Stanford



Elizabeth Ponder

Executive Director, Sarafan ChEM-H

Bio

BIO

Elizabeth Ponder is a recognized leader in innovation and translation at the non-profit / for profit interface. Ponder has spent 15+ years building and scaling high-impact research organizations at the intersection of biomedical innovation, global health, and drug development — focused on ensuring the human health impact of transformative scientific discoveries while fostering the next generation of scientists.

As Executive Director of Sarafan ChEM-H, Ponder leads the institute's efforts to drive academic innovation and training at the interface of molecular disciplines. Ponder oversees Sarafan ChEM-H's research, education, and translational programs, guiding initiatives that foster collaboration, innovation, and impact.

With over a decade at Stanford, Ponder has changed the landscape of interdisciplinary molecular research and training. Under her leadership, the institute recruited 19 faculty representing the “scientific maverick” phenotype from diverse fields of molecular research, including 2022 Nobel Prize laureate Carolyn Bertozzi; established an innovative Ph.D. training program (NIH and philanthropy-funded) serving 150+ doctoral trainees since 2015; and designed and opened a 235,000 sq ft interdisciplinary research complex to house the institute. Her responsibilities include oversight of strategy, planning, and operations for the institute.

Most recently, Ponder oversaw the design and implementation of the “Nucleus" as a scalable model for democratizing access to cutting-edge research technologies and expertise and leveraged the Nucleus infrastructure to support a 6-year pilot program for strategic translational investments in new medicines based on Stanford discoveries, the Stanford Innovative Medicines Accelerator. The Nucleus has touched more than 600 research projects in 200+ faculty labs across the Stanford campus contributing to patents, publications, and new grant funding. The translational portfolio included 135+ projects, 8 successful exits to VC-backed biotechnology companies, and 9 clinical trials of experimental therapeutics, including 2 first-in-human trials of experimental therapeutics discovered and developed entirely within Stanford. Ponder also played a critical role in external relationship management for the portfolio, ranging from key philanthropic donors to biopharmaceutical partners and venture capital investors.

Ponder was recognized for leadership excellence at Stanford through selection for Leadership@Stanford (2025 cohort) and the 2023 Marsh O'Neill Award for exceptional support of Stanford's research enterprise.

Before joining Stanford, Ponder led policy, research, and training initiatives at the global health - biopharmaceutical industry interface. She served as Executive Director of the Wheeler Center for Emerging & Neglected Diseases at UC Berkeley where she designed and launched new programs

addressing neglected disease research. She also served in roles of increasing responsibility in Scientific Affairs at BIO Ventures for Global Health (BVGH), where she provided scientific leadership to project teams and executive leadership, advancing BVGH's mission to increase innovative biotech participation in drug, vaccine, and diagnostic development for neglected diseases of the developing world.

Ponder completed her Ph.D. and postdoctoral research at Stanford in the department of microbiology and immunology, supported by an NSF National Science Foundation Graduate Research Fellowship and Stanford Dean's postdoctoral fellowship. She published multiple peer-reviewed scientific publications focused on protease function and drug target potential in Plasmodium falciparum, the parasite that causes human malaria. Her early work in infectious diseases inspired her life-long passion for improving human health through scientific innovation.

EDUCATION AND CERTIFICATIONS

- Postdoctoral Fellow, Stanford University , Pathology (2010)
- PhD, Stanford University , Microbiology & Immunology (2009)
- BS, Lafayette College , Biochemistry (2004)

LINKS

- Sarafan ChEM-H: https://chemh.stanford.edu/

Publications

PUBLICATIONS

- **Favipiravir for treatment of outpatients with asymptomatic or uncomplicated COVID-19: a double-blind randomized, placebo-controlled, phase 2 trial.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
  Holubar, M., Subramanian, A., Purington, N., Hedlin, H., Bunning, B., Walter, K. S., Bonilla, H., Boumis, A., Chen, M., Clinton, K., Dewhurst, L., Epstein, C., Jagannathan, et al
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- **Machine Learning Models and Pathway Genome Data Base for Trypanosoma cruzi Drug Discovery.** *PLoS neglected tropical diseases*
  Ekins, S., Lage de Siqueira-Neto, J., McCall, L., Sarker, M., Yadav, M., Ponder, E. L., Kallel, E. A., Kellar, D., Chen, S., Arkin, M., Bunin, B. A., McKerrow, J. H., Talcott, et al
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- **Validation of the Proteasome as a Therapeutic Target in Plasmodium Using an Epoxyketone Inhibitor with Parasite-Specific Toxicity** *CHEMISTRY & BIOLOGY*
  Li, H., Ponder, E. L., Verdoes, M., Asbjornsdottir, K. H., Deu, E., Edgington, L. E., Lee, J. T., Kirk, C. J., Demo, S. D., Williamson, K. C., Bogyo, M.
  2012; 19 (12): 1535-1545

- **Development of Small Molecule Inhibitors and Probes of Human SUMO Deconjugating Proteases** *CHEMISTRY & BIOLOGY*
  Albrow, V. E., Ponder, E. L., Fasci, D., Bekes, M., Deu, E., Salvesen, G. S., Bogyo, M.
  2011; 18 (6): 722-732

- **Functional Characterization of a SUMO Deconjugating Protease of Plasmodium falciparum Using Newly Identified Small Molecule Inhibitors** *CHEMISTRY & BIOLOGY*
  Ponder, E. L., Albrow, V. E., Leader, B. A., Bekes, M., Mikolajczyk, J., Fonovic, U. P., Shen, A., Drag, M., Xiao, J., Deu, E., Campbell, A. J., Powers, J. C., Salvesen, et al
  2011; 18 (6): 711-721

- **Simplified, Enhanced Protein Purification Using an Inducible, Autoprocessing Enzyme Tag** *PLOS ONE*
  Shen, A., Lupardus, P. J., Morell, M., Ponder, E. L., Sadaghiani, A. M., Garcia, K. C., Bogyo, M.
  2009; 4 (12)

- **Identification of proteases that regulate erythrocyte rupture by the malaria parasite Plasmodium falciparum** *NATURE CHEMICAL BIOLOGY*
  Arastu-Kapur, S., Ponder, E. L., Fonovic, U. P., Yeoh, S., Yuan, F., Fonovic, M., Grainger, M., Phillips, C. I., Powers, J. C., Bogyo, M.
  2008; 4 (3): 203-213

- **Ubiquitin-like modifiers and their deconjugating enzymes in medically important parasitic protozoa** *EUKARYOTIC CELL*
  Ponder, E. L., Bogyo, M.
  2007; 6 (11): 1943-1952