

AN NC CHAMBER EVENT



Future of North Carolina Forum

DECEMBER 7, 2018 | CARY, NC

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Samuel H. Sternberg, PhD, runs a research laboratory at Columbia University, where he is an assistant professor in the Department of Biochemistry and Molecular Biophysics. He received his B.A. in Biochemistry from Columbia University in 2007, graduating *summa cum laude*, and his Ph.D. in Chemistry from the University of California, Berkeley in 2014. After a brief book-writing stint, Sam worked as a Scientist and Group Leader at Caribou Biosciences, a start-up biotechnology company that develops genome engineering technologies, before beginning his independent position at Columbia in 2018.

Sam's doctoral research in the laboratory of Howard Hughes Medical Institute Investigator Dr. Jennifer Doudna focused on the mechanism of DNA targeting by RNA-guided bacterial immune systems (CRISPR-Cas) and on the development of these systems for genome engineering. He earned graduate student fellowships from the National Science Foundation and the Department of Defense, and was awarded the Scaringe Award from the RNA Society and the Harold Weintraub Graduate Student Award from the Fred Hutchinson Cancer Research Center. His laboratory is continuing research into the functions of CRISPR–Cas systems, and more broadly, strives to expand our understanding of the ways in which noncoding RNAs conspire with effector proteins to manipulate genetic information and maintain genomic integrity.

In addition to publishing his research in leading journals and speaking internationally, Sam remains actively involved in public outreach and ongoing discussions on the ethical issues surrounding genome editing. Together with Jennifer Doudna, Sam co-authored a popular science trade book about the discovery, development, and applications of CRISPR gene editing technology, which was published in June, 2017. Titled *A Crack in Creation: Gene Editing and the Unthinkable Power to Control Evolution*, their book received enthusiastic reviews from *The Wall Street Journal*, *The Guardian*, *The New York Review of Books*, and many other outlets.