CURRICULUM VITAE

Name: Kevin Struhl

Birthdate: September 2, 1952

Birthplace: Brooklyn, New York

Address: Department of Biological Chemistry and Molecular Pharmacology
Harvard Medical School
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Undergraduate study: Massachusetts Institute of Technology (1970-1974)
Cambridge, Mass. 02139 USA
S.B., S.M. in biology with Boris Magasanik

Graduate study: Stanford University (1974-1979)
Stanford, Cal. 94305 USA
Ph.D. with distinction in biochemistry with Ronald W. Davis

Postdoctoral work: M.R.C. Laboratory of Molecular Biology (1980-1981)
Hills Road, Cambridge, England CB2 2QH
Visiting scientist with Sydney Brenner

Academic appointments:
Board of Tutors in biochemistry, Harvard Univ. 1982-1988
Dept. of Biological Chemistry Harvard Medical School 1982-present
- Assistant Professor 1982-1986
- Associate Professor 1986-1989
- Professor 1989-1991
- David Wesley Gaiser Professor 1991-present
- Acting Chair 1997-1998

Associate Member, Broad Institute 2014-present

Honors/Awards:
NSF undergraduate research fellowship 1972, 1973
NIH pre-doctoral traineeship 1974-1979
Jane Coffin Childs postdoctoral fellowship 1980-1981
Searle Scholar 1983-1986
Eli Lilly Award in Microbiology 1990
Fellow, American Academy of Microbiology 1993
MERIT award, National Institutes of Health 1993
Fellow, American Association for the Advancement of Science 2005
Distinguished Researcher, IMBB, Crete 2006
Fellow, American Academy of Arts and Sciences 2008
Member, National Academy of Sciences 2010
Member, National Academy of Medicine 2015
Sigma Xi 2023

Arthur Kornberg and Paul Berg Lifetime Achievement Award 2023

Lectureships:

Bertha Rosenstadt Visiting Professor, University of Toronto 1995
William W. Wells Lectureship, Michigan State University 2002
Ernest C. Pollard Lectureship, Pennsylvania State University 2005
Keynote speaker, BioMaPS summer school, Rutgers University 2008
Keynote speaker, Systems Biology: Global regulation of gene expression, Cold Spring Harbor Laboratory, 2010
Keynote speaker, Lorne (Australia) Genome Conference, 2011
Keynote speaker, Gordon Conference, Mammary Gland Biology 2011
Keynote speaker, Eugenides Foundation, Athens, 2012
Nieuwland Lecture, Notre Dame, 2015
Visiting Professor, UCLA 2016
Simpson Querrey Distinguished Lectureship, Northwestern Univ. 2024

Teaching experience:

Teaching assistant of organic chemistry, MIT, 1973-1974
Teaching assistant of biochemistry, Stanford, 1974-1975
Course in yeast molecular biology, Harvard 1983
Laboratory course sponsored by National Academies of Sciences on techniques in molecular biology, Shanghai, China, 1987
Tutorials in biochemistry, Harvard Univ. 1982-1988
Laboratory courses in yeast genetics, Spain, 1987 and 1990
Genetics 221- writing research proposals, Harvard 1992-1993
BCMP 208- critical thinking in molecular biology, Harvard 1982-1996
Lecturer in course on gene regulation, Spetses, Greece 1992, 1996, 2008
HST160- seminar in transcriptional regulation, Harvard 1995-2001
Lecturer- Chemistry and Biology of the Cell, Harvard 1995-2001
Micro 230- critical thinking in molecular biology, Harvard 2006-present

Editorial boards:

Current Protocols in Molecular Biology, 1987-2020
Molecular and Cellular Biology, 1985-2013
Protein Expression and Purification, 1990-1996
Biochimica et Biophysica Acta Reviews on Cancer 1991-1996
Biological Chemistry Hoppe-Seyler 1994-2000
Genes to Cells 1996-1998
Cell Growth & Differentiation 1997-2002
Epigenetics & Chromatin 2008-2020
Transcription 2009-present
eLife 2011-2023 (Senior editor 2015-2023)
Journal of Molecular Biology 2017-2020

Grant reviewer:

NIH Molecular Biology study section *ad hoc* 1988, 1995
NIH Molecular Biology study section 1990-1994
NIH site visit of internal group in Child Health & Development 1996
NIH Molecular Cytology study section *ad hoc* 2003

Scientific meetings: Organizing committee, Annual symposium on Frontiers of Science, National Academy of Sciences, 1991-1993
Organizer, FASEB meeting on Transcriptional regulation during cell growth, differentiation, and development, 1998
Scientific committee, International conference of yeast genetics and molecular biology, Prague 2001
Organizer, Keystone meeting on Transcriptional Regulation, 2008
Organizer, Banbury meeting on Metformin, 2013

Advisory boards: Institute Molecular Biology & Biotechnology, Crete 1990-2008
Pharmagenics Inc. 1991-1997
Scriptgen Inc. 1993-2000
Eli Lilly Award Nominating Committee 1997-2000
Phylos Inc. 1998-2002
Sangamo Inc. 1999-2015
American Society of Biochemistry & Molecular Biology 2006-2009
Klarman Cell Observatory, Broad Institute 2012-present
Weizmann Institute, Israel 2019
UTR Therapeutics. 2022-present

Patents: Struhl, K. and Moqtaderi, Z. Inducible methods for repressing gene function. U.S. Patent No. 6,576,469 (June 10, 2003).

Struhl, K., Hirsch, H., Iliopoulos, D. Use of metformin in cancer treatment and prevention. U.S. Patent Publication No. 2012/0220664 (August 30, 2012).

Basu, A., Regev, A., Ford, C.B., Weitz, D.A., Rotem, A., and Struhl, K. High-throughput dynamic reagent delivery system. EP Patent No. 3368221 (March 31, 2021).

Rotem, A., Struhl, K., Blainey, P., and Xu, L. High-throughput drug and genetic assays for cellular transformation. U.S. Patent No. 11,807,895 (November 7, 2023).

Basu, A., Ford, C.B., Regev, A., Weitz, D.A., Rotem, A., and Struhl, K. High-throughput dynamic reagent delivery system. U.S. Patent No. 11,904,310 (February 20, 2024).

Ogunwobi, O.O., Awah, C.U., and Struhl, K. Destabilized ARE 3'UTRs as therapeutics for cancer. U.S. Patent Publication No. 2023/0331818 (October 19, 2023).

Publications:

1. Struhl, K., Cameron, J.R., and Davis, R.W. (1976). Functional genetic expression of eukaryotic DNA in *Escherichia coli*. *Proc. Natl. Acad. Sci.* U.S.A. **73** 1471-1475.

2. Struhl, K. and Magasanik, B. (1976). Ammonia sensitive mutant of *Klebsiella aerogenes. J. Bacteriol.* **126** 739-742.

3. Struhl, K. and Davis, R.W. (1976). Genetic selections and the cloning of prokaryotic and eukaryotic genes. *ICN-UCLA Symp. Mol. and Cell. Biol.* **5** 495-506.

4. Struhl, K. and Davis, R.W. (1977). Production of a functional eukaryotic enzyme in *E. coli*: Cloning and expression of the yeast structural gene for imidazoleglycerol-phosphate dehydratase (*his3*). *Proc. Natl. Acad. Sci.* U.S.A. **74** 5255-5259.

5. Struhl, K. and Davis, R.W. (1977). A eukaryotic gene is functionally expressed in *E. coli*. in *Pancreatic Beta Cell Culture*, ed. vonWasielewski and Chick, Excerpta Medica, Amsterdam-Oxford. pp. 165-172.

6. Davis, R.W., Thomas, M., Cameron, J.R., Philippsen, P., Kramer, R., St. John, T., Struhl, K., and Ferguson, J. (1977). Genetic and physical selections of eukaryotic genes cloned in *E. coli*. in the *Molecular Biology of the Mammalian Genetic Apparatus.* ed. P.O.P. Ts'O, Elsevier/North Holland Biomedical Press, Amsterdam **2** 15-27.

7. Davis, R.W., Thomas, M., Benton, D., Cameron, J.R., Philippsen, P., Struhl, K., St. John, T., and Kramer, R. (1977). Rapid selection and screening methods for the isolation of particular cloned eukaryotic DNA sequences. in *Molecular Cloning of Recombinant DNA.* ed. Scott, W.A. and Werner, R. Academic Press, New York pp. 155-160.

8. Struhl, K., Stinchcomb, D.T., Scherer, S., and Davis, R.W. (1979). High frequency transformation of yeast: Autonomous replication of hybrid DNA molecules. *Proc. Natl. Acad. Sci.* U.S.A. **76** 1035-1039.

9. Struhl, K., Davis, R.W., and Fink, G.R. (1979). Suppression of a yeast amber mutation in *E. coli*. *Nature* **279** 78-79.

10. Stinchcomb, D.T., Struhl, K., and Davis, R.W. (1979). Isolation and characterization of a yeast chromosomal replicator. *Nature* **282** 39-43.

11. Davis, R.W., Struhl, K., St. John, T., Stinchcomb, D.T., Scherer, S., and McDonell, M. (1979). Structural and functional analysis of the *HIS3* gene and galactose inducible sequences in yeast. *ICN-UCLA Symp. Mol. and Cell. Biol.* **14** 51-55.

12. Botstein, D., Falco, S.C., Stewart, S.E., Brennan, M., Scherer, S., Stinchcomb, D.T., Struhl, K., and Davis, R.W. (1979). Sterile host yeasts (SHY): A eukaryotic system of biological containment for recombinant DNA experiments. *Gene* **8** 17-24.

13. Struhl, K., Stinchcomb, D.T., and Davis, R.W. (1980). A physiological study of functional expression in *Escherichia coli* of the cloned yeast imidazoleglycerolphosphate dehydratase gene. *J. Mol. Biol.* **136** 291-307.

14. Struhl, K. and Davis, R.W. (1980). A physical, genetic, and transcriptional map of the cloned *his3* gene region of *Saccharomyces cerevisiae*. *J. Mol. Biol.* **136** 309-332.

15. Brennan, M.B. and Struhl, K. (1980). Mechanisms of increasing expression of a yeast gene in *E. coli.* *J. Mol. Biol.* **136** 333-338.

16. Struhl, K. and Davis, R.W. (1980). Conservation and DNA sequence arrangement of the DNA polymerase I gene region from *Klebsiella aerogenes, Klebsiella pneumoniae,* and *Escherichia coli.* *J. Mol. Biol.* **141** 343-368.

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18. Struhl, K. (1981). Deletion mapping a eukaryotic promoter. *Proc. Natl. Acad. Sci.* U.S.A. **78** 4461-4465.

19. Struhl, K. (1981). Deletion, recombination, and gene expression involving the bacteriophage λ attachment site. *J. Mol. Biol.* **152** 517-533.

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31. Struhl, K. (1985). Negative control at a distance mediates catabolite repression in yeast. *Nature* **317** 822-824.

32. Hope, I.A. and Struhl, K. (1985). GCN4 protein, synthesized *in vitro,* binds *HIS3* regulatory sequences: Implications for general control of amino acid biosynthetic genes in yeast. *Cell*. **43** 177-188.

33. Struhl, K. (1985). A rapid method for creating recombinant DNA molecules. *BioTechniques* **3** 452-453.

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56. Chen, W., Tabor, S., and Struhl, K. (1987). Distinguishing between mechanisms of eukaryotic transcriptional activation with bacteriophage T7 RNA polymerase. *Cell* **50** 1047-1055.

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61. Oliphant, A.R. and Struhl, K. (1988). Defining the consensus sequences of *E. coli* promoter elements by random selection. *Nucl. Acids Res.* **16** 7673-7683.

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64. Chen, W. and Struhl, K. (1989). Yeast upstream activator protein GCN4 can stimulate transcription when its binding site replaces the TATA element. *EMBO J.* **8** 261-268.

65. Struhl, K. (1989). Helix-turn-helix, zinc finger, and leucine zipper motifs for eukaryotic transcriptional regulatory proteins. *Trends Biochem. Sci*. **14** 137-140.

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72. Struhl, K. (1989). Analysis of DNA-protein interactions using proteins synthesized *in vitro* from cloned genes. *Curr. Protoc. Mol. Biol.* Chapter 12: Unit 12.9.

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74. Oliphant, A.R and Struhl, K. (1989). An efficient method for generating proteins with altered enzymatic properties: Application to β-lactamase. *Proc. Natl. Acad. Sci.* U.S.A. **86** 9094-9098.

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