

CURRICULUM VITAE

Edward Michael Berger
Professor
Department of Biological Sciences

Date and Place of Birth: May 2, 1944, New York, New York

Marital Status: Married, four children

Earned Degrees: Ph.D., Zoology, Syracuse University, 1969
M.S., Zoology, Syracuse University, 1967
B.A., Zoology, Hunter College, 1965

Academic Employment: Professor of Biology, 1984- present
Chair of Biology Department: 1988-89, 1991-94, 2003-2006
Dean of the Faculty of Arts and Sciences 1997-2001
Associate Dean of the Faculty (Interdisciplinary Programs) 1994-1997
Dean of Graduate Studies 1994-1997
Albert Bradley Third Century Professor of Science, 1990-1995
Chair, Molecular Genetics Center at Dartmouth, 1987
Program Director for Cell Biology, National
Science Foundation, 1986-87
Associate, Verax Corporation, 1982-1998
Visiting Research Professor, University of
Patras, Greece, 1981
Visiting Associate Professor, University of
California, Berkeley, 1980-1981
Associate Professor, Dartmouth College, 1977-1984
Assistant Professor, State University of New
York at Albany, 1971-1975, Dartmouth
College, 1975-1977
Teaching Assistant, Syracuse University,
1965-1968

Professional Affiliations: American Association for the
Advancement of Science
Genetics Society of America
Sigma Xi
Phi Beta Kappa
Journal of Insect Biochemistry, Editorial Board (1986-1999)
American Society of Cell Biologists
Human Genome Org. (HUGO), elected member
National Faculty, elected member

AwardsFellowships:

NDEA Title IV Predoctoral Fellowship, Syracuse University, 1968-1969
 National Science Foundation Summer Traineeship, Zoology
 Department, Syracuse University, 1966-1968
 U.S. Public Health Service Postdoctoral Fellowship
 Biological Labs, Harvard University, under Dr. F.Kafatos, 1969-1970
 U.S. Public Health Service Postdoctoral Fellowship
 Biology Department, University of Chicago, under Dr.
 R. Lewontin, 1970-1971
 EMBO Short Term Fellowship, to work at the University of
 Paris, 1975
 Dartmouth Senior Faculty Fellowship, 1980, 2002
 EMBO Short Term Fellowship, to work at the University of
 Patras, 1981

Research Grants:

National Institute of Health Research Grant 1/72-6/75, \$79,800
 SUNY University Award 1975, \$2,800
 National Science Foundation Research grant 6/75-5/77, \$48,000
 National Institute of Health Research Grant 6/75-2/79, \$134,000
 National Institute of Health Research Grant 3/79-7/82, \$141,000
 National Cancer Institute (institutional) 4/83-3/84, \$5,500
 National Science Foundation, Interdisciplinary Incentive
 Award, 7/83-1/85, \$34,875
 National Institute of Health Research Grant 4/84-3/88, \$228,400
 National Science Foundation Research Grant 7/84-6/86, \$94,000
 National Science Foundation Research Grant 7/87-6/90, \$230,000
 National Institutes of Health Research Grant (Human Genome) 8/90-7/93, \$300,000
 United States Department of Agriculture Research Grant, 8/91-7/93, \$100,000
 FIPSE (Fund for Improvement of Post-Secondary Education) Curriculum and Faculty
 National Science Foundation Production of Educational Modules for Teaching
 Research Ethics, 7/92-6/94, \$270,347 (Co-PI with Deni Elliott)
 United States Department of Education Graduate Student Training Grant, 9/92-8/95,
 United States Department of Agriculture Research Grant, 8/93-9/97, \$250,000
 United States Department of Agriculture Research Grant 10/02-3/06. \$295,000
 National Science Foundation Research Grant 2/1/06 – 1/31/09. \$490,000 (I am listed
 as co-Investigator)
 Arnold and Mabel Beckman Foundation (Beckman Scholars Program at Dartmouth)
 7/1/06 – 6/31/09, \$96,500.

Graduate Students Trained

Vincent Vogrin, Ph.D. 1975, "Coordination of the synthesis of ribosomal RNA and ribosomal proteins in Drosophila." Current: Professor of Biology, University of Nevada, Reno.

Stephen Miller, MS 1975, Ph.D. 1977, "Functional and structural relationships among a-GPDH isozymes and their regulation in Drosophila." Current: Professor of Biology, University of Nevada, Reno.

Lee Weber, Ph.D. 1975, "RNA-DNA hybridization studies on Drosophila." Current: Professor of Biology, University of Nevada, Reno.

Charles Vaslet, Ph.D. 1977, "Electrophoretic analysis of ribosomal protein variation in Drosophila." Current: Professor of Biology, University of Nevada, Reno.
Robert Ireland, Ph.D. 1981, "Ecdysterone induced genetic reprogramming of cultured Drosophila cell lines." Current: Professor of Biology, University of Nevada, Reno.

Michael Vitek, Ph.D. 1983, "The transcriptional and post-transcriptional regulation of ecdysterone responsive genes." Current: Staff scientist, Picauer Institute, New Jersey.

Christine Morganelli, Ph.D. 1986, "Regulation of Drosophila heat shock genes by ecdysterone." Current: Director of the Center for Molecular Biology, University of Nevada, Reno.

Lynn Sheldon, Ph.D. 1989, "Heat shock translation control in Drosophila." Current: Research Assistant Professor, University of Nevada, Reno.

Karen Rudolph, Ph.D. 1991, "Analysis of the Drosophila hsp-22 gene promoter." Current: Professor of Biology, University of Nevada, Reno.

Leonard Dobens, Ph.D. 1990, "An analysis of an ecdysone inducible response element." Current: Assistant Professor of Biology, University of Kansas.

Amponsah Fordjour, MS 1997, "Mechanism of juvenile hormone action in Drosophila." Current: Research Investigator. Millennium Pharmaceuticals.
Postdoctoral Associates

Stamatis Alahiotis, 1976-77, Current: Professor of Biology, University of Patras, Greece.

Karen Page, 1994-96, Current: Staff scientist, Vanguard Biotech, Etna, NH.

Edward Dubrovsky, 1995-2006, Current: Assistant Professor, Fordham University.

Veronica Dubrovskaya, 1997-2006

Courses taught (and enrollment):

Environmental Biology, Fall 1975-1977 (80-100)

Genetics, Winter 1975- present (80-230)

Experimental Population Genetics, 1976 (6)

Population Genetics and Evolution, Spring 1977- (35),
1980 (25), 1985 (30)

Life Sciences (Introductory Course) Fall 1978 (175)

Genetics and Society (Non-Major human Genetics) Fall 1979
(106), 1981 (100), 1992 (280)

Topics in Genetics 1981 (8), 1983 (6)

The Nature of Human Nature 1982 (10), 1983 (5)
 Science 1, 1987 (10)
 Molecular Genetics of Eukaryotes, 1989 (14), 1990 (25)
 Ethical Issues in Scientific Research 1993-1995 (3-20)
 Advanced Genetics 2002 (5), 2003 (6), 2005 (40), 2006 (17), 2011 (9)

Invited lectures:

1969, McGill University, University of Iowa
 1970, Amherst College, State University of New York at Albany, University of California at Davis
 1971, Mount St. Vincent's College
 1973, Yale University, University of North Carolina at Chapel Hill
 1974, Cornell University, State University of New York at Potsdam
 1975, Brown University, New York University, Dartmouth College, University of California at Riverside
 1976, University of Rochester
 1978, University of Maine, McMaster University
 1979, American Tissue Culture Society, Annual Meeting
 1980, Genentech, Univ. of California, Santa Cruz, Univ. of California at Berkeley, Univer. of California at Davis
 1981, California Institute of Technology, University of Patras, Swiss Federal University of Zurich
 1982, Institute for Medical Research, Camden, N.J., Univ. of Vermont
 1983, Portland State University, University of Massachusetts at Amherst
 1984, University of California at Los Angeles; Tissue Culture Society, Annual Meeting, Houston; Syracuse University; Kimball Union Academy; Texas A and M University
 1985, Dartmouth Medical School (Biochemistry),
 1986, Connecticut College, National Science Foundation
 1987, University of South Florida; USDA at Beltsville, MD; Lederle Laboratories, Pearl River, NY; Tufts Medical School
 1988, Genentech Corp., University of Maryland at College Park
 1989, George Mason University
 1990, University of Lowell
 1991, University of Paris (France) CNRS Lab
 1992, Dartmouth Medical School (Physiology)
 1993, Ciewonki Foundation, Gruther Institute, American Chemical Society (NE Chapter)
 1994, Gruther Institute, Alumni College (Dartmouth), Dartmouth Institute
 1999, New York University, Biology Department
 2000, Dartmouth Medical School, Dept. of Physiology

Theses

Ph.D. Thesis - The Distribution of Allelic Variation in Natural Populations of Drosophila. 1969.

M.S. Thesis - Genetic and Environmental Modification of Wing Development in Drosophila. 1967.

Papers or Posters Presented and Invited Conferences or Workshops

- 1968 Gene-enzyme variation in Drosophila. Drosophila Research Conference, Iowa City, Iowa.
- 1970 Quantitative studies of cocoonase synthesis during development, AAAS meetings, Chicago, Illinois.
- 1970 Immunochemical studies of serine proteases. Genetic Society of America, Annual meetings, Seattle, Washington.
- 1972 The ribosomal proteins of Drosophila: subunit and developmental specificity. The Adirondacks Genetics and Molecular Biology Conference at Sagamore, Sagamore, New York.
- 1972 The distribution of genetic variation in three species of Littorina. General Scientific Meetings, Marine Biological Laboratory, Woods Hole, Massachusetts.
- 1973 Linear redundancy in Drosophila. The Adirondacks Genetics and Molecular Biology Conference at Sagamore, Sagamore, New York.
- 1973 The lack of allelic variation at loci coding for ribosomal proteins in Drosophila. XIII International Congress of Genetics, Berkeley, California.
- 1973 A molecular model for single-locus heterosis. The Adirondacks Genetics and Molecular Biology Conference at Sagamore, Sagamore, New York.
- 1975 Conference on: Developmental Biology of Drosophila. Roscoff Marine Station,
- 1975 Drosophila Tissue Culture Workshop, University of Paris, France. Funded by award from European Molecular Biology Organization (EMBO). Travel award from National Science Foundation.
- 1976 Migration, and the population genetics of Littorinids. Population Biologists of New England, Brown University.
- 1976 The effect of insect hormones on macromolecular synthesis in Drosophila embryonic cell cultures. Sagamore Genetics Conference (with R. Ringler).
- 1976 The kinetic complexity of stable RNA species in Drosophila melanogaster. Genetics Society of America, Annual Meeting, Salt Lake City, Utah (with Lee Weber).

- 1976 Electrophoretic identity among ribosomal proteins in sibling species and mutants of D. melanogaster. Genetics Society of America, Annual Meeting Salt Lake City, Utah. (with C. Vaslet).
- 1978 Ecdysone induced changes in transcription in Drosophila cells. International Genetics Congress, Moscow.
- 1978 Ecdysone induced changes in morphology and protein synthesis in Drosophila cell cultures. (Two short talks). International Conference on Molecular and Developmental Biology of Insects, and accompanying EMBO Workshop, Crete, Greece.
- 1979 Morphogenesis in embryonic Drosophila cell lines exposed to β -ecdysone. (Invited and with abstract) 30th Annual Meeting of the Tissue Culture Association. Seattle, Washington June 10-14.
- 1979 The participation of microtubules and microfilaments in the elongation, motility and aggregation response of embryonic Drosophila cells exposed to ecdysone: with R. Sloboda, R. Ireland, G. Cox (abstract and proceedings article). International Conference on Invertebrate Tissue Culture, Rigi-Kaltbad, Switzerland, April 24-27.
- 1980 Ecdysone induces small heat shock proteins in Drosophila tissue culture cells. Northern California Drosophila Conference, Nov. 1980, University of Cal. Davis.
- 1982 The regulation of small heat shock protein gene expression is under dual control. Heat-Shock Conference, Cold Spring Harbor Laboratory.
- 1982 The regulation of low molecular weight heat-shock gene transcription by ecdysterone and high temperature. Society of Cell Biologists, Annual Meeting, Baltimore.
- 1983 Genetic reprogramming of Drosophila tissue culture cells by ecdysterone. 6th International Conference on Invertebrate Tissue Culture. St. Augustine, Florida.
- 1983 Molecular Biology of ecdysterone action in a cell model. International Conference in Biochemical and Developmental Genetics, Kos, Greece.
- 1984 Genetics in the 21st century: science, technology, gene therapy and ethical concerns. Three 1-hour lectures at Kimball Union Academy, Meriden, NH.
- 1984 Genetic reprogramming of insect cells by ecdysterone. 35th Annual Meeting of the Tissue Culture Association, Houston, Texas June 3-7.
- 1984 Transient expression of cloned heat shock protein genes in cultured

- Drosophila cells. 25th Drosophila Conference, Chicago, Ill, April 26-29.
- 1985 Transient expression of ecdysterone inducible genes transfected into Drosophila cells; a functional assay for regulatory DNA sequences. VII Ecdysone Workshop, Edinburgh, Scotland, March 31-April 3.
- 1985 Functional assay of regulatory sequences flanking hsp genes in Drosophila. Heat Shock Protein Meeting, ColdSpring Harbor Laboratory, August 28-September 1.
- 1985 Functional assay of regulatory sequences flanking hsp genes in Drosophila. Nature Conference on Genes and Systems in Development, San Francisco, October 7-9.
- 1986 Hormonal regulation of morphogenesis and gene expression. Presented paper and invited workshop organized. 4th Decennial Review Conference on Tissue Culture. Sept. 22-26, Hershey, PA.
- 1986 The functional anatomy of four Drosophila genes. 37th Annual Tissue Culture Assn. Meeting, June 11-14, Chicago, ILL.
- 1986 Regulation of heat shock protein gene expression. 27th Annual Drosophila Conference, April 10-13, Asilomar, CA.
- 1986 Regulation of heat shock protein gene expression, 27th Annual Drosophila Conference, April 10-13, Asilomar, Cal.
- 1986 Thermotolerance in MTG- β Murine Tumors: correlation between in vivo and in vitro kinetics (with E. Jones and B. Lyons). Radiation Res. Soc. 34th Meeting, April 12-17.
- 1987 Functional Analysis of Regulation, Regions Near Ecdysone Inducible Genes. 8th Ecdysone Workshop, Marburg, F.R.G. March 30-April 2.
- 1987 Heat shock response in stress and development. Invited paper at: International Conference on Endocrinological Frontiers in Physiological Insect Ecology, Szklarska - Poreba, Poland, Sept. 7-12.
- 1987 Genetic programming of Drosophila cells by heat shock and by ecdysone. VII International Conference on Invertebrate and Fish Tissue Culture. Ohito Hotel, Ohito, Tagatagan, Shizuoka, Japan, May 15-16 (and on the international organizing committee).
- 1987 Tissue Culture Association, Annual Meeting, Crystal City, Virginia, May 27-30.
- 1989 Annual Meeting of Association of Cell Biologists, San Francisco, California, January

- 1989 IXth Ecdysone Workshop, Paris, France, Sept. 11-14, presentation: Transcriptional
- 1989 XIth European Drosophila Research Conference, Marseilles, France, Sept. 5-8,
- 1989 Regulation of Eucaryotic mRNA Transcription, Cold Spring Harbor Labs, N.Y., Sept.
1989 Translational Control, Cold Spring Harbor Labs, N.Y., Sept. 13-17, Presentation:
- 1990 "The Structure and Function of Ecdysterone Regulatory Elements (EcREs) in
- 1990 Annual Meeting of Association of Cell Biologists, San Diego, Cal., Dec. 6-10,
Platform paper in transcription mini symposium.
- 1990 Human Genome, II, San Diego, Cal., Oct. 21-25, attended.
- 1991 European Drosophila Meeting, University of Mainz, Germany, Sept. 1-6. "Juvenile
- 1991 "Molecular Biology of Ecdysterone Action" invited seminar, University of Paris VI
- 1991 "Studies of Insect Hormone Action on Drosophila Cells" by E.M. Berger. Annual
- 1992 "Ecdysone and Juvenile Hormone Action in Insect Cells" by E.M. Berger. World
- 1992 Endocrine-Metabolism Conference, Dartmouth-Hitchcock Medical Center, "Ecdysone and Juvenile Hormone Action in Insect Cells"
- 1992 Panelist on National Public Radio (WNYC) Program Talk of the Nation: Science Friday, on "Social Responsibility of Scientists", August 28.
- 1992 "Juvenile Hormone Action in Insects" by E.M. Berger. Amer. Soc. for Cell Biology
- 1993 "The Molecular Biology of Juvenile Hormone Action", European Drosophila Meetings, Heraklion, Crete.
- 1993 American Society for Cell Biology Annual Meeting, New Orleans, Louisiana.
- 1994 Drosophila Research Meetings, Chicago, Illinois, "A Drosophila Gene Homologous to
- 1993 Invited Lecture: "Teaching Bioethics", K-12 Science Education Conference, Nashua
- 1993 "Biology as a Social Weapon", The Ciewonki Foundation, Wiscasset, Maine.
- 1993 "Scientist as Humanist: Focus on Biology, St. Paul's School, Concord, New
- 1994 Moderator of Panel Discussion: "Burden of Knowledge: Moral Dilemmas in Prenatal
- 1993 "The Human Genome Project: Genes R' Us?" The Gruther Institute for Law and
- 1994 "Biology as Ideology", National Faculty for: Honolulu Regional High School.

- 1994 "Ethics and Laboratory Research", American Chemical Society, New England Division, Boston, MA.
- 1994 "Interdisciplinary Teaching for High School", National Faculty Summer Program,
- 1994 "The Human Genome Project", The Gruther Institute for Law and Behavioral Science,
- 1994 "The Origin of Life", in "Riddles of Creation", Alumni College, Dartmouth College.
- 1994 "The Human Genome Project: Promise and Pitfalls", Dartmouth Alumni Club, New
- 1994 "The Human Genome and the High School Curriculum", National Faculty workshop, Farmington, MO.
- 1995 "For Whom the Bell Curve Tolls: Genes, Race and IQ", Dartmouth Institute Winter Seminar, Dartmouth College.
- 1995 "Juvenile Hormone Action in *Drosophila*", 6th International JH Conference, Woods
- 1995 "JH and Ecdysone Regulation of Gene Expression", European *Drosophila* Conference,
- 1995 "The Human Genome Project", The Gruter Institute for Law and Behavioral Science,
- 1996 "Genetics and the Law", Federal Judicial Center; Law and Biology Seminar, May 13-
- 1997 "Choosing the Future: Morality and the New Genetics" Dartmouth Club of Dallas,
- 1997 "Professional Ethics", 40th Reunion of Dartmouth College Class of '57. Hanover,
- 1997 "Genetics and the Social Sciences", Gruter Institute for Law and Behavioral Science,
- 2002 "let-7 Gene Expression is Controlled by Ecdysone During Metamorphosis" 43rd Annual *Drosophila* Research Conference, San Diego, Ca., April 10-14.
- 2002 "JH Regulates Expression of the E75A Nuclear Hormone receptor Both in S2 Cells and During Oogenesis in *Drosophila melanogaster*" (with E. Dubrovsky) XV International Ecdysone Workshop, Crete, Greece, June 30-July 6.
- 2002 "The Expression of the let-7 Small Regulatory RNA is Controlled by Ecdysone During Metamorphosis in *Drosophila melanogaster*" (with E. Dubrovsky) XV International Ecdysone Workshop, Crete, Greece, June 30-July 6.
- 2003 "Confluence of Steroid and JH pathways in insect development." Gordon Conference on Hormones and Development, Connecticut College, July 7-15.
- 2003 "Functional and Genetic Analysis of *Drosophila* microRNAs". 19th Intl. Genetics Congress. Melbourne Australia, July 6-11

2004. "Drosophila E75A orphan receptor mediates the interplay between JH and Ecdysone"
Keystone Symposium on Nuclear Receptors, Keystone, CO. Feb 26-March 5.

Reviews:

I have reviewed manuscripts, grant proposals, fellowship proposals, textbook chapters and outlines for textbooks. A partial list is presented below. In addition I was on the Editorial Board of the Biological Bulletin from 1977-1982, and on Editorial Board of Insect Biochemistry 1985-1999.

Genetics
Biological Bulletin
Journal of Biological Chemistry
American Naturalist
Evolution
Science
Nature
Cell
Experimental Cell Research
Biochemical Genetics
Canadian Journal of Biochemistry
Biol. J. Linn. Soc.
Journal of Cell Biology
Systematic Zoology
NSF research grants, USDA
NSF pre-doctoral Fellowships
Natural environment Research Council (England) Research Grant Proposals
Prentice-Hall: "Population Genetics and Evolution."
Worth Publishers, Inc. "Cell Biology" and "Genetics" texts
Elsevier Publishers, "Gene Therapy" text

Publications

1. Berger, E., A comparison of gene-enzyme variation between Drosophila melanogaster and D. simulans. Genetics 66, 677-683, 1970.
2. Berger, E., L. Adamkewicz, and R. Milkman, A glucose-6-phosphate dehydrogenase polymorphism in Limulus polyphemus. Isozyme Bull. 3, 33, 1970.
3. Berger, E. and F. Kafatos, Quantitative studies of cocoonase synthesis during development. American Zool. 10, 1970.
4. Berger, E. and F. Kafatos, Immunochemical studies on proteases. Genetics 64, Suppl. s6, 1970.
5. Felsted R., J. Law, E. Berger, and F. Kafatos, Mechanism of activation of the zymogen of an invertebrate serine protease, cocoonase. Fed. Prod. 30, #3, 1971.
6. Berger, E. and F. Kafatos, Quantitative determinations of cocoonase synthesis and accumulation during development. Dev. Biol. 25, 377-397, 1971.
7. Berger, E. and F. Kafatos, Immunochemistry of an insect protease, cocoonase, and its zymogen. Immunochem. 8, 391-403, 1971.
8. Berger, E., F. Kafatos, R. Felsted, and J. Law, Cocoonase III. Purification, preliminary characterization, and activation of an insect protease. J. Biol. Chem. 264, 4131-4137, 1971.
9. Berger, E., A temporal survey of allelic variation in natural and laboratory populations of Drosophila. Genetics 67, 121-136, 1971.
10. Berger, E., and R. Canter, The esterases of Drosophila. I. The anodal esterases and their possible role in eclosion. Dev. Biol. 33, 48-55, 1973.
11. Berger, E., Gene-enzyme variation in three sympatric species of Littorina. Biol. Bull. 145, 83-90, 1973.
12. Berger, E., Isolation and dissociation of Drosophila ribosomes. Drosophila information Service 49, 49, 1973.
13. Berger, E. and R. Canter, The "moulting esterases" of Drosophila. Drosophila Information Service 49, 90, 1973.
14. Berger, E., Esterase polymorphism in Littorina. Isozyme Bull. 6, 31-32, 1973.
15. Felsted, R., K. Kramer, J. Law, E. Berger, and F. Kafatos, cocoonase IV. Mechanism of activation of prococoonase from Antherea polyphemus. J. Biol. Chem. 248, 3012-3020, 1973.

16. Berger, E., The lack of allelic variation at loci coding for ribosomal proteins in Drosophila. Genetics 74, 521, 1973.
17. Berger, E., The distribution of genetic variation in three species of Littorina. Biol. Bull. 143, 455, 1973.
18. Berger, E., The esterases of Drosophila. II Biochemical studies of Esterase-5 in D. pseudobscura. Genetics 78, 1157-1172, 1974.
19. Berger, E., The ribosomes of Drosophila. I. Subunit and protein composition. Molecular and General Genetics 128, 1-9, 1974.
20. Berger, E. and L. Weber, The ribosomes of Drosophila. II. Studies on intraspecific variation. Genetics 78, 1173-1183, 1974.
21. Miller, S., E. Berger, and R. Percy, The temperature dependence of Km for a-GDH allozymes. Drosophila Information Service 51, 137-138, 1974.
22. Weber, L., B. Yedvobnick, and E. Berger, Linear redundancy in Drosophila virilis. Drosophila Information Service 51, 68-69, 1974.
23. Miller, S., R. Percy, and E. Berger, Polymorphism at the a-glycerophosphate dehydrogenase locus in Drosophila melanogaster. I. Properties of adult allozymes. Biochemical Genetics 13, 175-188, 1975.
24. Berger, E., A simple method for determining specific esterase activity in tissue extracts. Analytical Biochemistry 64, 142-148, 1975.
25. Berger, E., Heterosis and the maintenance of enzyme polymorphism. American Naturalist 10, 832-839, 1976.
26. Vaslet, C., E. Berger, Electrophoretic identity among ribosomal proteins in sibling species and mutants of D. melanogaster. Genetics 83, 579, 1976.
27. Berger, E., and L. Weber, The kinetic complexity of stable RNA species in Drosophila melanogaster. Genetics 83, 58, 1976.
28. Vaslet, C., E. Berger, The ribosomes of Drosophila. IV. Electrophoretic identity among ribosomal subunit proteins from wild type and mutant D. melanogaster and D. simulans. Molecular and General Genetics 147, 189-194, 1976.
29. Weber, L., Berger, E., Vaslet, C., Yedvobnick, B., The ribosomes of Drosophila. III. RNA and protein homology between D. melanogaster and D. virilis. Genetics 84, 573-583, 1976.
30. Weber, L. and E. Berger, Base sequence complexity of the stable RNA species of Drosophila melanogaster. Biochemistry 15, 5511-5519, 1976.

31. Miller, S.G., and E. Berger, The a-glycerophosphate dehydrogenase locus in Drosophila melanogaster: A biochemical comparison of larval and adult allozymes. Genetics 83, s51, 1976.
32. Vaslet, C. and E. Berger. A phylogenetic survey of ribosomal proteins in Drosophila. Genetics 86, suppl. 2, s67, 1977.
33. Berger, E. Are synonymous mutations adaptively neutral? American Naturalist 111, 606-607, 1977.
34. Berger, E. The ribosomes of Drosophila. V. Effect of 5-fluorouridine on ribosomal protein turnover. Molecular and General Genetics 155, 35-40, 1977.
35. Alahiotis, S. and E. Berger. Allozyme and isozyme patterns in embryonic Drosophila tissue culture cells. Biochemical Genetics 155, 35-40, 1977.
36. Berger, E. Pattern and chance in the use of the genetic code. J. Molecular Evolution 10, 319-323, 1978.
37. Alahiotis, S., S. Miller and E. Berger. Evidence for selection at the a-GDH locus in Drosophila. Nature 269, 144-145, 1977.
38. Berger, E. Gene enzyme variation in three sympatric species of Littorina II. The Roscoff population, with a note on the origin of North American L. littorea. Biological Bulletin 153, 255-264, 1977.
39. Manning, B.J., C. Kerfoot, and E. Berger. The genetic structure of Bosmina longirostris populations. Evolution 32, 365-374, 1978.
40. Berger, E., Ringler, R., Alahiotis, S., Frank, M. Ecdysone induced changes in morphology and protein synthesis in Drosophila cells. Developmental Biology 62, 498-511, 1978.
41. Berger, E. and J. Sutherland. The genetic structure of Daphnia pulex populations. Heredity 41, 13-23, 1978.
42. Alahiotis, S., and E. Berger, Adaptation of Drosophila enzymes to temperature. I. Acetylcholinesterase and NADP-dependent isocitrate dehydrogenase. Comp. Biochem. and Physiol. 61, 199-202, 1978.
43. Berger, E., Morphogenesis in embryonic Drosophila cells exposed to ecdysone. In Vitro 15, 211 (abstr.) 1979.
44. Alahiotis, S. and E. Berger, Temperature and biochemical adaptation in enzymes from Drosophila. Hellenic Biochemical and Biophysical Society Newsletter 11, 11-12, 1978.

45. Miller, S., and E. Berger, The purification of α -glycerophosphate dehydrogenase from Drosophila melanogaster larvae and a partial structural comparison with the form purified from adults. Insect Biochemistry 9, 355-364, 1979.
46. Berger, E. and G. Cox, A precursor of cytoplasmic actin in cultured Drosophila cells. J. Cell Biology 81, 680-683, 1979.
47. Berger, E.M., Frank, M. and Abell, M.C., Ecdysone induced changes in protein synthesis in embryonic Drosophila cells in culture. In: Invertebrate Systems In Vitro; ed. E. Kurstak, D. Moromorosch, Elsevier-North Holland Press, 195-208, 1980.
48. Berger, E., Sloboda, R.D. and Ireland, R., Tubulin content and synthesis in differentiating Drosophila cells in culture. Cell Motility 1, 113-129, 1980.
49. Berger, E.M. and Wyss, C., Acetylcholinesterase induction by β -ecdysone in Drosophila cell lines and their hybrids. Somatic Cell Genetics 6, 631-640, 1980.
50. Berger, E., Ireland, R. and Wyss, C., Pattern of peptide synthesis in Drosophila cell lines and their hybrids. Somatic Cell Genetics 6, 719-729, 1980.
51. Berger, E.M., Cox, G., Ireland, R. and Weber, L., Actin content and synthesis in differentiating Drosophila cells in culture. J. Insect Physiology 27, 129-137, 1981.
52. Berger, E.M., Cox, G., Weber, L. and Denney, J., Actin acetylation in Drosophila tissue culture cells. Biochemical Genetics 19, 321-331, 1981.
53. Ireland, R. and E. Berger, Synthesis of Low Molecular Weight Heat Shock Peptides by Ecdysterone in a cultured Drosophila Cell Line. Proc. of Nat. Acad. Sci. 79, 855-859, 1982.
54. Ireland, R., Berger, E., Sirotkin, K., Yund, M., Osterbur, D., Fristrom, J., Ecdysterone induces the transcription of four heat-shock genes in Drosophila S3 cells and imaginal discs. Developmental Biology 93, 498-507, 1982.
55. Vitek, M.P. and E. Berger, The regulation of low molecular weight heat-shock gene transcription by ecdysterone and high temperature. J. Cell Bio. 95, 476a, (abstract) 1982.
56. Kimbrell, D., E. Berger, R. Hill and J. Fristrom, Genetic regulation of 3rd instar cuticle protein genes of Drosophila melanogaster. J. Cell Biol. 95, 216a, (abstract) 1982.
57. Berger, E.M. and M.P. Woodward, Small heat-shock proteins in Drosophila confer thermal tolerance. Experimental Cell Research 147, 437-442, 1983.
58. Berger, E.M., Population genetics of marine snails and bivalves, In: The Mollusca, volume 6, Ecology, ed. W.D. Russell-Hunter, Academic Press, New York pp. 563-596, 1983.

59. Vitek, M.P., Morganelli, C.M. and Berger, E., Stimulation of cytoplasmic actin gene transcription and translation in cultured Drosophila cells by ecdysterone. *J. Biol. Chem.*, 259, 1738-1743, 1984.
60. Berger, E., The regulation and function of small heat shock protein synthesis. *Developmental Genetics* 4, 255-266, 1984.
61. Morganelli, C.M. and E. Berger, Transient expression of homologous genes in cultured Drosophila cells. *Science* 224, 1004-1006, 1984.
62. Berger, E.M., Genetic reprogramming of insect cells by ecdysterone. *In vitro* 20, 242, 1984.
63. Berger, E.M. and C. Morganelli, Drosophila cells and gene regulation. *In vitro* 20, 959-974, 1984.
64. Vitek, M. and Berger, E. Transcriptional and post-transcriptional regulation of small heat shock protein synthesis. *J. Mol. Biol.* 178, 173-189, 1984.
65. Berger, E.M., Marino, G. and Torrey, D., Expression of a Drosophila hsp 70-CAT hybrid gene in *Aedes* cells is induced by heat shock. *Somat. Cell and Molec. Genetics* 11, 371-377, 1985.
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