

# Curriculum Vitae for **Kenneth R. Miller**

## 1. Name:

**Kenneth R. Miller**

**Professor of Biology**

**Royce Family Professor for Teaching Excellence**

**Department of Molecular Biology, Cell Biology, & Biochemistry**

## 2. Home address:

**Rehoboth, MA 02769**

## 3. Education:

Brown University                      Sc. B. Biology 1970

University of Colorado              Ph. D. Biology 1974

*Dissertation topic:* Structure of the Photosynthetic Membrane

## 4. Professional Appointments:

Lecturer	Harvard Univ.	1974-1976
Assistant Professor	Harvard Univ.	1976-1980
Assistant Professor	Brown Univ.	1980-1982
Associate Professor	Brown Univ.	1982-1986
Professor	Brown Univ.	1986-

## 5. Completed Publications

### a. Books & Monographs

Miller, K. R. (editor) *Advances in Cell Biology*, Volume I. JAI Press, Greenwich, Conn., London, England. 1987. pp. 1-190.g

Miller, K. R. (editor) *Advances in Cell Biology*, Volume II. JAI Press, Greenwich, Conn., London, England. 1988. pp. 1-312.

Miller, K. R. (1988) Energy and The Cell. (A Carolina Biology Reader, J. J. Head, editor) Carolina Biological, Burlington, North Carolina. 16 pp.

Miller, K. R. (editor) *Advances in Cell Biology*, Volume III. JAI Press, Greenwich, Conn., London, England. 1989. pp. 1-273.

Miller, K. R., & J. S. Levine (1990) Biology. (*A high school biology text, generally known as the “Elephant” book*). 1st Edition. Prentice Hall Co. 1077 p. (© 1991).

Levine, J. S., & K. R. Miller (1990) Biology: Discovering Life (*A college biology text*) 1st Edition. D. C. Heath & Co. 839 pp. (© 1991).

Miller, K. R., & J. S. Levine (1992) Biology. (*revision of the “Elephant” book*). 2nd Edition. Prentice Hall Co. 1077 p. (© 1993).

Levine, J. S., & K. R. Miller (1993) Biology: Discovering Life (*A college biology text*) 2nd Edition. D. C. Heath & Co. 988 pp. (© 1994).

Miller, K. R., & J. S. Levine (1995) Biology. (*revision of the “Elephant” book*). 3rd Edition. Prentice Hall Co. 1077 p. (© 1995).

Miller, K. R., & J. S. Levine (1998) Biology. (*revision of the “Elephant” book*). 4th Edition. Prentice Hall Co. 1077 p. (© 1998).

Miller, K. R., & J. S. Levine (1998) Biology: The Living Science. (*A high school biology text*). Prentice Hall Co. 974 p. (© 1998).

Miller, K. R. (1999) Finding Darwin’s God: A Scientist’s Search for Common Ground between God and Evolution. Cliff Street Books, HarperCollins, New York. 288 p. (ISBN 0-06-017593-1). (*Paperback edition appeared 10/1/00*)

Miller, K. R., & J. S. Levine (2000) Biology. (*revision of the “Elephant” book*). 5th Edition. Prentice Hall Co. (© 2000).

Miller, K. R., & J. S. Levine (2002) Biology (*A high school biology text*). Prentice Hall Co., 1041 p. (*Although its name is identical to earlier books, this is the first edition of a completely new textbook. It is generally known as the “Dragonfly” book, and was first published in September 2001*).

Miller, K. R., & J. S. Levine (2004) Biology. Prentice Hall Co., 1041 p. (*2004 revision of “Dragonfly” book*).

Miller, K. R., & J. S. Levine (2006) Biology. Prentice Hall Co., 1041 p. (*2006 revision of “Dragonfly” book*).

Miller, K. R., & J. S. Levine (2008) Biology. Prentice Hall Co., 1041 p. (*2008 revision of “Dragonfly” book*).

Miller, K. R. (2008) Only a Theory: Evolution and the Battle for America’s Soul. Viking / Penguin Press, New York. 244 p. (ISBN 978-0-14-311566-3). (*Paperback edition appeared 6/1/09*) Note: In 2009, *Only a Theory* was named a Finalist for Best Science Book of 2008 in

the Los Angeles Times Book Festival, and was also named a finalist by the National Academy of Sciences for Best Science Book of 2008.

Miller, K. R., & J. S. Levine (2010) Biology. Pearson Education., 1178 p. (*Although its name is identical to earlier books, this is the first edition of an entirely new textbook, published for the first time in the summer of 2009. It is generally known as the “Macaw” book.*).

Miller, K. R., & J. S. Levine (2010) Biology: Foundations. Pearson Education., 858 p. (*This is an abridged and modified version of the “Macaw” textbook written especially for struggling students*).

## **b. Chapters in Books:**

Miller, K. R. (1978) Structural organization in the photosynthetic membrane. in *Chloroplast Development*, G. Akoyunoglou, ed. Elsevier Press. Amsterdam. pp. 17-30.

Miller, K. R. (1979b) Artifacts associated with the deep-etching technique. in *Freeze-fracture: Methods, Artifacts, and Interpretations*. J. E. Rash and C. S. Hudson, eds. Raven Press. New York. pp. 31-36.

Miller, K. R. (1984) ‘Scientific Creationism’ vs. Evolution: The Mislabeled Debate. in *Science & Creationism* Ashley Montagu, ed. Oxford University Press (New York) pp. 18-63.

Miller, K. R. (1987) Studies on Photosynthetic Membrane Organization. in *Plant Membranes: Structure, Function, Biogenesis*. (Alan R. Liss, Inc., New York. C. Leaver and H. Sze, eds.) pp.27-46

Miller, K. R. (1987) A Structural Analysis of one Photosynthetic Membrane: *Rhodospseudomonas viridis*. *Advances in Cell Biology*, Volume I (JAI Press, K. R. Miller, ed.) pp. 131-156.

Miller, K. R. (1991) Two-dimensional crystals of the *Rhodospseudomonas viridis* reaction center. in *Crystallization of Membrane Proteins* (H. Michel, ed.) CRC Press. Boca Raton, Florida, USA. pp. 183-196

Miller, K. R. (1981) Freeze-etching studies of the photosynthetic membrane, in *Electron Microscopy in Biology*, volume I. J. D. Griffith. ed. John Wiley & Sons. New York. pp. 1-30.

Miller, K. R. (1985) Patterns of photosynthetic membrane organization: Prokaryotes and Eukaryotes. *Endeavor* 9:175-182.

Miller, K. R. (1988) Protein and lipid interactions in the photosynthetic membrane. in *Self-assembling Architecture*. J. F. Varner, ed. (a Developmental Biology Symposium) Alan R. Liss, Pub., New York. pp. 229-242.

Miller, K. R., and Spear-Bernstein, L. (1989) Algae as Model Systems in the Study of Photosynthetic Membrane Organization. in Algae as Experimental Systems (AW Coleman, L Goff, and JR Stein-Taylor, editors) A. R. Liss, Inc., New York. pp. 233-248.

Miller, K. R. (2003) Answering the Biochemical Argument from Design, pp. 292-307, in God & Design, Neil Manson, ed. Routeledge, New York.

Miller, K. R. (2004) The Flagellum Unspun: The collapse of “irreducible complexity,” in Debating Design, pp. 81-97. W. Dembski and M. Ruse, eds. Cambridge University Press, New York.

Miller, K. R. (2005) Looking for God in all the Wrong Places: Answering the Religious Challenge to Evolution, in Evolutionary Science and Society: Educating a New Generation, pp. 13-21. J. Cracraft and R. W. Bybee, eds. Biological Sciences Curriculum Study, Colorado Springs, CO.

Miller, K. R. (2009) Darwin, God, & Dover: What the Collapse of “Intelligent Design” Means for Science and Faith in America, in The Religion and Science Debate – Why Does it Continue? pp. 55-92. H. W. Attridge, ed. Yale University Press, New Haven.

### **c. Refereed Journal Articles**

Miller, K. R., and L. A. Staehelin (1973) Fine structure of the chloroplast membrane of *Euglena gracilis* as revealed by freeze-cleaving and deep-etching techniques. *Protoplasma* 77: 55-78.

Bloodgood, R. A., K. R. Miller, R. P. Fitzharris, and J. R. McIntosh (1974) The ultrastructure of *Pyrsonympha* and its associated microorganisms. *J. Morphology* 143: 77-106.

Bloodgood, R. A., and K. R. Miller (1974) Freeze-fracture of microtubules and bridges in motile axostyles. *J. Cell Biol.* 62: 660-671.

Miller, K. R., R. A. Bloodgood, and L. A. Staehelin (1976) Crystals within thylakoids: a structural analysis. *J. Ultrastructure Research* 54: 29-36.

Miller, K. R. (1976) A particle spanning the photosynthetic membrane. *J. Ultrastructure Research* 54: 159-167.

Miller, K. R., and L. A. Staehelin (1976) Analysis of the thylakoid outer surface. Coupling factor is limited to unstacked membrane regions. *J. Cell Biology* 68: 30-47.

Staehelin, L. A., P. A. Armond, and K. R. Miller (1976) Chloroplast membrane organization at the supramolecular level and its functional implications. *Brookhaven Symposia in Biology* 28:

278-315.

Apel, K., K. R. Miller, L. Bogorad, and G. J. Miller (1976) Chloroplast membranes of the green alga *Acetabularia mediterranea*. III. Topography of the chloroplast membrane. *J. Cell Biology* 71: 876-893.

Miller, K. R., C. J. Miller, and K. R. McIntyre (1976) The light-harvesting chlorophyll-protein complex of photosystem II: its location in the photosynthetic membrane. *J. Cell Biology* 71: 624-638.

Miller, K. R., G. J. Miller, and K. R. McIntyre (1977) Organization of the photosynthetic membrane in bundle sheath and mesophyll chloroplasts of *Zea mays*. *Biochimica et Biophysica Acta* 459: 145-156.

Miller, K. R., and G. J. Miller (1978) Organization of the cell membrane in *Euglena*. *Protoplasma* 95: 11-24.

Miller, K. R., and I. Ohad (1978) Chloroplast membrane biogenesis in *Chlamydomonas*: Correlation between the formation of membrane components and membrane structure. *Cell Biology International Reports* 2: 537-549.

Miller, K. R., and R. A. Cushman (1979) A chloroplast membrane lacking photosystem II. Thylakoid stacking in the absence of the photosystem II particle. *Biochimica et Biophysica Acta* 546: 481-497.

Miller, K. R. (1979) The Photosynthetic Membrane. *Scientific American* (October) pp. 102-113.

Miller, K. R. (1979) The structure of a bacterial photosynthetic membrane. *Proc. Nat. Acad. Sci. U. S. A.* 76: 6415-6419.

Miller, K. R. (1980) A chloroplast membrane lacking photosystem I. Changes in unstacked membrane regions. *Biochimica et Biophysica Acta* 592: 143-152.

Siegel, C. O., A. E. Jordan, and K. R. Miller (1981) Addition of lipid to the photosynthetic membrane. Effects on membrane structure and energy transfer. *J. Cell Biology* 91: 113-125.

Miller, K. R. (1982) Three-dimensional structure of a photosynthetic membrane. *Nature* 300: 53-55.

Miller, K. R. (1982) Special creation and the fossil record: the central fallacy. *The American Biology Teacher* 44: 85-90.

Miller, K. R. (1982) Answers to standard creationist arguments. *Creation/Evolution* VII: 1-14.

Jacob, J., and K. R. Miller (1983) Structure of a bacterial photosynthetic membrane: Isolation.

polypeptide composition, and selective proteolysis. *Archives Biochem. & Biophys.* 223: 282-290.

Miller, K. R., C. S. Prescott, T. L. Jacobs, and N. L. Lassignal (1983) Artifacts associated with quick-freezing and freeze-drying. *J. Ultrastruct. Research* 82: 123-133.

Cox, G. F., and K. R. Miller (1983) The organization of polypeptides in the photosystem I reaction center. *Photosynthetica* 17: 422-425

Jacob, J. S., & K. R. Miller (1983) Two-dimensional crystals formed from photosynthetic reaction centers. *J. Cell Biol.* 97: 1266-1270.

Jacob, J. S., & K. R. Miller (1984) Structure of a bacterial photosynthetic membrane: Integrity of reaction centers from *Rhodospseudomonas viridis* in situ following proteolysis and detergent solubilization. *Biochemical & Biophysical Research Comm.* 120: 164-171.

Jacob, J. S. & K. R. Miller (1984) Photosynthetic reaction centers in artificial membranes: Estimating protein dimensions by freeze-fracture and freeze-etching. *J. Submicroscopic Cytology* 16: 619-623.

Lyon, M. K. & K. R. Miller (1984) Ultrastructural characterization of the effects of detergent treatment on stacked thylakoids. *J. Ultrastructure Research* 88: 229-243.

Delbos, M., K. R. Miller, and J. Gipouloux (1984) Freeze-fracture of *Rana pipiens* gonad anlage: study of the primordial cells and other cell types. *Archives d'Anatomie microscopique* 73: 57-67.

Miller, K. R. & J. S. Jacob (1985) Two dimensional crystals of a membrane protein: Arrangements of subunits within the crystal sheet. *European Journal of Cell Biology* 36: 247-255.

Lyon, M. K. & K. R. Miller (1985) Crystallization of a membrane protein *in situ*. *J. Cell Biology.* 100: 1139-1147.

Spear-Bernstein, L., and K. R. Miller (1985) Are the photosynthetic membranes of cryptophyte algae inside out? *Protoplasma* 129: 1-9.

Miller, K. R., and M. K. Lyon (1985) Do we really know why chloroplast membranes stack? *Trends in Biochem. Sci.* 10: 219-222

Miller, K. R., and J. S. Jacob (1985) The *Rhodospseudomonas viridis* photosynthetic membrane: Arrangement in situ. *Archives of Microbiology* 142: 333-339.

Spelman, L. H., N. C. Hayner, N. S. Fausto, and K. R. Miller (1986) A structural analysis of gap and tight junctions in the rat liver during a dietary treatment that induces oval cell proliferation. *Am. J. Pathology*. *Am. J. Pathology* *125*: 379-392.

Jacob, J. S., and K. R. Miller (1986) The effects of galactolipid depletion on the structure of a photosynthetic membrane. *J. Cell Biology*. *103*: 1337-1347.

Miller, K. R., J. S. Jacob, U. Smith, S. Kolaczowski, and M. K. Bowman (1986) *Heliobacterium chiorum*: cell organization & structure. *Arch. Microbiol.* *146*: 111-114.

Miller, K. R., J. S. Jacob, T. Burger-Wiersma, and H. C. P. Mathijs (1988) Supramolecular Structure of the Thylakoid Membrane of *Prochlorothrix hollandica*: a chlorophyll b - containing prokaryote. *Journal of Cell Science* *91*: 577-586

Spear-Bernstein, L., and K. R. Miller (1989) Unique Location of the Phycobiliprotein Light-Harvesting Pigment in the Cryptophyceae. *Journal of Phycology* *25*: 412-419.

Bassi, R., A. Magaldi, G. Tognon, G. M. Giacometti, and K. R. Miller (1989) Two-dimensional crystals of the Photosystem II reaction center complex from higher plants. *Eur. J. Cell Biology* *50*: 84-93.

Hinshaw, J. E., and K. R. Miller (1989) Localization of Light-Harvesting Complex II to the Occluded Surfaces of Photosynthetic Membranes. *J. Cell Biology* *109*: 1725-1732

Lewitus, A. J., D. A. Caron, and K. R. Miller (1991) Effects of light intensity and glycerol assimilation on the organization of the photosynthetic apparatus in the facultative heterotroph *Pyremononas salina* (Cryptophyceae) *J. Phycol.* *27*: 578-587.

Hinshaw, J. E., and K. R. Miller (1993) Mapping the lateral distribution of Photosystem II and the Cytochrome b6 /f complex by direct immune labeling of the thylakoid membrane. *Journal of Structural Biology*. *111*: 1-8.

Wiest, P. M., S. S. Kunz, W. D. Bowen, and K. R. Miller (1994) Activation of protein kinase C by phorbol esters disrupts the tegument of *Schistosoma mansoni*. *Parasitology* *109*: 461-468.

Miller, K. R. (1994) The Big Green Machine. *Nature Structural Biology* *1*: 204-206.

Hanein, D., Matlack, K. E. S., Jungnickel, B., Plath, K., Kalies, K., Miller, K. R., Rapoport, T. A., and C. W. Akey (1996) Oligomeric Rings of the Sec6lp Complex Induced by Ligands Required for Protein Translocation *Cell* *87* 721-732.

Meyer, T. H., Ménétret, J. F. , Breitling, R. , Miller, K. R., Akey, C. W., and T. A. Rapaport (1999) The bacterial Sec Y/E translocation complex forms channel-like structures similar to those of the eukaryotic Sec6lp complex. *Journal of Molecular Biology* *285*: 1789-1800.

Miller, K. R. (2002) The Flaw in the Mousetrap. *Natural History* (April) p. 75.

Miller, K. R. (2005) Darwin's Pope? *Harvard Divinity Bulletin* 33: 12-14.

Miller, K. R. (2009) Deconstructing Design: A Strategy for Defending Science. *Cold Spring Harb Symp Quant Biol* sqb.2009.74.012 (Published in Advance September 4, 2009).

#### **d. Non-refereed Journal Articles**

Miller, K. R. (1992) Biology Education is the Scientific Future. *Molecular Biology of the Cell* 3: 959-960.

Miller, K. R. (1994) Life's Grand Design. *Technology Rev.* 2Z (2): 24- 32.

Miller, K. R. (1995) "Whither the Y?" The Case of the Disappearing Y Chromosome. *Discover Magazine*. *February*.

#### **e. Book Reviews**

Miller, K. R. (2001) Telling the True Story of Biology. *Cell* 107: 263-264.

Miller, K. R. (2003) The Emperor's New Design. *Science* 299: 664.

Miller, K. R. (2007) Falling over the Edge. *Nature* 447: 1055-1056.

Miller, K. R. (2007) Faulty Design. *Commonweal Magazine*, October 12.

#### **g. Invited Lectures** *(beginning 1/1/2004)*

##### **Jacksonville University (February 12, 2004)**

*Time to Abandon Darwin? The Challenge from Intelligent Design* (Departmental seminar)

*Finding Darwin's God. The Search for Common Ground between Science and Religion* (University Colloquium)

##### **Michigan Sciences Teachers Association (March 6, 2004)**

*Does Science still matter?* (Keynote Address)

##### **Massachusetts Association of Biology Teachers (March 13, 2004)**

*Time to Abandon Darwin? What the challenges from "intelligent design" tell us about the state of science in America.* (Keynote Address)



**Georgia State University (April 2, 2004)**

*The Emperor's New Theory. Evolution and the challenge from "intelligent design."*  
(Departmental Seminar)

**Union County College (April 8, 2004)**

*Time to Abandon Darwin? Evolution and the challenge from "intelligent design."*  
(Patberg Memorial Lecture)

**Framingham State College (April 14, 2004)**

*Time to Abandon Darwin? What the challenge from "intelligent design" says about the state of science in America.* (Departmental seminar)

**Brown University Club of New York (May 20, 2004)**

*The Case for Darwin. What the battle over evolution says about the state of science and religion in America.* (Evening lecture)

**Marine Biology Lab – Friday Night Lecture (June 17, 2004)**

*Time to Abandon Darwin? The challenge from "intelligent design."* (Friday Night Lecture at the MBL)

**University of Hawaii (September 1, 2004)**

*Creation vs. Evolution. Why both sides are wrong.* (Templeton Lecture)

**Butler University (September 21, 2004)**

*Teaching the Origins of Human Beings.* (Seminar series on religion and world civilization)

**Case Western Reserve University (October 15 and 16, 2004)**

*Finding Darwin's God. Making peace between science and religion.* (Keynote address)  
*Looking for God in all the Wrong Places. The theological perils of "intelligent design."*  
(Symposium talk — special conference on "God and Evolution" sponsored by CWU)

**New York University (October 23, 2004)**

*Time to Abandon Darwin? America's new anti-evolutionism.* (featured talk at conference sponsored by the New York Institute for the Humanities at NYU: "Us v. Them: The State of the Divide between Believers and Secularists, 2004 and Beyond")

**National Association of Biology Teachers (November 13, 2004)**

*Evolution and Religious Thinking.* (Featured talk at "evolutionary Science and Society: Educating a New Generation," a conference jointly sponsored by the American Institute of Biological Sciences and the National Association of Biology Teachers at their annual meeting in Chicago)

**Villanova University (November 17, 2004)**

*Time to Abandon Darwin? Is evolution out of date in an age of genomics* (Departmental seminar)  
*Looking for God in all the Wrong Places. Evolution and the challenge from "intelligent design."* (Vivian Lamb Lecture on Augustinian Thought and the Sciences)

**Shawnee State University (Ohio) (January 21, 2005)**

*Time to Abandon Darwin? The Scientific and Religious Perils of "Intelligent Design."*  
(University Lectureship)

**The College of the Holy Cross (Massachusetts) (February 21, 2005)**

*Creationism, “Intelligent Design,” & Evolution. What does the conflict say about science? ... and about God?* (College Seminar)

**Texas A&M International University (March 29, 2005)**

*Finding Darwin’s God. Searching for common ground between God and evolution.* (The A. R. Sánchez Sr. Distinguished Lecture Series)

**University of New Mexico (March 30, 2005)**

*Time to Abandon Darwin? The challenge from intelligent design.* (University Lecture)

**University of Medicine & Dentistry of New Jersey (April 12, 2005)**

*Origin of the Specious – Why Darwin still matters in an age of genomics.* (The AAUP Heikkila Memorial Lecture)

**Duke University (April 15, 2005)**

*Only a Theory? Evolution and the Struggle for America’s Soul.* (Duke Ethics & Environment Lecture Series)

**Rhode Island Bar Association (May 17, 2005)**

*Evolution – The Legal and Scientific Issues.* (Luncheon lecture series)

**John F. Kennedy Library (July 15, 2005)**

*God, Darwin, & Kansas: America’s new anti-evolutionism.* (American Studies Summer Institute Lecture Series)

**Brown University (September 6, 2005)**

*Welcome to Trade School.* (Brown Opening Convocation Faculty Lecture)

**Loyola College (MD) (September 21, 2005)**

*God, Darwin, & Design: America’s new anti-evolutionism.* (Honors Program Lecture)

**University of Rhode Island (September 28, 2005)**

*Evolution: What is it? Why is it Controversial?* (Special Lecture in URI outreach program)

**Providence College (October 1, 2005)**

*God, Darwin, & Design. Renewing Faith in an Age of Science.* (Academic Symposium to Celebrate the Inauguration of Providence College President Brian Shanley)

**Lehigh University (October 12, 2005)**

*Darwin’s Genome. Answering the Challenge of “intelligent design.”* (University Lecture)

**Wake Forest University (October 19, 2005)**

*Science: A Liberal Art under Siege.* (Symposium on the Future of the Liberal Arts to Celebrate the Inauguration of President Nathan Hatch of Wake Forest University)

**American Enterprise Institute (October 21, 2005)**

*Life’s Grand Design. Why “intelligent design” fails.* (A televised debate on Evolution and Design)

**Princeton University (October 24, 2005)**

*Time to Abandon Darwin? Evolution and the Battle for America’s Soul.* (Woodrow Wilson School of Government, Program in Science, Technology, & Environmental Policy)

**Fisher College (Massachusetts) (November 9, 2005)**

*God, Darwin, & Design. America's New Anti-Evolutionism.* (Honors Program Seminar)

**Sacred Heart University (November 30, 2005)**

*Intelligent Design & the Battle for America's Schools.* (University Lecture Series)

**Yeshiva University (New York) (December 19, 2005)**

*God, Darwin, & Design. Evolution & the Battle for America's Soul.* (University Honors Program Lecture)

**Case Western Reserve University (January 3, 2006)**

*The Collapse of Intelligent Design. Will the next "monkey Trial" be in Ohio?*

**Swarthmore College (February 7, 2006)**

*Time to Dump Darwin? The challenge from "intelligent design."*

**Connecticut Association of Biology Teachers (February 11, 2006)**

*"Time to Abandon Darwin? Evolution & the Battle for America's Soul" (Keynote Address. Meeting held at Manchester Community College).*

**Hamilton College (February 28, 2006)**

*Finding Darwin's God Evolution & the Battle for America's Soul.*

**American Museum of Natural History (March 16, 2006)**

*"Time to Abandon Darwin? American's Battle over Evolution." Invited talk at special symposium on "Science & Faith."*

**Pew Society of Scholars (March 5, 2006) Costa Rica.**

*Time to Dump Darwin? The challenge from "intelligent design"*

**Columbia College (Ca.) (April 5, 2006)**

*Why Darwin Still Matters: "Intelligent Design" and the Battle for America's Classrooms*

**American Society for Biochemistry & Molecular Biology (April 6, 2006)**

*Time to Abandon Darwin? Answering the Biochemical Challenge to Evolution. (Invited Talk at Special Public Affairs Symposium)*

**University of Alabama (March 29, 2006)**

*Why Darwin Still Matters. "Intelligent Design" and the Battle for America's Classrooms (Invited Lecture in Alabama's "ALLELE" series on evolution)*

**Texas Tech University (March 30, 2006)**

*Why Darwin Still Matters. "Intelligent Design" and the Battle for America's Classrooms (The 2006 Harrigan Lecture)*

**Bard College (April 10, 2006)**

*America's new Battle over Evolution: The Challenge from "intelligent design"*

**Bridgewater State College (April 11, 2006)**

*America's new Battle over Evolution. The Challenge from "intelligent design"*

**University of Massachusetts (April 19, 2006)**

*God, Design, & Darwin. Evolution and the Battle for America's Soul (6<sup>th</sup> annual Kathryn and Paul Williamson Commonwealth College Lecture)*

**University of Missouri (April 27, 2006)**

*God, Darwin, & Design. America's New Battle over Evolution*

**Society for the Study of Evolution (June 26, 2006)**

*Fossils, Genes, & Mousetraps. The 21st Century Case for Evolution (Invited talk for special symposium on the Kitzmiller v. Dover trial)*

**Kansas University (September 7, 2006)**

*God, Design, & Darwin. Creationism's Second Coming ("Difficult Dialogues Lecture Series")*

**Yale University (September 14, 2006)**

*Darwin, God, & Dover. What the Collapse of "Intelligent Design" means for Science & Faith in America (Dwight Terry Lecturship)*

**National Institutes of Health (September 27, 2006)**

*God, Darwin, & Design. Evolution and the Battle for America's Soul (NIH Director's Lecture)*

**North Central State College (October 2, 2006)**

*Finding Darwin's God*

**Washington University (St. Louis) (October 9, 2006)**

*Darwin, God, & Dover. The Collapse of "Intelligent Design" and what it means for Science & Faith in America (Annual Witherspoon Lecture)*

**North Carolina State University (November 6, 2006)**

*Finding Darwin's God (The R. L. Rabb Lecture on Environmental Science)*

**Adrian College (November 8, 2006)**

*Finding Darwin's God. What the Collapse of "Intelligent Design" means for Science & Faith in America*

**Brown University Medical School (November 9, 2006)**

*Galen, Darwin & Design. What America's Battle Over Evolution Means to Medical Research (Keynote address – Lifespan Research Celebration)*

**Harvard University (November 15, 2006)**

*Time to Abandon Darwin? Lessons from the Dover Trial*

**Community College of Rhode Island (February 13, 2007)**

*God, Darwin, & Design. America's new battle over evolution*

**Clemson University (February 19, 2007)**

*Presidential Colloquium: God, Darwin, & Design. America's new battle over evolution.*

**Berea College (March 1, 2007)**

*God, Darwin, & Design.*

*Thoughts about America's continuing problem with evolution*

**Biophysical Society of America (March 3, 2007)**

*Special Colloquium: Bringing Science Home*

*Talking to a lay audience about evolution*

**Vincennes University (March 26, 2007)**

*Evolution & Intelligent Design: America's new battle over Darwin.*

**University of California - Davis (April 3, 2007)**

*God, Darwin, & Design. Faith & certainty in the scientific world*

**Notre Dame University (April 12, 2007)**

*The Collapse of Intelligent Design:  
What does it mean for science and for faith?*

**Wagner Free Institute of Science - Philadelphia (April 21, 2007)**

*The Westbrook Lecture: A New "Design" for Darwin. What today's science says about  
biology's most controversial theory.*

**Loyola University (Chicago) (May 11, 2007)**

*Commencement Address, College of Arts & Sciences  
"Art, Science, and Faith"*

**Cambridge University – Faraday Institute (July 30 & 31, 2007)**

- *The Intelligent Design Movement – a critical analysis.*
- *Chance, Necessity, & evolution*

**Wake Forest University (August 26, 2007)**

*Orientation Week Colloquium: Religion, Science, & Evolution*

**Tufts University (September 7, 2007)**

*Time to Abandon Darwin?  
Thoughts about America's continuing problem with evolution*

**Providence College (September 19, 2007)**

*Opening Convocation Address: "A Single Culture of Learning"*

**Saint Louis University (September 20, 2007)**

*God, Darwin, & Design. At the crossroads of science & religion*

**SUNY Fredonia (September 26, 2007)**

*Evolution & Design. At the crossroads of science & religion*

**Susquehanna University (September 27, 2007)**

*God, Darwin, & Design.  
Thoughts about America's continuing problem with evolution*

**Princeton University (October 10, 2007)**

*Evolution & Design: at the crossroads of science & religion*

**Colorado State University (October 18, 2007)**

*Scopes III: Reports from the Front Lines of the Evolution Wars*

**University of Wisconsin – Eau Claire (October 23, 2007)**

*Evolution & Design: at the crossroads of science & religion*

**Humber University (Toronto) (October 29, 2007)**

*Evolution, God, & Design – Time to Abandon Darwin?*

**Pepperdine University (November 14, 2007)**

*Darwin & the Christian Faith*

**Southern Methodist University (November 15, 2007)**

*Time to Abandon Darwin? The collapse of intelligent design*

**University of Georgia (November 27, 2007)**

*Annual Charter Lecture:  
God, Darwin, & Design. Thoughts about America's continuing problem with evolution.*

**Kennesaw State University (November 28, 2007)**

*God, Darwin, & Design. America's continuing battle over evolution*

**Boston College High School (December 5, 2007)**

*Corcoran Living Library Lecture Series:*

*God, Darwin, & Design. America's new battle over evolution*

**The Peddie School (January 18, 2008)**

*Evolution, Creation, & Science Education. Thoughts about America's Continuing Problem with Evolution.* (Invited talk in Peddie's Friday Features lecture series)

**Newport Art Museum (January 26, 2008)**

*Darwin, God, & Design. Science, Faith, & the Human Imagination.* (Invited talk in the Museum's Winter Lecture Series)

**AAAS Meetings - Boston (February 17, 2008)**

*Evolution & Intelligent Design? Winning the Struggle for Hearts and Minds.* (Invited talk in symposium on "Communicating Science in a Religious America")

**MIT Museum (February 21, 2008)**

*Darwin, Design, & Religion. Lessons from the Dover Monkey Trial.*

**University of North Carolina - Wilmington (February 26, 2008)**

*Darwin, God, & Design. The Battle for America's Scientific Soul.* (The 2008 Spring Honors Program Lecture)

**Wells College (February 29, 2008)**

*Darwin, God, & Design. Thoughts about America's Continuing Problem with Evolution.*

**Delta College (March 12, 2008)**

*God, Darwin, & Design. Thoughts about America's continuing problem with evolution.*

**Christopher Newport University (March 18, 2008)**

*God, Darwin, & Design. Thoughts about America's continuing problem with evolution.*

**University of Texas (April 4, 2008)**

*Darwin, God, & Design. Lessons from the Dover Monkey Trial.* (Sponsored by the Environmental Science Institute at UT - Austin)

**Tufts University (April 7, 2008)**

*Kitzmiller v. Dover and the Case for Secular Public Education.* (Sponsored by Tufts Freethought Society)

**Albion College (April 15, 2008)**

*God, Darwin, & Design. Thoughts about America's continuing problem with evolution.*

**American Museum on Natural History (May 8, 2008)**

*Human Evolution and the Complexity of Living Organisms.* (Invited talk in symposium jointly sponsored by AMNH and the New York Botanical Gardens: "Darwin. 21<sup>st</sup> Century Perspectives")

**Newton (MA) Free Library (July 22, 2008)**

*Only a Theory. Evolution vs. Intelligent Design.*

**Chautauqua Institute (August 17, 2008)**

*God, Darwin, & Design. America's Continuing Problem with Evolution. (Keynote Lecture in a week-long Chautauqua series on evolution and the work of Charles Darwin)*

**Auburn University (September 2, 2008)**

*Darwin, God, & Design. Evolution and the Battle for America's Soul. (Invited talk in Auburn's Littleton-Franklin lecture series)*

**Villanova University (September 22, 2008)**

*Confronting Paley's Ghost. Charles Darwin and the Evolutionary Design of Life. (Keynote Address for "Mendel in the 21<sup>st</sup> Century" Symposium.)*

**University of Maryland (September 26, 2008)**

*Only a Theory. Evolution vs. Intelligent Design.*

**Skeptics Society Conference – Los Angeles (October 4, 2008)**

*Does Science Make Belief in God Obsolete? (Invited talk in "Origins – The Big Questions," a symposium at the Skeptics Society annual meeting)*

**Wittenberg University (October 13, 2008)**

*Darwin, God, & Design. Evolution and the Battle for America's Soul. (Invited seminar in the Witt Lecture Series)*

**Mississippi Science Teachers Association (October 20, 2008)**

*Does Science Still Matter in America Today? (Keynote Address)*

**Appalachian State University (October 30, 2008)**

*Is Evolution "Only a Theory?" Charles Darwin and the Design of Life. (Invited talk in the University's Darwin Bicentennial celebration)*

**American Association of Colleges and Universities - Providence (November 7, 2008)**

*Science, Evolution, and Creationism: The Critical Need for Science as a Liberal Art in the 21<sup>st</sup> Century. (Invited talk given jointly with Jay Lebow of the National Academy of Sciences)*

**Science Teachers Association of Ontario (November 14, 2008)**

*Darwin, God, & Design. Teaching Evolution in a Climate of Controversy. (Invited talk in Ontario's annual meeting of science educators)*

**Western Kentucky University (November 18, 2008)**

*Only a Theory? Evolution and the Battle for America's Soul. (Invited talk in WKU's Cultural Enhancement series)*

**BIONES (Biology – New England South) Meetings – Roger Williams College (December 2, 2008)**

*God, Darwin, & Design. America's Continuing Problem with Evolution. (Keynote Address)*

**Pennsylvania State University (December 3, 2008)**

*Only a Theory. Evolution and the Battle for America's Soul. (Invited talk in the Penn State Berks Arts and Lecture series)*

**Cincinnati Museum of Science and Natural History (December 4, 2008)**

*Only a Theory? Evolution and the Battle for America's Soul.* (The 2008-2009 Charles and Ralph Dury Science lecture)

**One Day University (December 7, 2008)**

*God vs. Darwin – America's Continuing Problem with Evolution.* (Lecture in a series featuring professors from various colleges open to the public. This session was held at Babson College in Wellesley, MA, and also featured Brown Professor Gordon Wood)

**SICB (Society for Integrative and Comparative Biology) (January 5, 2009)**

*Understanding Science.* (Invited Lecture at the SICB annual meeting to celebrate the launch of the "Understanding Science" web site, hosted by the University of California, Berkeley)

**Northwestern University (January 8, 2009)**

*Only a Theory? Evolution and the Battle for America's Soul.* (Lecture on Northwestern's One Book series)

**Georgetown University (January 21, 2009)**

*Evolution, Design, & Providence* (Keynote address at "Evolution & God: Darwin and Theology 150 Years after *The Origin of Species*." Sponsored by the Woodstock Forum)

**Assumption College (February 3, 2009)**

*Rethinking Darwin for the 21st Century*

**University of Southern Indiana (February 17, 2009)**

*Darwin, God, & Design. America's Continuing Problem with Evolution.*

**University of Pennsylvania (February 12, 2009)**

*Only a Theory? Evolution & the Battle for America's Soul.* (Keynote address at Penn's 2-day conference: "Darwin's Legacy in 21<sup>st</sup> Century Biology")

**Brown University (February 24, 2009)**

*Re-Inventing Paley: Evolution and the True Design of Life.* (Cogut Center for the Humanities - *Darwin's Evolution* lecture series).

**Massachusetts Association of Biology Teachers (March 14, 2009)**

*Confronting Paley's Ghost. Solving America's Problem with Evolution.* (Keynote Address for MABT's annual meeting, held at Framingham State College).



**Northeastern Anthropological Association (March 14, 2009)**

*Only a Theory? America's Continuing Problem with Evolution.* (Keynote Address for NEAA's annual meeting, held at Rhode Island College).

**Southern University University (March 24, 2009)**

*Darwin, God, & Design. America's Continuing Problem with Evolution.* (Invited Lecture in SUU's Tanner Lecture Series)

**William Jewell College (March 26, 2009)**

*Darwin, God, & Design - America's Continuing Problem with Evolution.*

**College of St. Catherine (April 8, 2009)**

*Darwin, God, & Design - America's Continuing Problem with Evolution.*

**Kansas State University (April 9, 2009)**

*Is Evolution Only a Theory? America's Continuing Struggle with Darwin, God, & Design* (Lecture in KSU's Darwin Celebrations Series).

**Experimental Biology 2009, New Orleans (April 20, 2009)**

*Intelligent Design Creationism: Why it Matters to Science.* (Part of a special symposium sponsored by the American Society for Biochemistry and Molecular Biology).

**Cambridge University, UK (April 28, 2009)**

*God, Darwin, & Intelligent Design.* (Sponsored by the Faraday Institute, St. Edmunds College, Cambridge)

**St. Andrews University, UK (April 30, 2009)**

*Life – Creation or Evolution? Thoughts on God, Darwin, & Design.* (The annual James Gregory Lecture, given in association with award of the James Gregory Medal)

**New York Academy of Sciences (May 9, 2009)**

*Science in America. What do the Evolution Wars Tell us about the Two Cultures?.* (Invited panel talk for NYAS conference on *The Two Cultures in the 21<sup>st</sup> Century*).

**Brown University (May 23, 2009)**

*Darwin, God, & Design. America's Continuing Problem with Evolution.* (A Commencement Forum).

**University of Oregon - Eugene (May 27, 2009)**

*Time to Abandon Darwin? Evolution & the Battle for America's Soul.* (Presented as the Kritikos Lecturer for 2009)

**University of Oregon - Portland (May 28, 2009)**

*Darwin, God, & Design. America's Continuing Problem with Evolution.* (Presented as the Kritikos Lecturer for 2009)

**Cold Spring Harbor Symposium on Quantitative Biology (May 31, 2009)**

*Deconstructing Design: A Strategy for Defending Science.* (Invited talk at 74<sup>th</sup> Annual Symposium: "Evolution – The Molecular Landscape").

**World Science Festival (June 13, 2009)**

*Panel Discussion on "Science, Faith, Religion" as part of the World Science Festival.*

**North American Paleontological Convention (June 25, 2009)**

*Reclaiming "Design." A Strategy for Success in the Evolution Wars.* (Invited Plenary Address at NAPC's annual meeting, at the University of Cincinnati).

**Aspen Ideas Festival (July 2, 2009)**

*Evolution v. Intelligent Design - Why is this Still a Debate?* (Invited remarks in a panel discussion sponsored by the NOVA television series on PBS).

**University of Massachusetts, Dartmouth (September 18, 2009)**

*God, Darwin, & Design. Understanding Science in a Religious Nation.*

**LaSalle University (September 21, 2009)**

*Grandeur in this View of Life? Reflections on Evolution, Life, and Faith.*

**Yale University (September 24, 2009)**

*Does Evolution Explain Human Nature?* (Panel discussion sponsored by Discover Magazine and the Templeton Foundation).

**Lakeland College (September 30, 2009)**

*Is Evolution "Only a Theory?" Darwin, God, & Design in the 21<sup>st</sup> Century* (A Commencement Forum).

**Society of Toxicology (Northeast Chapter) (October 15, 2009)**

*Still Only a Theory? Solving America's Continuing Problem with Evolution.* (Invited Plenary Address for NE Toxicology's annual meeting, held at Genzyme headquarters, Cambridge, MA).

**University of Kentucky (October 21, 2009)**

*Is it Really "Only a Theory?" Evolution & the Question of Design.* (Invited Lecture in UK's "In the Wake of Darwin" Series)

**Oklahoma State University (October 22, 2009)**

*Only a Theory? America's Continuing Problem with Evolution.*

**Brigham Young University (October 29, 2009)**

*Only a Theory? America's Continuing Problem with Evolution.* (The Tanner Lecture Series).

**University of San Diego (October 30, 2009)**

*God, Darwin, & Design. America's Continuing Problem with Evolution.*

**Notre Dame University (November 1, 2009)**

*Darwin. God, & Design. Evolution and the Battle for America's Soul.* (Invited plenary talk at "Darwin in the 21<sup>st</sup> Century," a conference to celebrate the 150<sup>th</sup> anniversary of the publication of *On the Origin of Species*).

**The Lahey Clinic (November 4, 2009)**

*Darwinian Medicine, Darwinian Morality. Human Origins and Human Values.* (Invited Lecture in Lahey's Medical Series)

**University of Alabama at Birmingham (November 5, 2009)**

*Darwin. God, & Design. America's Continuing Problem with Evolution.*

**The National Press Club (November 6, 2009)**

*The Evolution Wars. Are they Really About Science, or is Something Else Involved?* (Invited talk in a Forum on Evolution sponsored by the American Humanist Association)

**Portsmouth Abbey School (November 9, 2009)**

*Is Evolution Only a Theory? Darwin, God, and Design in the Age of DNA.* (The annual Dom Luke Childs Lecture).

**LeMoyne University (November 11, 2009)**

*Only a Theory? Darwin, Evolution, & the Question of Design.* (A Commencement Forum).

**Villanova University (November 20, 2009)**

*Darwinian Grandeur. A Biologist's Journey through Evolution's Tangled Bank.* (Talk given in connection with presentation of the Gregor Mendel Medal for 2009).

**J. Work in Progress**

Miller, K. R. (accepted, pending revision) *Evolution — by the (text)book*. Invited article for the journal *Evolution Education & Outreach*.

Miller, K. R. (*In Preparation*: Under Contract to Viking/Penguin) *Center Stage: Reflections on the Biology of Human Nature*.

## **6. Research Grants**

### **a. Current:**

Agency: Kenneth Miller Research Fund  
Title: General research on membrane structure and function  
Dates: 9/27/04 – present  
Role on Grant: Principal Investigator  
Award: \$28,000.00

*Note: This grant is a general research account I have established to fund work in my own laboratory. The funding is taken from royalties on books I have written.*

Agency: Royce Family Professorship

Title: Award Associated with Endowed Professorship  
Dates: 7/1/07 – 6/30/10  
Role on Grant: Royce Family Professor  
Award: \$20,000.00 per year.

### **b. Completed Grants:**

Agency: Salomon Research Grants  
Title: Translocation of Proteins across Biological Membranes  
Dates: 7/1/00 – 6/31/04  
Role on Grant: Principal Investigator  
Award: \$15,000.00

### **c. Proposal Submitted**

None.

## **7. Service:**

### **(i) to the University**

Member, Bookstore Review Committee (2004 – 2005)  
Member, Academic Code Committee (2000 – 2003)  
Biology Curriculum Committee (1996-2005)  
Co-Chair, Academic Integrity Subcommittee, NCAA Self-Study Committee (2006)  
Member, Dean's Committee on Undergraduate Science Education (2006-2007)  
Member, Fulbright Fellowship Committee

### **(ii) to the profession**

American Society for Cell Biology:

ASCB Education Committee: 1985-86  
Chair: ASCB Education Committee: 1986-1990 and 2002-2005;  
currently Acting Chair)  
ASCB Program Committee: 1985-86; 92-94  
Chairman: ASCB Program Committee: 1993  
ASCB Council Member, 1987-89  
Editor, The Journal of Cell Biology (1983-1985)  
Editor, The Journal of Cell Science (1988- 1992)  
General Editor, Advances in Cell Biology (JAI Press) (1986- 1991)  
Member, Special Instrumentation Study Section, NIH (1981)  
Ad hoc member, Cell Biology Study Section, NIH (1983,1984)  
Regular Member, Cell Biology Study Section, NIH (1985-1988)  
Visiting Committee Member, NSF Cell Biology Program, 1997  
Scientific Advisor, WGBH / NOVA television series on Evolution (1999-2001)  
Biology Visiting Committee, College of William and Mary (2003)  
Steering Committee, DOSER (Dialogue on Science, Ethics, and Religion) Program of the  
American Association for the Advancement of Science (AAAS). 2002 – 2008.  
Scientific Advisor, WGBH / NOVA program “Judgment Day” (2007)  
Advisor, Science Unit, The NewsHour (*PBS public affairs program*) 2003 – present

### **(iii) to the community**

**Court Testimony:** Served as lead witness for the plaintiffs in *Kitzmiller v. Dover*, the so-called “intelligent design trial” in Federal Court. My work on this case included a detailed expert statement, a 9 -1/2 hour deposition, and two days of testimony in the trial itself (9/26-9/27/2005).

## **8. Academic Honors**

1992: CASE (Council for the Advancement and Support of Education) Rhode Island College  
**Professor of the Year.**

1993: First recipient, the **Elizabeth H. Leduc Award** for Teaching Excellence in the Life Sciences (Brown University).

1996: Named The **Walter H. Annenberg Distinguished Professor of the Year**, Brown University.

1997: Recipient of **Distinguished Teaching Award** from SALS (Students with Alternate Learning Styles)

1998: Recipient of the **Onyx Society Award** (African-American Alumni Association) for Distinguished Teaching. (Brown University)

1999: Recipient of the **Harriet W. Sheridan Award** for Distinguished Contributions to Teaching and Learning. (Brown University)

2005: **President's Citation Award** for Distinguished Contributions to the Biology Sciences. Given by the American Institute for Biological Sciences.

2006: **Public Service Award** - The American Society for Cell Biology

2006: **AAAS Fellow** - American Association for the Advancement of Science

2007: **Science Educator of the Year** – The Exploratorium, San Francisco

2008: **Hazeltine Citation** – Awarded by the Senior class at Brown University

2008: **Distinguished Service Award**, National Association of Biology Teachers

2009: **Award for Public Understanding of Science** – AAAS (American Association for the Advancement of Science)

2009: **The James Gregory Medal** – Presented by St. Andrews University, UK.

2009: **The Gregor Mendel Medal** - Presented by Villanova University

2009: **CSI Fellow** – Named a Fellow of the Committee for Skeptical Inquiry

## 9. Teaching

### **Biology 1050** (Fall 2009)

Enrollment: 35 students

Presented 16 of 23 lectures given by Brown faculty

### **Biology 200** (Spring 2009)

Enrollment: 336 students

Presented 27 of 38 lectures

Responsible for laboratories and 22 teaching assistants

### **Biology 105/205** (Fall 2008)

Enrollment: 47 students

Presented 11 of 22 lectures given by Brown Faculty

*I was on leave during academic year 2007 - 2008*

**Biology 20** (Spring 2007)

Enrollment: 322 students

Presented 27 of 38 lectures

Responsible for laboratories and 22 teaching assistants

**Biology 20** (Spring 2006)

Enrollment: 341 students

Presented 29 of 39 lectures

Responsible for laboratories and 24 teaching assistants

**Biology 105** (Fall 2006)

Enrollment: 58 students

Presented 11 of 22 lectures given by Brown faculty

Conducted one half of graduate seminars in Biology 205

**Biology 20** (Spring 2005)

Enrollment: 349 students

Presented 29 of 39 lectures

Responsible for laboratories and 22 teaching assistants

**Biology 105** (Fall 2005)

Enrollment: 46 students

Presented 17 of 23 lectures given by Brown faculty

Conducted all graduate seminars in Biology 205

**Biology 20** (Spring 2004)

Enrollment: 331 students

Presented 28 of 39 lectures

Responsible for laboratories and 20 teaching assistants

**Physics 10** (Spring 2004)

Enrollment: 20 students

Presented 2 of 20 lectures in course organized by Prof. Leon Cooper

**Biology 105** (Fall 2004)

Enrollment 58 students

Presented 11 of 23 lectures given by Brown faculty

Conducted half of the graduate seminars in Biology 205

**Biology 20** (Spring 2003)

Enrollment: 327 students

Presented 29 of 40 lectures

Responsible for laboratories and 21 teaching assistants

**Biology 105** (Fall 2003)

Enrollment 51 students

Presented 11 of 22 lectures given by Brown faculty

Conducted half of the graduate seminars in Biology 205