BASIC RESEARCH
1980 INVESTMENTS IN THE FUTURE
A Joint Statement to the Congress
April 17, 1979

The 40 undersigned organizations and leaders of the nation's universities, colleges, research scientists, and engineers urge the Congress to support the principles of stable, balanced, and controlled investment in federal basic research programs as they are represented in the FY 1980 budget proposals for these programs in the National Science Foundation and in several mission agencies. We also urge Congress to insure funding levels for the research programs of the National Institutes of Health (NIH) consistent with the principles of stable, balanced, and controlled growth. We do so for the following reasons:

The nation's investments in basic research have produced a rich legacy for our country and for the world. The search for knowledge has brought many achievements: the elimination or control of dread diseases, such as poliomyelitis and tuberculosis; improved prevention and treatment of mental and behavioral problems, such as mental retardation and alcholism; technology of momentous economic and social importance, such as the transistor, the computer, and the laser; discovery of new materials; revolutions in the production of food; and development of the education and advanced training programs that are the very foundation for progress.

In the late 1960's and early 1970s, the nation experienced a long period of decline in real dollars in the level of investment for long-term basic science. In the search for quick solutions to pressing problems, funding policies sought immediate answers at the expense of stable, predictable support for the pursuit of knowledge. Now it is time to renew the nation's commitment to excellence in basic research.

We commend the Administration for proposing a broad strategy designed to produce sustaining and balanced national policies for advancing science and technology. The FY 1980 budget proposals for the National Science Foundation and for several mission agencies are important and necessary steps toward a controlled, coherent investment policy for the nation that would help to regain momentum in the search for new ideas, for new knowledge, and for solutions to the economic, technological, and social problems that confront our society. We need to know more if we are to maintain our economic growth, stimulate productivity, reduce inflation, promote our international competitiveness, protect our environment, meet energy demands, improve health, advance education, and guarantee national security. We do not currently have the knowledge base to meet these long-range objectives. Sustained national investment in the development of new knowledge and highly trained people is essential if our nation is to retain world leadership in science and technology. There must be balanced, sustained support for fundamental research across all fields of science to meet these challenges.

The basic research budgets for the National Science Foundation, in combination with the ones proposed for many mission agencies, are important starts; but they may barely sustain the nation's research enterprise at current levels. It should be pointed out that a government-wide increase of only about nine percent is proposed for basic research and that inflation has substantially increased since the President's budget was proposed. If the broad investment strategy now proposed by the President is adopted by the Congress and continued and protected in future years, that foundation of new knowledge which the nation needs to meet the challenges of the 1980's and 1990's can be built.

In one critical research agency, the National Institutes of Health (NIH), the budget fails to provide for needed stability. The funding recommendations for NIH research programs would result in cutting in half the number of new basic research awards to university-based and other researchers. Such sharp cuts would terminate promising programs, disrupt the research careers of highly talented young investigators, and discourage others from pursuing such careers. We urge Congress to insure stability for NIH research programs consistent with the government-wide investment strategy of sustained, balanced, and controlled growth.

The effectiveness of federal basic research programs is measured not only by their size, but also by the quality of the tools they provide to researchers and by the effectiveness of agency policies, procedures, and priorities in promoting flexiblity, innovation, and the willingness to take risks. The 1980 investment strategy would help stimulate research productivity by beginning to replace and upgrade the aging instrumentation and equipment in our research laboratories.

We also commend the Administration for its commitment to keep research productivity from being further compromised by excessive and unreasonable record keeping and reporting burdens which damage the research environment. We urge the Congress to help insure that administrative requirements are carefully formulated, and simplified wherever possible, so that the fundamental purpose of the federal investment, productive research, is not lost in the pursuit of ever more precise management.

Our national investment strategy must maintain and protect a balanced research structure in which universities, industry, and government all play a part. Government funding and regulatory policies sholuld safeguard the freedom of each sector, encouraging it to perform those roles particularly suited to it. Ways further to improve joint research activities between universities and industry should also be encouraged.

The APS Council agreed to endorse this statement at its April Meeting as one of 21 societies, associations and committees sponsoring the statement.