Wingreen.

- Chemotaxis receptor complexes: from signaling to assembly,**
PLoS Computational Biology 3: pp. 1385-93. PMID: PMC1933480 (2007)
98. Sidhartha Goyal, Ned S. Wingreen.
Growth-induced instability in metabolic networks,
Physical Review Letters **98**: 138105(pp. 1-4). PMID: PMC1995071 (2007)
97. Je-Luen Li, Roberto Car, Chao Tang, Ned S. Wingreen.
Hydrophobic interaction and hydrogen-bond network for a methane pair in liquid water,
Proceedings of the National Academy of Sciences **104**: pp. 2626-30. PMID: PMC1815233 (2007)
96. Joshua S. Weitz, Philip N. Benfey, Ned S. Wingreen.
Evolution, interactions, and biological networks,
PLoS Biology **5**: pp. 10-12. PMID: PMC1769436 (2007)
95. Alejandro R. Ureta, Robert G. Endres, Ned S. Wingreen, Thomas J. Silhavy.
Kinetic analysis of the assembly of the outer membrane protein lamb in escherichia coli mutants each lacking a secretion or targeting factor in a different cellular compartment,
Journal of Bacteriology **189**: pp. 446-54. PMID: PMC1797403 (2007)
94. Ned S. Wingreen, Simon A. Levin.
Cooperation among microorganisms,
PLoS Biology **4**: pp. 1486-88. PMID: PMC1569662 (2006)
93. Kerwyn C. Huang, Ranjan Mukhopadhyay, Ned S. Wingreen,
A curvature-mediated mechanism for localization of lipids to bacterial poles,
PLoS Computational Biology **2**: pp. 1357-64. PMID: PMC1635540 (2006)
92. Robert G. Endres, Ned S. Wingreen,
Weight matrices for protein-dna binding sites from a single co-crystal structure,
Physical Review E **73**: 061921(pp. 1-5) . PMID: 16906878 (2006)
91. Ned S. Wingreen, David Botstein,
Back to the future: education for systems-level biologists,
Nature Reviews Molecular Cell Biology **7**: pp. 829-32 (2006).
90. Robert G. Endres, Ned S. Wingreen,
Precise adaptation in chemotaxis through “assistance neighborhoods”,
Proceedings of the National Academy of Sciences **103**: pp. 13040-4. PMID: PMC1559749 (2006)
89. Monica L. Skoge, Robert G. Endres, Ned S. Wingreen,
Receptor-receptor coupling in bacterial chemotaxis: evidence for strongly coupled clusters,
Biophysical Journal **90**: pp. 4317-26. PMID: PMC1471836 (2006)
88. Juan E. Keymer, Robert G. Endres, Monica Skoge, Ned S. Wingreen,
Chemosensing in escherichia coli: two regimes of two-state receptors,

- Proceedings of the National Academy of Sciences* **103**: pp. 1786-91. PMID: PMC1413630 (2006)
87. Eldon Emberly, Ned S. Wingreen,
Hourglass model for a protein-based circadian oscillator,
Physical Review Letters **96**: 038303(pp. 1-4). PMID: PMC1995810 (2006)
86. Je-Luen Li, Jaehun Chun, Ned S. Wingreen, Roberto Car, Ilhan A. Aksay, Dudley A. Saville,
Use of dielectric functions in the theory of dispersion forces,
Physical Review B **71**: 235412(pp. 1-6) (2005).
85. Erik Kruus, Peter Thumfort, Chao Tang, Ned S. Wingreen,
Gibbs sampling and helix-cap motifs,
Nucleic Acids Research. **33**: pp. 5343-53. PMID: PMC1234247 (2005)
84. Morten Kloster, Chao Tang, Ned S. Wingreen,
Finding regulatory modules through large-scale gene-expression data analysis,
Bioinformatics **21**: pp. 1172-9. PMID: 15513996 (2005)
83. Kerwyn C. Huang, Ned S. Wingreen,
Min-protein oscillations in round bacteria,
Physical Biology **1**: pp. 229-235. PMID: 16204843 (2004)
82. Rahul V. Kulkarni, Kerwyn C. Huang, Morten Kloster, Ned S. Wingreen,
Pattern formation within escherichia coli: diffusion, membrane attachment, and self-interaction of MinD molecules,
Physical Review Letters **93**: 228103(pp. 1-4). PMID: 15601121 (2004)
81. Naigong Zhang, Chen Zeng, Ned S. Wingreen,
Fast accurate evaluation of protein solvent exposure,
Proteins **57**: pp. 565-76. PMID: 15382246 (2004)
80. Robert G. Endres, Thomas C. Schulthess, Ned S. Wingreen,
Toward an atomistic model for predicting transcription-factor binding sites,
Proteins **57**: pp. 262-8. PMID: 15340913 (2004)
79. Ned S. Wingreen,
Quantum many-body effects in a single-electron transistor,
Science **304**: pp. 1258-9. PMID: 15166353 (2004)
78. Kenji Hirose, Yigal Meir, Ned S. Wingreen,
time-dependent density functional theory of excitation energies of closed-shell quantum dots,
Physica E **22**: pp. 486-489 (2004).
77. Derrick H. Lenz, Kenny C. Mok, Brendan N. Lilley, Rahul V. Kulkarni, Ned S. Wingreen, Bonnie L. Bassler,
The small rna chaperone hfq and multiple small rnas control quorum sensing in vibrio harveyi and vibrio cholerae,
Cell **118**: pp. 69-82. PMID: 15242645 (2004)
76. Eldon G. Emberly, Ranjan Mukhopadhyay, Chao Tang, Ned S. Wingreen,

- Flexibility of beta-sheets: principal component analysis of database protein structures,**
Proteins: Structure, Function, and Genetics **55**: pp. 91-98. PMID:14997543 (2004)
75. Kerwyn Casey Huang, Yigal Meir, Ned S. Wingreen,
Dynamic structures in *escherichia coli*: spontaneous formation of mine rings and mind polar zones,
Proceedings of the National Academy of Sciences **100**: (22), pp. 12724-12728. PMCID: PMC240685 (2003)
74. Ned S. Wingreen, Hao Li, Chao Tang,
Designability and thermal stability of protein structures,
Polymer **45**: (2), pp. 699-705 (2004)
73. Ranjan Mukhopadhyay, Eldon Emberly, Chao Tang, and Ned S. Wingreen,
Statistical mechanics of rna folding: importance of alphabet size,
Physical Review E **68**: 041904(pp. 1-4). PMID: 14682970 (2003)
72. Ned S. Wingreen, Jonathan Miller, Edward C. Cox,
Scaling of mutational effects in models for pleiotropy,
Genetics **164**: pp. 1221-28. PMCID: PMC1462609 (2003)
71. Kenji Hirose, Ned S. Wingreen,
Stabilization of ground-state of minimal spin in disordered quantum dots,
Physica E **18**:(1-3), pp. 79-80 (2003).
70. Eldon Emberly, Ranjan Mukhopadhyay, Ned S. Wingreen, Chao Tang,
Flexibility of alpha-helices: results of a statistical analysis of database protein structures,
Journal of Molecular Biology **327**: pp. 229-37. PMID: 12614621(2003)
69. Kenny C. Mok, Ned S. Wingreen, Bonnie L. Bassler,
***Vibrio harveyi* quorum sensing: a coincidence detector for two autoinducers controls gene expression,**
EMBO Journal **22**: pp. 870-881. PMCID: PMC145445 (2003)
68. Kenji Hirose, Yigal Meir, Ned S. Wingreen,
local moment formation in quantum point contacts,
Physical Review Letters **90**: (2), 026804(pp. 1-4). PMID: 12570569 (2003)
67. Eldon Emberly, Ned S. Wingreen, Chao Tang,
Designability of alpha-helical proteins,
Proceedings of the National Academy of Sciences **99**: pp. 11163-8. PMCID: PMC123227 (2002)
66. Hao Li, Chao Tang, Ned S. Wingreen,
Designability of protein structures: a lattice-model study using the miyazawa-jernigan matrix,
Proteins: Structure, Function, and Genetics **49**: pp. 403-412. PMID: 12360530 (2002)
65. Jonathan Miller, Chen Zeng, Ned S. Wingreen, Chao Tang,

- Emergence of highly designable protein-backbone conformations in an off-lattice model,**
Proteins: Structure, Function, and Genetics **47**: pp. 506-512. PMID: 12001229 (2002)
64. Eldon Emberly, Jonathan Miller, Chen Zeng, Ned S. Wingreen, Chao Tang,
Identifying proteins of high designability via surface exposure patterns,
Proteins: Structure, Function, and Genetics **47**: (3), pp. 295-304. PMID: 11948783 (2002)
63. Yigal Meir, Kenji Hirose, Ned S. Wingreen,
Kondo model for the 0.7 anomaly in transport through a quantum point contact,
Physical Review Letters **89**: (19), pp. 196802(1-4). PMID: 12443139 (2002)
62. S. M. Cronenwett, H. J. Lynch, D. Goldhaber-Gordon, L. P. Kouwenhoven, C. M. Marcus, Kenji Hirose, Ned S. Wingreen, V. Umansky,
Low-temperature fate of the 0.7 structure in a point contact: a kondo-like correlated state in an open system,
Physical Review Letters **88**: (22), 226805(pp. 1-4). PMID: 12059445 (2002)
61. Kenji Hirose, Ned S. Wingreen,
Ground-state energy and spin in disordered quantum dots,
Physical Review B **65**: (19), 193305(pp. 1-4) (2002).
60. Henry Cejtin, Jan Elder, Allan Gottlieb, Robert Helling, Hao Li, James Philbin, Chao Tang, Ned Wingreen,
Fast tree search for enumeration of a lattice model of protein folding,
Journal of Chemical Physics **116**: (1), pp. 352-359, (2002).
59. Robert Helling, Hao Li, Regis Melin, Jonathan Miller, Ned S. Wingreen, Chen Zeng, Chao Tang,
The designability of protein structures,
Journal of Molecular Graphics and Modelling **19**:(1), pp. 157-167 (2001).
58. Hao Li, Chao Tang, Ned S. Wingreen,
Designing protein structures,
Phase Transition and Self-Organization in Electronic and Molecular Networks, Phillips, J.C. (ed.) Kluwer pp. 441-445 (2001).
57. Kenji Hirose, Shu-Shen Li, Ned S. Wingreen,
Mechanisms for extra conductance plateaus in quantum wires,
Physical Review B **63**:(3), 033315(pp. 1-4) (2001).
56. Kenji Hirose, Fei Zhou, Ned S. Wingreen,
Density-functional theory of spin-polarized disordered quantum dots,
Physical Review B **63**:(7), 075301(pp. 1-5) (2001).
55. Kenji Hirose, Fei Zhou, Ned S. Wingreen,
Spin-density-functional theory of clean and disordered quantum dots,
Proceedings of the 25th International Conference on the Physics of Semiconductors-ICPS, Miura, N.(ed.), Springer, pp. 1349-1350 (2001).
54. Kenji Hirose, Ned S. Wingreen,
Temperature-dependent suppression of conductance in quantum wires: anomalous

- activation energy from pinning of the band edge,**
Physical Review B **64**:(7), 073305(pp. 1-4) (2001).
53. Ned S. Wingreen,
The kondo effect in novel systems,
Materials Science and Engineering B **84**:, pp. 22-25 (2001).
52. V. Madhavan, W. Chen, T. Jamneala, M.F. Crommie, Ned S. Wingreen,
Local spectroscopy of a kondo impurity: co on au(111),
Physical Review B **64**:(16), 165412(pp. 1-11) (2001).
51. D.E. Grupp, T. Zhang, G.J. Dolan, Ned S. Wingreen,
Dynamical offset charges in single-electron transistors,
Physical Review Letters **87**:(18), 186805(pp. 1-4) (2001).
50. Tairan Wang, Jonathan Miller, Chao Tang, Ned S. Wingreen, Ken A. Dill,
Symmetry and designability for lattice protein models,
Journal of Chemical Physics **113**:(18), pp. 8329-8336 (2000).
49. Peter Nordlander, Ned S. Wingreen, Yigal Meir, David C. Langreth,
Kondo physics in the single electron transistor with ac driving,
Physical Review B **61**:(3), pp. 2146-2150 (2000).
48. Regis Melin, Hao Li, Ned S. Wingreen, Chao Tang,
Designability, thermodynamic stability, and dynamics in protein folding: a lattice model study,
Journal of Chemical Physics **1110**: pp. 1252-1262 (1999).
47. Kenji Hirose, Ned S. Wingreen,
Spin-density-functional theory of circular and elliptical quantum dots,
Physical Review B **59**:(7), pp. 4604-4607 (1999).
46. Peter Nordlander, Michael Pustilnik, Yigal Meir, Ned S. Wingreen, David C. Langreth,
How long does it take for the kondo effect to develop? ,
Physical Review Letters **83**:(4), pp. 808-811 (1999).
45. Igor E. Smolyarenko, Ned S. Wingreen,
Kondo effect in systems with spin disorder,
Physical Review B **60**:(13), pp. 9675-9689 (1999).
44. K. Hirose, N. S. Wingreen,
Electronic structure calculations of quantum dots,
NEC Research and Development **40**:(4), pp. 419-423 (1999).
43. C. Heide, R. J. Elliott, Ned S. Wingreen,
Spin-polarized tunnel current in magnetic-layer systems and its relation to the interlayer exchange interaction,
Physical Review B **59**:(6), pp. 4287-4304 (1999).
42. P. Jauho, Ned S. Wingreen,

- Theory of phase-sensitive measurement of photon-assisted tunneling through a quantum dot,**
Physical Review B **58**:(15), pp. 9619-9622 (1998).
41. N. S. Wingreen, B. L. Altshuler, Y. Meir,
Erratum: comment on "2-channel kondo scaling in conductance signals from 2-level tunneling systems",
Physical Review Letters **81**:(19), pp. 4280 (1998).
40. Naama Barkai, Mark D. Rose, Ned S. Wingreen,
Protease helps yeast find mating partners,
Nature **396**:(6710), pp. 422-423 (1998).
39. V. Madhavan, W. Chen, T. Jamneala, M.F. Crommie, Ned S. Wingreen,
Tunneling into a single magnetic atom: spectroscopic evidence of the kondo resonance,
Science **280**: pp. 567-569 (1998).
38. Hao Li, Chao Tang, Ned S. Wingreen,
Are protein folds atypical?,
Proceedings of the National Academy of Sciences **95**: pp. 4987-4990. PMID: PMC20200 (1998)
37. L. P. Kouwenhoven, C. M. Marcus, P. L. McEuen, S. Tarucha, R. M. Westervelt, N. S. Wingreen,
Electron transport in quantum dots,
Proceedings of the NATO Advanced Study Institute on Mesoscopic Electron Transport edited by L.L. Sohn, L.P. Kouwenhoven, and G. Schon (Kluwer Series E345) pp. 105-204 (1997).
36. L. Aleiner, Ned S. Wingreen, Yigal Meir,
Dephasing and the orthogonality catastrophe in tunneling through a quantum dot: the "which path?" interferometer,
Physical Review Letters **79**: pp. 3740-3743 (1997).
35. Hao Li, Chao Tang, Ned S. Wingreen,
Nature of driving force for protein folding: a result from analyzing the statistical potential,
Physical Review Letters **79**: pp. 765-768 (1997).
34. Ned S. Wingreen, Charles A. Stafford,
Quantum-dot cascade laser: proposal for an ultralow-threshold semiconductor laser,
IEEE Journal of Quantum Electronics **33**: pp. 1170-1173 (1997).
33. Oded Agam, Ned S. Wingreen, Boris Altshuler, D. C. Ralph, M. Tinkham,
Chaos, interactions, and nonequilibrium effects in the tunneling resonance spectra of ultrasmall metallic particles,
Physical Review Letters **78**: pp. 1956-1959 (1997).

32. Yacoby, H.L. Stormer, Ned S. Wingreen, L. N. Pfeiffer, K. W. Baldwin, K. W. West,
Nonuniversal conductance quantization in quantum wires,
Physical Review Letters **77**: pp. 4612-4615 (1996).
31. N.F. Schwabe, R.J. Elliott, Ned S. Wingreen,
The ruderman-kittel-kasuya-yosida (rkky) interaction across a tunneling junction out of equilibrium,
Physical Review B **54**: pp. 12953-12968 (1996).
30. Noam Sivan, Ned S. Wingreen,
The single impurity anderson model out of equilibrium,
Physical Review B **54**: pp. 11622-11629 (1996).
29. Hao Li, Robert Helling, Chao Tang, Ned S. Wingreen,
Emergence of preferred structures in a simple model of protein folding,
Science **273**: pp. 666-669 (1996).
28. A. Stafford, Ned S. Wingreen,
Resonant photon-assisted tunneling through a double quantum dot: an electron pump from spatial rabi oscillations,
Physical Review Letters **76**: pp. 1916-1919 (1996).
27. Ned S. Wingreen, Eugen Schenfeld,
Size-speed trade-off in optical switching elements,
Applied Optics **34**: pp. 5907-5912 (1995).
26. Ned S. Wingreen, Boris Altshuler, Yigal Meir,
Comment on "2-channel kondo scaling in conductance signals from 2-level tunneling systems",
Physical Review Letters **75**: pp. 769 (1995).
25. Yigal Meir, Ned S. Wingreen,
Spin-orbit scattering and the kondo effect,
Physical Review B (Rapid Communications) **50**: pp. 4947-4950 (1994).
24. Antti-Pekka Jauho, Ned S. Wingreen, Yigal Meir,
Time-dependent transport in interacting and noninteracting resonant-tunneling systems,
Physical Review B **50**: pp. 5528-5544 (1994).
23. Antti-Pekka Jauho, Ned S. Wingreen, Yigal Meir,
Time-dependent transport in mesoscopic systems: general formalism and applications,
Semiconductor Science and Technology **9**: pp. 926-929 (1994).
22. Ned S. Wingreen, Yigal Meir,
Anderson model out of equilibrium: noncrossing-approximation approach to transport through a quantum dot,
Physical Review B **49**: pp. 11040-11052 (1994).
21. Mark Lee, Ned S. Wingreen, S. A. Solin, P. A. Wolff,
Giant growth axis longitudinal magnetoresistance from in-plane conduction in

- semiconductor superlattices,**
Solid State Communications **89**: pp. 687-691 (1994).
20. Alan Middleton, Ned S. Wingreen,
Collective transport in arrays of quantum dots,
Physical Review Letters **71**: pp. 3198-3201(1993).
 19. Jari M. Kinaret, Ned S. Wingreen,
Coulomb blockade and partially transparent tunneling barriers in the quantum hall regime,
Physical Review B **48**: pp. 11113-11119 (1993).
 18. Ned S. Wingreen, Antti-Pekka Jauho, Yigal Meir,
Time-dependent transport through a mesoscopic structure,
Physical Review B (Rapid Communications) **48**: pp. 8487-8490 (1993).
 17. P. L. McEuen, Ned S. Wingreen, E. B. Foxman, Jari Kinaret, U. Meirav, M. A. Kastner, Yigal Meir,
Coulomb interactions and energy-level spectrum of a small electron gas,
Physica B **189**: pp. 70-79 (1993).
 16. E. B. Foxman, P. L. McEuen, U. Meirav, Ned S. Wingreen, Yigal Meir, Paul A. Belk, N. R. Belk, M. A. Kastner, S. J. Wind,
Effects of quantum levels on transport through a coulomb island,
Physical Review B (Rapid Communications) **47**: pp. 10020-10023 (1993).
 15. Yigal Meir, Ned S. Wingreen, Patrick A. Lee,
Low-temperature transport through a quantum dot: the anderson model out of equilibrium,
Physical Review Letters **70**: pp. 2601-2604 (1993).
 14. Jari M. Kinaret, Yigal Meir, Ned S. Wingreen, Patrick Lee, Xiao-Gang Wen,
Conductance through a quantum dot in the fractional quantum hall regime,
Physical Review B (Rapid Communications) **45**: pp. 9489-9492 (1992).
 13. Jari M. Kinaret, Yigal Meir, Ned S. Wingreen, Patrick Lee, Xiao-Gang Wen,
Many-body coherence effects in conduction through a quantum dot in the fractional quantum hall regime,
Physical Review B **46**: pp. 4681-4689 (1992).
 12. Yigal Meir, Ned S. Wingreen,
Landauer formula for for the current through an interacting electron region,
Physical Review Letters **68**: pp. 2512-2515 (1992).
 11. Jari M. Kinaret, Yigal Meir, Ned S. Wingreen, Patrick Lee, Xiao-Gang Wen,
Conductance through a quantum dot in the fractional quantum hall regime,
Physical Review B (Rapid Communications) **45**: pp. 9489-9492 (1992).
 10. P. L. McEuen, E. B. Foxman, Jari Kinaret, U. Meirav, M. A. Kastner, Ned S. Wingreen, S. J. Wind,

- Self-consistent addition spectrum of a coulomb island in the quantum hall regime,**
Physical Review B (Rapid Communications) **45**: pp. 11419-11422 (1992).
9. P. L. McEuen, E.B. Foxman, U. Meirav, M.A. Kastner, Yigal Meir, Ned S. Wingreen,
Transport spectroscopy of a coulomb island in the quantum hall regime,
Physical Review Letters **66**: pp. 1926-1929 (1991).
 8. Yigal Meir, Ned S. Wingreen, Ora Entin-Wohlman, Boris L. Altshuler,
**Spin-orbit scattering for localized electrons: absence of negative
magnetoconductance,**
Physical Review Letters **66**: pp. 1517-1520 (1991).
 7. Yigal Meir, Ned S. Wingreen, Patrick A. Lee,
**Transport through a strongly interacting electron system: theory of periodic
conductance oscillations,**
Physical Review Letters **66**: pp. 3048-3051 (1991).
 6. Ned S. Wingreen,
Rectification by resonant tunneling diodes,
Applied Physics Letters **56**: pp. 253-255 (1990).
 5. Ned S. Wingreen, Karsten W. Jacobsen, John W. Wilkins,
Inelastic scattering in resonant tunneling,
Physical Review B **40**: pp. 11834-11850 (1989).
 4. Ned S. Wingreen, Monique Combescot,
Electron-electron scattering: collision integral and relaxation rate,
Physical Review B **40**: pp. 3191-3196 (1989).
 3. Ned S. Wingreen, Monique Combescot,
Ohm's law for hot carriers: the role of carrier-carrier scattering at high fields,
Solid State Communications **70**: pp. 185-189 (1989).
 2. Ned S. Wingreen, Karsten W. Jacobsen, John W. Wilkins,
Resonant tunneling with electron-phonon interaction: an exactly solvable model,
Physical Review Letters **61**: pp. 1396-1399 (1988).
 1. Ned S. Wingreen, Chris J. Stanton, John W. Wilkins,
**Electron-electron scattering in nondegenerate semiconductors: driving the
anisotropic distribution toward a displaced maxwellian,**
Physical Review Letters **57**: pp. 1084-1087 (1986).

TRAINEES

Postdoctoral Fellows

Noam Sivan
Alan Middleton

May 1992 – August 1993
September 1992 – December 1994

| | |
|--------------------------|---------------------------------|
| Hao Li | September 1994 – August 1997 |
| Igor Aleiner | September 1997 – March 1998 |
| Eugene Tsiper | July 1997 – September 1997 |
| Jonathan Miller | August 1998 – September 2001 |
| Eldon Emberly | August 2000 – September 2002 |
| Ranjan Mukhopadhyay | September 2001 – August 2003 |
| David Moroz | July 2001 – July 2002 |
| Rahul Kulkarni | August 2002 – July 2004 |
| Peter Thumfort | November 2002 – November 2005 |
| Je-Luen Li | February 2003 – March 2005 |
| Juan Keymer | March 2003 – December 2005 |
| Morten Kloster | September 2003 – October 2005 |
| Robert Endres | October 2004 – August 2007 |
| Kerwyn Huang | August 2004 – August 2008 |
| Pankaj Mehta | September 2006 – July 2010 |
| Thierry Mora | September 2007 – August 2010 |
| Konstantin Doubrovinski | November 2008 – September 2012 |
| Sven van Teeffelen | July 2009 – December 2013 |
| David Schwab | September 2009 – August 2014 |
| Knut Drescher | February 2010 – August 2014 |
| Michele Castellana | November 2011 – August 2015 |
| Thibaud Taillefumier | November 2011 – August 2016 |
| Anne-Florence Bitbol | September 2012 – January 2016 |
| Jing Yan | October 2014 – June 2019 |
| Anna Posfai | November 2014 – February 2018 |
| David Borenstein | May 2015 – March 2016 |
| Matthew Jemielita | September 2015 – August 2021 |
| Amir Erez | September 2017 – September 2020 |
| Yaojun Zhang | September 2018 – December 2021 |
| Zhiyuan Li | September 2018 – August 2019 |
| Alejandro Martinez-Calvo | January 2021 – present |
| Julia Steinberg | March 2021 – September 2021 |
| Brooke Husic | June 2021 – present |
| Carolina Trenado-Yuste | September 2021 – present |
| Ofer Kimchi | September 2021 – present |
| Trevor GrandPre | September 2021 – present |
| Linnea Lemma | September 2021 – present |
| Daniel Lee | October 2021 – March 2022 |
| Jonathan Yuly | March 2022 – present |
| Chenyi Fei | August 2022 – present |

Graduate Students

| | |
|------------------|----------------------------|
| Robert Helling | June 1995 – September 1995 |
| Tairan Wang | June 1996 – September 1997 |
| Dmitry Green | June 2000 – March 2001 |
| Mehdi Yahyanejad | June 2001 – September 2002 |
| Kerwyn Huang | June 2002 – August 2004 |

| | |
|-----------------------------|--|
| Forrest Coleman | 3 rd rotation 2003-2004 |
| Jonathan Guberman | 3 rd rotation 2003-2004, June 2004 – 2010 |
| Tao Long | September 2004 – December 2009 |
| Sidhartha Goyal | March 2005 – August 2009 |
| John Rittenhouse | 1 st rotation 2005-2006 |
| Nikolai Slavov | 3 rd rotation 2005-2006 |
| Christopher Doucette | 1 st rotation 2006-2007 |
| Robert Cooper | 2 nd rotation 2006-2007, June 2007 – October 2012 |
| Jack Lee | 1 st rotation 2007-2008 |
| Marshall Reaves | 3 rd rotation 2007-2008 |
| Steven Wang | May 2008 – August 2011 |
| Doug Swanson | September 2009 – June 2011 |
| Lihui Feng | 4 th rotation 2010, September 2010 – December 2014 |
| Max Wilson | 1 st rotation 2010-11 |
| David Borenstein | May 2011 – May 2015 |
| Vikram Kumar | 2 nd rotation 2012-2013, June 2013 – September 2015 |
| Elizabeth Rowland | 1 st rotation 2013-14 |
| Sophie Zhang | February 2014 – June 2015 |
| Farzan Beroz | February 2014 – June 2018 |
| Bin Xu | June 2015 – June 2018 |
| Olivia Chu | 1 st rotation 2015-16 |
| Riley Skeen-Gaar | 2 nd rotation 2015-16 |
| Whitney Warren | 2 nd rotation 2015-16 |
| Zhidong Zhang | 2 nd rotation 2015-16 |
| Jared Balaich | 3 rd rotation 2015-16 |
| Siddhartha Jena | 1 st rotation 2016-17 |
| Daniel Lee | 1 st rotation 2016-17, June 2017 – October 2021 |
| Nishant Pappireddi | 1 st rotation 2016-17 |
| Cassidy Yang | 2 nd rotation 2016-17 |
| Ben Weiner | February 2017 – May 2021 |
| Guanhua He | June 2017 – August 2022 |
| Jaime Lopez | 1 st rotation 2017-18, March 2018 – May 2022 |
| Chadi Saad-Roy | 1 st rotation 2017-18, March 2018 – June 2022 |
| Chenyi Fei | 2 nd rotation 2017-18, March 2018 – July 2022 |
| David Denberg | 2 nd rotation 2018-19 |
| Bruce Wang | 3 rd rotation 2019-20, March 2020 – present |
| Andrew Pyo | 1 st rotation 2020-21, September 2020 - present |
| Sebastian Gonzalez La Corte | 1 st rotation 2020-21, March 2021 – present |
| Pablo Oyler-Castrillo | 2 nd rotation 2020-21 |
| Kimberly Sabsay | 3 rd rotation 2020-21, March 2021 – present |
| Ziyang Chen | 2 nd rotation 2021-22, March 2022 – present |
| Qiwei Yu | 2 nd and 3 rd rotation 2021-22, March 2022 - present |
| Olenka Jain | 2 nd rotation 2021-22 |
| Jiayi Zhang | 2 nd rotation 2022-2023 |

Undergraduate Students

| | |
|------------------------|---|
| Philip Kidd | June 2004 – August 2006 |
| Lenny Shulgin | February 2007 – May 2007 |
| Clinton Hansen | September 2006 – May 2008 |
| Howard Yu | September 2007 – May 2008 |
| Leon Furchtgott | February 2008 – May 2009 |
| Evgeni (Genya) Frenkel | February 2009 – May 2010 |
| Michael Gelbart | June 2009 – May 2010 |
| Michael Salazar | February 2010 – August 2010 |
| Edvin Memet | February 2011 – August 2012 |
| Jose Mena | May 2011 – May 2012 |
| Ken Jean-Baptiste | February 2014 – May 2015 |
| Annie Maslan | September 2014 – May 2015 |
| Rosie Zhang | September 2014 – May 2015 |
| Daniel Greenidge | June 2015 – August 2015 |
| Ofer Kimchi | June 2015 – May 2016 |
| Andrew Sharo | September 2015 – May 2016 |
| Avaneesh Narla | February 2016 – June 2017 |
| Iris Rukshin | June 2016 – August 2016 |
| Chris King | September 2016 – June 2017 |
| Chris Russo | June 2017 – August 2017, January 2020 – August 2020 |
| Tanya Tafolla | June 2017 – August 2017 |
| Andy Liu | September 2018 – May 2019 |
| John McEnany | April 2018 – December 2021 |
| Janelle Nelson | June 2018 – August 2018 |
| Bo Liu | June 2018 – January 2020 |
| Jonathan Kutasov | September 2018 – January 2020 |
| George Georges | September 2018 – May 2019 |
| Yusha Sun | February 2019 – May 2019 |
| Katherine Shelburne | June 2019 – September 2019 |
| Yechen Hu | February 2020 – May 2021 |
| Conor Wilson | February 2020 – May 2021 |
| Chris Russo | January 2020 – August 2020 |
| Mary Davis | February 2021 – May 2022 |
| Angela Zhou | February 2022 – present |
| Meryl Liu | May 2022 – present |