

1. Name:

Kenneth R. Miller

Professor of Biology

Department of Molecular Biology, Cell Biology, & Biochemistry

2. Home address:

142 Martin Street

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*).

Miller, K. R., & J. S. Levine (2014) Biology. Pearson Education. (*This is a national edition of our secondary school textbook.*).

Miller, K. R., & J. S. Levine (2014) Biology: Foundations. Pearson Education. (*This is a abridged and modified version of the our textbook written especially for struggling students*).

Miller, K. R., & J. S. Levine (2015) Texas Biology. Pearson Education. (*This is a textbook program written to meet the Texas state science standards*).

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. Routledge, 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.

Miller, K. R. (2016) *Science in the Crosshairs: The Public Role of Science & Scientists*. (in *Public in the Global Arena*, Michael C. Desch, editor, Notre Dame Press).

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 Sec61p 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. Volume LXXIV*: 463-468.

Miller, K. R. (2010) Evolution by the (Text) Book. *Evolution & Education Outreach*. 3: 225-230.

Miller, K. R. (2010) Finding the Key - cell biology and science education. *Trends in Cell Biology*. 20: 691-694.

Miller, K. R. (2015) Is the Pope Catholic? *The Skeptical Inquirer*. 39: 25.

Miller, K. R. (2015) Kitzmiller's Tenth Anniversary: How the Scientific Case Might be Updated. *Reports of the National Center for Science Education*. 35: 3.1-3.8.

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.

Miller, K. R. (2011) Paley's Folly. The True Story of the Human Genome. *Bioscience* 61: 325-326.

Miller, K. R. (2013) Nagel's Untimely Idea – Is there more to nature than matter? *Commonweal* (May 17, 2013) pp. 14-19.

Miller, K. R. (2015) Shining a Light on Human Origins. *Bioscience* 65: 729-730.

g. Invited Lectures *(beginning 1/1/2012)*

American Association for the Advancement of Science (February 18, 2012)

Teaching Science to Religious Students: Emerging Issues in Higher Education. (invited talk at AAAS Annual Meeting in Vancouver, BC)

Cold Spring Harbor Laboratory (February 26, 2012)

Science in the Public Eye. Advocating for Evolution in a Climate of Controversy.

Washington University (St. Louis) (March 29, 2012)

Does Evolution Imply Atheism? (Veritas Forum).

Nebraska Wesleyan University (April 26, 2012)

The Darwin Wars. Faith, Reason, & Science in the Struggle over Evolution.

Albright College (May 2, 2012)

Life on a Tangled Bank. Why Evolution Matters in America Today.

The Portsmouth Institute (June 23, 2012)

To Find God in All Things. Exploring the Evolutionary Architecture of Life.

University of Rhode Island (December 3, 2012)

Epigenetics in the Genome - and the Garden. (to URI Master Gardeners)

Cold Spring Harbor Laboratory (February 24, 2013)

Science in the Public Eye (CSHL Course for Scientific Leadership)

Bridgewater State College (February 28, 2013)

Evidence, Politics, and Reality: Does Science Really Matter in America Today? (Keynote Address, CASE Conference 2013)

Lindenwood University (March 19, 2013)

Why Evolution Matters in America Today.
(Lindenwood Distinguished Speaker Series)

Rutgers University (March 28, 2013)

Evidence, Politics, and Reality: Does Science Really Matter in America Today?
(Keynote Address, INSPIRE conference on Science Education)

Landmark College (April 1, 2013)

Time to Abandon Darwin? Evolution in a Molecular Age.

Bradley University (April 9, 2013)

God, Darwin, & Intelligent Design: Why Evolution Matters in America Today.
University Distinguished Lecture Series.

Providence College (April 20, 2013)

Evidence, Politics, and Reality: Does Science Really Matter in America Today?
(Keynote Address, Eastern Colleges Science Conference 2013)

Notre Dame University (April 23, 2013)

Science in the Crosshairs: the public role of science and scientists.
(Notre Dame Institute for Advanced Studies)

Hertz Foundation (August 3, 2013)

Evidence, Politics, and Reality: Does Science Really Matter in America Today?
(Invited Plenary, Hertz Foundation Annual Conference)

NJ Science Teachers Association (October 15, 2013)

Evidence, Politics, and Reality: Does Science Really Matter in America Today?
(Keynote Address, NJSTA Annual Conference)

Harvard University (November 4, 2013)

Darwin, God, & design. Is there room for God in the evolutionary process?
(Harvard Catholic Center)

Princeton University (February 27, 2014)

The Evolution Wars – Why they Continue, Why they Matter.
Princeton University Biology Seminar

Princeton University (February 27, 2014)

Darwin, God, and Design – Is there room for God in the Evolutionary Process?
The Aquinas Institute Annual Lecture – Princeton University

University of Southern California (April 8, 2014)

Neuroscience and the Soul.

Notre Dame University Commencement (May 18, 2014)

Science, Learning, & Faith.

Laetare Medal acceptance speech, given at ND's Commencement Ceremony

Providence Roundtable (October 28, 2014)

"In Deo Speramus. In light of modern science, is there still a place for God and religion in the University?"

Bridgewater State University (November 5, 2014)

Does Science Still Matter in America Today?

Class of 1942 Lecture Series

One Day University (November 9, 2014)

Science & Faith – Compatibility or Conflict?

Talk given at One Day University session in New York City

St. Norbert College (November 12, 2014)

Darwin's Tangled Bank. Evolution. God, and Science in America Today

(Annual Killeen Chair Lecture)

Lemoyne College (November 17, 2014)

Bringing Peace to the Tangled Bank – Evolution, God, and Science in America Today.

Lemoyne Science & Religion Lecture Series

Cambridge Roundtable (November 19, 2014)

The Human Soul – Can it Survive in an Age of Neuroscience?

@ the Harvard Faculty Club

American Geophysical Union Annual Meetings (December 19, 2014)

But it's "Only a Theory." Responding to Evolution Doubt, Distortion, & Denial

(Invited symposium talk)

New York Encounter (January 17, 2015)

The Emergence of the Human Face

College of St. Benedict & St. John's University (March 24, 2015)

Darwin & the Diving. Is there room for God in the Evolutionary Process?

Baylor College of Medicine (March 27, 2015)

The Lone Star Textbook Wars – How they Affect the Health of American Science?

One Day University (April 26, 2015)

Science & Faith: Compatibility or Conflict?

**Pontificia Universidade Católica do Rio Grande do Sul,
Porto Alegre, Brazil (August 26, 2014)**

Science & Transcendence (Keynote Address)

Emmanuel College (November 2, 2015)

Science & Faith – Compatibility or Conflict?

York College of Pennsylvania (November 5, 2015)

*What if Intelligent Design Had Won? Reflecting on 10 years after the
Kitzmiller v. Dover Court Case.*

National Association of Biology Teachers (November 12, 2015)

General Session Symposium:

Eye of the Storm: Teachers, Science, & Societal Controversy?

Newport Art Museum (January 30, 2016)

Art, Music, and Literature – Does Evolution Really Explain Everything?

**American Association for the Advancement of Science (February 13,
2016)**

*Why ID Failed. Evolution and the Design of Biological Systems
(Invited Symposium Presentation)*

Loyola Marymount University (March 9, 2016)

*Finding God in All Things (The Evolutionary Architecture of Life)
(Keynote for Mission Day Celebration)*

Furman University (March 29, 2016)

*Darwin, God, & Design
(Charles Townes Memorial Lecture)*

Massachusetts Institute of Technology (April 14, 2016)

What Makes Us Human?

Providence College (October 22, 2016)

What is Scientific Truth?

(Invited Presentation for Symposium on Truth)

Science Teacher Association of New York State (November 6, 2016)

*Science Denial – Vaccines, GMOs, Climate, Evolution, & the Ark Park
(Biology Keynote Address)*

The Falmouth Forum (January 6, 2017)

Science Denial: Vaccines, GMOs, Climate, and Evolution

Rhode Island College (February 2, 2017)

Science Denial: Vaccines, GMOs, Climate, and Evolution

One Day University - Providence (March 3, 2017)

Science v. Faith. History's Oldest Debate

Samford University (March 6, 2017)

Life's Grandeur – The Epic Creativity of Evolution

Catholic Society of Scientists (April 22, 2017)

*Grandeur in an Evolutionary View of Life
(First Annual St. Albert the Great Award Lecture at Annual Meeting in Chicago)*

Denmark Technical University (June 8, 2017)

Science in the Public Eye – Advocating for Science Amid Controversy

One Day University - Chicago (October 7, 2017)

Science v. Faith. History's Oldest Debate

Florida Association of Science Supervisors (October 19, 2017)

*Science Denial – What can Educators Do About It?
(Invited Keynote Address)*

One Day University – New York City (October 22, 2017)

Science v. Faith. History's Oldest Debate

Colorado Science Teachers Association (November 17, 2017)

*Science Denial – What can Educators Do About It?
(Keynote address at CSTA Annual Meeting in Denver)*

University of Pennsylvania (November 30, 2017)

*Darwin, God, and the Cosmos
(Invited Lecture to the Collegium Institute at UPenn)*

J. Work in Progress

Miller, K. R. (In Press) *The Human Instinct. How we evolved to have Reason, Consciousness, and Free Will.* Simon & Schuster, New York. (to be published on April 18, 2018)

Miller, K. R., & J. S. Levine (in press) *Biology.* Pearson Education. (This is a new national edition of our secondary school textbook, designed to fulfill the Next Generation Science Standards.) (to be published on January 31, 2018)

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 – present

Role on Grant: Royce Family Professor

Award: \$60,000.

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, ROTC Advisory Committee (2010-2011)
Member, Fulbright Fellowship Committee (2009-present)
Member, Goldwater Scholarship Committee (2009- present)
Member, Financial Aid Strategic Planning Committee (2012-2013)
Member, Athletics Strategic Planning Committee (2013-2014)
Member, Campus Life Committee on Athletics & Physical Education (2015-present)

t

(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)

Scientific Advisor, WGBH / NOVA program "Judgment Day" (2007)

Steering Committee, DOSER (Dialogue on Science, Ethics, and Religion) Program of the
American Association for the Advancement of Science (AAAS). 2002 – 2008.

Board Member, National Center for Science Education 2016-2017

President, National Center for Science Education 2017-present

Advisor, Science Unit, The NewsHour (*PBS public affairs program*) 2003 – present

Editor, CBE - Life Sciences Education (2012 - 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).

High School Lectures: I regularly agree to invitations to speak to local high school biology classes.

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

2007-2010: Named the **Royce Family Professor for Teaching Excellence** (Brown University)

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

2010: **Doctor of Human Letters** (Honorary), Mt. Aloysius College.

2011: **Stephen Jay Gould Prize** - Society for the Study of Evolution

2014: **The Laetare Medal** – Presented by Notre Dame University

2015: **Presidential Citation** – The National Science Teachers Association

2017: **St. Albert the Great Prize** – The Society of Catholic Scientists

9. Teaching

Biology 1050/2050 (Fall 2017)

Enrollment: 22 students

Presented 12 of 24 lectures given by Brown faculty

Biology 0200 (Spring 2017)

Enrollment: 216 students

Presented 28 of 36 lectures

Responsible for laboratories and 20 teaching assistants

Biology 1050/2050 (Fall 2016)

Enrollment: 23 students

Presented 12 of 24 lectures given by Brown faculty

Biology 0200 (Spring 2016)

Enrollment: 297 students

Presented 27 of 36 lectures

Responsible for laboratories and 22 teaching assistants

Biology 1050 (Fall 2015)

Enrollment: 21 students

Presented 12 of 24 lectures given by Brown faculty

Biology 0200 (Spring 2015)

Enrollment: 310 students

Presented 27 of 36 lectures

Responsible for laboratories and 22 teaching assistants