



Peter K. Sorger, Ph.D.
SU2C Scientific Advisory Committee



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Peter K. Sorger, Ph.D. is a Professor of Systems Biology at Harvard Medical School and Head of the Harvard Program in Therapeutic Sciences, an interinstitutional effort to advance the fundamental science used to develop and test therapeutic hypotheses, identify and prioritize active molecules, and evaluate new drugs via precision clinical trials. He received his Ph.D. from Trinity College, Cambridge U.K. for research on heat shock genes under the supervision of Hugh Pelham and trained as postdoctoral fellow at the University of California, San Francisco with Harold Varmus. Sorger has co-founded software and biopharmaceutical companies and is an advisor to multiple public and private corporations and research institutes in the US and Europe. Prior to joining HMS, Peter served as a Professor of Biology and Biological Engineering at MIT.

Peter's research focuses on the signal transduction networks controlling cell proliferation and death, dysregulation of these networks in cancer and inflammatory diseases, and the interplay between tumor cell intrinsic mechanisms and immune surveillance in response to therapy. This involves the use of both classical algorithms and machine-learning/AI to create quantitative models of disease processes in cell lines, mouse models, and human specimens. The Sorger group also develops open-source software for analyzing biological networks and drug mechanism of action and it participates in multiple collaborative programs working to improve data access and reproducibility. Recent research extends the group's measure-model approach to the development of drug response biomarkers using highly multiplexed tissue imaging and digital pathology.