

Sai P. Gourisankar, Ph.D.

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Education and Training

NCI K99/R00 Postdoctoral Fellow <i>Stanford Cancer Institute, USA</i>	2023-present
Ph.D., M.S., Chemical Engineering <i>Stanford University, USA</i>	2023
M.P.P., Public Policy	2017
M.St., Global History <i>University of Oxford, UK</i>	2016
B.S., Chemical Engineering	2015
B.A., Plan II Liberal Arts <i>University of Texas at Austin, USA</i>	

Research Interests

Development of novel chemical therapeutics, e.g., induced proximity modalities
Mechanisms of programmed cell death in cancer

Grants

NCI Pathway to Independence Award for Outstanding Early-Stage Postdoctoral Researchers (K99/R00) (1K99CA296700-01)	2025
Ruth L. Kirschstein National Research Service Award (NIH 1F31HD103339-01)	2020
NSF Graduate Research Fellowship	2017

Selected Honors and Awards

Rhodes Scholarship	2015
Astronaut Foundation Scholarship (national research award)	2014
Barry M. Goldwater Scholarship	2013

Highlighted Publications (*indicates co-first authorship)

S. Gourisankar*, A. Krokhodin*, W. Ji*, X. Liu, C-Y. Chang, S. H. Kim, Z. Li, W. Wenderski, J.M. Simanauskaite, H. Yang, H. Vogel, T. Zhang, N.S. Gray, G.R. Crabtree. Rewiring cancer drivers to activate apoptosis. *Nature*, **620**, 417-425 (2023).

Highlighted in:

- Phelan, J., Staudt, L. "Double-headed molecule activates cell-death pathways in cancer cells". *Nature*, 620, 285-286 (2023).
- Miura, G. "Linked to death". *Nat. Chem. Biol.*, 19, 1043 (2023).
- Kolata, G. "Flipping a switch and making cancers self-destruct". The New York Times. Published July 26, 2023.
- Dolgin, E. "Two-armed molecule flips switch on gene regulation". Cancer Discovery News in Brief. Published July 27, 2023.
- Wu, L.L. "An unholy union": Stanford scientists create drug that flips cancer driver into killer". Endpoints News. Published July 27, 2023.

R.C. Sarott*, **S. Gourisankar***, B. Karim*, S.A. Nettles, H. Yang, B.G. Dwyer, J.M. Simauskaite, J. Tse, H. Abuzaid, A. Krokhodin, T. Zhang, S.M. Hinshaw, M.R. Green, G.R. Crabtree, N.S. Gray. Re-localizing transcriptional kinases to activate apoptosis. *Science*, **386**, ead15361 (2024).

Highlighted in:

- Atkinson, V. "Hijacking kinases to kill cancer". *Chemical & Engineering News*. Published October 14, 2024.

All Publications (*indicates co-first authorship)

1. M.N. Nix*, **S. Gourisankar***, R.C. Sarott, B.G. Dwyer, S.A. Nettles, M.M. Martinez, H. Abuzaid, H. Yang, Y. Wang, J.M. Simanauskaite, B.A. Romero, H.M. Jones, A. Krokhotin, T.N. Lowensohn, L. Chen, C. Low, M.M. Davis, D. Fernandez, T. Zhang, M.R. Green, S.M. Hinshaw, N.S. Gray, G.R. Crabtree. A bivalent molecular glue linking lysine acetyltransferases to oncogene-induced cell death. *bioRxiv*, (in revision at *Cell*) (2025).
2. M.J. Bond, R.P. Golden, G. DiGiovanni, B. Howard, R.C. Sarott, B.A. Karim, **S. Gourisankar**, G. Alexe, K. Ross, N.S. Gray, K. Stegmaier. Rewiring the fusion oncoprotein EWS/FLI in Ewing sarcoma with bivalent small molecules. *bioRxiv* (in revision at *J. Am. Chem. Soc.*) (2025).
3. **S. Gourisankar***, S.A. Nettles*, W. Wenderski, J.A. Paulo, S.H. Kim, K.C. Roepke, C. Ellis, H.Z. Abuzaid, S.P. Gygi, G.R. Crabtree. Synaptic activity causes minute-scale changes to BAF complex composition and function" *Molecular Cell* **85**, 12, 2374-89 (2025).
4. R.C. Sarott*, **S. Gourisankar***, B. Karim*, S.A. Nettles, H. Yang, B.G. Dwyer, J.M. Simauskaite, J. Tse, H. Abuzaid, A. Krokhotin, T. Zhang, S.M. Hinshaw, M.R. Green, G.R. Crabtree, N.S. Gray. Re-localizing transcriptional kinases to activate apoptosis. *Science*, **386**, ead15361 (2024).
5. **S. Gourisankar**, A. Krokhotin, W. Wenderski, G.R. Crabtree. Context-specific functions of chromatin remodellers in development and disease. *Nature Rev. Genetics*, **25**, 340-361 (2024).
6. **S. Gourisankar***, A. Krokhotin*, W. Ji*, X. Liu, C-Y. Chang, S. H. Kim, Z. Li, W. Wenderski, J.M. Simanauskaite, H. Yang, H. Vogel, T. Zhang, N.S. Gray, G.R. Crabtree. Rewiring cancer drivers to activate apoptosis. *Nature*, **620**, 417-425 (2023).
7. E.J. Chory, J.G. Kirkland, C-Y. Chang, V.D. D'Andrea, **S. Gourisankar**, E.C. Dykhuizen, G.R. Crabtree. Chemical inhibitors of a selective SWI/SNF function synergize with ATR inhibition in cancer cell killing. *ACS Chem. Biol.*, **15**, 1685-1696 (2020).
8. E.Y. Son*, A. Krokhotin*, **S. Gourisankar**, C-Y. Chang, G.R. Crabtree. *ARID1B* is a dosage-sensitive regulator of PRC distribution and Hox gene regulation in human neural progenitors. *ResearchSquare* (2021) (in revision at *Nat. Comm.*): preprint doi: 10.21203/rs.3.rs-959800/v1.
9. R.J. Stover*, E. Moaseri*, **S. Gourisankar**, N. Rahbar, B. Changalvaie, M. Iqbal, T. Truskett, K. Johnston. Formation of small gold nanoparticle chains with high NIR extinction through bridging with calcium ions. *Langmuir*, **32**, 1127-1138 (2016).
10. R.J. Stover, A.K. Murthy, G.D. Nie, **S. Gourisankar**, B.J. Dear, T.M. Truskett, K.V. Sokolov, K.P. Johnston. Quenched assembly of NIR-active gold nanoclusters capped with strongly bound ligands by tuning particle charge via pH and salinity. *J. Phys Chem C.*, **118**, 14291-14298 (2014).
11. A.K. Murthy, R.J. Stover, A.U. Borwankar, G.D. Nie, **S. Gourisankar**, T.M. Truskett, K.V. Sokolov, K.P. Johnston. Equilibrium gold nanoclusters quenched with biodegradable polymers. *ACS Nano.*, **7**, 239-251 (2013).
12. A.K. Murthy, R.J. Stover, W.G. Hardin, R. Schramm, G.D. Nie, **S. Gourisankar**, K.V. Sokolov, K.P. Johnston. Charged gold nanoparticles with essentially zero serum protein adsorption in undiluted fetal bovine serum. *J. Am. Chem. Soc.*, **135**, 7799-7802 (2013).
13. N.W. Smith, **S.P. Gourisankar**, J.L. Montchamp, S.V. Dzyuba. Silver-free synthesis of nitrate-containing room-temperature ionic liquids. *New J. Chem.*, **35**, 909-914 (2011).

Patents and Applications

G.R. Crabtree, N. Gray, **S. Gourisankar**, *et al.* Heterobifunctional compounds and methods of use thereof. WO/2025/007026, published February 2025.

G.R. Crabtree, N. Gray, **S. Gourisankar**, *et al.* Compositions, systems, and methods for modulating a target gene. WO/2023/215311, published September 2023.

G.R. Crabtree, **S. Gourisankar**, *et al.* Modulation of gene expression via transcription factor-chemical induced proximity (TF-CIP). WO/2022/098989, published December 2022.

Selected Presentations

European Society for Hematology, Estoril, Portugal, *invited talk*

Oct 2025

MIT-Broad Institute Chemical Biology SuperGroup, *invited talk*

Oct 2025

Center for Targeted Protein Degradation, Dundee, U.K., <i>invited talk</i>	June 2025
Max Planck Institute for Biomedical Research, Heidelberg, Germany, <i>invited talk</i>	June 2025
Synthesis Workshop, online https://shorturl.at/6Fsp4 <i>invited talk</i>	May 2025
AACR, Major Symposia: Harnessing Induced Proximity, Chicago, IL, <i>invited talk</i>	Apr 2025
American Society for Biochemistry and Molecular Biology, Chicago, IL, <i>invited talk</i>	Apr 2025
Prof. K. Shokat Group Seminar, UCSF, San Francisco, CA, <i>invited talk</i>	Mar 2025
Experimental Therapeutics, MD Anderson Cancer Ctr., Houston, TX, <i>invited talk</i>	Nov 2024
Prof. R. Tijan and Prof. X. Darzaq Joint Group Seminar, Berkeley, CA, <i>invited talk</i>	Aug 2024
American Chemical Society National Meeting Fall 2024, Denver, CO	Aug 2024
Fragile Nucleosome Seminar, online https://youtu.be/-eNI-ByXB-E , <i>invited talk</i>	Apr 2024
Proximity-Inducing Pharmacology, IRB Biomed Conference, Barcelona, Spain	May 2023
Steel Symposium for Developmental Oncology, Memorial Sloan, New York, NY	May 2023
Dana Farber Targeted Protein Degradation Seminar, Cambridge, MA, <i>invited talk</i>	Jan 2023
American Institute of Chemical Engineers Nat'l Meeting, Atlanta, GA, <i>invited talk</i>	Nov 2014

Teaching Experience

University of Chicago Chicago, IL USA <i>Guest Speaker, Cancer Biology Seminar</i>	2025
Stanford University Stanford, CA USA <i>Instructor, INDE 209: Analysis of Life Science Companies</i>	2020-2022
Stanford University Stanford, CA USA <i>Teaching Assistant, CHEMENG 355: Advanced Biochemical Engineering</i>	2020-2021
Stanford Prison Education Project, San Bruno Jail San Bruno, CA USA <i>Lecturer, Genetics and CRISPR/Cas9</i>	2018-2019
University of Texas at Austin Austin, TX USA <i>Tutor, CHE 317: Introduction to Chemical Engineering</i>	2013

Trainees Mentored

*At the Stanford Cancer Institute, I have mentored:
three graduate students, and one research assistant.*

*At Stanford University, I have mentored:
two research assistants and two undergraduates. One won the Goldwater Scholarship.*

Academic Service

Reviewer for ACS Chem. Biol., Nature Genetics, Nature Communications	2022-present
Stanford Office of Global Scholarships Stanford, CA USA <i>Interviewer, Rhodes and Marshall Scholarship Candidates</i>	2019-present
Stanford Department of Chemical Engineering Stanford, CA USA <i>Chair, Convocation and Research Symposium</i>	2018-2020

Industry Experience

Co-founder and Advisor, Shenandoah Therapeutics Woodside, CA USA	2023-present
Fellow, 8VC Bio-IT Fund San Francisco, CA USA	2022
Fellow, The GreenLight Fund Boston/Atlanta, MA/GA USA	2017
Intern, Materials Chemistry, 3M Research and Development Austin, TX USA	2014

References

Professor Gerald Crabtree, MD
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Professor Nathanael Gray, PhD
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Professor Michael Green, PhD
The University of Texas – MD Anderson Cancer Center

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