

## Stuart Schreiber, Ph.D.

Founding member of the Broad  
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Director of the Chemical Biology  
Program at the Broad Institute of  
MIT and Harvard

Stuart Schreiber is a founding member of the Broad Institute and director of its Chemical Biology Program. He is an investigator at Howard Hughes Medical Institute and the Morris Loeb Professor in the department of chemistry and chemical biology at Harvard University. He is also a member of the National Academy of Sciences and the American Academy of Arts and Sciences (1995).

Stuart is known for having developed systematic ways to explore biology, especially disease biology, using small molecules and for his role in the development of the field of chemical biology. He has discovered principles that underlie information transfer and storage in cells, specifically discoveries relating to signaling by the phosphatase calcineurin and kinase mTOR (demonstrating for the first time that drugs can result from the targeting of protein kinases and protein phosphatases), gene regulation by chromatin-modifying histone deacetylases, small-molecule dimerizers that activate cellular processes by enforced proximity, and small-molecule probes of extremely difficult targets and processes (e.g., transcription factors, oncogenes, protein/protein interactions, transdifferentiation) that directly relate to human disease. His work has contributed to diversity-oriented synthesis (DOS) and discovery-based small-molecule screening in an open data-sharing environment, and it resulted in the development of the first public small-molecule screening database named ChemBank.

Stuart also extended chemical biology principles to medicine by participating in the founding of three public biopharmaceutical companies with a combined market cap of over \$8B: Vertex Pharmaceuticals (1989), ARIAD Pharmaceuticals (1991) and Infinity Pharmaceuticals (2001), each of which has devised new therapeutic agents that are being tested in human clinical trials or used as FDA-approved drugs.



Stuart received his B.A. in chemistry (with research advisor R.J. Sundberg) in 1977 from the University of Virginia, and his Ph.D. in organic chemistry (with research advisors R.B. Woodward and Y. Kishi) in 1981 from Harvard University.



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