



Science and Evidence for Design in the Universe

An Interdisciplinary Symposium

Yale University

November 2-4, 2000

Hosted by

The Rivendell Institute for Christian Thought and Learning

Co-sponsored by

The Discovery Institute
Yale Law School Forum on Cultural and Academic Freedom
Yale Students for Christ

Science and Evidence for Design in the Universe

Yale University

Thursday, November 2

8:00 p. m. First Plenary Session Law School Auditorium

Introduction and Welcome

David Mahan

Director *Rivendell Institute for Christian Thought and Learning*

First Speaker

Phillip Johnson

“The Wedge of Truth: How Sharp the Edge?”

Second Speaker

William Dembski

“No Free Lunch: Why Specified Complexity Requires Intelligence”

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Friday November 3

12:00-1:00 Informal Lunch Conversations

Lunch may be purchased at these cafeterias for approx. \$8.00 (cash.)

Location:	Speakers:	
Law School Cafeteria	Phil Johnson	127 Wall St.
Slifka Center	David Berlinski	80 Wall St.
SOM Dining Room Donaldson Commons	Michael Behe Martin Poenie	140 Prospect St.
Medical School Dining Room	Paul Chien Scott Minnich	367 Cedar St.
Davenport Fellows Dining Room	Jonathan Wells Paul Nelson	248 York St.
Timothy Dwight Fellows Dining Room	William Dembski Guillermo Gonzalez	345 Temple St.
Trumbull Fellows Dining Room	William Lane Craig Robin Collins	241 Elm St.
Calhoun Fellows Dining Room	Walter Bradley Jeff Schloss	189 Elm St.
Silliman Fellows Dining Room	Stephen Meyer	505 College St.

Friday November 3, (continued)

1:30-3:00 p.m. First Concurrent Session

1. Origin of Life Track

Mason 104

Chair: Anjeanette Roberts Ph.D.

*Cancer Research Institute Post Doctoral Fellow;
Department of Pathology, Yale Medical School*

Speaker: Martin Poenie "The Future of the Past: Where are
Studies on the Origin of Life taking Us?"

2. Philosophy Track

Davies Auditorium

Chair: Greg Ganssle Ph.D.

*Rivendell Institute for Christian Thought and Learning;
Teaching Fellow, Department of Philosophy, Yale University*

Speaker: William Dembski "Another Way to Detect Design?"

3. Biology Track

Becton CO-31

Chair: Fred Sigworth Ph.D.

*Department of Cellular and Molecular Physiology
Yale University Medical School*

Speaker: Jonathan Wells "The Iconography of Evolution"

3:30- 5:00 p.m. Second Concurrent Session

1. Origin of Life Track (cont.)

Becton CO-31

Speaker: Walter Bradley "Thermodynamics and the Origin
of Life"

Friday November 3, (continued)

2. Philosophy Track (cont.)

Davies Auditorium

Speaker Steve Meyer "The Methodological Equivalence of Darwinism and Design"

3. Biology Track (cont.)

Becton 508-A

Speaker: Paul Nelson "A Few Forms or One?: Analyzing the Logic of Common Descent"

5:30-6:30 p. m. Book signing and discussion

**Yale Book Store
77 Broadway**

7:30 p.m. Second Plenary Session

Law School Aud.

Introduction and Welcome

David Mahan

First Speaker

Steve Meyer

"DNA by Design"

Second Speaker

Michael Behe

"Half Full or Half Empty?: Design Critics and Proponents Analyze the Same Data"

Saturday November 4

1:30-3:00 p.m. First Concurrent Session:

1. Astronomy and Physics Track

Becton 102

Chair: Jon Hinkson
Rivendell Institute for Christian Thought and Learning

Speaker: Robin Collins "The Case for Design from Physics
and Cosmology"

2. Paleobiology Track

Davies Auditorium

Chair: Don Smedley
Rivendell Institute for Christian Thought and Learning

Speaker: Paul Chien and "The Cambrian Biota: Not what
Steve Meyer Darwin Expected"

3. Biology Track

Becton CO-31

Chair: Anjeanette Roberts Ph.D.
*Cancer Research Institute Post Doctoral Fellow;
Department of Pathology, Yale Medical School*

Speaker: Scott Minnich "Flagella: Tails of Molecular
Cooption"

3:30- 5:00 p.m. Second Concurrent Session

1. Astronomy and Physics Track (cont.)

Becton 102

Speaker: Guillermo Gonzalez "On the Correlation Between
Habitability and Measurability"

Saturday November 4, (continued)

2. Paleobiology Track (cont.)

Davies Auditorium

Speakers: Paul Nelson and Jonathan Wells “The Origin of Animal Body Plans:
Starting at the Top”

3. Biology Track (cont.)

Becton CO-31

Chair: Jesse Couenhoven

Doctoral Student Religious Studies -Theological Ethics

Speaker: Jeff Schloss “The Problem with Love: Evolution,
Design and the Quandary of Altruism”

7:30 p. m. Third Plenary Session

Law School Aud.

Introduction and Welcome

David Mahan

First Speaker

David Berlinski

“On Assessing Genetic Algorithms”

Second Speaker

William Lane Craig

“The Fine-Tuning of the Universe and Cosmic Design”

Hosts and Sponsors:

The Rivendell Institute for Christian Thought and Learning

The Rivendell Institute for Christian Thought and Learning is a special Project of Yale Students for Christ. It is a combination of a ministry to graduate students and faculty with an academic think tank. Our ambition is to revitalize a witness to Jesus Christ in all the life and labors of the University. We pursue this ambition along three lines. First, we engage students and faculty with the Gospel as the means to a relationship with their Creator and the surest foundation for a fruitful life and intellect. In addition, we motivate and equip Christians in the Academy to integrate their research and teaching with their faith. Third, we identify the supreme challenges to the gospel in the secular University in order to formulate an effectual response.

The Discovery Institute

The Discovery Institute is a Seattle -based public policy think tank specializing in national and international affairs. Founded in 1990, Discovery's mission is to make a positive vision of the future practical. Its programs deal with a wide range of issues, including science, technology, regional development, environmental policy , the economy, religion and public life, defense policy, and the future of representative government.

Yale Law School Forum on Cultural and Academic Freedom

The Yale Law School Forum on Cultural and Academic Freedom is a society that serves as a public forum for discussion, speakers and debates on the role of ethics, specifically Judeo-Christian ethical principles, in public policy and modern life.

Yale Students for Christ

Yale Students for Christ is a dynamic community of undergraduates seeking to embody and proclaim the life-changing love of Jesus Christ. We are committed to engaging the heart and mind through studying the Bible, prayer, worship, and public discourse. Among our activities are weekly meetings, small group bible studies within residential colleges, prayer meetings, retreats, and campus-wide lectures. Yale Students for Christ is a local chapter of Campus Crusade for Christ International.

Books by the speakers and other works on Intelligent
Design Theory are available at

Yale Book Store

77 Broadway

Book Signing
Featuring:

David Berlinski
Jonathan Wells
Michael Behe

and others

Friday November 3
5:30-6:30 p. m.

Speakers

Michael Behe

Michael J. Behe is Professor of Biological Sciences at Lehigh University in Pennsylvania. He received his Ph.D. in Biochemistry from the University of Pennsylvania in 1978. His current research involves delineation of design and natural selection in discrete subsystems of DNA replication. In addition to publishing over 35 articles in refereed biochemical journals he has also written editorial features in *The New York Times*, *Boston Review*, the *American Spectator*, the *Weekly Standard* and *National Review*. His book, *Darwin's Black Box* (The Free Press, 1996) discusses the implications for Neo-Darwinism of what he calls "irreducibly complex" biochemical systems. The book, which went through twelve printings before being issued in paperback, has been cited and reviewed internationally in over one hundred publications, and was recently named by *National Review* and *World* magazine as one of the "one hundred most important books of the 20th century." He has presented and debated his work at various conferences, including at the State University of New York, Stony Brook, the University of Notre Dame, Princeton University, University of Massachusetts at Amherst and Cambridge University. Besides many radio and television interviews, he has been featured on two episodes of the PBS program *Technopolitics*.

David Berlinski

David Berlinski received his Ph.D. in math from Princeton University and was later a postdoctoral fellow in mathematics and molecular biology at Columbia University. He has authored works on systems analysis, differential topology, theoretical biology, analytic philosophy, and the philosophy of mathematics, as well as three novels. He has also taught philosophy, mathematics and English at such universities as Stanford, Rutgers, the City University of New York and the Universite de Paris. In addition, he has held research fellowships at the International Institute for Applied Systems Analysis (IIASA) in Austria and the Institut des Hautes Etudes Scientifiques (IHES) in France. Recent articles by Dr. Berlinski have been featured in *Commentary*, *Forbes ASAP*, and the *Boston Review*. He is author of numerous books, including *A Tour of the Calculus* (Pantheon, 1996) which was named "one of the most interesting books published in 1996" by the *New York Times*, and *The Advent of the Algorithm* (Harcourt Brace, 2000) and *Newton's Gift* (Free Press, 2000). He is currently working on a book analyzing genetic algorithms.

Walter Bradley

Walter Bradley is a Professor Emeritus former Head of the Department of Mechanical Engineering at Texas A&M University. He received his Ph.D. in Material Science from the University of Texas. He has been the principal investigator on research grants and contracts totaling over \$3 million for the National Science Foundations, NASA, the US Department of Energy and private corporations. In addition to publishing over 100 technical articles in refereed journals on materials science and thermodynamics, he has co-authored several seminal works on the origin of life, including articles in the journal *The Origins of Life and Evolution of the Biosphere* and the book *The Mystery of Life's Origin*, which was re-published by Lewis and Stanley in 1992. *The Mystery of Life's Origin* remains the best-selling advanced level text on the origin of life.

Paul Chien

Paul Chien is Chairman and Professor in the Department of Biology at the University of San Francisco. He received his Ph.D. in Biology from the University of California at Irvine's Department of Developmental & Cell Biology. He has held such positions as Postdoctoral Fellow in the Department of Environmental Sciences at the California Institute of Technology, Pasadena; Instructor of Biology at Chinese University of Hong Kong; and a consultant to both the Kerckhoff Marine Laboratory of the CIT, and the Scanning Electron Microscopy & Micro X-ray Analyst in the Biology Department of Santa Clara University, California. Dr. Chien's work has been published in over fifty technical journals and he has spoken internationally, and on numerous occasions, from Brazil to mainland China where he has also been involved in cooperative research programs. He is currently working with leading Chinese scientists on the interpretation of crucial Cambrian-era fossils unique to the Chengjiang region of China, and will be authoring a book on these fossils. Dr. Chien recently edited and translated Phillip Johnson's book *Darwin on Trial* into Chinese.

Robin Collins

Robin Collins received his Ph.D. in Philosophy from the University of Notre Dame after doing doctoral work in Physics at the University of Texas, Austin. He has done postdoctoral work on the History and Philosophy of Science at Northwestern University. He is Associate Professor of Philosophy at Messiah College where he specializes in Philosophy of Science. He has published in academic journals and has

written chapters for anthologies and articles for encyclopedias. He is currently completing three books one of which, *The Fine-Tuning Design Argument* is funded by a Pew Research grant.

William Lane Craig

William Lane Craig holds a Ph.D. in philosophy from the University of Birmingham, England, and a Ph.D. in Systematic Theology from the University of Munich, where he studied under the noted German theologian Wolfhart Pannenberg. A well-known apologist and debater, he has published numerous technical articles on the theistic implications of the new cosmology and the anthropic-cosmological coincidences, including several in the *British Journal for the Philosophy of Science*. He has also published several books on the cosmological argument including *The Cosmological Argument from Plato to Leibniz* (London: Macmillan 1980). His most recent book, co-authored with Quentin Smith, is *Theism, Atheism, and Big Bang Cosmology* (Oxford: Clarendon 1993). He is Research Professor of Philosophy at Talbot School of Theology. Two of his books on God and time are forthcoming from Kluwer Academic Publishers, and another book, edited with J.P. Moreland, *Naturalism: A Critique*, will be published by Routledge.

William Dembski

William A. Dembski is Director of Baylor University's Michael Polanyi Center and Associate Professor in the Conceptual Foundations of Science at Baylor. He has a Ph.D. in Mathematics from the University of Chicago, a Ph.D. in philosophy from the University of Illinois, Chicago, for which he received a university award for best thesis in 1996 in the humanities, and an M.Div. from Princeton Theological Seminary. He has received two NSF fellowships, one for doctoral and one for postdoctoral work. He has conducted postdoctoral work at Cornell and M.I.T. in mathematics, at the University of Chicago in physics and at Princeton in computer science. He has published technical articles in mathematics journals such as the *Journal of Theoretical Probability*, in philosophy journals such as *Nous*, in theology journals such as *Epiphany*, and in journals such as *Perspectives* that deal with science/faith interaction. He is also a regular contributor to *Meta*. His books include *The Design Inference* (1998, Cambridge University Press), *Mere Creation* (1998, InterVarsity Press) and *Intelligent Design: The Bridge between Science and Theology* (1999, InterVarsity Press). He has made fundamental contributions to chance, chaos, probability and randomness theory. His present research shows that information is a fundamental and irreducible property of the biosphere.

Guillermo Gonzalez

Guillermo Gonzalez is an Assistant Research Professor of Astronomy at the University of Washington in Seattle, Washington, where he received his Ph.D. in Astronomy in 1993. He has done post-doctoral work at the University of Texas, Austin and at the University of Washington and has received fellowships, grants and awards from such institutions as the University of Washington, Sigma Xi (scientific research society) and the National Science Foundation. Dr. Gonzalez has extensive experience in observing and analyzing data from ground-based observatories, including work at McDonald Observatory, Apache Point Observatory and Dominion Astrophysical Observatory. He has also published over forty articles in refereed astronomy and astrophysical journals including *Astronomy and Astrophysics*, *Monthly Notices of the Royal Astronomical Society*, *Astrophysical Journal* and *Solar Physics*. Currently his research is focused on analyzing and interpreting ground-based photometric and spectroscopic observations of low and intermediate mass stars in relation to current theories concerning the late stages of stellar evolution and the formation and evolution of planetary systems. He recently won a three-year fellowship from the John Templeton Foundation to support research on evidence of purpose in nature.

Phillip Johnson

Phillip E. Johnson is the Professor Emeritus of Law at the University of California at Berkeley. In addition to being a distinguished and widely published American legal scholar, he is a well-known critic of Darwinism. His provocative *Darwin on Trial* (Regnery, 1991) has inspired academic symposia at Universities such as Stanford, Harvard, Chicago, Cornell, SMU and the University of Texas. In these settings, he has exchanged views with such scientific and philosophic luminaries as Michael Ruse, Stephen J. Gould, William Provine and Steven Weinberg. Other books Professor Johnson has written include *Objections Sustained* (1998, InterVarsity) and *Reason in the Balance: The Case Against Naturalism in Science, Law and Education* (InterVarsity, 2000). His most recent book is *The Wedge of Truth: Splitting the Foundations of Naturalism* (InterVarsity, 2000).

Steve Meyer

Stephen C. Meyer received his Ph.D. in the History and Philosophy of Science from the University of Cambridge in 1991 for a dissertation on origin-of-life biology and the methodology of the historical sciences. Formerly a geo-physicist with the Atlantic Richfield Company, he is currently Associate Professor of Philosophy at Whitworth College. He is a past recipient of a Rotary International

Scholarship, the American Friends of Cambridge scholarship (administered by the Cambridge Commonwealth Trust) and a Templeton Foundation science-religion teaching grant. He has published technical articles on the philosophy of science and editorial features in *The Wall Street Journal*, *The Los Angeles Times* and *The Chicago Tribune*. He has appeared on several national television and radio programs including, *HardBall with Chris Matthews* (CNBC), *Freedom Speaks* (PBS), *Technopolitics* (PBS), *Washington Conservative Live* (public-access), *Talk of the Nation* (NPR) and *FOX News* and *FOX Family Channel*. He is currently writing a book formulating a scientific theory of biological design, which looks specifically at the evidence for design in the encoded information in DNA.

Scott Minnich

Scott A. Minnich holds a Ph.D. from Iowa State University, and is currently Associate Professor of Microbiology at the University of Idaho. Previously he was an Assistant Professor at Tulane University, and did postdoctoral research with Austin Newton at Princeton University and Arthur Aronson at Perdue University. His research interests are temperature regulation of *Y. enterocolitica* gene expression, and coordinate reciprocal expression of flagellar and virulence genes. He has contributed to several published volumes in his field, and is widely published in technical journals, including *Molecular Microbiology*, the *Journal of Molecular Biology*, the *Proceedings of the National Academy of Sciences*, the *Journal of Microbiological Method*, the *Journal of Bacteriology*, *Applied Environmental Microbiology*, *Food Technology* and the *Journal of Food Protection*.

Paul Nelson

Paul A. Nelson received his Ph.D. from the University of Chicago's Department of Philosophy. His current research critiques aspects of macroevolutionary theory in light of recent developments in embryology and developmental biology. His newest publication, *On Common Descent*, has just been released by the University of Chicago's "Evolutionary Monographs" series. It is the first in this prestigious series to critique neo-Darwinism. He has written several articles on the philosophical aspects of evolutionary biology including one recently published in *Biology and Philosophy*. He also edits the journal *Origins & Design*.

Martin Poenie

Martin Poenie is Associate Professor of Zoology at the University of Texas, Austin. He received his Ph.D. from Stanford University. His current research in cellular regulation and development focuses on the mechanism of transmembrane signaling and how cells respond to external stimuli. He has published papers in *JMSA*, *Proceedings of the National Academy of Sciences of the United States of America* and *Biophysical Journal*.

Jeff Schloss

Jeffrey P. Schloss received his Ph.D. in Ecology & Evolutionary Biology from Washington University in St. Louis, Missouri. Following his doctoral work, he had extensive field experience at biological stations such as La Selva in the Organization for Tropical Studies, and such research centers as the Smithsonian Institution. In 1989, he became Chair of the Biology Department at Westmont College in California. His work on sociobiological theories of human altruism and morality, and ecophysiology of temperature and water balance has been published in such technical journals as *American Zoologist*, *Bulletin of the Ecological Society of America*, *Oecologia* and the *Canadian Journal of Botany*. He has been recognized with (two) Templeton Awards and a Pew Foundation Project in Curriculum Development. His current research focuses on structures of altruism in nature.

Jonathan Wells

Jonathan Wells has received two Ph.D.s, one in Molecular and Cell Biology from the University of California at Berkeley, and one in Religious Studies from Yale University. He has done extensive work as a postdoctoral research biologist at the University of California at Berkeley, and has taught biology at California State University in Hayward. Dr. Wells has published articles in *Development*, *Proceedings of the National Academy of Sciences USA*, *BioSystems*, *The Scientist* and *The American Biology Teacher*. He is also author of the book *Charles Hodge's Critique of Darwinism* (Edwin Mellen Press, 1988). His book, *Icons of Evolution: Why Much of What we Teach about Evolution is Wrong*, has just been released (Regnery Pub., 2000). Dr. Well's work in developmental biology poses a serious challenge to the neo-Darwinian idea that random mutations can create new body plans and organisms.

Acknowledgments:

We would like to thank the following people for making this symposium possible.

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