



Channel (Samuel) Thompson

Basic Life Research Scientist, Genetics

 Curriculum Vitae available Online

Bio

HONORS AND AWARDS

- Garden Grant, Homeworld Collective (2023)
- Arnold O. Beckman Postdoctoral Fellowship, Arnold O. Beckman Foundation (2022-2025)
- Hanna H. Gray Fellows Finalist, Howard Hughes Medical Institute (2022)
- Dean's Postdoctoral Fellowship, Stanford School of Medicine (2021)
- Schmidt Science Fellows Finalist, Schmidt Science Foundation (2021)
- Graduate Research Fellowship, National Science Foundation (2014)
- Barry M. Goldwater Scholar, Barry M. Goldwater Foundation (2008)

Publications

PUBLICATIONS

- **Continuous FACS Sorting of Double Emulsion Picoreactors with a 3D-Printed Vertical Mixer.** *Analytical chemistry*
Yang, Z., Thompson, S., Zhang, Y., Rutten, I., Van Duyse, J., Van Isterdael, G., Nichols, L., Lammertyn, J., Soh, H. T., Fordyce, P.
2025
- **FACS-Sortable Triple Emulsion Picoreactors for Screening Reactions in Biphasic Environments** *ADVANCED MATERIALS INTERFACES*
Thompson, S., Zhang, Y., Yang, Z., Nichols, L., Fordyce, P. M.
2024
- **The genetic landscape of a metabolic interaction.** *Nature communications*
Nguyen, T. N., Ingle, C., Thompson, S., Reynolds, K. A.
2024; 15 (1): 3351
- **Antibacterial potency of Type VI amidase effector toxins is dependent on substrate topology and cellular context.** *eLife*
Radkov, A., Sapiro, A. L., Flores, S., Henderson, C., Saunders, H., Kim, R., Massa, S., Thompson, S., Mateusiak, C., Biboy, J., Zhao, Z., Starita, L. M., Hatleberg, et al
2022; 11
- **Fundamentals to function: Quantitative and scalable approaches for measuring protein stability.** *Cell systems*
Atsavaprane, B., Stark, C. D., Sunden, F., Thompson, S., Fordyce, P. M.
2021; 12 (6): 547-560
- **Structurally distributed surface sites tune allosteric regulation.** *eLife*
McCormick, J. W., Russo, M. A., Thompson, S., Blevins, A., Reynolds, K. A.
2021; 10

- **Negative-Stain Electron Microscopy Reveals Dramatic Structural Rearrangements in Ni-Fe-S-Dependent Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase** *STRUCTURE*
Cohen, S. E., Brignole, E. J., Wittenborn, E. C., Can, M., Thompson, S., Ragsdale, S. W., Drennan, C. L.
2021; 29 (1): 43-+
- **Altered expression of a quality control protease in E. coli reshapes the in vivo mutational landscape of a model enzyme** *ELIFE*
Thompson, S., Zhang, Y., Ingle, C., Reynolds, K. A., Kortemme, T.
2020; 9
- **Flex ddG: Rosetta Ensemble-Based Estimation of Changes in Protein-Protein Binding Affinity upon Mutation** *JOURNAL OF PHYSICAL CHEMISTRY B*
Barlow, K. A., Conchuir, S. O., Thompson, S., Suresh, P., Lucas, J. E., Heinonen, M., Kortemme, T.
2018; 122 (21): 5389-5399
- **Conformational Freedom of the LRP6 Ectodomain Is Regulated by N-glycosylation and the Binding of the Wnt Antagonist Dkk1** *CELL REPORTS*
Matoba, K., Mihara, E., Tamura-Kawakami, K., Miyazaki, N., Maeda, S., Hirai, H., Thompson, S., Iwasaki, K., Takagi, J.
2017; 18 (1): 32-40
- **Determination of ubiquitin fitness landscapes under different chemical stresses in a classroom setting** *ELIFE*
Mayor, D., Barlow, K., Thompson, S., Barad, B. A., Bonny, A. R., Cario, C. L., Gaskins, G., Liu, Z., Deming, L., Axen, S. D., Caceres, E., Chen, W., Cuesta, et al
2016; 5
- **Allosteric Inhibition of Human Ribonucleotide Reductase by dATP Entails the Stabilization of a Hexamer** *BIOCHEMISTRY*
Ando, N., Li, H., Brignole, E. J., Thompson, S., McLaughlin, M. I., Page, J. E., Asturias, F. J., Stubbe, J., Drennan, C. L.
2016; 55 (2): 373-381
- **Structure-Guided Engineering of a Pacific Blue Fluorophore Ligase for Specific Protein Imaging in Living Cells** *BIOCHEMISTRY*
Cohen, J. D., Thompson, S., Ting, A. Y.
2011; 50 (38): 8221-8225
- **A fluorophore ligase for site-specific protein labeling inside living cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Uttamapinant, C., White, K. A., Baruah, H., Thompson, S., Fernandez-Suarez, M., Puthenveetil, S., Ting, A. Y.
2010; 107 (24): 10914-10919
- **Yeast Display Evolution of a Kinetically Efficient 13-Amino Acid Substrate for Lipoic Acid Ligase** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Puthenveetil, S., Liu, D. S., White, K. A., Thompson, S., Ting, A. Y.
2009; 131 (45): 16430-16438
- **Photonic Hydrogels with Poly(ethylene glycol) Derivative Colloidal Spheres as Building Blocks** *MACROMOLECULES*
Cai, T., Wang, G., Thompson, S., Marquez, M., Hu, Z.
2008; 41 (24): 9508-9512