

their patient population is self-selected (those whose relatives shove them into it rarely do well, says Bustya); furthermore, the Simontons are reluctant to accept patients who they feel have such negative attitudes that they don't stand to profit. Both agree that a patient's acceptance of the basic premises—that their attitudes can affect the course of their disease—and a willingness to work are crucial to positive outcomes.

The Simontons and others emphasize that their program is complementary to, and not a substitute for, orthodox medical therapy. Physicians are described as sympathetic to the treatment so long as no one holds out promises of miracle cures. Nonetheless, there are those who believe the movement could get out of hand, offering false hope in lieu of proven medical therapies.

Jimmie Holland, chief of Sloan-Kettering's psychiatry service and a woman who knows about research in the psychology-cancer area, thinks things have already gotten out of hand. She says there are no scientific data linking psychological factors to cancer, either in

predisposing a person to the disease or in determining how well a cancer patient will respond to treatment. She believes that the Simontons, therefore, are perpetrating a "cruel hoax—worse than Laetrile."

The Simontons, however, are trying to directly evoke, through imagery and suggestion, the same activity that Laetrile occasionally appears to evoke through its placebo effect. Elmer Green of the Menninger Foundation, a leading biofeedback researcher, says "the placebo effect is where it's at." Says Green, "Everybody knows there is such a thing as a placebo effect but they don't think about what it is."

Obviously, says Green, it is an activation of the body's self-regulatory mechanisms produced by the individual's expectation. The most startling example of this effect is manifested in the rare cases of sudden remission from cancer. No one knows what causes them, but according to NCI's Fox, investigators have found that "very powerful belief" is the common factor in such cases.†

Potential research has been greatly im-

peded by the fact that biochemists don't know about psychology and psychologists don't know about biochemistry. Thus we have psychotherapists at one end of the spectrum and mouse researchers at the other and no communication between them. These types, in addition to specialists in epidemiology, genetics, environmental carcinogens, and clinical oncology, will have to be brought together in team efforts if scattered hints are ever going to become merged in a fuller picture. As Bernard Fox wrote in his paper (which, as published in the first issue of the *Journal of Behavioral Medicine*, has 417 references): "It is, truly, a most difficult type of research."

—CONSTANCE HOLDEN

†One thought-provoking case history, reported by Bruno Klopfer in *Psychological Variables in Human Cancer*: A man with advanced lymphosarcoma was included in an experimental study of the since-discredited drug Krebiozen. After one administration, his tumors disappeared. When reports came out that the drug was ineffective he again became bedridden. His physician, in a last-ditch attempt to save him, told him not to believe what he read and treated him with "double strength" Krebiozen—actually an injection of water. The man again experienced rapid remission. Then the AMA and FDA pronounced the drug worthless. The man died within a few days.

IRS Questions Tax Status of Six Science, Engineering Groups

The Internal Revenue Service (IRS) has taken the first steps toward revoking the tax-exempt status of the American Chemical Society (ACS) and the American Institute of Physics (AIP). The IRS has also told three engineering societies and the American Physical Society (APS) they will be reclassified into the category of "business leagues." Although reclassification would not have as serious a financial impact as revocation would on ACS and AIP, the four groups would, for example, have to pay taxes on ad revenue from their publications if they were reclassified. The IRS action is still in its early stages, but, not surprisingly, has sent tremors through many scientific and engineering nonprofit organizations.

At stake for the six organizations is their status under section 501(c)(3) of the tax code, which fully exempts eligible nonprofit organizations—including those

with scientific and educational purposes—from paying federal income taxes. Contributors to such organizations may claim exemption from taxes on their gifts.

To be eligible for (c)(3) status, nonprofit organizations must be devoted to one or more of the following purposes: charitable, educational, scientific, literary, testing for public safety, fostering national or international amateur sports competition, or preventing cruelty to animals or children.

The business league category [section 501(c)(6)] into which the IRS proposes to move APS, the American Institute of Chemical Engineers (AIChE), American Society of Civil Engineers (ASCE), and American Society of Mechanical Engineers (ASME), is, in general, for associations of persons who have a common business interest such as trade associations or chambers of commerce. This

category provides partial tax exemption. But the difference in tax treatment most important to scientific and engineering organizations which publish technical journals is that revenue on advertising would be taxable. This would make a very significant difference in the balance sheet of many such organizations.

All six organizations affected by the IRS initiative have said they will oppose the IRS findings and are at varying stages in their discussions with IRS. Procedures for deciding such issues call first for a conference in the IRS district where each organization is located. If the opinion of the IRS agents who initiated the action is upheld there, the organization can ask for a conference at the level of the national office in Washington. If the result there is unfavorable, the organization may take the matter to court.

Both organizations threatened with revocation—ACS and AIP—have had conferences at the district level, but have not been informed of the result. All three engineering societies had their innings with the district office, lost, and have asked for a review by the national office. The APS filed a rebuttal to the initial letter and requested a conference at the district office, but has not yet been given a date.

According to the ACS, which is lo-

cated in Washington, D.C., the letter from the IRS district office in Baltimore found fault with the society's practice of setting nonmember subscription rates for ACS publications higher than for members. IRS claims that this results in benefits for members which violate provisions prohibiting net earnings from benefiting any shareholder or individual.

The letter also included a charge, representing a fallback position in case the recommendation for revocation was not upheld, that ACS accounting practices on allocation of membership dues violate IRS regulations.

In varying degrees, the organizations are all gun-shy about airing their troubles with IRS. The AIP, notably, declines to discuss details of its exchanges with IRS.

The general thrust of the IRS case against the four organizations tapped for reclassification seems to be that the activities of the groups benefit their members rather than the public at large as required under the relevant section of the tax law. Some of the IRS criticism is directed at such activities as placement services for members, group insurance, and, in the case of at least one of the organizations, at selling jewelry such as society tie tacks and lapel buttons.

Unrelated Business Activities

Nonprofit organizations not infrequently in the past have been called to account by IRS for overstepping legal lines in "unrelated business activities," but the complaints this time appear to have a broadened base. Several of the organizations say that the IRS charged that their publications did not meet the requirements of the law since they serve a specialized audience rather than the public at large, which is deemed to be proper audience if an organization is to qualify for 501(c)(3) status. In the past it has been assumed that by generally promoting science or engineering, professional societies were meeting the intent of the law. The dispute, therefore, could conceivably lead to a major reopening of the question of congressional intentions in legislating tax exemptions for nonprofits.

Should the IRS view ultimately prevail, the effect on scientific and engineering societies would obviously be substantial. None of the organizations involved here made estimates of costs, but in the case of the organizations threatened with revocation, the implications are grave. Loss of nonprofit status, for example, would entail a loss of eligibility to use the special postage rates enjoyed by nonprofits in mailing journals and other publications. This could mean a dou-

bling of postage costs and cause serious problems for the organization's publications programs.

The reason for the IRS move against the nonprofits remains a matter for speculation. IRS itself has a rule against commenting on cases in progress. It is noted however, that five of the six organizations affected—all but the ACS—are in the New York IRS district and all of these cases are said to have originated with one agent.

It has been evident for several years that nonprofit organizations were getting closer scrutiny by the IRS. It began in the 1960's when some private foundations attracted the attention of Congress when individuals abused the foundations' tax-exempt status for financial gain. More recently the foundations raised the ire of Congress by support of controversial social action projects. And then the lobbying activities of nonprofits became an issue (*Science*, 1 April 1977).

It is seen as directly relevant to the present actions that Congress in 1974 established a separate IRS office to monitor tax-exempt organizations and increased funding and manpower for the activity. IRS figures show that the number of changes in classification in the tax exempt category rose from 212 in 1975 to 278 in 1976 and to 329 in 1977. These figures are not broken down in a way that reveals how many 501(c)(3) organizations were affected in these years—there are some 19 categories of tax-exempt organizations. Beginning with last year however, the IRS made such statistical distinctions and its data show 36 revocations and six reclassifications of 501(c)(3) groups.

There can be little question that activity on the tax front has picked up for nonprofits. One recent example. An IRS ruling on 1 May, which prevented nonprofits from publicizing the views of public officials, was cancelled on 2 July after protests by organizations like the League of Women Voters, which conduct nonpartisan voter information and education programs, and after warnings from Capitol Hill that the IRS ruling would be investigated.

Should the actions against the six organizations be attributed to the zeal for collecting taxes on the part of an IRS contingent just hitting its stride? Or is IRS in the process of revising the ground rules for the activities of scientific and engineering professional societies in ways which will basically alter the fashion in which they have operated and believed that Congress intended them to. The results of the current cases should offer a strong indication.—JOHN WALSH

RECENT DEATHS

G. Harvey Cameron, 75; professor emeritus of physics, Hamilton College; 24 December.

Charles L. Darby, 52; professor of psychology, University of Georgia; 20 December.

Earl P. Guth, 73; professor emeritus of pharmacy, Ohio State University; 19 December.

Hsueh J. Li, 36; professor of molecular biology, State University of New York, Buffalo; 18 January.

Albert J. P. McCarthy, 60; former assistant professor of geography, St. Louis University; 26 January.

John W. Magladery, 66; former chairman of neurology, Johns Hopkins University; 27 December.

Maud W. Makemson, 86; retired head of astronomy, Vassar College; 25 December.

Albert T. Poffenberger, 92; former chairman of psychology, Columbia University; 24 December.

Edward Sampson, 86; professor emeritus of geology, Princeton University; 23 January.

Albert F. Schersten, 88; professor emeritus of sociology, Augustana College; 20 December.

Bernard Shore, 49; senior biophysicist, Lawrence Livermore Laboratory; 16 January.

LeVerne F. Snoxell, 63; professor of psychology, University of Minnesota; 24 December.

Walter R. Talbot, Sr., 68; former chairman of mathematics, Morgan State University; 26 December.

David Tyler, 72; professor emeritus of medicine, University of South Florida; 15 December.

Ruth O. S. Wallis, 82; former professor of anthropology, Annhurst College; 21 January.

Erratum: In the report by W. N. Fishbein, V. W. Armbrustmacher, and J. L. Griffin, "Myoadenylate deaminase deficiency: A new disease of muscle" (5 May, p. 546), the unit in Table 2 should be "Enzyme (nmole/min) per milligram of protein."

Erratum: In the heading of the review of *Genie: A Psycholinguistic Study of a Modern-Day "Wild Child"* (12 May, p. 649), the price of the book was given incorrectly as \$27.50; the correct price is \$17.50.

Erratum: In the report by T. H. Jukes [198, 319 (1977)], the ICU for threonine should be replaced by IGU; also CGU for arginine should be replaced by CCU; the latter error was pointed out by M. Hasegawa, Institute of Mathematical Statistics, Tokyo.

Erratum: In the report by L. D. Fetcher and Z. Annau [197, 680 (1977)], the values for whole brain dopamine levels in 1-day-old rats were given as 5.47 ± 1.62 and 3.01 ± 0.81 $\mu\text{g/g}$ (wet weight) in air and CO subjects injected with L-dopa. The correct values are 5.47 ± 0.38 and 3.01 ± 0.20 $\mu\text{g/g}$. The difference between the groups is significant at $P < .01$ as reported.