



NEWSLETTER

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No. 55 March 1982

Congressional Corner - Harlee Strauss

The House Committee on Science and Technology held a hearing on December 10 which should be of interest to scientists who depend on federal funding. The hearing was on the impact of the current budget stress on the health of American science and technology. Three witnesses testified; Dr. George Keyworth, science advisor (S.A.) to Reagan, Dr. Frank Press, S.A. to Carter, and Dr. Guyford Stever, S.A. to Ford.

Dr. Press summarized the results of the National Academy of Sciences meeting on the Federal R&D budget. He pointed out that science and engineering are long term investments which need continuous and adequate funding and that the federal R&D budget hasn't seen any real growth in 15 years. Both Drs. Press and Stever cautioned against overestimating the ability of private industry to pick up the research previously funded by the federal government.

Dr. Keyworth presented the view of the Reagan administration which foreshadows what we will see in the way of federal research funding for the next few years. Dr. Keyworth made two telling remarks: "Science policy without considering economic policy is irrelevant" and "decreasing the science budget is like pruning a tree, it will ultimately make it healthier." On the more positive side, he also said "basic research is a vital investment with a good return". But cast in those terms, it sounds like private sector investment to me.

At the risk of editorializing too much, I want to add that, like it or not, science and science funding is enmeshed in the budget struggles and priority tradeoffs that are engulfing all of the 'non-entitlement' and 'non-defense' portions of the budget. If we want to maintain adequate funding for research, we have to recognize this. We must fight for an appropriate priority for research as well as a reallocation of funds from the defense to the non-defense portions of the budget.

History - Update on Jim Longworth's contribution on Goethe and Cool-White Lamps (December 1981 Newsletter) - by E. Woody Bickford

Jim Longworth's interesting history on Goethe and the cool white fluorescent lamp reminded me that there is a current and historic publication which documents that there have been some improvements in lighting and color since Goethe and the cool white fluorescent lamp.

This publication, which may be of great interest to ASP members who may not be aware of it, contains a wealth of information on sources of light and other electromagnetic radiation. The entire two volume edition also deals with the fundamental photobiology of vision as well as non-visual photobiology and current methods on how to deliver the electromagnetic radiation to these photobiological systems.

This publication is the 1981 Illuminating Engineering Society Lighting Handbook, Reference Volume and Application Volume, published by the IES of North America, 345 East 47th Street, New York, New York 10017.

CONTEST RESULT - Bodo Diehn

I am pleased to announce that a jury consisting of your former Newsletter Editor has selected from among the entrants the winning P&P double daktyl. The winner, Dr. Thomas P. Vogl, may list this refereed publication as "Photosynthesis in *Misembryanthemum*", ASP Newsl. No. 55, pg. 1 (1982). Here it is, with my thanks and congratulations:

Mockery, mimicry
Mesembryanthemum
African weeds that we
Fuss with and raise

Shyly they hid among
Arid stone outcrops, yet
Photosynthetically
Started a craze.

SCITEC-PAC - The following news release is a continuation of the report by last years' ASP Congressional Fellow (Dr. Jack Clough, Jr.) at the Williamsburg meeting in June of 1981.

A former Congressman, and scientist, recently wrote: "There is no major group in the U.S. so ignored, ridiculed, misunderstood or underestimated in our legislative bodies as the scientists of our country."

A group of scientists and engineers, who previously served as Science Fellows in the Congress or in the State Department, is trying to change this image. They have formed the Science and Technology Political Action Committee (SCITEC-PAC). The Chairmen of the founding group, Dr. Donald Stein of Clark University, stated, "It is critical that the community of scientists and engineers, regardless of their specific disciplines, develop the political strength to influence public policy. If we don't, we will have to stand by and watch the funds for education, training and research decline to dangerously low levels."

SCITEC-PAC is a non-partisan organization concerned with the support of science in its broadest sense, from the role of the Federal Government in funding science and engineering research and teaching, to the development of tax laws that encourage business investment in education and research.

Stein explained, "Our group decided to organize as a PAC rather than as a lobby because of the differences in goals. Lobbyists try to influence officials on specific issues by presenting information to them, while PACs make campaign contributions of money, time and effort to candidates that share similar goals and aspirations. An extra advantage of having a PAC for all sciences is the added clout it provides to the many scholarly and professional societies. Because of their tax-exempt status, organizations such as the AAAS, American Chemical Society, and National Academy of Sciences cannot support political candidates."

How has SCITEC-PAC been received so far? The response during the initial stages of its organizing activities has been very encouraging. Dr. Stein commented, "There are some scientists and engineers who feel political action by our community is somehow inappropriate or undignified. At some point, the scientific community will have to accept what other interest groups have learned long ago - that our system of government assumes that different groups will organize to make their interests known to Congress and the President. Given the current economic situation, the question is not IF the scientific and engineering community will organize but whether it will organize NOW or wait until it has lost more battles to the budget ax. Politicians must be reminded that support of American science and technology on a broad scale is in the national interest. If we do not speak out, who will? If not now, when?"

For further information contact: SCITEC-PAC, Rockville Court House Station, P.O. Box 351, Rockville, Maryland 20850 (301) 424-0002

BOOK

A New monograph entitled "Reactivity Indices for Biomolecules" by Chen-An Chin and Pill-Soon Song is available from Texas Tech University Press, Texas Tech University, Box 4460, Lubbock, Texas 79409. This volume includes such pertinent information as Electron Density, Superdelocalizability for Nucleophilic Attack, Frontier Orbital Density, Superdelocalizability for Radical Attack, Frontier Radical Density, Superdelocalizability for Electrophilic Attack, Frontier Electron Density, and Atom-Atom Polarizability.

Congressional Corner II - Harlee Strauss

NOTE: Due to the Christmas mail confusion, two months contributions arrived in time for this Newsletter, none for the February issue - Ed.

The Congressional Budget Process

Science funding, like all other discretionary funding, is being slated for reduction again this year. As you know, this funding level is critically important to researchers dependent upon federal funds. Unfortunately, the workings of the federal budget process, and the influence individual scientists may have on it, is fairly obscure. In this article, I will provide a brief overview of the Congressional budget process. Because of the 2 month lag time between when I write this and you read this, an up to date progress report is impossible.

Currently, there are three layers of committees which oversee the budget process, each at a different level of detail. These are called budget, appropriations, and authorization committees. The Budget Committee oversees the entire budget. It looks at the economic conditions and expected tax revenues, decides how much money will be spent, and then allocates this money into broad categories. For the budget committee, general science and basic research is one budget category and it must compete for funds with all the others, such as energy supply, mortgage insurance, and the Department of Defense.

Authorizing committees look at details of the budget. For example the House Science and Technology Committee will examine the programs that are funded through evaluating these programs, they authorize levels of funding, but this level is just a maximum amount that can actually be appropriated.

The Appropriations Committees occupy the level between budget and authorization committees. It is the appropriations committee that decides how much money will actually be spent, within the limits set by the budget committee. For example, the HUD-Independent Agencies subcommittee of the House appropriations committee looks at the entire budget of the NSF or EPA.

Of course, all subcommittee decisions are also debated in full committee as well as on the House and Senate floor. Differences between House and Senate versions must be resolved by conference committees.

The Budget Reform Act of 1974, which lays out the rules Congress now operates under, specifies deadlines for different phases of the budget process. By March 15, all authorizing committees must submit reports to the Budget committee. By April 15, budget committees must report the first concurrent resolution to their Houses. This resolution gives targets for each of the budget categories. By May 15, authorizing committees must report authorization bills to the House floor and Congress must complete action on the 1st concurrent resolution. Around Labor Day, Congress should have passed action on the 1st concurrent resolution. Around Labor Day, Congress should have passed all appropriations bills. The rest of September should be spent on the 2nd concurrent resolution which puts targets into law (after revision to allow for the current state of the economy) and reconciliation, which is like balancing your checkbook and just as frustrating.

Congress doesn't always maintain this schedule, especially towards the end of September. However, these are the goals.

Letter writing can be influential at each stage in the budget process, but to be most effective, the timing of the letter should coincide with when your Senator or Congressperson is involved. Also, letters directed to members of budget committee should be more general than those directed to members of an authorization committee, to whom you can argue the merits of specific programs (although you can argue generalities with them, too).

POSITIONS OPEN

Staff Fellow Position available for a fluorescence spectroscopist who is interested in studying the interaction of environmental chemicals (polycyclic aromatic hydrocarbons, heavy metals, etc.) with biological systems at the molecular level. Previous experience in the measurement of fluorescence lifetimes by the pulse or modulation method is desirable. Initial appointment will be for two (2) years, and thereafter on a yearly basis up to a maximum total of five (5) years. Candidates should send a curriculum vitae, list of publications and the names and telephone numbers of three referees to: Dr. Colin F. Chignell, Laboratory of Environmental Biophysics, NIEHS, Research Triangle Park, N.C. 27709. Telephone: (919) 541-3196.

MEETINGS

- April 11-15 Symposium on Genetic Mechanisms of Carcinogenesis. Gatlinburg, Tennessee. Further Information: Dr. W. K. Yang, Biology Division, Oak Ridge National Laboratory, P.O. Box Y, Oak Ridge, TN 37830
- May 10-14 4th Photovoltaic Solar Energy Conference, Stresa - Italy
- May 26-29 International Workshop on Photobiology, Jeju (Cheju) Island, Korea. Further Information: Dr. Hyeong-OK Kim, Chairperson, Graduate School, Jeju National University, Jeju 590, Republic of Korea
- June 27-
July 1 ASP Annual Meeting, Vancouver, B.C., Canada. Further Information: Diane Taub, Executive Officer, ASP, 4720 Montgomery Lane, Suite 506, Bethesda, MD 20814, (301) 654-3080
- June 28-
July 2 Gordon Research Conference on Lasers in Medicine and Biology. Meriden, New Hampshire. Further Information: Dr. A. J. Welch, Biomedical Engineering, ENS 610, University of Texas, Austin, Texas 78712
- August 2-8 Phycomyces Meeting. Cold Spring Harbor, New York 11724. Further Information: Dr. Patricia V. Burke, 469 Natural Science II, University of California, Santa Cruz, CA 95064 or Dr. E. D. Lipson, Department of Physics, Syracuse University, Syracuse, NY 13210
- August 16-29 NATO Advanced Study Institute on New Developments in Membrane Research and Biological Energy Transduction. Island of Spetsai, Greece. Further Information: Dr. K.W.A. Wirtz, State University of Utrecht, Laboratory of Biochemistry, Padvalaan 8, P.O. Box 80.054, NL-3508 TB Utrecht, the Netherlands
- September 6-11 8th International Conference on Raman Spectroscopy - Applications to biomedical research. Bordeaux, France. Further Information: Professor J. Lascombe, 8th International Conference on Raman Spectroscopy, Universite de Bordeaux I, 351, cours de la Liberation F-33405 Talence, France
- September 20-23 Second EC Energy from Biomass Conference. Berlin, Germany. Further Information: Dr. D. Nicolay, Commission of the European Communities, DG XI11A, L 4072 Kirchberg, Luxembourg
- July 10-15,
1983 Third International Conference on Oxygen Radicals in Chemistry and Biology. Neuherberg/Munich, Germany. Further Information: Dr. Wolf Bors, Attention: 111.ICOR, GSF Research Center, 8042 Neuherberg, F.R.G.

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