

## TOM MANIATIS

Date and place of birth: May 8, 1943; Denver, Colorado, USA

### EDUCATION

B.A.	1965	University of Colorado	Biology and Chemistry
M.A.	1967	University of Colorado	Biology
Ph.D.	1971	Vanderbilt University	Molecular Biology
Ph.D. (honorary)	2000	University of Athens	

### RESEARCH AND PROFESSIONAL EXPERIENCE

Postdoctoral Fellow

Harvard University (lab of Mark Ptashne), 1971-1973  
Medical Research Council of Molecular Biology  
(lab of Fred Sanger), Cambridge, England, 1973-1974

Research Associate

Harvard University, 1974-1975

Senior Staff Investigator

Cold Spring Harbor Laboratory, 1975-1977

Assistant Professor of Biochemistry and Molecular Biology

Harvard University, 1975-1977

Associate Professor of Biology

California Institute of Technology, 1977-1979

Professor of Biology

California Institute of Technology, 1979-1981

Professor of Biochemistry and Molecular Biology

Harvard University, 1981-1995

Chairman, Department of Biochemistry and Molecular Biology

Harvard University, 1985-1988

Mallinckrodt Professor of Molecular and Cellular Biology

Harvard University, 1995-1997

Thomas H. Lee Professor of Molecular and Cellular Biology

Harvard University, 1997-present

### HONORS

## Awards

Rita Allen Foundation Career Development Award, 1978  
The Eli Lilly Research Award in Microbiology and Immunology,  
American Society of Microbiology, 1981  
The Richard Lounsbery Award for Biology and Medicine,  
U.S. and French National Academies of Science, 1985  
The E. Donnall Thomas Prize, American Society of Hematology, 1994  
Katharine Berkan Judd Award, Memorial Sloan-Kettering Cancer Center, 1997  
Novartis Drew Award in Biomedical Research, 1998  
Jacob Heskell Gabbay Award in Biotechnology and Medicine, Brandeis University, 1999  
The 2000 Scientific Achievement Award, American Medical Association, 2000

## Academy Memberships

Member, National Academy of Sciences, 1985  
Fellow, American Academy of Arts and Sciences, 1985  
Fellow, American Association for the Advancement of Science, 1979  
Fellow, American Academy of Microbiology, 1993

## Service

Molecular Biology Study Section, NIH, 1981-1984; Chairman, 1982-1984  
Human Genome Center Grant Committee, NIH, Chairman, 1989-1990  
Searle Scholars Program Advisory Committee, 1985-1987  
Member, Board of Trustees, Cold Spring Harbor Laboratory, 1986-1992  
Associate Editor, Cell, 1980-present  
The Jane Coffin Childs Memorial Fund Board of Scientific Advisers, 1989-1992  
Howard Hughes Medical Institute, Scientific Review Board, 1989-1993  
Member, Editorial Board, Current Opinion in Cell Biology, 1994-present  
Member, Editorial Board, RNA, 1995-present  
Member, Board of Scientific Consultants, Memorial Sloan-Kettering Cancer Center,  
1997-present  
Member, Albert Lasker Medical Research Awards July, 2000

## **PUBLICATIONS**

Maniatis, T. and Ptashne, M. (1973). Multiple repressor binding at the operators  
in bacteriophage  $\lambda$ . Proc. Natl. Acad. Sci. USA **70**, 1531-1535.

Maniatis, T. and Ptashne, M. (1973). Structure of the  $\lambda$  operators. Nature **246**, 133-136.

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- Maniatis, T., Ptashne, M., Backman, K., Kleid, D., Flashman, S., Jeffrey, A. and Maurer, R. (1975). Recognition sequences of repressor and polymerase in the operators of bacteriophage lambda. *Cell* **5**, 109-113.
- Maniatis, T., Jeffrey, A. and Kleid, D.G. (1975). Nucleotide sequence of the rightward operator of phage  $\lambda$ . *Proc. Natl. Acad. Sci. USA* **72**, 1184-1188.
- Maniatis, T., Jeffrey, A. and Van deSande, H. (1975). Chain length determination of small double- and single-stranded DNA molecules by polyacrylamide gel electrophoresis. *Biochemistry* **14**, 3787-3794.
- Efstratiadis, A., Maniatis, T., Kafatos, F.C., Jeffrey, A. and Vournakis, J.N. (1975). Full length and discrete partial reverse transcripts of globin and chorion mRNAs. *Cell* **4**, 367-378.
- Maniatis, T. and Ptashne, M. (1976). A DNA operator-repressor system. *Scientific Amer.* **234**, 64-76.
- Efstratiadis, A., Kafatos, F.C., Maxam, A.M. and Maniatis, T. (1976). Enzymatic in vitro synthesis of globin genes. *Cell* **7**, 279-288.
- Maniatis, T., Sim, G.K., Efstratiadis, A. and Kafatos, F.C. (1976). Amplification and characterization of a  $\beta$ -globin gene synthesized in vitro. *Cell* **8**, 163-182.
- Efstratiadis, A., Kafatos, F.C. and Maniatis, T. (1977). The primary structure of rabbit  $\beta$ -globin mRNA as determined from cloned DNA. *Cell* **10**, 571-585.
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- Lawn, R.M., Fritsch, E.F., Parker, R.C., Blake, G., and Maniatis, T. (1978). The isolation and characterization of linked  $\delta$ - and  $\beta$ -globin genes from a cloned library of human DNA. *Cell* **15**, 1157-1174.
- Wigler, M., Sweet, R., Sim, G.K., Wold, B., Pellicer, A., Lacy, E., Maniatis, T., Silverstein, S. and Axel, R. (1979). Transformation of mammalian cells with genes from procaryotes and eucaryotes. *Cell* **16**, 777-785.
- Fritsch, E.F., Lawn, R.M. and Maniatis, T. (1979). Characterisation of deletions which affect the expression of fetal globin genes in man. *Nature* **279**, 598-603.
- Lacy, E., Hardison, R.C., Quon, D. and Maniatis, T. (1979). The linkage arrangement of four rabbit  $\beta$ -like globin genes. *Cell* **18**, 1273-1283.
- Hardison, R.C., Butler, E.T. III, Lacy, E., Maniatis, T., Rosenthal, N. and Efstratiadis, A. (1979). The structure and transcription of four linked rabbit  $\beta$ -like globin genes. *Cell* **18**, 1285-1297.

Wold, B., Wigler, M., Lacy, E., Maniatis, T., Silverstein, S. and Axel, R. (1979). Introduction and expression of a rabbit  $\beta$ -globin gene in mouse fibroblasts. *Proc. Natl. Acad. Sci. USA* **76**, 5684-5688.

Sim, G.K., Kafatos, F.C., Jones, C.W., Koehler, M.D., Efstratiadis, A. and Maniatis, T. (1979). Use of a cDNA library for studies on evolution and developmental expression of the chorion multigene families. *Cell* **18**, 1303-1316.

Fritsch, E.F., Lawn, R.M. and Maniatis, T. (1980). Molecular cloning and characterization of the human  $\beta$ -like globin gene cluster. *Cell* **19**, 959-972.

Shen, C.-K.J. and Maniatis, T. (1980). The organization of repetitive sequences in a cluster of rabbit  $\beta$ -like globin genes. *Cell* **19**, 379-391.

Lauer, J., Shen, C.-K.J. and Maniatis, T. (1980). The chromosomal arrangement of human  $\alpha$ -like globin genes: Sequence homology and  $\alpha$ -globin gene deletions. *Cell* **20**, 119-130.

Proudfoot, N.J. and Maniatis, T. (1980). The structure of a human  $\alpha$ -globin pseudogene and its relationship to  $\alpha$ -globin gene duplication. *Cell* **21**, 537-544.

Proudfoot, N.J., Shander, M.H.M., Manley, J.L., Gefter, M.L. and Maniatis, T. (1980). Structure and *in vitro* transcription of human globin genes. *Science* **209**, 1329-1336.

Lawn, R.M., Efstratiadis, A., O'Connell, C. and Maniatis, T. (1980). The nucleotide sequence of the human  $\beta$ -globin gene. *Cell* **21**, 647-651.

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Lacy, E. and Maniatis, T. (1980). The nucleotide sequence of a rabbit  $\beta$ -globin pseudogene. *Cell* **21**, 545-553.

Shen, C.-K.J. and Maniatis, T. (1980). Tissue-specific DNA methylation in a cluster of rabbit  $\beta$ -like globin genes. *Proc. Natl. Acad. Sci. USA* **77**, 6634-6638.

Mellon, P., Parker, V., Gluzman, Y. and Maniatis, T. (1981). Identification of DNA sequences required for transcription of the human  $\alpha$ 1-globin gene in a new SV40 host-vector system. *Cell* **27**, 279-288.

Papayannopoulou, T., Lawn, R.M., Stamatoyannopoulos, G. and Maniatis, T. (1982). Greek ( $\beta^A$ ) variant of hereditary persistence of fetal haemoglobin: globin gene organization and studies of expression of fetal haemoglobins in clonal erythroid cultures. *Brit. J. Haematol.* **50**, 387-399.

Shen, C.-K.J. and Maniatis, T. (1982). The organization, structure and *in vitro* transcription of Alu family RNA polymerase III transcription units in the human  $\alpha$ -like globin gene cluster: Precipitation of *in vitro* transcripts by lupus anti-La antibodies. *J. Mol. Appl. Genet.* **1**, 343-360.

Treisman, R., Proudfoot, N.J., Shander, M. and Maniatis, T. (1982). A single-base change at a splice site in a  $\beta^0$ -thalassemic gene causes abnormal RNA splicing. *Cell* **29**, 903-911.

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Myers, R.M., Fischer, S.G., Maniatis, T. and Lerman, L.S. (1985). Modification of the melting properties of duplex DNA by attachment of a GC-rich DNA sequence as determined by denaturing gradient gel electrophoresis. *Nucleic Acids Res.* **13**, 3111-3129.

Myers, R.M., Fischer, S.G., Lerman, L.S. and Maniatis, T. (1985). Nearly all single base substitutions in DNA fragments joined to a GC-clamp can be detected by denaturing gradient gel electrophoresis. *Nucleic Acids Res.* **13**, 3131-3145.

Goodbourn, S., Zinn, K. and Maniatis, T. (1985). Human  $\beta$ -interferon gene expression is regulated by an inducible enhancer element. *Cell* **41**, 509-520.

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