

## IRS to journals: Pay up or else

A battle over the tax status of two scientific societies is heating up, and the outcome could seal the fate of 58 physics and chemistry journals that are already beset by financial woes. The Internal Revenue Service has told the American Institute of Physics, which publishes *PHYSICS TODAY* and 39 other scholarly journals, and the American Chemical Society, which publishes *CHEMICAL AND ENGINEERING NEWS* and 17 other journals, that it no longer regards them as tax-exempt organizations and that it plans to revoke their status. Both groups have appealed the rulings. If unsuccessful, the organizations say they will take the matter to court.

The loss of tax-exempt status would come as a blow to both organizations. For example, certain advertising income they now use to help subsidize their journals would be taxable. The IRS has already told the ACS it is disallowing its claim for a \$222,736 tax refund for 1972 and 1973 relating to taxes paid on certain advertising income.

More important, the loss of tax-exempt status would mean losing many "page charges" that journals receive to help defray publication costs. Federal agencies, which have their fingers in the vast majority of published research, pay up to \$70 a page to research journals each time their scientists publish an article on research findings. The feds, however, pay only when the journal is nonprofit. "The total physics community received \$3.5 million last year in page charges," says H. William Koch, director of the American Institute of Physics. "But all that did was to reduce publication costs so library subscription rates could be more reasonable."

Special postage rates enjoyed by nonprofit organizations in mailing journals and other publications are also at stake. The upshot could be a doubling of postage costs. The organizations would also be confronted with the real estate, excise and sales taxes from which they are now exempt.

The American Institute of Physics has been a tax-exempt organization since its founding in 1931. The American Chemical Society has enjoyed tax-exempt status even longer, having been founded in 1876.

In its new move, however, the IRS found that the AIP is not a research organization in the strict sense of the word and therefore should not be tax-exempt. In a different attack, the IRS told the ACS it questions the chemists' practice of selling subscriptions to nonmembers at higher prices than they offer members. The IRS contended that this practice violates a provision of the tax law prohibiting individuals from reaping benefits from net earnings.

If ultimately upheld, the IRS ruling will

send tremors through the whole scientific community, since the practice of providing journals to members as "part of dues" is almost universal among scientific societies. Says Robert Day of the Council of Biology Editors: "For the IRS to suddenly find something sinister or illegal in this basic function of scientific societies is incredible."

Many already consider the scientific journal an endangered species. Printing and production costs continue to rise at an alarming rate. The principal market for specialized journals (libraries) is increasingly impoverished. The Post Office is increasing second-class mail rates at a dizzying pace. The new copyright law, requiring individual transfer of copyright from author to publisher, is burdening publishers with added administrative costs.

Some feel that the IRS may be supplying the proverbial last straw. Says Day: "The frontal attack by the IRS may turn out to be life-threatening to at least some of our journals. Society journals could well move from the endangered list to the extinct list, and Uncle Sam as well as scientists everywhere will be left empty-handed." □

## AMA summarizes smoking study

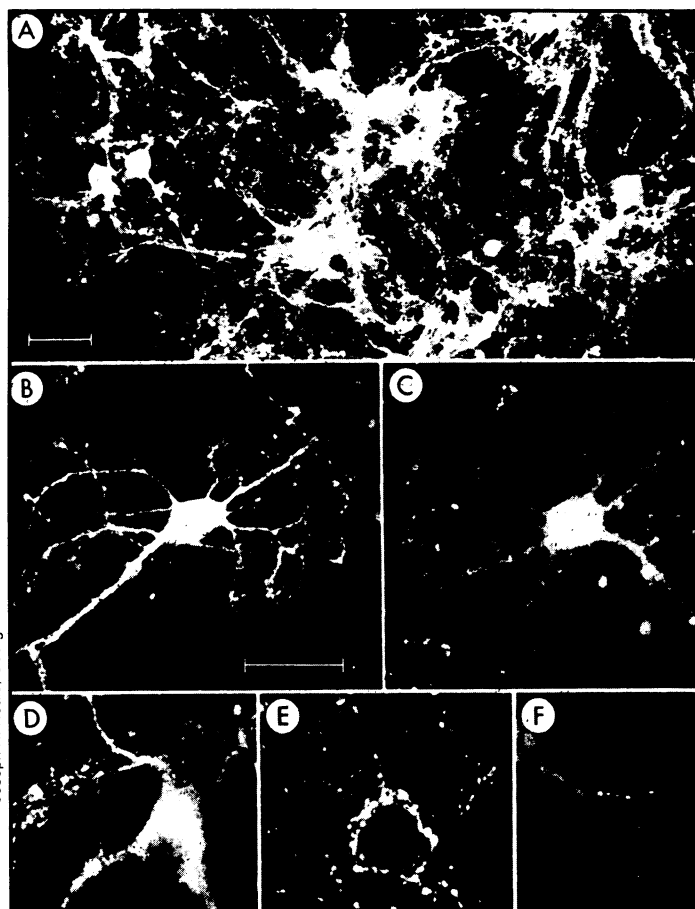
A report released last week by the American Medical Association summarizing 14 years of research on tobacco and health concludes "cigarette smoking plays an important role in the development of chronic obstructive pulmonary diseases and constitutes a grave danger to individuals with preexisting diseases of the coronary arteries." The \$15,000,000 project, funded by the six major tobacco companies, consisted of 759 investigations begun from 1964 to 1975 (most of which have been published or reported). A spokesman for the Tobacco Institute called the first account of the report by the Charlotte (N.C.) Observer an "obvious political ploy by the AMA" timed to coincide with President Carter's trip to tobacco growers in that state. The AMA denies this, claiming the report was to be released last May, was held up by strikes and printing delays and received first by the Observer due to a postal error. □

## Mapping neurons in a 'minibrain'

To say that the brain is the body's most complex organ, about which relatively little is known, would be stating the obvious. An intact brain contains something like  $10^{13}$  nerve cells, each capable of communicating with hundreds of thousands of its colleagues. While more is being learned about the functions of different brain areas, a vast amount remains to be learned at the cellular level.

One of the primary problems has been that scientists simply have not been able to adequately "see" functioning nerve cells at work. Existing techniques — such as examination of brain micro sections — provide only "glimpses" of cell action, says Joseph H.

Neale of Georgetown University's biology department. In the August 4 *SCIENCE*, however, Neale unveils "a clear view" of opiate peptides within an entire cell. The key, he told *SCIENCE NEWS*, is the extraction of fetal mouse spinal cord and brain tissue that develops in cell culture into a "mini-brain or spinal cord." In a three-step process involving rabbit and guinea pig antibodies, Neale and his colleagues have traced the action of fluorescent-stained enkephalin (the brain's natural opiate) in brain neurons. Photos show clusters of neurons (A), isolated fluorescent peptide in neurons (B and C), localization of fluorescence in cell bodies (D) and stained enkephalin at specific neuron sites (E and F). By showing which parts of cells contain such opiate peptides, the technique is "an exquisite model system" to study the effect of opiates on the brain, Neale says. □



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