

### *Session 6*

Chair: Kostas Kampourakis

- 11.00-11.30: Myth 19, That the Modern Synthesis consists of random genetic mutation plus natural selection (David Depew, University of Iowa)  
Commentary, Richard M. Burian (Virginia Polytechnic Institute and State Univ.)
- 11.30-12.00: Myth 20, That melanism in peppered moths is not a genuine example of evolution by natural selection (David W. Rudge, Western Michigan University)  
Commentary, David Depew (University of Iowa)
- 12.00-12.30: Myth 21, That Linus Pauling's discovery of the molecular basis of sickle cell anemia revolutionized medical practice (Bruno Strasser, University of Geneva; absent)  
Commentary, Peter J. Ramberg (Truman State University)
- 12.30-01.30: Lunch

### *Session 7*

Chair: John L. Heilbron (University of California-Berkeley)

- 01.30-02.00: Myth 22, That the Soviet launch of Sputnik caused the revamping of American science education (John L. Rudolph, University of Wisconsin-Madison)  
Commentary, Michael Gordin (Princeton University)
- 02.00-02.30: Myth 23, That religion has typically impeded the progress of science (Peter Harrison, University of Queensland)  
Commentary, Ronald L. Numbers (University of Wisconsin-Madison)
- 02.30-03.00: Myth 24, That the "scientific method" accurately reflects what scientists actually do (Daniel P. Thurs, Madison, Wisconsin)  
Commentary, John L. Rudolph (University of Wisconsin-Madison)
- 03.00-03.30: Break

### *Session 8*

Chair: Ronald L. Numbers

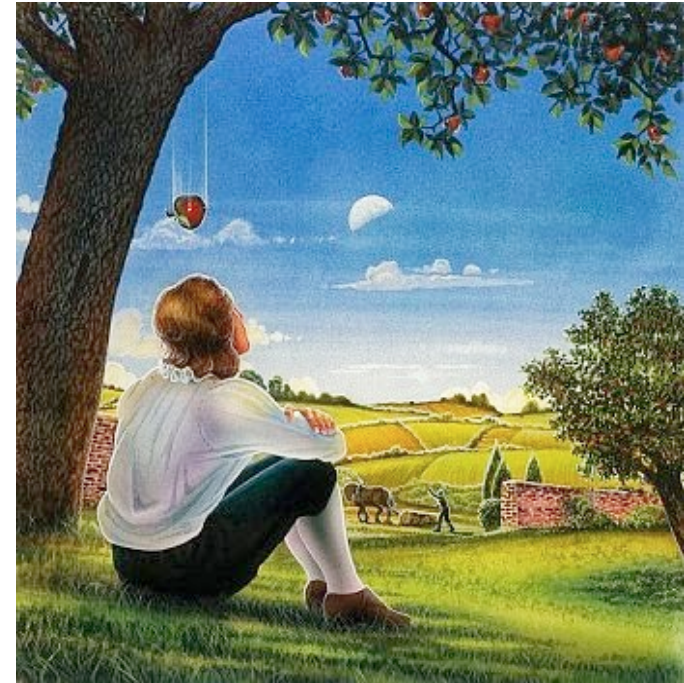
- 03.30-04.00: Myth 25, That science has been largely a solitary enterprise (Kathryn Olesko, Georgetown University)  
Commentary, Lesley Cormack (University of Alberta)
- 04.00-04.30: Myth 26, That a clear line of demarcation has separated science from pseudoscience (Michael Gordin, Princeton University)  
Commentary, Daniel P. Thurs (Madison, Wisconsin)
- 04.30-05.15: Concluding discussion
- 05.15-05.30: Exhortations on the preparation of the book chapters (Michael Fisher, Harvard University Press)
- 06.00-07.00: Cocktail hour, Letitia Pate Evans Hall
- 07.00-10.00: Conference Dinner, Letitia Pate Evans Hall

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# NEWTON'S APPLE AND OTHER HISTORICAL MYTHS ABOUT SCIENCE

**May 9-10, 2014**



An International Meeting  
hosted at Washington & Lee University  
and organized by  
Kostas Kampourakis (University of Geneva)  
Ronald L. Numbers (University of Wisconsin-Madison)  
and  
Nicolaas Rupke (Washington & Lee University)

Picture credit: Gonalo Pereira (Colgio Luso International do Porto)

### *Venues:*

Regular Sessions: Stackhouse Theater, Elrod University Commons

Plenary Lecture: Lee Chapel

#### **Friday, May 9**

08.30-08.40: Welcome by Daniel Wubah (Provost of the College, Washington & Lee University)

#### *Session 1*

Chair: Ronald L. Numbers

08.40-09.10: Myth 1, That no science was done between Greek antiquity and the Scientific Reformation (Michael Shank, University of Wisconsin-Madison)  
Commentary, Peter Harrison (University of Queensland)

09.10-09.40: Myth 2, That before Columbus geographers and other educated people thought that Earth was flat (Lesley Cormack, University of Alberta)  
Commentary, Michael Keas (The College at Southwestern, Fort Worth)

09.40-10.10: Myth 3, That alchemy and astrology had no place in early modern science (Lawrence Principe, Johns Hopkins University; absent)  
Commentary, Michael Shank (University of Wisconsin-Madison)

10.10-10.40: Myth 4, That the Copernican Revolution demoted the status of Earth (Michael Keas, The College at Southwestern, Fort Worth)  
Commentary, Gregory Macklem (University of Notre Dame)

10.40-11.00: Break

#### *Session 2*

Chair: Kostas Kampourakis

11.00-11.30: Myth 5, That the apple fell and Newton invented the law of gravity, thus removing God from the cosmos (Patricia Fara, University of Cambridge; absent)  
Commentary, Theodore Arabatzis (National and Kapodistrian University of Athens)

11.30-12.00: Myth 6, That Friedrich Wöhler's synthesis of urea in 1828 destroyed vitalism and gave rise to organic chemistry (Peter K. Ramberg, Truman State University)  
Commentary, Mansoor Niaz (Universidad de Oriente, Venezuela)

12.00-12.30: Myth 7, That William Paley raised scientific questions about biological origins that were eventually answered by Charles Darwin (Adam Shapiro, University of London-Birkbeck)  
Commentary, Julie Newell (Southern Polytechnic State University)

12.30-01.30: Lunch

#### *Session 3*

Chair: Mark Rush (Washington & Lee University)

01.30-02.00: Myth 8, That geologists were divided into opposing camps of catastrophists and uniformitarians (Julie Newell, Southern Polytechnic State University)  
Commentary, Nicolaas Rupke (Washington & Lee University)

02.00-02.30: Myth 9, That Lamarckian evolution relied largely on use and disuse and that Darwin rejected Lamarckian mechanisms (Richard Burkhardt, University of Illinois)  
Commentary, Kostas Kampourakis (University of Geneva)

02.30-03.00: Myth 10, That Darwin worked on his theory in secret for twenty years, his fears causing him to delay publication (Robert Richards, University of Chicago)  
Commentary, Michael Ruse (Florida State University-Tallahassee)

03.00-03.30: Myth 11, That Wallace's and Darwin's explanations of evolution were virtually the same (Michael Ruse, Florida State University-Tallahassee)  
Commentary, Erika Milam (Princeton University)

03.30-04.00: Break

#### *Session 4*

Chair: Gregory Cooper (Washington & Lee University)

04.00-04.30: Myth 12, That Darwinism has been "the only game in town" (Nicolaas Rupke, Washington & Lee University)  
Commentary, Adam Shapiro (University of London-Birkbeck)

04.30-05.00: Myth 13, That sexual selection (Darwin, 1871) received such a frosty reception that it was virtually forgotten for almost a century (Erika Milam, Princeton University)  
Commentary, Richard M. Burian (Virginia Polytechnic Institute and State Univ.)

05.00-05.30: Myth 14, That Louis Pasteur disproved spontaneous generation (Garland Allen, Washington University)  
Commentary: David W. Rudge (Western Michigan University)

#### *Plenary Lecture*

Chair: Laurent Boetsch (Washington & Lee University)

06.00-06.10: Welcome by Kenneth Ruscio (President of Washington & Lee University)

06.10-07.00: Myths about Science and its History, John L. Heilbron (University of California-Berkeley)

07.30: Dinner, Sheridan Livery Inn

#### **Saturday, May 10**

#### *Session 5*

Chair: Nicolaas Rupke

08.30-09.00: Myth 15, That Gregor Mendel was a pioneer of genetics, being ahead of his time (Kostas Kampourakis, University of Geneva)  
Commentary, Garland Allen (Washington University)

09.00-09.30: Myth 16, That "Social Darwinism" had a profound influence on social thought and policy, especially in America (Ronald L. Numbers, University of Wisconsin-Madison)  
Commentary, Robert J. Richards (University of Chicago)

09.30-10.00: Myth 17, That the Michelson-Morley experiment paved the way for the special theory of relativity (Theodore Arabatzis and Kostas Gavroglu, National and Kapodistrian University of Athens)  
Commentary, Kathryn Olesko (Georgetown University)

10.00-10.30: Myth 18, That the Millikan oil-drop experiment was simple and straightforward (Mansoor Niaz, Universidad de Oriente, Venezuela)  
Commentary, John L. Heilbron (University of California-Berkeley)

10.30-11.00: Break