

DEPARTMENTS OF LABOR, HEALTH AND HUMAN SERVICES, EDUCATION, AND RELATED AGENCIES APPROPRIATIONS FOR 1991

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

SUBCOMMITTEE ON THE DEPARTMENTS OF LABOR, HEALTH AND HUMAN SERVICES, EDUCATION, AND RELATED AGENCIES

WILLIAM H. NATCHER, Kentucky, *Chairman*

NEAL SMITH, Iowa

DAVID R. OBEY, Wisconsin

EDWARD R. ROYBAL, California

LOUIS STOKES, Ohio

JOSEPH D. EARLY, Massachusetts

BERNARD J. DWYER, New Jersey

STENY H. HOYER, Maryland

SILVIO O. CONTE, Massachusetts

CARL D. PURSELL, Michigan

JOHN EDWARD PORTER, Illinois

C. W. BILL YOUNG, Florida

VIN WEBER, Minnesota

MICHAEL A. STEPHENS, ROBERT L. KNISELY, SUSAN E. QUANTIUS, and JOANNE L. ORNDORFF, *Subcommittee Staff*

PART 4B

NATIONAL INSTITUTES OF HEALTH

	Page
National Eye Institute	1
National Institute of Environmental Health Sciences	115
National Institute on Aging	207
National Institute of Arthritis and Musculoskeletal and Skin Diseases	363
National Institute on Deafness and Other Communication Disorders	489
National Center for Research Resources	577
National Library of Medicine	685
National Center for Nursing Research	791
National Center for Human Genome Research	887
John E. Fogarty International Center for Advanced Study in the Health Sciences	961
National Institute of Child Health and Human Development Office of the Director/Buildings and Facilities	1025
HIV/AIDS Supplemental Material	1151

Printed for the use of the Committee on Appropriations

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1990

29-452 O

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

1116-72

29-452 O-90

COMMITTEE ON APPROPRIATIONS

JAMIE L. WHITTEN, Mississippi, *Chairman*

WILLIAM H. NATCHER, Kentucky
NEAL SMITH, Iowa
SIDNEY R. YATES, Illinois
DAVID R. OBEY, Wisconsin
EDWARD R. ROYBAL, California
LOUIS STOKES, Ohio
TOM BEVILL, Alabama
BILL ALEXANDER, Arkansas
JOHN P. MURTHA, Pennsylvania
BOB TRAXLER, Michigan
JOSEPH D. EARLY, Massachusetts
CHARLES WILSON, Texas
LINDY (MRS. HALE) BOGGS, Louisiana
NORMAN D. DICKS, Washington
MATTHEW F. McHUGH, New York
WILLIAM LEHMAN, Florida
MARTIN OLAV SABO, Minnesota
JULIAN C. DIXON, California
VIC FAZIO, California
W. G. (BILL) HEFNER, North Carolina
LES AuCOIN, Oregon
DANIEL K. AKAKA, Hawaii
WES WATKINS, Oklahoma
WILLIAM H. GRAY III, Pennsylvania
BERNARD J. DWYER, New Jersey
STENY H. HOYER, Maryland
BOB CARR, Michigan
ROBERT J. MRAZEK, New York
RICHARD J. DURBIN, Illinois
RONALD D. COLEMAN, Texas
ALAN B. MOLLOHAN, West Virginia
LINDSAY THOMAS, Georgia
CHESTER G. ATKINS, Massachusetts
JIM CHAPMAN, Texas

SILVIO O. CONTE, Massachusetts
JOSEPH M. McDADE, Pennsylvania
JOHN T. MYERS, Indiana
CLARENCE E. MILLER, Ohio
LAWRENCE COUGHLIN, Pennsylvania
C. W. BILL YOUNG, Florida
RALPH REGULA, Ohio
VIRGINIA SMITH, Nebraska
CARL D. PURSELL, Michigan
MICKEY EDWARDS, Oklahoma
BOB LIVINGSTON, Louisiana
BILL GREEN, New York
JERRY LEWIS, California
JOHN EDWARD PORTER, Illinois
HAROLD ROGERS, Kentucky
JOE SKEEN, New Mexico
FRANK R. WOLF, Virginia
BILL LOWERY, California
VIN WEBER, Minnesota
TOM DeLAY, Texas
JIM KOLBE, Arizona
DEAN A. GALLO, New Jersey

FREDERICK G. MOHRMAN, *Clerk and Staff Director*

MONDAY, MARCH 19, 1990.

**NATIONAL INSTITUTE ON DEAFNESS AND OTHER
COMMUNICATION DISORDERS**

WITNESSES

DR. JAMES B. SNOW, JR., DIRECTOR, NIDCD
DR. WILLIAM F. RAUB, ACTING DIRECTOR, NIH
DR. JAY MOSKOWITZ, FORMER ACTING DIRECTOR, NIDCD
GEOFFREY E. GRANT, ACTING EXECUTIVE OFFICER, NIDCD
PATIENCE T. SPARKS, BUDGET OFFICER, NIDCD
DENNIS P. WILLIAMS, DEPUTY ASSISTANT SECRETARY, BUDGET, DHHS

Mr. NATCHER. At this time we take up the budget request for fiscal year 1991 for the National Institute on Deafness and Other Communication Disorders.

We have before the committee Dr. Snow. Dr. Snow, before you give us your statement, tell us who you have with you there at the table.

Dr. SNOW. Thank you very much, Mr. Natcher.

INTRODUCTION OF ASSOCIATES

To your far right is Mrs. Patience T. Sparks, Budget Officer of the Institute, Mr. Geoffrey E. Grant, Acting Executive Officer. On your left is Dr. Jay Moskowitz, Former Acting Director of the Institute, Dr. Raub, and Mr. Williams.

Mr. NATCHER. Good. Thank you, Dr. Snow. We will be pleased to hear from you.

Dr. SNOW. I would like to present highlights of a longer statement to be published in the record.

Mr. NATCHER. Fine.

OPENING REMARKS

Dr. SNOW. It is a privilege to appear before this committee. In the year and a half since the National Institute on Deafness and Other Communication Disorders was created by the Congress, great strides have been made. We are particularly indebted to Dr. Jay Moskowitz for the able stewardship he provided to the new Institute. Under his superb leadership, a fully functioning administrative staff was assembled and all of the legislative mandates for NIDCD have been initiated or planned. Excellent intramural and extramural scientific programs were transferred to the new Institute and we intend to build on this strong foundation.

Our goal is to maximize the gains that can be realized from research on human communication. We are supporting research across the entire biomedical spectrum from basic research to clinical studies to technology transfer and to prevention and rehabilita-

tion. The basic research is building a foundation for the next generation, while many of the clinical and rehabilitative programs are aimed at helping those with disabilities today, improving their lives. I am very pleased to be able to share with you selections of exciting scientific advances from our areas of science as well as highlights of research plans of the Institute.

The NIDCD is pleased to join with several other institutes at NIH in celebrating the Decade of the Brain. Neurobiology is an important component of our research portfolio both extramurally and intramurally. An example of the focus of NIDCD on neurobiology is neural regeneration. Regeneration of neural tissue after injury or illness occurs in very few places in the human body. Interestingly olfactory neuroepithelium tissue does have the ability to regenerate. Research in this area has profound implications for repair and regeneration of the nervous system.

Anatomical and physiological damage to the olfactory system appears early in the development of Alzheimer's disease and other serious neurological disorders. The etiology of deficits in olfaction and their predictive value as early warning signs of these diseases are being studied by NIDCD supported investigators.

Scientists supported by NIDCD have utilized the tools of molecular biology and genetics in ascertaining how human communications systems work at a fundamental level. I intend to encourage these areas for development and expansion. Our scientists are committed to identifying the genes and their products responsible for hereditary deafness. This research holds the promise of genetic replacement and interrupting the aberrant process to prevent deafness.

NOISE CONFERENCE

Noise exposure is the most common cause of preventable hearing loss. NIDCD sponsored a Consensus Development Conference on noise and hearing loss at NIH from January 22 to 24th of this year. The statement drafted by the conference panel provided recommendations and avenues for future research related to noise and hearing loss. The NIDCD is planning a major public health educational program on the prevention of noise-induced hearing loss.

Half of our children have ear infections before they reach their first birthday and nine out of 10 children have ear infections by the time they are six years old. Otitis media is the leading cause of acquired hearing loss before age 10. NIDCD is collaborating with NIAID and NICHD in issuing a solicitation for research on a vaccine against otitis media.

RESEARCH ON BALANCE

Millions of Americans, age 17 and older have experienced a dizziness or balance problem. A majority of people over 70 years of age report problems of dizziness and imbalance. Balance-related falls account for more than one-half of the accidental deaths in the elderly. NIDCD is encouraging research aimed at improving our understanding of the causes, treatment and prevention of these disorders that present safety and quality of life issues for elderly Americans.

A new area of balance research has been generated by the space program. A number of research needs must be addressed in this area including space motion sickness among astronauts during the early stages of the mission.

VOICE DISORDER TREATMENT

Institute-supported scientists have made great advances in therapeutic approaches to voice, speech and language disorders. This year investigators in the NIDCD intramural program were the first to demonstrate a successful treatment for voice tremor which affects women primarily and makes speech difficult to understand. Scientists in the speech and voice unit injected botulinum toxin into muscles of the voice box of patients with this disorder and successfully eliminated the tremor. These injections have proved effective also in treating spasmodic dysphonia.

TASTE AND SMELL DISORDERS

An estimated 10 million Americans have taste and smell disorders. There is a natural decline in smelling ability that typically occurs after age 60. Some people are born with chemosensory disorders but most develop them after an injury or illness. Loss of the senses of smell and taste can also be caused by exposure to certain chemicals and medicines. A person with these problems is deprived of an early warning system most of us take for granted. Smell and taste alert us to fires, poisonous fumes, leaking gas and spoiled food.

The NIDCD intramural research program is a strong one and is widely recognized for its ground breaking research through basic and clinical studies. I hope to develop this program further to include units of excellence in each of our areas of science. I intend for our intramural program to provide a model to the scientific community in molecular biology and molecular genetics, to conduct clinical trials of promising new therapies, and to serve as a national training resource.

NATIONAL STRATEGIC RESEARCH PLAN

Last year we reported to you on the research plan for the Institute, the National Strategic Research Plan. This year we are analyzing our research grant portfolio relative to the plan, looking for areas that need particular Institute emphasis. In addition this year we have a second plan, one for training. There remains a shortage of trained investigators in our disciplines. In July of 1989, NIDCD convened a panel of expert consultants to identify critical research training activities. The report from this panel included a number of valuable and specific recommendations. We are implementing a number of these recommendations including the establishment of the Physician Scientist Award. Special emphasis will be placed on research training of underrepresented minorities and communicatively-impaired individuals. We are developing a third plan for acquiring sound epidemiologic data in each of the areas within the NIDCD mission.

The NIDCD will initiate a new centers program through two mechanisms. We plan to award National Multipurpose Research