Ken A. Dill

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EDUCATION

MIT, Cambridge, MA	S.B., S.M.	1971	Mechanical Engineering
UCSD, La Jolla, CA (with BH Zimm)	Ph.D.	1978	Biology
Stanford, Palo Alto, CA (with PJ Flory)	Postdoc	1981	Chemistry

POSITIONS

2023 –	Laufer Family Endowed Professor of Physical & Quantitative Biology, Stony Brook University
2010 – 2023	Founding Director, Laufer Center for Physical & Quantitative Biology, Stony Brook University
2010 – 2023	Louis & Beatrice Laufer Endowed Chair of Physical & Quantitative Biology, Stony Brook U
2017 –	Affiliated Distinguished Professor, Applied Math, Stony Brook University
2012 –	SUNY Distinguished Professor, Physics and Chemistry, Stony Brook University
2010	Distinguished Professor, Pharmaceutical Chemistry, University California San Francisco
2001 – 2010	Associate Dean of Research, School of Pharmacy, UCSF
1982 – 2010	Assistant, Associate and Full Professor, Pharmaceutical Chemistry, UCSF
1985 – 2007	Adjunct Assistant, Associate, Full Professor, Pharmaceutics, University of Utah
1981 – 1982	Assistant Professor, Chemistry, University of Florida, Gainesville

RESEARCH

The physical protein-folding problem: discovering that folding occurs on *funnel-shaped* energy landscapes and that the folding code is dominated by hydrophobicity. Co-established the field of peptoid molecules as foldable polymeric materials with Ron Zuckermann. Recent work is on cellular fitness, the statistical mechanics of water, and the nonequilibrium principle of Maximum Caliber.

RECENT SCIENTIFIC SERVICE & EDITORIAL/ADVISORY BOARDS

2013 – '23	Editor, Annual Review of Biophysics.
2020 – '24	Board of Directors, New York Genome Center
2011	Co-founder (w/ H Qian) & first chair, Gordon Conf on Stochastic Physics in Biology.
2010 – '23	Founding Director, Laufer Center for Physical & Quantitative Biology, Stony Brook.
2003 – '10	Co-Founder (with Mary Barkley) and Director, Bridging the Sciences Initiative – a coalition of 15 basic research societies, representing 250,000 scientists, for deep innovation at the Life/Physical Sciences interface. Led to new funding for deep innovation programs at NSF (INSPIRE) and at NIH (multiple programs and changes in RO1s), earning the 2007 Distinguished Service Award from the Biophysical Society.
1998	President, Biophysical Society.

OTHER

'93: Member of National Research Council Report on Polymer Science. '93: Chair, Gordon Conference on Proteins. 2001-'04 American Physical Society, Biological Physics Exec Comm. 2003-'05 American Physical Society, Physics Policy Committee. 2004: NIBIB Review Board on Intramural Activities. 2005-'07: National Research Council: Biomaterials and Processes. Multiple roles in the Biophysical Society. Member of various NIH study sections. 2009-'14: Assoc Editor, *Ann Rev Biophys.* Current Ed Boards: *Structure, Biopolymers.* Past Ed Boards: *J Chem Phys, Prot Sci, Multisc Mod Sim, Ann Rev Phys Chem, Biophys, Theochem, Chem Phys, Curr Biol, J. Mol Rec, Biophys Chem, Phys Biol, Prot Eng.*

HONORS

Joseph O Hirschfelder Prize in Theoretical Chemistry (U Wisconsin, 2022)
Robert S Mulliken Award (U Chicago, 2022)
Tel Aviv University International Biophysics Prize (Tel Aviv U 2019)
Max Delbruck Prize for Biological Physics (American Physical Society 2019)
Dill 70th Festscrift (https://pubs.acs.org/doi/pdfplus/10.1021/acs.jpcb.8b02470)
American Academy of Arts and Sciences (elected 2013)
Emily Gray Award (Biophysical Society 2012)
UCSF 53rd Annual Faculty Research Lecturer (2010)
U.S. National Academy of Sciences (elected 2008)
Distinguished Service Award (Biophysical Society 2007)
Fellow, Institute of Physics (elected 2004)
Fellow, Biophysical Society (elected 002)
Hans Neurath Award (Protein Society, 1998)
Fellow, AAAS (elected 1997)
Fellow, American Physical Society (1991)
Distinguished Teaching Award (UCSF Academic Senate, 1987)
Joseph M. Long Foundation Prize for Excellence in Teaching (UCSF, 1987)
Pew Biomedical Scholar (1985-1989)
Damon Runyon-Walter Winchell Postdoctoral Fellowship (1979-1980)
National Science Foundation Predoctoral Fellowship (1971-1974)

PUBLICATIONS

About 370 papers published. h-index = 118. 63,400 citations.

Google Scholar: https://scholar.google.com/citations?user=t3u4Y3EAAAAJ&hl=en&oi=ao

Publication list with links: https://dillgroup.org/#/publications

Autobiography 2018: https://s3.amazonaws.com/dillgroupweb/papers/acs.jpcb.8b02469.pdf

TEXTBOOKS

Molecular Driving Forces, with Sarina Bromberg, Garland Science 2nd ed (2011); 1st ed (2003). Recognized by the 2012 Emily Gray Award, Biophysical Society.

Protein Actions: Principles and Modeling, with Ivet Bahar and Robert L Jernigan, Garland Science (2017). Recognized by the 2018 Prose Award for Best Textbook, Biological and Life Sciences.

SPECIAL LECTURES

Cyrus Levinthal Lecture (OpenEye CUP XXIV, 2025)
Leo & Mickey Sreebny Distinguished Lecture, (Stony Brook U, 2025)
Keynote Lecture, Peptoid Summit (Berkeley, 2024)
Henry Frank Lecture (U Pitt, 2024)
Leroy Eyring Lectures (Arizona State U, 2024)
Harden & Sophia McConnell Lectures (U Oregon, 2023)
Keith Dunker Lecture (Indiana U, 2023)
Peter A Kollman Lecture (U California, San Francisco, 2022)
Biological Physics Public Lecture (UCLA, 2020)
Bing & Esther Humphrey Lecture, Chemistry (U Vermont, 2019)
Daniel Kivelson Lecture, Chemistry (UCLA, 2019)
Zymeworks ZED talk (Vancouver, 2017)
Greater Boston Theoretical Chemistry 3-lecture series (MIT, Harvard U, BU, 2017)
Fred W & Gladys E Laird Lecture, Chemistry (U British Columbia, 2016)
Gary K Acker Lecturer, Gibbs Conference (Carbondale, Ill, 2016)
NC3 Award Lecture, Chemistry (U Nebraska, 2016)
Cyril N Hinshelwood Six Lectures, Chemistry (Oxford U, 2016)
Robert S Morris Visiting Fellow (Hamilton College, 2014)
William J Haines Lectures, Biochemistry (Wabash College, 2014)
TEDx talk, The protein folding problem (October 2013)
Joseph Priestley Lecture (Penn State U, 2011);
Eminent Scholar Lecture, Chemistry (U Arizona, 2011)
Five-campus Lecture Series (U Mass; Amherst, Smith, Holyoke, and Hampshire Colleges; 2010)
Gary Griffin Lecture (U New Orleans, 2008)
Engbretsons Lecture (North Dakota State U, 2006)
Inaugural Harrison Shull Lecture, Chemistry (Indiana U, 2004)
Nieuwland-Reilly Lectures, Chemistry (U Notre Dame, 2002)
Meloche Lecture, Chemistry (U Wisconsin, 2001)
Norman Hascoe Lecture, Physics (U Connecticut, 1998)
Harland G. Wood Lecture, Biochemistry (Case-Western Reserve U, 1998)
Clayton Foundation Regents Lectures (U Texas, 1998)
Keynote Lecture (Texas Folders Meeting, 1997)
Moses Gomberg Lecture (U Michigan, 1997)
National Lecture (Biophysical Society, 1996)
Joseph F. Foster Lecture (Purdue U, 1996)
C.B. Anfinsen Lecture (Johns Hopkins U Folding Meeting, 1996)
Warren L. McCabe Lecture (North Carolina State U, 1995)
Jesse W. Beams Lectures (U Virginia, 1993)
Wesleyan Lectures (Wesleyan U, 1993)
Merck Lecture (Purdue U, 1992)
Dartmouth College Lectures (1991)
Bayer/Mobay Lecture (U Pittsburgh, 1989)
Keynote, First Gibbs Conference (Carbondale, Ill, 1987)

PRESENT & FORMER STUDENTS & POSTDOCS

https://dillgroup.org/#/people

RECENT GRANT SUPPORT

Origins of the Principle of Survival of the Fittest
John Templeton Foundation
Total Project $1,056,237. 09/2022 – 08/2025

Solvation modeling for next-gen biomolecule simulations
NIH/NIGMS - RM1GM135136
Total Project $6,003,588. 06/2020 – 05/2025

How salts modulate antibody aggregation
Regeneron Pharmaceuticals Incorporated
Total Project $141,901. 11/2022 – 04/2024

MELD: accelerating MD modeling of proteins using Bayesian inference
NIH/NIGMS - R01GM125813
Total Project $951,021. 1/2019 – 12/2021

MELDdock: fast physical binding computations
Janssen Research and Development LLC
Total Project $392,704. 7/2019 – 6/2021

High Throughput High Resolution Structural Biology in vitro and in vivo
W M Keck Foundation through University of Virginia
Total Project $239,416. 1/2020 – 12/2021

Modeling Aqueous Solvation in Biology
NIH/NIGMS - R01GM063592
Total Project $4,588,229. 9/2001 – 3/2017

Protecting the Aging Brain: Self-Organizing Networks and Multi-Scale Dynamics under Energy Constraints
NSF – 1926781
Total Project $2,500,005. 9/2019 – 8/24