



Science Olympiad National Tournament Arrives at GW!

GW, in partnership with DuPont, will host the 2008 Science Olympiad National Tournament on its Foggy Bottom and Mount Vernon campuses May 30 – 31, 2008. More than 5,000 middle and high school students and teachers from across the county will gather at GW to take part in rigorous academic interscholastic competitions. An invitational tournament also was held at the university on Jan. 26, 2008. For more information, visit <http://scienceolympiad.gwu.edu>.

Facts about GW and its Science Programs

1. Akos Vertes, GW professor of chemistry, biochemistry, and molecular biology and founder and co-director of the W.M. Keck Institute for Proteomics Technology and Applications, and Peter Nemes, GW graduate student, have discovered a revolutionary technology in the field of mass spectrometry. Called laser ablation electrospray ionization (LAESI), the new method allows researchers to almost instantaneously examine living organism tissues, such as human, animal, and plant, at the cellular level. The groundbreaking research was published in *Analytical Chemistry*, November 2007, "Laser ablation electrospray ionization for atmospheric pressure, in vivo, and imaging mass spectrometry."
2. George Washington University Professor Brian Richmond and Stony Brook University Professor William Jungers have discovered that humans' early ancestors were adapted to walking upright on two legs almost six million years ago, settling scientific debate over fossils discovered in 2000. This finding shows that the fossils belong to very early human ancestors and that upright walking is one of the first human characteristics to appear in our lineage, just after the split between human and chimpanzee lineages. The discovery was published in the March 21 issue of the journal *Science*.
3. Researchers at The George Washington University present new evidence to support the theory that the fossil species *Homo floresiensis*, known as the "Hobbit," represents a unique human lineage that diverged from our own, possibly as long ago as 1.7 million years ago, and strikes another blow against the idea that human evolution occurred in a linear progression. The research appears in the March 2008 *Proceedings of the National Academy of Sciences*.
4. GW is home to the National Crash Analysis Center (NCAC), a federally funded research center concentrating on vehicle crash research. The NCAC has developed finite element models, a computer simulation technique used in engineering analysis for more than a dozen passenger cars, sports utility vehicles, and pick-up, single-unit, and tractor-trailer combination trucks. GW faculty also have created models for guardrails, concrete safety shapes, transitions, end treatments, sign supports, breakaway devices, cable barriers, mailboxes, and other roadside hardware.
5. Cutting-edge research at GW Medical Center in collaboration with its partners into genomics will ultimately provide physicians with the ability to customize treatments, including preventive plans, medications, and even dosages, based on an individual's inheritance, or genome.
6. The Department of Microbiology, Immunology, and Tropical Medicine has developed the first vaccine for human hookworm infection—a disease affecting 600 million people living in developing countries, especially sub-Saharan Africa and Brazil; pioneering the concept of developing vaccines in the non-profit sector; and have created one of the only academic departments of tropical medicine in the nation and the first in Washington, D.C.

7. GW's School of Public Health and Health Services is leading a national program to reduce emotional and behavioral health problems among school children in low-income, immigrant, and refugee families.
8. GW's School of Engineering and Applied Science led the nation in the percentage of doctoral degrees awarded to women, according to the American Society for Engineering Education. Women represented 31.4 percent of new engineering Ph.D.s at the university. GW also ranked 10th nationwide in the percentage of women engineering faculty members, with women accounting for 13.3 percent of full-time School of Engineering and Applied Science faculty, as reported in the October 2004 issue of ASEE's magazine *Prism*.
9. Famous GW faculty significantly shaped the history of medicine in the last century. Among these professors were Major Walter Reed, who identified the mosquito as the carrier of yellow fever, and Dr. Frederick Russell, who introduced the typhoid vaccine to the United States Army.
10. Physicist George Gamow, who worked on the mystery of atom splitting, was a GW faculty member from 1934 to 1956; early on he predicted the theory of the "genetic code" (later confirmed by DNA studies) and the "big bang theory" (later confirmed by scientists at Bell Labs).
11. Edward Teller was on GW's faculty from 1935 to 1945. Teller is best known for predicting the Jahn-Teller Effect, which describes the distortion of electron clouds that affects the chemical reactions of metals.
12. In 1939, the renowned scientist Niels Bohr first announced the fission of uranium at a conference held at GW, ushering in the nuclear age. Years later, GW scientists and engineers joined with NASA to create the Joint Institute for the Advancement of Flight Science, which has played a key role in the exploration of space.
13. Vincent du Vigneaud received the Nobel Prize in Chemistry in 1955 for what the citation called "his work on biochemically important sulfur compounds, especially for the first synthesis of a polypeptide hormone"—research he had completed while at GW in the 1930s.
14. In 1970, GW lecturer Julius Axelrod shared the Nobel Prize in Physiology or Medicine for his work on humoral transmitters.
15. GW's Virginia Campus is a robust center for innovative research, graduate education, and advanced partnerships. As the university's research and technology campus, it is creating centers of excellence in transportation safety and security, public health and homeland security, professional and executive education, and information technology and telecommunications. Located in Ashburn, Va., the campus is strategically positioned in the Northern Virginia technology corridor near Dulles International Airport.

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About The George Washington University

Located four blocks from the White House, The George Washington University was created by an Act of Congress in 1821. Today, GW is the largest institution of higher education in the nation's capital. The university offers comprehensive programs of undergraduate and graduate liberal arts study as well as degree programs in medicine, public health, law, engineering, education, business, and international affairs. Each year, GW enrolls a diverse population of undergraduate, graduate, and professional students from all 50 states, the District of Columbia, and more than 130 countries.

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