Ohio Universities

It was with real interest that I read John Walsh's article (17 July, p. 253). Against such a background of appreciation I am sorry to have to call attention to two ways in which the article could produce misunderstanding.

The article states: "The other state universities operate a variety of master's degree programs and a few doctoral programs in cooperation with Ohio State." Your source was incorrect in this matter. Kent State University established Ph.D. programs in the fall of 1961 after years of careful planning and consultation. We now offer doctoral program study in chemistry, education, English, history, and physiology. We have been and are awarding the doctorate. We should also note that the North Central Association awarded clear preliminary accreditation to these programs at the annual meeting this spring; under North Central Association procedures this was the most favorable action possible by the Association.

Let me note that our sister institutions of Ohio University at Athens and the Bowling Green State University also award the Ph.D. degree. Further, all of the state universities offer rather complete and independent master's degree programs.

As a second source of possible misunderstanding, I refer to the words, "only one, Ohio State University in Columbus, is located in a major population center. The four other universities—Ohio University, Miami, Kent State, and Bowling Green State—and Central State College are situated in what can fairly be called college towns." While it is appropriate to term the city of Kent a middle-sized city, it is located in the middle of an increasingly megalopolitan area and the majority of the people of Ohio reside within 50 miles of this campus.

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In addition to the medical engineering program described by John Walsh (24 July, p. 369), Case Institute of Technology and Western Reserve University jointly carry out a very significant program in bioengineering. This program encompasses both academic and research activities across both campuses.

The academic phase consists of an undergraduate option in the engineering division at Case Institute and a joint doctoral program between the engineering division and the Western Reserve Medical School. Over half a dozen graduate courses in bioengineering have been developed.

Research is directed mainly at basic problems in the life sciences and includes work on electrophysiology, neurophysiology, and control and regulation of biological systems.

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Molecular and Classical Biology

As I feared, my review of Stahl's book, *The Mechanics of Inheritance* (7 Aug., p. 566), has brought me a number of letters from strangers and friends, praising or condemning me for my stand on "molecular biology." "I congratulate you on your attack on molecular biology" are the words of one letter, while another, more heated friend writes, "Now look, I know you object to 'molecular genetics' though I'm damned if I understand why so many people have such an emotional reaction. . . ."

Anyone who has been reading between the lines of my review is wasting his time. As my review made clear, I am not now and never have been a member of that group which takes delight in hurling thunderbolts at "molecular biology." Anyone who would attack molecular biology is quixotic indeed, and I would as soon object to molecular genetics as object to the period of the earth's rotation. The discoveries of genetics during the last 15 years have been extraordinarily exciting.

It is time that biologists faced the facts of life, since that is supposed to be their business. Much of the bad feeling against molecular and cellular biology is the result of frustration with the painful lack of present progress in many fields of biology, and of envy of the success and excitement that illuminate the scientific careers of modern molecular biologists. But the molecular biologists have badly overstated their case. They are fond of talking about the modern "revolution" in genetics, comparing Mendel to Newton and themselves to a sort of corporate Einstein. Even the most superficial view of the history of biology and physics shows this up as a self-adulatory delusion. A revolution is a break with the past, a building up of a new order of thought. But modern molecular genetics is the very opposite of this. It is built solidly upon the past, and its great achievement is its very continuity and consonance with cytogenetics and Mendelism. This is the point that Stahl has missed, and in my opinion it is the cause of most of his book's defects.

Just as "classical" biologists must learn to accept the triumphs of modern molecular biologists gracefully, so molecular geneticists must learn not to cry "foul" every time someone takes one of them to task for his excesses. Even a very good bacteriophage geneticist can write a bad book. I think one just did.

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Mine Disaster

Raymond F. Boyer is to be congratulated for researching so thoroughly his hypothesis that low barometric pressure may be related to mine disasters (19 June, p. 1447).

If I may be permitted to take exception to one of the author's source materials, I must state that the worst mine disaster in U.S. history, the explosion that occurred beneath this small community on 6 December 1907, took many more than 361 lives.

This erroneous figure, based largely on a list of disbursements to survivors of the dead miners, has been canonized, I fear, for all time to come. Unfortunately, there was no accurate record of all the men employed in the Monongah mines, owing to the then disorganized condition of the coal industry.

The general manager of the "killer mine" stated to the press that 478 men had been checked off as entering the pits on the morning of the disaster. But this figure, he admitted, did not include approximately another 100 trappers, pumpers, mule drivers, and other men.

Moreover, lists of the known dead tell us little or nothing about the unidentified victims, of whom there were many.

A fairer estimate of the victims of the Monongah Disaster would be upward of 500.

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