

"Don't fight the darkness. Bring the light, and darkness will disappear". - *Maharishi Mahesh Yogi*

Phactum

The Newsletter of the
Philadelphia Association for Critical Thinking
March 2008

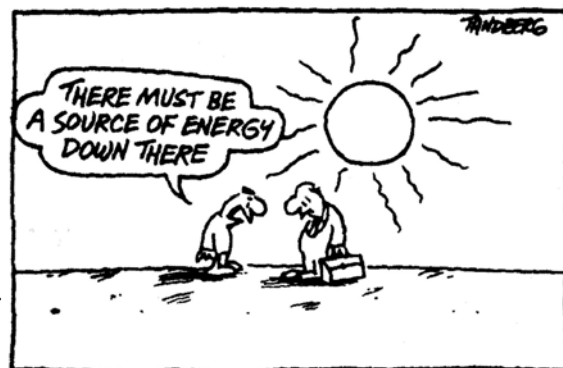
editor: Ray Haupt email: phactpublicity@aol.com www.phact.org

Real Free Energy - On Saturday, March 15, 2008, at 2:00 PM, the Physics Department of Community College of Philadelphia and PhACT will host **Mr. Nick Pine**, an electrical engineer, who will discuss **Real Free Energy**; a very timely topic. This meeting will be at Community College of Philadelphia, 17th and Spring Garden Streets, West Building Room W2-48 Admission is FREE and is open to the general public

There has been a perpetual supply of crackpots and con men promising energy with no fuel cost. But what about real viable proven forms of energy that are non-polluting and have no fuel cost like wave power, geothermal, bio-diesel hydroelectric, wind power and solar energy?

Enough solar energy hits the state of New Jersey to provide all the nation's energy needs. Solar photovoltaics are not yet cost-justifiable, but house heating energy from efficient solar systems can be nearly 2 orders of magnitude cheaper than electrical energy per peak watt, and a typical house in the Northeast needs 5 times more heat energy than electrical energy.

Our speaker, Nick Pine, has bachelors and masters degrees in Electrical Engineering and he's a Registered US Patent Agent (equivalent to a Patent Attorney). He used to do ultra marathons, built an auto gyro, and he's been designing solar house heating systems for a number of years. He amused his neighbors by building and testing a solar-powered sewage treatment system in his front yard. Nick has designed a number of creative frugal solar systems for residential, commercial and municipal applications across the country. Nick will review some basic science and engineering of solar heating solutions. Information about Nick's company and projects can be found on the internet at: <http://www.ece.villanova.edu/~nick/>



The PhACT Council

Eric Krieg, President
Bob Glickman, Secretary
Ray Haupt, Treasurer
Dr. David Cattell
Dr. David Cragin
Tom Napier
Harry Rothwell
Becky Strickland

Phactum is, in theory, printed 6 times a year and is the main propaganda organ for the Philadelphia Association for Critical Thinking.

If you are not a member/subscriber we invite you to become one by sending \$15 for a one year membership to PhACT, \$10 for students. Donations are welcome.

Send letters of rebuttal, ideas, short essays, poetry, opinion pieces, complaints, and lavish praise to Ray Haupt, Phactum editor, at phactpublicity@aol.com.

PHACT CALENDAR

The **Physics Department of Community College of Philadelphia** hosts meetings of **PhACT** - at 2:00 PM on the third Saturday of most months at Community College of Philadelphia, 17th and Spring Garden Streets, West Building Room W2-48. **Meetings are free and open to the public unless otherwise noted.**

Saturday, March 15, 2008 - **Nick Pine**, an Electrical Engineer for 40 years, will discuss **Real Free Energy**. In this age of Global Warming concern there are many crackpot con men selling elaborate schemes promising free energy without fuel costs. These plans mainly do not work, but in the realm of home heating there is technology that can yield vast amounts of free energy through solar power. Nick will discuss this technology and help separate fact from fiction.

Saturday, April 19, 2008 - **Andrew J. Petto, PhD**, will discuss his book and he will give an update of what is new in the ongoing tussle between Science and Religion in America's public school classrooms. By odd coincidence this PhACT lecture about the work and controversies surrounding one of the most influential scientists of all time will occur on the date of Charles Darwin's death, 126 years ago, in 1882. The book, "Scientists Confront Intelligent Design and Creationism", will be available for purchase at this event.

Saturday, May 17, 2008—Luncheon meeting. Details and speaker TBA.

Sunday, July 13, 2008 - **PhACT Picnic**. Details TBA. This event is Free but is reserved for members and their guests only.

Saturday, September 20, 2008 - **Dr. John Allan Paulos** will be our speaker.



Delaware Valley Mensa General Membership Meeting

GLOBAL WARMING: Where to Point a Finger

We're having a heat wave, a tropical heat wave,
The temperature's rising, it isn't surprising,....

Friday, March 14, 2008 at 8 pm. Climatologist Thomas Delworth will be talking about global warming - the science basis, where we are now, and future prospects. The General Membership Meeting will be held at the Police Administration Building, 750 Race Street, Philadelphia, PA. This meeting is DVM's only activity specifically open to the public, so feel free to invite your friends and relatives. Contact Pete Stevens (pete.stevens@phila.gov , 215-235-7383) for more information.

Don't let traffic on the Schuylkill Expressway interfere with attending. Consider taking SEPTA and exiting at Market Street East / Gallery, it is only a two block walk to the Police Administration Building.

Friday, March 14, 2008, the Freethought Society of Greater Philadelphia (FSGP) will host author **John Allen Paulos** for a free lecture. 7:30PM, Philadelphia Ethical Society, 1906 South Rittenhouse Square, Philadelphia. Paulos' newest book, **IRRELIGION**, has been commented on by the Raleigh Durham News Observer: Paulos is "as sure-footed as a tiger as he prowls through the theocratic landscape pouncing on sloppy thinking. To a large extent he

succeeds in demolishing the arguments of believers." Publishers Weekly says "Few of the recent books on atheism have been worth reading just for wit and style, but this is one of them: Paulos is truly funny." Additionally, **IRRELIGION** has had numerous blog mentions and pre-publication reviews. Paulos' book was also recently reviewed by the New York Times (Jim Holt, Sunday, January 13, 2008). ~Free and open to the public~

Wednesday, March 26, 2008 7:00 PM – 8:30 PM at the Franklin Institute. **Should the Government Make You Do It? Vaccine Mandates and Children.** First in a series of public forums on vaccine science, ethics, and policy. A panel discussion on the implications of government mandates for children in public schools. Vaccine scientists and medical ethicists will discuss the science of vaccines as well as the public health consequences. Leading vaccine experts from the Philadelphia medical community will share their perspectives and help you understand the rationale behind vaccine mandates. **Free Tickets! Call 215.448.1254 by March 21 for Reservations.** *Panelists include:* **Arthur L. Caplan, Ph.D.**, Director, Center for Bioethics, University of Pennsylvania School of Medicine. **Paul A. Offit, MD**, Professor of Pediatrics, University of Pennsylvania School of Medicine, Chief, Division of Infectious Diseases. **Eddy Bresnitz, MD, MS**, Deputy Commissioner/State Epidemiologist, State of New Jersey. **Frederic Bertley, Ph.D.**, Vice-President The Franklin Institute Center for Innovation in Science Learning. **The Vaccination Exploration Series** is presented by The Franklin Institute in partnership with The Center for Vaccine Ethics and Policy which is a program of the Center for Bioethics, University of Penn-

PHACT CALENDAR

sylvania, The Wistar Institute Vaccine Center, and The Vaccine Education Center at The Children's Hospital of Philadelphia. www.centerforvaccineethicsandpolicy.org.

Wednesday, March 26, 2008 at 630 PM for 7 Wednesdays. At Independence Branch of the Free Library, 18 S. 7th Street (7th and Market Streets). **Professor Llyd Ewan Wells** will discuss. ***Evolving Ideas of Life.*** Using an interdisciplinary approach that includes science, history, and literature, this course will explore various ways that we have imagined life. This course is presented by the **Wagner Free Institute of Science.** No preregistration required. Free. 215-763-6529 ex. 23

"April Fool's" Day, Tuesday, April 1, 2008. 7:00 PM at Ludington Library, 5 South Bryn Mawr Avenue, Bryn Mawr, PA 19010. The **Freethought Society of Greater Philadelphia** will host Dr. Theodore Schick, Jr. who will discuss ideas presented in his most recent book, *How to Think About Weird Things: Critical Thinking for a New Age*. Dr. Schick is also the co-author of the book *Doing Philosophy: An Introduction Through Thought Experiments*. Dr. Schick is Director of the department and professor of Philosophy at Muhlenberg College in Allentown, PA. You may also be familiar with Dr. Schick from his many publications in the Council for Secular Humanism's Free Inquiry magazine. Please join us for a very intellectually stimulating evening.

Thursday, April 3, 2008, 6:00 pm to 7:30 pm. Kenneth J. Matthews Lecture on Roman Civilization: **Shipwrecked Architecture: The Roman Column Shipwreck at Kizilburun, Turkey.** Deborah Carlson, Professor of Classical Archaeology, Texas A&M University, speaks. Since 2005, the Institute of Nautical Archaeology (INA) at Texas A&M has been excavating the remains of an ancient freighter carrying marble architectural elements that was wrecked off the Aegean coast of Turkey at the site of Kizilburun, sometime in the first century BC. At the University of Pennsylvania Museum of Anthropology and Archaeology. Free. Information: 215-898-4890.

Wednesday, April 23, 2008 at 12:00PM at the Free Library of Philadelphia, 19th and Benjamin Franklin Parkway. **Roger Mudd | The Place to Be: Washington, CBS, and the Glory Days of Television News.** Peabody and Emmy Award-winner Roger Mudd joined CBS in 1961, and as a congressional correspondent became a household name covering the historic Senate debate over the 1964 Civil Rights Act. In *The Place to Be*, Mudd describes the CBS news bureau of that era--the rivalries, the egos, and the frustrations involved in conveying world events to a national television audience in 30 minutes, minus commercials. FREE. No tickets required. For Info: 215-567-4341.

The PhACT Calendar is open to members and non-members who wish to announce meetings and events of other groups of which they are interested or affiliated. These events should be of some general interest to the Skeptical or Scientific community and should be within a reasonable radius of Philadelphia. Send submissions to the editor at phactpublicity@aol.com. Keep the announcements brief. Space is limited and insertions will be made on a first come-first served basis after the needs of PhACT are accomplished.

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Wagner Free Institute of Science

1700 West Montgomery Avenue
Philadelphia, PA 19121
ph 215-763-6529 www.wagnerfreeinstitute.org

Lecture: SATURDAY, March 29, 2008

Dr. Nina G. Jablonski

The Evolution of Human Skin Color

Human skin serves a range of functions - from protection against the elements to assertion of identity through self-decoration. One of its unique and most significant attributes is that it comes in a range of natural colors.

Dr. Nina Jablonski joins us on March 29th to discuss her groundbreaking research on the evolution of human skin. A biological anthropologist and paleobiologist, her research focuses on environmental adaptations in human and nonhuman primates. In the last 15 years, she has been increasingly absorbed in studies of "unseen" aspects of human evolution, most notably the evolution of human skin and skin color. Her studies have significance for human health, our understanding of human variation, and our use of skin color to define unique human "races".

Dr. Nina Jablonski is Head and Professor of Anthropology at the Pennsylvania State University. She is a Fellow of the American Association for the Advancement of Science and the California Academy of Sciences. In 2007, she was awarded the W.W. Howells Book Award of the American Anthropological Association for her book *Skin: A Natural History*. Her research on human skin has been featured in National Geographic, Scientific American, and several PBS documentaries. She has also appeared on The Colbert Report.

The Museum will be open from 12:00 - 4:00 PM

Talk begins at 1:00 PM . Free, but donations are welcome.

Founded in 1855, the Wagner Free Institute of Science is a museum and educational institution that is nearly unchanged from the nineteenth century. The museum building, a National Historic Landmark completed in 1865, houses a natural history collection begun by William Wagner in the early nineteenth century and expanded by naturalist Joseph Leidy in the 1880's. The collection includes skeletons, fossils, shells, minerals and mounted animals. The Museum is open to the public Tuesday-Friday, 9 AM to 4 PM

The Institute's free public education courses in science are in their 152nd year, making them the oldest program devoted to free adult education in the United States. The Institute also has a strong commitment to children's education. It offers a range of programs for visiting school groups, and cultivates special partnerships with neighboring inner-city schools.

For more information... www.wagnerfreeinstitute.org

Election Announcement

Even more important than the Pennsylvania Presidential Primary Election in April, **PhACT** is holding elections for its Council at the meeting on April 19, 2008 at 1 PM in the West building, Room. W2-48, of the Philadelphia County Community College (17th and Spring Garden Streets). All members of PhACT in good standing are invited to come and vote in a **scandal free election**. People nominated for election are:

President - Eric Krieg
 Secretary - Bob Glickman
 Treasurer – Ray Haupt
 Councilors – David Cattell, Dave Cragin, Tom Napier, Harry Rothwell, Becky Strickland
 New Councilor - Mike Caro

Letters

Editor: I must protest again. This is the second time I have seen Joel Kauffman criticize the Quackwatch website unfairly in letters to the editor in *Phactum*. He has the gall to tell us a website review found 8 out of 8 of Quackwatch's topics misleading without divulging that *he* is the author of said review! It would be easy to refute each of his misguided criticisms of Quackwatch, but space does not permit. So I will simply ask readers to look at the Wikipedia entry for Quackwatch to see the long list of awards it has received and the longer list of groups that recommend it as a reliable source. These range from *Lancet* to *The Journal of the American Medical Association* to US government agencies, to *U.S. News and World Report*, which named it one of the 3 best medical sites on the web. In one recent year a web survey named it *the* best medical website hosted by an individual doctor. It appears that Kauffman, quacks, and believers in weird things are Quackwatch's only critics.

I have been working with the Quackwatch website for years and have come to rely on it for accurate and unbiased information. In contrast, Kauffman's writings contain distortions, half truths, and logical errors. For instance, he wrote that "cholesterol is highly protective against cancer, infection and atherosclerosis," (which is demonstrably not true). He supported this ludicrous claim

not with data but with a speculative article by Ravnskov entitled "Cholesterol may protect against infections and atherosclerosis." "May." And nowhere in Ravnskov's article was cancer even mentioned. Kauffman seems to have pulled "cancer" and "highly" out of thin air. Nuff said.

Harriet Hall, MD
 The SkepDoc
 Puyallup, WA

Editor: Nice try, Tom, with your William III cleriheiw, but your poetry is pusillanimous. You may have feared to attempt a rhyme with Orange, but not I !

William of Orange
Caught his fingers in a doorhinge.
As he pulled his digits loose,
He said, "Hey! That's not orange juice!"

Yours for cleriheiw that boldly go where no one has (or should have) gone before.

Elaine Brody
 Paoli, PA

Editor: I'm already getting notes on your statement about "unerring identification of cards in sealed envelopes" in the current *Phactum*. We've never even suggested such a test, which would be unreasonable. Statistically-significant identification of cards would suffice to win the prize – if that were the claim being made.

Also, please don't "prefer to take [my] word" about the JREF prize money. Documentation is available to anyone who goes to our page, or phones us, or e-mails us, or faxes us. Documentation, not just words.

Also, we do not accept the expression "debunk" to describe what we do. Debunking is approaching a claim with the intention of proving it wrong; we do not do that. We have no goal but to discover/uncover the truth. We investigate...

James Randi
 James Randi Educational Foundation
 Fort Lauderdale, FL

Editor: In the last issue of *Phactum* (pp 1,4) an impression is given that no damage claim against thimerosal in a vaccine has ever been won by a plaintiff. The following e-mail arrived today, 13 Feb 08:

"This is certainly not true now. HHS has conceded the first Thimerosal test case (Poling V. HHS). "Experts filing reports in that [5 experts] case included Dr. Mark Geier and Dr. Andrew Zimmerman. The case is

currently awaiting a hearing on the amount of damages to be awarded. Further details will be released after the amount has been determined... I was one of the five experts.

This is being appealed as it was in my opinion an outrageous ruling.

-----Dr. Mark Geier."

Joel Kauffman
Berwyn, PA

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Various Ruminations

Collected/written by Ray Haupt, editor
(with help from others)

Maharishi Mahesh Yogi - R.I.P.

The Beatles great guru, Maharishi Mahesh Yogi, passed away on February 5, 2008 at age 91. Maharishi was one of the founders of the Transcendental Meditation (TM) movement. An important element of TM is to spend about 20 minutes daily reciting a mantra and exploring one's consciousness. One of Maharishi's mantras was "Don't fight the darkness. Bring the light, and darkness will disappear". Not a bad thought at all, but I can not say that I care to mumble that for 20 minutes each day.

Maharishi, it is rumoured, died from injuries resulting from a yogic flying collision. The FAA is investigating.

Interesting new websites

In his Quackwatch newsletter (Consumer Health Digest) of February 12, 2008, Dr. Stephen Barrett reports of a new website which notes dangers of uncritical thinking.

The newly created **What's the Harm?** Web site summarizes and links to hundreds of reports of people who have been killed, injured, or swindled by faulty beliefs. <http://www.whatstheharm.net>.

Quackwatch and Dr. Barrett need your help. If you haven't already done so, please read <http://www.ncahf.org/digest07/07-48.html> and send a contribution to support his work.

Jim Bergin and Judy Garvey from Blue Hill, Maine have tuned me into a Canadian version of Quackwatch which is run by Dr. Terry Polevoy who lives and works around London, Ontario. The website, which can be found at: <http://www.healthwatcher.net/>, has a ton of information about useless remedies and outright fraudulent medical practices. Rest assured that at Quack Gatherings pins are stuck into Barrett and Polevoy effigies and homeopaths are prescribing extra strength tranquilizers.

Dr. Harriet Hall is also highly unpopular in the Quack

Community. In the February 2008 Phactum we reported that she, along with a group of other doctors have inaugurated a website dealing with and de-bunking many delusional notions of health care. The website is updated daily and has many interesting topics. I was particularly fond of the article by Dr. Steven Novella about "Super Fruit Juices" since not long ago I did happen to come across Tahitian Noni juice for a mere \$30.00 per quart. I walked away with my money, without the Noni juice.

Dr. Hall's website is called **Science Based Medicine** and can be found on the internet at: <http://www.sciencebasedmedicine.org/>.

The Flat Earth

Eratosthenes, a Greek astronomer of the third century BC, had computed the circumference of the Earth within about 16% accuracy. Not bad considering the instrumentation available to scientists of that day and the fact that Eratosthenes observations were made at what is



Eratosthenes
(276 BC - 194 BC)

now called Alexandria, Egypt, roughly 29 degrees north latitude. His methodology applied at an equatorial locale would have been quite accurate. Over time other ancient scholars improved upon his calculations and some considerable number of those scientists were Islamic scientists located in Baghdad in the 8th century. They were sophisticated scientists and did a lot more than only accurately

determine the dimensions of the Earth.

Now, in the 21st century, an Iraqi Flat Earth scientist named Fadhel Al-Sa'd insists that the Sun is half the size of the Earth, that both are flat, and the Sun revolves around the Earth. Al-Sa'd bases his theories on his interpretation of the Holy Koran. A video of Al-Sa'd can be found on an internet video at <http://www.memritv.org/clip/en/1684.htm>. I have a feeling this guy is not too likely to be working on a satellite project in the near future.

I can not say that I have ever thought about modern Flat Earthers being other than some eccentric American kooks, but apparently that affliction goes beyond our shores. The International Flat Earth Society (IFES), based in Lancaster, California, was the successor to Universal Zetetic Society, which flourished in England in the 19th century. In 2001 the president of the IFES, Mr. Charles Johnson, passed away, and the cult of a few hundred now appears moribund. This society based its science and conclusions upon some rather wooly interpretations of the Holy Bible. Johnson had claimed that the Flat Earth Society was the oldest institution in the world stating "The Flat Earth Society was founded in 1492 B.C., when Moses

led the children of Israel out of Egypt and gave them the Ten Commandments at Mount Sinai."

I have not heard much about the Flat Earth Society lately other than it being used as an exemplification of pseudoscience. Dr. Offit did just that in his discussion of vaccine safety at the February PhACT meeting. It is a useful image but if you were to do a web search for Flat Earth you might find some surprising results. There are some spoof internet sites but none are serious about propelling the notion of a flat earth. No doubt there are devotees of that notion but they are few.

If you were to peruse various Creation Research websites you might expect to find some sympathy for the notion of a flat earth, but you will likely be disappointed. Jonathan Wells, a fierce defender of the Creation point of view at the Discovery Institute asserts that Flat Earth is not a truly biblical concept and that most educated Christians, even well before Christopher Columbus, knew that the earth was round and even had a pretty good idea of its size. Other scholars, including historian Daniel Boorstein, agree with Wells. Furthermore, the notion that Columbus was plagued by Flat Earth believers was a myth planted in popular opinion by the publication of American novelist, Washington Irving's fantasy *The Life and Voyages of Christopher Columbus* in 1828.

I, for one, thanks to Washington Irving and the fact that it was stated in my high school history textbook, have always believed that Columbus struggled against Flat Earth ignorance. It seems that I was wrong, but I never did believe in Headless Horsemen.

Health - Alarm the Public Department

BBC News reports of an Israeli study which indicates heavy cell phone usage has been linked to increased incidence of cancer in salivary glands. Have we not been down a similar path many times with no conclusive proof? Just what should one believe on such matters?

<http://news.bbc.co.uk/2/hi/health/7250372.stm>

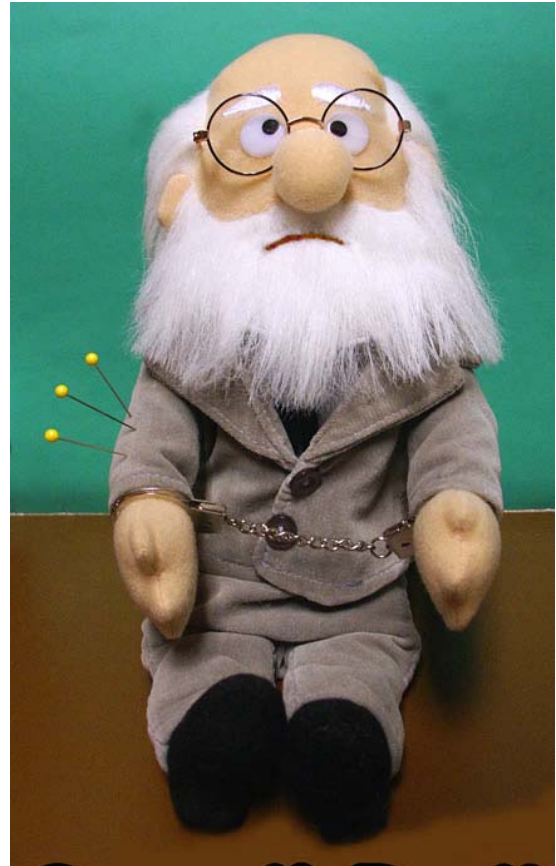
Health - A downside to Vaccines?

Phact member Joel Kaufmann, Ph.D., a chemist, passed along this item about vaccine safety. Thanks Joel.

Vaccines are Likely to Cause Insulin Dependent Diabetes in Over 2% of Children With a Strong Family History of Insulin Dependent Diabetes, New Data Indicates

By Classen Immunotherapies, Inc. - Baltimore, Feb. 25, 2008

Newly published data by Dr. J. Barthelow Classen shows that vaccines are particularly likely to cause



Be the first in your neighborhood to get one! The **James Randi Voodoo Doll** can be yours for a mere \$24 from the James Randi Education Foundation. How can you be without one? It comes equipped with Voodoo Pins, handcuffs, and a little coffin. What could be a more perfect and thoughtful gift for that special New-Ager in your life? Act fast before Sylvia Browne buys them all. Supplies are limited. Available at the JREF Store which can be found at <http://www.randi.org>:

diabetes in children with a strong family history of insulin dependent diabetes. Previous papers provided proof that vaccines cause diabetes in vaccine recipients at a rate which exceeds their benefit in the general population. New data indicates vaccines are particularly toxic to those with a strong family history of diabetes. For example, the hemophilus vaccine which had been proven to cause diabetes in approximately 1 in every 2,000 immunized children in the general public has now been linked to causing diabetes in 1 in every 50 immunized children (2%) who have a sibling with insulin dependent diabetes. The new data is published in the Open Pediatric Medicine Journal. An accompanying article in the same journal

links the hepatitis B vaccine to insulin dependent diabetes.

"The recent data shows that common childhood accines are especially dangerous to children with a strong amily history of diabetes. Parents of a child with a strong family history of insulin dependent diabetes or other should know that the administration of a full series of vaccines may have a greater than 5% chance of causing their child to develop diabetes."

Classen's research has become widely accepted. To view the published papers and to find out the latest information on the effects of vaccines on autoimmune diseases including insulin dependent diabetes visit the Vaccine Safety Web site: <http://vaccines.net>.

William F. Buckley, Jr. - R.I.P.

Willian F. Buckley, Jr. passed away on February 27 at age 82. Buckley was a prolific writer and for many years was the intellectual leader of the conservative movement in America.

The weekly National Council for Science Education (NCSE) newsletter has reported Buckley's passing and includes this little tidbit about him regarding the Evolution/Creation debate.

"With respect to the creationism/evolution controversy, Buckley will be best remembered for his participation in a 1997 Firing Line debate with the title "Resolved: The Evolutionists Should Acknowledge Creation," conducted at Seton Hall University in South Hall, New Jersey, on December 4, 1997, and moderated by Michael Kinsley. Buckley joined Phillip E. Johnson, Michael J. Behe, and David Berlinski in arguing for the affirmative, while Kenneth R. Miller, Michael Ruse, NCSE's executive director Eugenie C. Scott, and Barry Lynn argued for the negative. In his opening statement, Buckley retreated from the debate's title, saying, "Not everyone on the affirmative side embraces creation. What we contend is that everyone should acknowledge creation as an alternative explanation for cosmic and biological happenings now thought by so many as naturalist in providence and momentum," but continued, "my colleagues and I judge that the evidence for the naturalist theory of evolution is not merely unsubstantial, it is fanciful." As the debate proceeded, however, it remained unclear what Buckley's objections to evolution were and what indeed he thought evolution was; both Ruse and Lynn were unsuccessful in attempting to elicit a clear explanation from him."

I find it fascinating that one so learned as Buckley had difficulty appreciating the figurative and literal mountains of carefully obtained evidence that clearly points to the fact of the evolutionary process. The evidence is neither unsubstantial or fanciful as Buckley suggests.

The NCSE website is <http://www.ncseweb.org>.

Help! Editing Phactum is a fun and rewarding experience but would be even more fun and rewarding if more members and readers contributed articles and letters to express your view of some matter that concern them and might be of interest to others in the skeptical community. Contrarian views are very welcome. No partisan politics please. Constructive letters about the appearance and contents of Phactum are appreciated. What do you feel would improve the publication? We would like to know. Send more cleriheews!



Lorenzo de' Medici (1449-1492), called "il Magnifico"

We would not object to some financial help. A newsletter is a major expense for a small organization and donations are greatly appreciated. **Be Magnificent!**

Soundbites

Compiled by Becky Strickland

♣ "Our main concern is that the human genome is set to become a massive marketing scam." Helen Wallace of Genewatch warns against unscrupulous companies selling cheap, inaccurate genetic tests. *The Guardian*, London, January 22, 2008.

♣ "We can only hope.....that politicians will see the value in science beyond a cash return on investment. Astronomy and particle physics experiments probe some of the most profound issues in science. They also generate technological spin-offs and create a highly trained, specialized workforce, but if they had to be justified on purely economic grounds, they could disappear altogether." Editorial in *New Scientist*, January 19, 2008, arguing against science funding cuts and other restrictions in both UK and USA. Currently, these cuts appear to be hitting astronomy and particle physics the hardest.

♣ "The height of reckless irresponsibility on the part of ABC and its parent company, The Walt Disney Co." Renee Jenkins, president of the American Academy of Pediatrics, blasts the makers of *Eli Stone*, a new drama with a storyline in which a flu vaccine causes autism. Associated Press, January 28, 2008.

♣ "Not only does creationism remain a troubling force in America, it has gone global. The Clergy Letter

project....is a two paragraph testament demonstrating that Christians can embrace evolution and calling for the teaching of evolution in public schools. " Michael Zimmerman, founder of the project, professor of biology and dean of the College of Liberal Arts and Sciences at Butler University, Indianapolis, Indiana. *New Scientist* , February 2, 2008. At this date, the letter has over 11,000 signatures. www.butler.edu/clergyproject/religion_science_collaboration.htm, or Google 'clergy letter project' if you want to support the project.

♣ "Paulos wades through the classical arguments for the existence of God and systematically refutes them. It is readable and concise, with moments of great logical rigor and dry wit." Amanda Geffer, on John Allen Paulos' new book, *Irreligion*. *New Scientist*, February 2, 2008. (See page 11 for book description)

♣ A study of 250 children in the UK has cleared the measles, mumps and rubella (MMR) vaccine of any link with autism. It is the third and largest study to do so. It also found no link between the vaccine and bowel symptoms in any of the participants with autism, the authors report in *Archives of Disease in Childhood* (DOI:10.1136/ad.2007.122937) reported in *New Scientist*, February 9, 2008.

♣ "Hillary Clinton will end this assault on science." Clinton adviser Thomas Kalil of the University of California, Berkeley, tells how his boss plans to remove ideological constraints on policy-making. *Agence France-Press*, February 18, 2008.

♣ "There is 'design' in nature, and we should take that word away from the intelligent design movement." In a talk titled "Communicating Science in a Religious America", biologist and key proponent of evolution, Kenneth Miller, argued that scientists have made a mistake by avoiding such language to describe their work. *The Guardian*, February 17, 2008.

♣ "There is no evidence to show the effectiveness of any of the [torture] interrogation techniques used by the US." Editorial in the February 23, 2008 issue of *New Scientist* , arguing that torture does not produce useful information.

♣ Catch-up measles vaccinations are needed for hundreds of thousands of children in the UK who missed out during the autism scare over the MMR triple vaccine, warns the Health Protection Agency. Last year, the number of measles cases in England and Wales was at its

highest since 1995. Reported in *New Scientist*, March 1, 2008.

♣ "We biologists choke on the idea of such buffoonery in the Darwin building" Evolutionary biologist Steve Jones criticizes officials at University College London over their decision - later reversed - to allow a creationist organization called Harun Yahya to host a talk in a hall named after Darwin. Reported in *The Daily Telegraph* February 26, 2008.

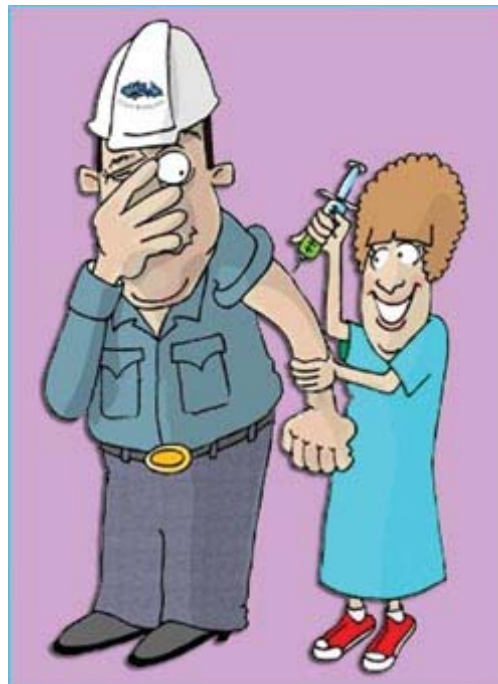
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February 2008 Meeting Report

By Becky Strickland and David Cragin, PhD

On Feb 16, Dr. Paul Offit, an internationally recognized expert in immunology and virology and author of several books, spoke on vaccine safety.

Dr. Dave Cragin, a toxicologist and Councilor of PhACT, introduced Dr. Offit and noted that 100 years ago the main diseases that killed people were largely beyond their control. He commented that virtually all the major scientific breakthroughs of the 20th century that were developed to control these diseases are now under attack by people who don't understand the science. An ex-



ample of this is vaccines. The ongoing controversy concerning vaccines and autism is especially intense despite of a large body of properly conducted and replicated research that shows no link.

Dr. Offit noted that the controversy was launched by a study published in *LANCET* in 1998 by Wakefield et al, that had only 8 subjects but 13 authors (he wryly commented "A study should have more subjects than au-

I support the aims of PhACT and would like to join/rejoin for the next year. The annual membership is \$15 and \$10 for students. I have enclosed a check payable to **PhACT**.

Membership dues of \$_____ enclosed to pay for _____ years of membership.

Donation of \$_____ enclosed for additional support

Name: _____ Phone: _____

Address: _____

_____ E_mail _____

□
□ **Mail checks to:** □
□ **PhACT** □
□ **639 W. Ellet Street** □
□ **Philadelphia, PA 19119** □
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thors!”). The study was poorly designed and never replicated but it had powerful effects. It scared many people into not vaccinating their kids. Despite many studies showing that neither the thimerosal in the MMR vaccine nor the vaccine itself caused autism, thimerosal has been removed from many vaccines. As expected, this removal has had no impact on rates of autism. Thimerosal is a preservative and is especially important when used in multidose vials because it protects the vaccine from microbial contamination. Its removal can be problematic, particularly in the developing world.

Offit suggested that part of the problem with thimerosal is that although it is an ethyl mercury compound, it is confused with methyl mercury (CH_3Hg), which is more dangerous and takes longer for the body to excrete [Yes, one or two atoms can produce a very different substance – think of the difference between H_2O and H_2O_2]

If the correct science is available, why does the controversy persist?? Offit stated the media’s job is to entertain, not inform, and setting up a controversy is very riveting. Many journalists don’t understand science and like to be seen as defending the weak against the powerful. (Or, comforting the afflicted and inflicting the comfortable!) Offit has turned down opportunities to share a stage and debate those who oppose childhood vaccines. Claims of health effects should not be debated but tested using rigorous scientific methods. Offit pointed out the resources spent on the vaccine controversy could be spent on medical research that is beneficial.

Offit remains justifiably optimistic about the scientific method. “Science gets it wrong often, but is self correcting and fluid. That fluidity is confusing to some people.” He suggested the pharmaceutical companies have lost credibility by advertising prescription drugs directly to consumers and by heavily marketing lifestyle products



such as hair loss and wrinkle treatments. But, he defends the companies. Researchers develop vaccines because they have loved ones to protect. Vaccines make less money for the companies than drugs that are taken every day for years (such as cholesterol drugs, insulin products and pain medications). And the source of funding for drugs is not an ethical issue. “Good science will be replicated. Bad science won’t”.

Offit is an entertaining and polished speaker who used humor and many references to pop culture to make his points.

[Side note by Dr. Dave Cragin: Mercury is another example our mistaken view of "how clean" the world used to be. In the US, mercury exposures have decreased dramatically since 1960 (the year when exposures were estimated to have peaked). We no longer routinely paint our open cuts with mercury (e.g., Mecurochrome), use mercury-based teething creams (e.g., calomel) or mercury based diaper ointments with infants. Environmental levels of mercury have declined as well. Whereas until early 1960s, the organic mercurials were the most effective diuretics available, their use today is unheard of. The good old days? ---they were truly terrible. See: "The good old days, they were terrible, O. Bettman, 1974]

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Each day, as I take various pills, I realize that without those pills I might not be alive -- and, if I were, life would not be worth living. Yet those who produce these medications are under constant attack from people who produce nothing. - Thomas Sowell

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Benedict Arnold
1741 - 1801

USS Philadelphia and Benedict Arnold



Gondola *USS Philadelphia* - On display at the Smithsonian Institution

In the last Phactum we had a little item about a ship, the *USS Philadelphia*, which had been captured by the Barbary Pirates in 1803 and in 1804 was sunk in a heroic naval action by Lt. Stephen Decatur. That was not the first *USS Philadelphia* however. The first *Philadelphia*, a gondola constructed by Gen. Benedict Arnold on Lake Champlain at Skenesboro, N.Y., was laid down early in July 1776, launched in mid-August, and placed in service shortly thereafter under a Capt. Rice. *Philadelphia* was one vessel of a 15 ship flotilla constructed by General Arnold, the purpose being to impede the anticipated British invasion being launched from Montreal.

Late in August of 1776 General Arnold assembled his little fleet and cruised provocatively on the upper lake. He stationed his ships on the New York shore near Valcour Bay to intercept the superior British squadron's advance on Fort Ticonderoga. The two forces clashed on 11 October and during a six-hour fight British guns holed gondola *Philadelphia* with a 24-pounder shot and she soon sank.

Arnold slipped away with the remainder of his fleet, but he lost most of his ships during a two-day running battle.

Arnold lost the naval battle but delayed the British advance until approaching winter caused them to suspend operations until spring. The Americans made good use of the year of grace which their ships on Lake Champlain had won.

Philadelphia was raised in 1935 by a group of marine archaeologists headed by Col. Lorenzo F. Hoggland. She is now the property of the Smithsonian Institution and is on display in the Museum of History and Technology.

There have been six ships in the US Navy named *USS Philadelphia*, the current one being a nuclear powered submarine.