

CURRICULUM VITAE

Paul Theodore Englund

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Spouse: Christine R. Schneyer, M.D.

Children: Suzanne Elizabeth Englund (born Dec. 6, 1966)
Maria Jean Englund (born May 15, 1968)
Jennifer E.N. Insley (born September 1, 1979)
Peter J.C. Insley (born January 14, 1986)

Education:

1960 B.A. in Chemistry, Hamilton College
1966 Ph.D. in Biochemistry, Rockefeller University (with Dr. Lyman Craig)

Academic Positions:

1966-1968 NIH Postdoctoral Fellow, Department of Biochemistry (with Dr. Arthur Kornberg), Stanford University School of Medicine, Palo Alto, CA

1968-1973 Assistant Professor, Department of Physiological Chemistry, Johns Hopkins University School of Medicine, Baltimore, MD

1973-1980 Associate Professor, Department of Physiological Chemistry, Johns Hopkins University School of Medicine

1980-present Professor, Department of Biological Chemistry (formerly Physiological Chemistry), Johns Hopkins University School of Medicine

Other Positions:

1980 Visiting Scientist, International Laboratory for Research on Animal Diseases, Nairobi, Kenya

1983-1990 Director of Biochemistry, Cellular and Molecular Biology Program (training program for graduate students), Johns Hopkins University School of Medicine

- 1985-1988 Co-Director (with Alan Sher) of Biology of Parasitism summer course at Marine Biological Laboratory, Woods Hole, Mass.
- 1987-1993 Member of Board of Directors, International Laboratory for Research on Animal Diseases (ILRAD), Nairobi, Kenya
- 1990-1995 Member of Molecular Parasitology Advisory Committee, Burroughs Wellcome Fund (Chair, 1994 - 1995)
- 1992-1996 Member of Tropical Medicine and Parasitology Study Section, NIH (Chair, 1995-1996)
- 1992-1997 and
1998-2000 Co-Director (with Ann Hubbard), Graduate Course in Biochemistry and Cell Biology, Johns Hopkins Medical School
- 2003-present Member of Advisory Board, Johns Hopkins Malaria Institute

Honors:

Sigma Xi
 NIH Postdoctoral Fellowship, 1966-1968
 Faculty Research Award of the American Cancer Society, 1969-1974
 Senior International Fellowship from the Fogarty International Center, 1980
 Burroughs-Wellcome Scholar in Molecular Parasitology, 1982-1987
 MERIT award from NIH (grant R37-GM27648-28, from 1/1/91-12/31/99)
 Fellow, American Association for the Advancement of Science, elected 2000.

Patents

Method of Inhibiting Parasitic Activity, J. I. Gordon, G. W. Gokel, and P. T. Englund, U.S. Patent No. 5747537, May 5, 1998

Societies:

American Society for Biochemistry and Molecular Biology
 American Association for Advancement of Science
 Member of Corporation, Marine Biological Laboratory, Woods Hole, MA

Editorial Boards:

Journal of Biological Chemistry, 1981-1987
 Molecular and Biochemical Parasitology, 1983-2005
 Nucleic Acids Research, 1986-1997
 Science, 1988-1999
 Journal of Eukaryotic Microbiology, 1995-2000
 Eukaryotic Cell, 2002-2006

Major Lectures

Dean's Lecture, Johns Hopkins School of Medicine, January 23, 1989

Keynote Address, Keystone Meeting on Molecular and Cellular Biology of Host-Parasite Interactions, Park City, Utah, January 15, 1992

Opening Lecture, XX Annual Meeting on Basic Research in Chagas' Disease, Caxambu, Brazil, November 9, 1993

The Inaugural Bruce McGehee Greene Distinguished Lecture, Departments of Medicine and Microbiology, University of Alabama at Birmingham, November 30, 1993

Ernst A.H.Friedham Memorial Lecture, Rockefeller University, December 16, 1994

Paul Clark Lecture, Dept. of Medical Microbiology, University of Wisconsin, Madison Wisconsin, April 25, 1995

Opening Lecture, 13th Annual Swiss Trypanosomatid Meeting, Charmey, Switzerland, February 1, 1996

Distinguished Scientist Lecture, State University of New York at Buffalo, November 25, 1996

University Lecture, University of Texas Southwestern Medical School, October 23, 2002

Meetings Organized

Co-Organizer (with Jeffrey Gordon, John Glomsett), ASBMB Fall Symposium, Biological Significance of Lipid Modification of Proteins. Keystone, Colorado, October 11-14, 1991

Co-Organizer (with Jeffrey Gordon, John Glomsett), ASBMB Satellite Meeting, The Biological Significance of Covalent Modification of Proteins by Lipids. San Diego, California, May 30-June 1, 1993

Co-Organizer (with Stephen Beverley, Barbara Sollner-Webb), Molecular Parasitology Meeting, Marine Biological Laboratory, Woods Hole, MA, 1993, 1994

PUBLICATIONS

Paul T. Englund

- Englund, P.T. (1966) Studies on the chemistry of ficin. Ph.D. Thesis, The Rockefeller University.
- Englund, P.T., King, T.P., Craig, L.C. and Walti, A. (1968) Studies on ficin. I. Its isolation and characterization. *Biochemistry* 7, 163-175.
- Englund, P.T., Deutscher, M.P., Jovin, T.M., Kelly, R.B., Cozzarelli, N.R. and Kornberg, A. (1968) Structural and functional properties of *Escherichia coli* DNA polymerase. *Cold Spring Harbor Symp. Quant. Biol.* 33, 1-9.
- Jovin, T.M., Englund, P.T. and Bertsch, L.L. (1969) Enzymatic synthesis of deoxyribonucleic acid. XXVI. Physical and chemical studies of a homogeneous DNA polymerase. *J. Biol. Chem.* 244, 2996-3008.
- Jovin, T.M., Englund, P.T. and Kornberg, A. (1969) Enzymatic synthesis of deoxyribonucleic acid. XXVII. Chemical modifications of DNA polymerase. *J. Biol. Chem.* 244, 3009-3018.
- Englund, P.T., Huberman, J., Jovin, T.M. and Kornberg, A. (1969) Enzymatic synthesis of deoxyribonucleic acid. XXX. Binding of triphosphates to DNA polymerase. *J. Biol. Chem.* 244, 3038-3044.
- Englund, P.T., Kelly, R.B. and Kornberg, A. (1969) Enzymatic synthesis of deoxyribonucleic acid. XXXI. Binding of DNA to DNA polymerase. *J. Biol. Chem.* 244, 3045-3052.
- Englund, P.T., Smith, H.O. and Sandbek, E. (1971) A density gradient fractionator. *Analyt. Biochem.* 40, 490-493.
- Englund, P.T. (1971) DNA polymerase from *Escherichia coli*. In: *Procedures in Nucleic Acid Research* (G.L. Cantoni and D.R. Davies, eds.), Harper and Row, New York, Vol. II, pp. 864-874.
- Englund, P.T. (1971) Analysis of nucleotide sequences at 3'-termini of duplex DNA using the T4 DNA polymerase. *J. Biol. Chem.* 246, 3269-3276.
- Englund, P.T. (1971) The initial step of in vitro synthesis of deoxyribonucleic acid by the T4 deoxyribonucleic acid polymerase. *J. Biol. Chem.* 246, 5684-5687.
- Englund, P.T. (1972) The 3' terminal nucleotide sequences of T7 DNA. *J. Mol. Biol.* 66, 209-224.

Englund, P.T., Price, S.S., Schwing, J.M. and Weigel, P.H. (1973) Nucleotide sequencing of 3' termini of duplex DNA with the T4 DNA polymerase. In: *DNA Synthesis in vitro* (R.D. Wells and R.B. Inman, eds.), University Park Press, Baltimore, Maryland, pp. 35-46.

Weigel, P.H., Englund, P.T., Murray, K. and Old, R.W. (1973) The 3' terminal nucleotide sequences of lambda DNA. *Proc. Natl. Acad. Sci. USA* 70, 1151-1155.

Price, S.S., Schwing, J.M. and Englund, P.T. (1973) The 3' terminal heptanucleotide sequence of the l strand of T7 DNA. *J. Biol. Chem.* 248, 7001-7006.

Englund, P.T., Price, S.S. and Weigel, P.H. (1974) The use of the T4 DNA polymerase in identification of 3' terminal nucleotide sequences of duplex DNA. *Methods Enzymol.* XXIX, Part E, 273-281.

Weigel, P.H. and Englund, P.T. (1975) The inhibition of DNA replication in *Escherichia coli* by cyanide and carbon monoxide. *J. Biol. Chem.* 250, 8536-8542.

Price, S.S., DiMaio, D. and Englund, P.T. (1976) Kinetoplast DNA from *Leishmania tarentolae*. In: *The Genetic Function of Mitochondrial DNA* (C. Saccone and A.M. Kroon, eds.), Elsevier-North Holland Biomedical Press, Amsterdam, The Netherlands, pp. 83-94.

Murray, K., Isaksson-Forsen, A.G., Challberg, M. and Englund, P.T. (1977) Symmetrical nucleotide sequences in the recognition sites for the ter function of phages P2, 299 and 186. *J. Mol. Biol.* 112, 471-489.

Weigel, P.H. and Englund, P.T. (1977) Inhibition of DNA replication in *E. coli* by dibromophenol and other uncouplers. *J. Biol. Chem.* 252, 1148-1155.

Englund, P.T., DiMaio, D.C. and Price, S.S. (1977) A nicked form of kinetoplast DNA in *Leishmania tarentolae*. *J. Biol. Chem.* 252, 6208-6216.

Englund, P.T. (1978) The replication of kinetoplast DNA networks in *Crithidia fasciculata*. *Cell* 14, 157-168.

Englund, P.T. (1979) Free minicircles of kinetoplast DNA in *Crithidia fasciculata*. *J. Biol. Chem.* 254, 4895-4900.

Challberg, M.D. and Englund, P.T. (1979) Purification and properties of the deoxyribonucleic acid polymerase induced by vaccinia virus. *J. Biol. Chem.* 254, 7812-7819.

Challberg, M.D. and Englund, P.T. (1979) The effect of template secondary structure on the deoxyribonucleic acid polymerase induced by vaccinia virus. *J. Biol. Chem.* 254, 7820-7826.

Challberg, M.D. and Englund, P.T. (1980) Specific labeling of exposed 3' termini with T4 DNA polymerase. *Methods Enzymol.* 65, 39-42.

Challberg, S.S. and Englund, P.T. (1980) Heterogeneity of minicircles in kinetoplast DNA of *Leishmania tarentolae*. *J. Mol. Biol.* 138, 447-472.

Marini, J.C., Miller, K.G. and Englund, P.T. (1980) Decatenation of kinetoplast DNA by topoisomerases. *J. Biol. Chem.* 255, 4976-4979.

Englund, P.T. and Marini, J.C. (1980) The replication of kinetoplast DNA. *Am. J. Trop. Med. Hyg.* 29, 1064-1069.

Englund, P.T. (1981) Kinetoplast DNA. In: *Biochemistry and Physiology of Protozoa, Vol. IV, 2nd edition* (S.H. Hutner, L. Provasoli and M. Levandowsky, eds.), Academic Press, New York, pp. 333-383.

Miller, K.G., Liu, L.F. and Englund, P.T. (1981) A homogeneous type II DNA topoisomerase from HeLa cell nuclei. *J. Biol. Chem.* 256, 9334-9339.

Roth, A.C., Nossal, N.G. and Englund, P.T. (1982) Rapid hydrolysis of deoxyribonucleoside triphosphates accompanies DNA synthesis by T4 DNA polymerase and accessory proteins 44/62 and 45. *J. Biol. Chem.* 257, 1267-1273 .

Englund, P.T., Hajduk, S.L. and Marini, J.C. (1982) The molecular biology of trypanosomes. *Ann. Rev. Biochem.* 51, 695-726.

Englund, P.T., Hajduk, S.L., Marini, J.C. and Plunkett, M.L. (1982) The replication of kinetoplast DNA. In: *Mitochondrial Genes* (P. Slonimski, P. Borst and G. Attardi, eds), Cold Spring Harbor Laboratories, New York, pp. 423-433.

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Marini, J.C., Levene, S.D., Crothers, D.M. and Englund, P.T. (1982) Bent helical structure in kinetoplast DNA. *Proc. Natl. Acad. Sci. USA* 79, 7664-7668. Correction in *Proc. Natl. Acad. Sci.* 80, 7678 (1983).

Marini, J.C., Levene, S.D., Crothers, D.M. and Englund, P.T. (1983) A bent helix in kinetoplast DNA. *Cold Spring Harbor Symp. Quant. Biol.* 47, 279-283.

Hajduk, S.L., Kitchin, P.A., Marini, J.C. and Englund, P.T. (1984) The structure and replication of kinetoplast DNA. UCLA Symposium, *Molecular Biology of Host-Parasite Interactions* (N. Agabian and H. Eisen, eds.), Alan R. Liss, N.Y., pp. 197-204 .

- Hajduk, S.L., Englund, P.T., Mahmoud, A.A.F. and Warren, K.S. (1984) African trypanosomiasis. In: *Tropical and Geographical Medicine* (K.S. Warren and A.A.F. Mahmoud, eds), McGraw Hill, New York, pp. 244-252.
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- Hajduk, S.L., Klein, V.A. and Englund, P.T. (1984) Replication of kinetoplast DNA maxicircles. *Cell* 36, 483-492.
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- Ntambi, J.M., Marini, J.C., Bangs, J.D., Hajduk, S.L., Jiminez, H.E., Kitchin, P.A., Klein, V.A., Ryan, K.A. and Englund, P.T. (1984) Presence of a bent helix in fragments of kinetoplast DNA minicircles from several trypanosomatid species. *Molec. Biochem. Parasitol.* 12, 273-286.
- Ntambi, J.M. and Englund, P.T. (1985) A gap at a unique location in newly replicated kinetoplast DNA minicircles from *Trypanosoma equiperdum*. *J. Biol. Chem.* 260, 5574-5579.
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- Ntambi, J.M., Shapiro, T.A., Ryan, K.A. and Englund, P.T. (1986) Ribonucleotides associated with a gap in newly replicated kinetoplast DNA minicircles from *Trypanosoma equiperdum*. *J. Biol. Chem.* *261*, 11890-11895.
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- Ryan, K.A., Shapiro, T.A., Rauch, C.A. and Englund, P.T. (1988) The replication of kinetoplast DNA in trypanosomes. *Ann. Rev. Microbiol.* *42*, 339-358.
- Englund, P.T., Hereld, D., Krakow, J.L., Doering, T.L., Masterson, W.J. and Hart, G.W. (1988) Glycolipid membrane anchor of the trypanosome variant surface glycoprotein: its

- biosynthesis and cleavage. In: *The Biology of Parasitism* (P.T. Englund and A. Sher, eds), Alan R. Liss, Inc., pp. 401-412
- Ryan, K.A., Shapiro, T.A., Rauch, C.A., Griffith, J.D. and Englund, P.T. (1988) A knotted free minicircle in kinetoplast DNA. *Proc. Natl. Acad. Sci. USA* 85, 5844-5848
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- Hereld, D., Hart, G.W. and Englund, P.T. (1988) cDNA encoding the glycosyl-phosphatidylinositol-specific phospholipase C of *Trypanosoma brucei*. *Proc. Natl. Acad. Sci. USA* 86, 8914-8918
- Ryan, K.A. and Englund, P.T. (1989) Replication of kinetoplast DNA in *Trypanosoma equiperdum*: Minicircle H strand fragments which map at specific locations. *J. Biol. Chem.* 264, 823-830
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- Ryan, K.A. and Englund, P.T. (1989) Synthesis and processing of kinetoplast DNA minicircles in *Trypanosoma equiperdum*. *Mol. Cell Biol.* 9, 3212-3217
- Doering, T.L., Masterson, W.J., Englund, P.T. and Hart, G.W. (1989) Biosynthesis of the glycosyl phosphatidylinositol membrane anchor of the trypanosome variant surface glycoprotein: Origin of the non-acetylated glucosamine. *J. Biol. Chem.* 264, 11168-11173
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Mensa-Wilmot, K., Doering, T.L., Raper, J., Buxbaum, L., Hart, G.W. and Englund, P.T. (1991) Glycosyl phosphatidylinositol membrane anchors in African trypanosomes. In: *Molecular & Immunological Aspects of Parasitism* (C.C. Wang, ed), AAAS Press, Washington, D.C., 43-54

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Mensa-Wilmot, K. and Englund, P.T. (1992) Glycosyl phosphatidylinositol-specific phospholipase C of *Trypanosoma brucei*. Expression in *E. coli*. *Mol. Biochem. Parasitol.* 56, 311-322

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