the badly needed growth of applied science in this country."

Though the essays are all lucidly written and informative, a perusal of the 497 packed pages leaves the impression that, outside of the confession of doubts on the part of some of the one-time ideologues of pure science, there is nothing new being said on the subject at hand. Virtually all of the essayists regularly appear on the conference circuit, and at one time or another, one gets the impression, it has all been said before, and now they are even beginning to repeat each other. The most forceful recommendation, contained in an introduction to the essays, states that "it is important for Congress to listen to the skeptics as well as the enthusiasts, and to ask the enthusiasts to answer the arguments of the skeptics." And the introduction goes on to argue for something called "a multidimensional interaction between scientists, technologists, public servants, and the general public.'

What might be appended to this call for debate and interaction is that the public and the Congress have demonstrated a willingness at least to hear anyone who comes along with anything sensible to say on public issues. There is no dearth of outlets for setting forth information and opinion, and, in fact, one of the more endearing qualities of the U.S. Congress is that almost anyone with enough perseverance can find a Member, if not a committee, that will hear him out. But within the scientific community, a kind of tacitly enforced discipline prevails, and once a "leadership" position has been proclaimed, few are willing to stand up and challenge it. Congressional witnesses often grouse in the Cosmos Club, but on Capitol Hill, they become tame. In this connection, it might be recalled that a few years ago, Academy President Frederick Seitz, severely reprimanded Hollis Hedberg, the Princeton geologist, when Hedberg frankly told a congressional committee of his opposition to NSF's plans for the Mohole project. Similarly, when the physicist Eugene Wigner, also of Princeton, sat on a panel reviewing highenergy physics, and appended a minority "commentary" questioning the panel's enthusiasm for high-energy physics, he was regarded to be the skunk at the picnic. As is frequently the case, skeptics are welcome until they sound

Since it is getting to be an article of faith that an invidious relationship exists between basic and applied science, it would perhaps be illuminating to subject this question to some sort of systematic exploration. Too many people are reciting from the same hymnbook when they address themselves to this important question. Is it really true that the brightest young men shun applied research in favor of basic research? Is it really true that to a significant extent university science departments derogate applied research? This may be true at a few renowned and highly visible institutions, but is it true at the many universities that actually serve as the training grounds for the bulk of the nation's technologists and engineers? Reliable data on these questions is nowhere to be had, but, meanwhile, Congress is being persuaded that something ails this nation's applied research effort and that basic research deserves at least some of the rap. Maybe it does, but before we start tinkering with anything as delicate, as vulnerable, and as laboriously constructed as the nation's basic research enterprise, it would be desirable to have something better to go on than aged clichés about the conflict between basic and applied research.—D. S. GREENBERG

Appointments

Frederick C. Redlich, chairman of the department of psychiatry, Yale University, to dean of the School of Medicine at the University. . . . Albert J. Rowell, reader of geology at the University of Nottingham, England, to professor of geology, University of Kansas, and W. R. Van Schmus, first lieutenant, Cambridge Research Center, to assistant professor of geology at the University. . . . Irwin W. Sizer, head of the department of biology, Massachusetts Institute of Technology, to dean of the graduate school at M.I.T. . . . Harry G. Day, professor and former chairman of chemistry, Indiana University, to associate dean for research and advanced studies at the University. . . .

Walter L. Koltun, special assistant in the office of the vice president and secretary, M.I.T., to a part-time appointment of Institute Secretary for Foundations at M.I.T. . . . Findlay E. Russell, director of the Laboratory of Neurological Research, Los Angeles County Hospital, to professor of neurology and pharmacology at the University of Southern California. Opera-

tion of the laboratory has been transferred from Loma Linda University to the University of Southern California. . . . Harry H. Gordon, associate dean of the Albert Einstein College of Medicine of Yeshiva University, to dean of the College. . . . Henry Kritzler, associate professor of biology at Bard College, to professor of oceanography, Florida State University and scientific director of the University's Marine Laboratory. . . . Arthur E. Hess, director of Health Insurance, HEW, to deputy commissioner of social security with the Department. . . . Thomas M. Tierney, president of Colorado Hospital Service, to director of Health Insurance, HEW. . . .

Robert B. Carlin, head of the department of chemistry, Carnegie Tech, to associate dean of the College of Engineering and Science at Carnegie. . . . Avrum B. Organick, assistant coordinator for the Wisconsin Regional Medical Program, to a newly established position of assistant dean for continuing education at Marquette University School of Medicine. . . .

Gustavo S. L. Appeltauer, biophysicist at Instituto de Investigacion de Ciencias Biologicas, Montevideo, Uruguay, to research associate in neurobiology, Division of Physiological Sciences, Kirksville College of Osteopathy and Surgery. . . Paul H. Todd, Jr., former Michigan congressman, to chief executive officer of Planned Parenthood-World Population. . . .

Louis B. Arnoldi, retired Command Surgeon of the Air Force Logistics Command, to director of occupational medicine for NASA, succeeding David H. Stoddard, who has resigned. . . . Kenneth C. Deemer, former chairman of the department of mechanics and aerospace at the University of Kansas, to director of a UNESCO program designed to establish a training center for graduate engineers and professors of engineering science and technology. The center will be located at the National Polytechnical Institute in Mexico City. . . . George S. Trimble, Jr., vice president for advanced programs, Martin Co., to director of Advanced Manned Missions Program, Office of Manned Space Flight, NASA. . . . Joseph C. Sitterson, chancellor of the University of North Carolina, to the National Advisory Allergy and Infectious Diseases Council. . . . Elio R. Rotolo, principal in the Management Services Division of Arthur Young and Company, to president of the American Institute of Industrial Engineers.