# LETTERS

#### "The excitement of science"

How Harvard undergraduates reacted to the announcement that Harold Varmus (at right) would be their commencement speaker—and what he actually said—are discussed by readers. A "low-tech" solution to the famous Hamiltonian cycle problem is proposed. Researchers describe the "dilemma of resampling" that can arise when one uses PCR to estimate the genetic diversity of an organism or a virus. In a continuing discussion, events leading up to a gene therapy trial are detailed. And how many people died in a plague, possibly caused by the Ebola virus, in Athens in 430 B.C.?



#### Varmus at Harvard

It is sad, but not surprising, that the Harvard University student population ridiculed the choice of Harold Varmus, director of the National Institutes of Health (NIH), as their 1996 commencement speaker (Random Samples, 21 June, p. 1747). I was hoping that times were changing. When I graduated from the University of Pennsylvania in 1986, the commencement speaker was Michael S. Brown, who won with Joseph Goldstein the 1985 Nobel Prize in Medicine and Physiology for their discoveries in cholesterol metabolism. I planned to enter a graduate program in biology in the fall, so Brown's excellent speech was personally inspiring. However, the majority of Penn's undergraduate population (including the hundreds of Wharton business school, pre-law, and even pre-med undergraduates) moaned, fidgeted, and rolled eyes during the speech. I suppose we can all aspire to be scientists who somehow contribute to the body of scientific knowledge in such a way that we are appreciated by our peers, but even the stars of our community are not going to be heroes to many.

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I was disappointed by the coverage of Harold Varmus's commencement address at Harvard. The contents of the speech itself were not described. Instead, the piece mocked precommencement undergraduate reaction to the selection of an NIH director as speaker. The address confirmed the wisdom of that selection. Varmus spoke directly to the graduates, their families, and other alumni, reminding them of the excitement of science and of its ability to bring about change. He placed dramatic advances in medicine in the context of creative curiosity about fundamental biology. Many of us concerned with undergraduate science education and biomedical research at Harvard found the address inspiring. An account of the talk might have allowed readers to also take pleasure and pride in what Varmus had to say.

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*Editor's note*: The full text of Harold Varmus's Harvard commencement address can be found at the *Harvard Magazine* home page—http://www.harvard-magazine.com/ cg/varmusaddress.html

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