



Director's Matters

"Genes and Jazz"

On Friday, May 29, at the Smithsonian Natural History Museum, I had the pleasure of hearing a science lecture and jazz concert at the same time. The occasion was the first Washington performance of "Genes and Jazz," an unusual performance written and produced by Harold Varmus, the Nobel Prize-winning molecular biologist, and his son Jacob Varmus, an accomplished jazz musician and composer. The show debuted last fall at the Guggenheim Museum in New York. It seemed most appropriate to me that the performance could be equally at home in an art museum or science museum as the production is an amalgam of the two endeavors.



Jacob Varmus

Harold Varmus

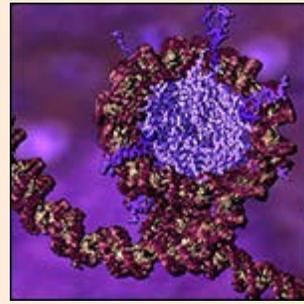
Harold Varmus is well-known to the science community and has had a very distinguished career in science, science administration, and science policy. He shared the 1989 Nobel Prize in medicine with J. Michael Bishop for studies in the genetic basis of cancer and

the discovery of how cancer-causing oncogenes can develop from normal cellular genes. Their work presaged the modern development of targeted gene therapy for cancer treatment. During the Clinton administration Varmus was director of the largest agency for funding basic research in the world: the National Institutes of Health. His tenure was at a particularly exciting time for NIH as its annual budget increased from \$10B to almost \$16B. This budgetary windfall was quite disconcerting to the physical science community, which saw its budgets during this first post-Cold War decade fall or stay flat. Varmus was viewed, however, as a sincere friend of the physical science community because he published an influential op-ed, "Squeeze on Science" in the *Washington Post* (October 4, 2000), which stated that fundamental advancements in biomedical science were closely linked to advancements in physical science.

Most scientists (including yours truly) have harbored hopes that their children would follow their footsteps in scientific careers. For several families (i.e. [the Curies](#), [the Braggs and the Bohrs](#)), Nobel Prizes seem to run in the genes. Harold Varmus' son Jacob, now in his mid-thirties, is well on his way to an accomplished career in music. The production and performance of "Genes and Jazz" identify linkages between the artistry of jazz and the artistry of the basics of biology—from cells dividing, to DNA molecules dancing as they unzip to replicate their genetic code, to the astounding diversity in the plant and animal kingdoms.

The production was designed to please both sides of the brain. On stage left, Harold Varmus sits at a lectern and delivers a four-part lecture on biology, moving from the single cell to the complex organism at the top of the evolutionary tree—us. At center stage, you see the modern crutch for any scientific

lecture—the PowerPoint slide show—illustrating the lecturer's points. On stage right are Jacob Varmus and his very accomplished jazz quintet. Father and son cue each other as music introduces, accompanies, or concludes a scientific point



on the slide. The performance appears to work best when the music accompanies a series of remarkably beautiful computer animations of molecular biology in action as DNA replicates by unzipping its double helix (still shot shown on the right from the animations by [Drew Berry](#)), or when the music accompanies videos of cells dividing, viewed with successive fluorescent images that are sped up to match the cadence of the music. The choreography isn't perfect among musician, image, and lecturer, but I have to assume that the performance is still undergoing "off-Broadway" trials. I recommend it to anyone who enjoys art, music, or science. The convergence of all three may broaden your perspective, which is precisely what the Varmuses had in mind.

Sincerely,

Fred

Publishing Matters

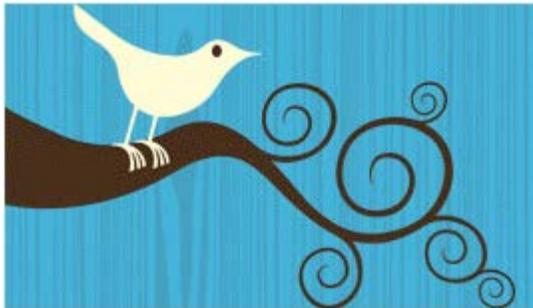


Image from Twitter.com

AIP traverses the Twittersphere

AIP continues to reach out to scientists, students, and librarians through new channels. One of the latest avenues is through the microblogging site [Twitter](#). We started "tweeting" from [AIP Publishing](#) in April on a wide range of topics, including [AIP journal](#) content, [conference proceedings](#), [DBIS videos](#), [FYI science policy news bulletins](#), Member Society

announcements, reports and developments of interest to librarians, and more. To see the tweets we've sent so far, visit our [AIP Publishing](#) profile. In the two months we've been twittering, we've sent more than 280 tweets to our group of followers, which now numbers more than 750! We hope to continue to build our AIP Twitter community by engaging scientists, librarians, students, journalists, and science writers and drawing their attention to AIP's valuable content and services. We encourage you to pass on any exciting news or services you think AIP should promote through Twitter. Contact [Bruce Shriver](#) and [Alison Waldron](#) with your tweet ideas.

Physics Today at CLEO/IQEC

Physics Today (PT) sponsored an exhibitor lounge June 2–4 at the Conference on Lasers and Electro-Optics (CLEO) and the International Quantum Electronics Conference (IQEC) in Baltimore, MD. The conferences and the concurrent exhibit show have been managed by the Optical Society of America and the American Physical Society for more than 20 years. Four *Physics Today*



advertising representatives and publisher Randy Nanna met with more than 300 prospective advertisers as exhibitors came to the lounge for refreshments or a quiet place to sit. Nanna commented, "We believe in continuing our marketing initiatives even in a down economy. Research shows that companies which increase or maintain ad spending levels during a recession come out of the slump faster and with a greatly increased market share. These lounges are an expensive venture for us, but it's worth it if we can get three ad pages or a couple of ad contracts."

Physics Resource Center Matters

2009 SPS Outstanding Student Award winners named

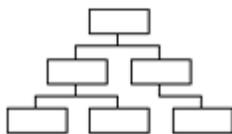


Joshua Fuchs (left), from Rhodes College, and Gabriel Caceres (right), from Augustana College, are recipients of the 2009 Society of Physics Students' Outstanding Students Awards for Undergraduate Research. They will represent the United States and SPS at the [2009 International Conference of Physics Students \(ICPS\)](#), August 10–18, 2009, in Split, Croatia. There, the students will present their research to peers from more than 30

countries. Fuchs's research concerned [binary orbital motion of electrically charged spheres in weightlessness](#). Caceres worked on [supersymmetric dark matter as the source of the WMAP haze](#). Yes, they are indeed undergraduates, folks.

Around AIP

Who we are—Production Operations' Team 2



Continuing coverage of the massive function of AIP [Production Operations](#), we focus this week on Team 2 (see the [organizational chart](#), page 34). Led by Debbie Gilde, Team 2 takes articles from manuscript to publication for several journals, including 23 journals for the American Society of Mechanical

Engineers (with two more on the way), the *Journal of the Acoustical Society of America*, *Noise Control Engineering*, and four AIP journals: *Journal of Mathematical Physics*, *Journal of Applied Physics*, *Journal of Physical and Chemical Reference Data*, and *Journal of Renewable and Sustainable Energy*. In addition, Team 2 produces journals for the Electrochemical Society, the Society of Exploration Geophysicists, and The Society of Rheology. One of the hallmarks of Team 2 is its ability to work through page crunches, which inevitably happen because the team also handles special publications and conference proceedings. They maximize efficiency with tried-and-true teamwork.

Stay tuned for next week's spotlight of Team 3.



Production Operations' Team 2 staff, from the left: Deborah Gilde, Susan Canty, Kevin Malone, Maureen Onufrey, Theresa Fucito-Brooks, Patricia Peterson, Pamela Moyer, Joanne Dolce, Debra Macahdo, and Janet Wickham.

Not pictured are Valerie Caccioppoli, Helen Rabb, Danielle Giordano and Geraldine Finlan.

We invite your feedback to this newsletter via e-mail to aipmatters@aip.org.

For past issues of this newsletter, visit the [AIP Matters archives](#).