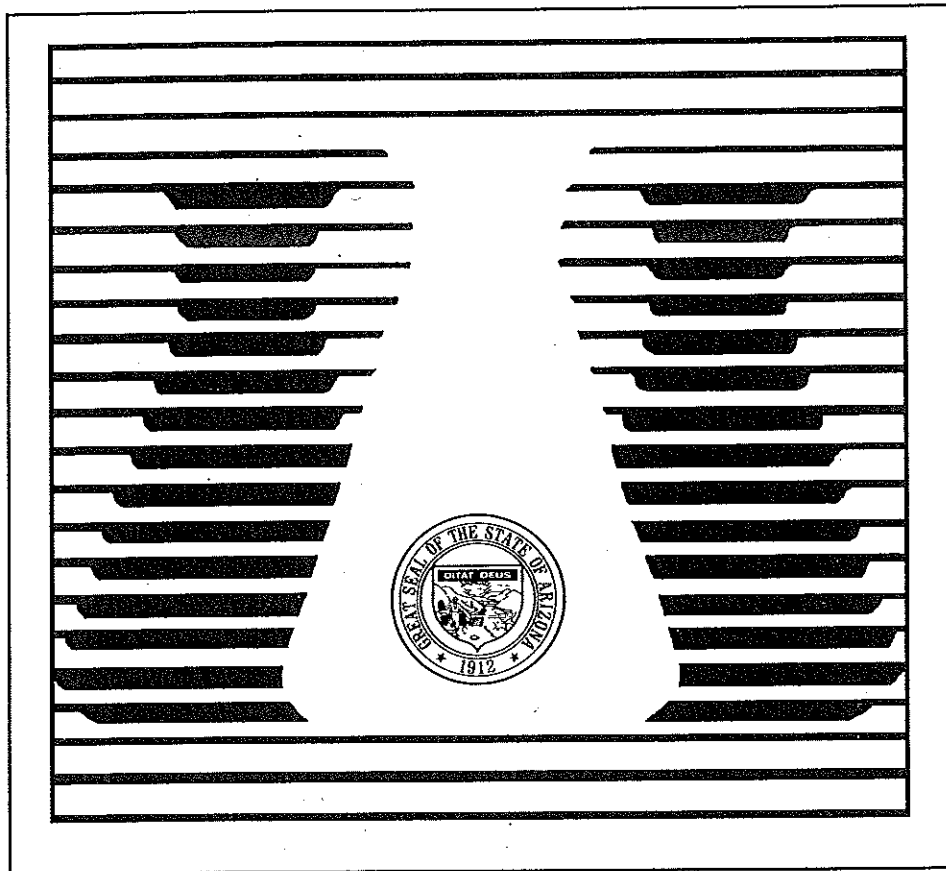


The Arizona Disease Control Research Commission



ANNUAL REPORT
FY 1992-93

Arizona Disease Control Research Commission

ANNUAL REPORT

FY 1992-93

Fife Symington, Governor

Jack Dillenberg D.D.S., M.P.H., Chairman

COMMISSIONERS

General Public

Barbara McConnell Barrett, J.D.

Frank Hidalgo

Beth Schermer, J.D.

Medical Community

James Bloedel, M.D., Ph.D.

William Crisp, M.D.

Carlos Gonzales, M.D.

Scientific Research Community

Mary Hendrix, Ph.D.

Patricia Moore, Dr.P.H.

David Prior, Ph.D.

Staff

Executive Director: Dawn Schroeder, D.D.S., M.A.

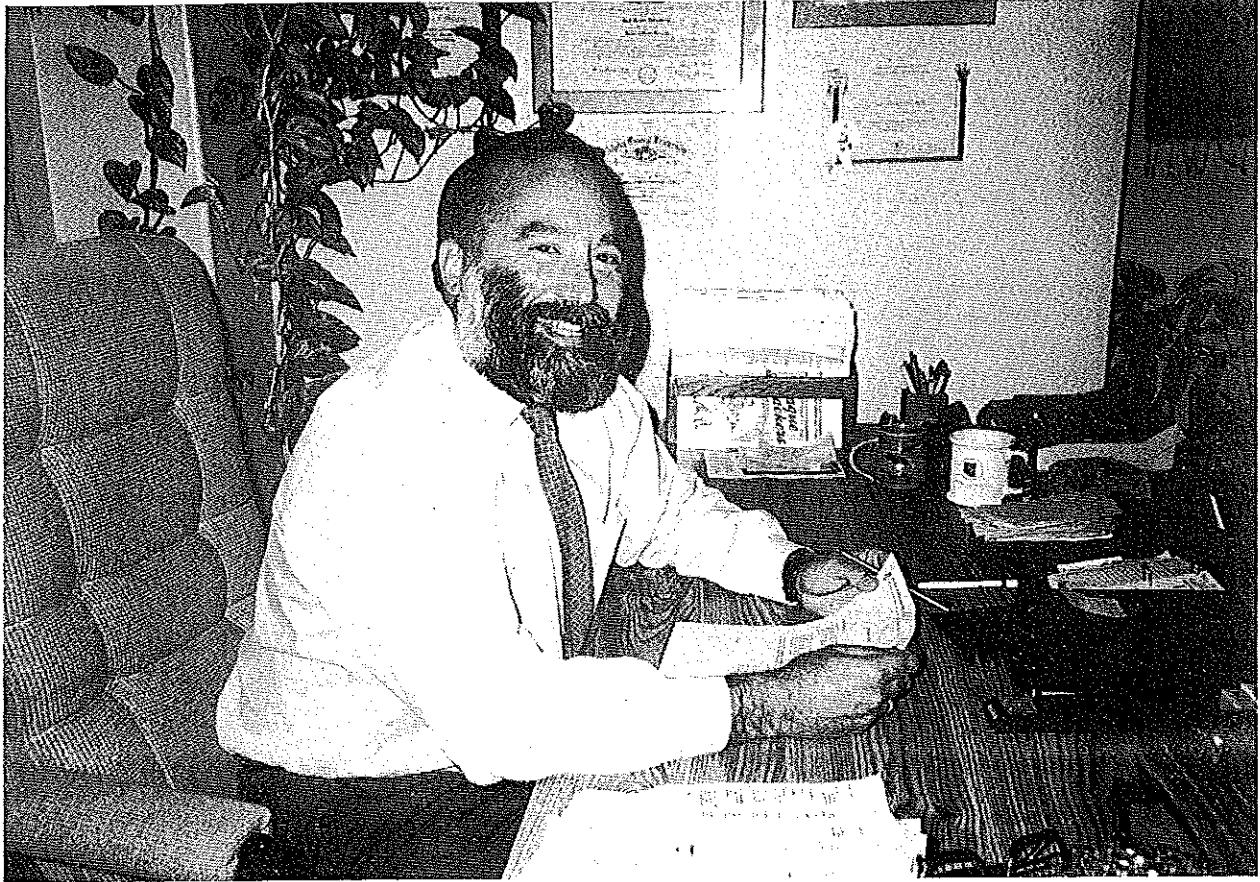
Administrative Manager: Joseph Hashem

Staff Assistant: Damika Brock

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Phoenix, Arizona 85007

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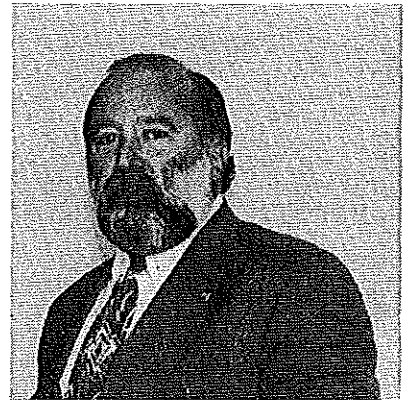
Message from the Chairman

As Chairman of the Arizona Disease Control Research Commission (ADCRC), I am pleased to forward this agency's report on its contributions to improving the health of Arizonans through funding essential scientific research. Established by the Arizona Legislature in 1984 to support research on the cause, epidemiology, diagnosis, treatment and prevention of diseases affecting Arizonans, the ADCRC is empowered to direct public funds to basic research on a wide range of medical and public health concerns. Funding comes from penalties or interest on delinquent taxes--an innovative and beneficial use of such funds. An Annual Report is prepared and submitted in January of each year to the Governor, the President of the Senate and the Speaker of the House of Representatives. We appreciate their continued support.

Nine Commissioners guide the work of the Arizona disease Control research Commission. They are appointed by the Governor and confirmed by the Senate. Three members represent the General Public, three the Medical Community and three the Scientific Research Community. Commissioners are appointed for three year terms, and may be reappointed. The terms of three members expire each year. The Director of the Department of health Services serves as Chairman of the Commission and *ex-officio* member. The Chairman and Commissioners who served during FY 1992-93 are presented below.

Jack Dillenberg, DDS, MPH
Director
Arizona Department of Health Services

Chairman Dillenberg was appointed Director of the Arizona Department of Health Services by Governor Fife Symington in late August 1993. Dr. Dillenberg began with the ADHS in 1986 when he became Chief of the Office of Dental Health. In 1991 he became Assistant Director for Community and Family Health Services, where he served until appointed ADHS acting director on March 12, 1993. Chairman Dillenberg is a graduate of Tulane University and earned his DDS degree at New York University and his Masters in public health from the Harvard School of Public Health, where he was honored as recipient of the 1993 Alumni Award of Merit in recognition of his major contributions to public health.



General Public

Barbara McConnell Barrett, J.D.
Paradise Valley

Commissioner Barrett is an international business and aviation expert. Vice Chairman of the United States Civil Aeronautics Board at age 32, she was the youngest appointee in the Board's history. Later she served as the Deputy Administrator of the Federal Aviation Administration. She currently serves on the Executive Committee of the American Management Association in New York and is a trustee of Thunderbird, The American Graduate School of International Management and of Embry-Riddle Aeronautical University. A pilot, Commissioner Barrett received her J.D. and M.P.A. degrees from Arizona State University. She was appointed to the Commission in April of 1992 by Governor Symington. Her term expires in January of 1995.



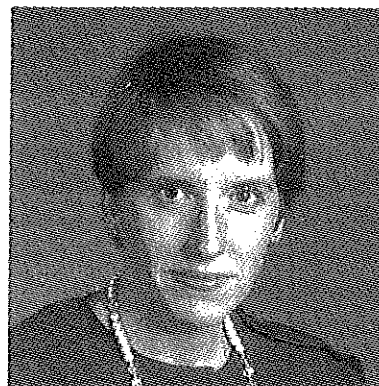
Frank Hidalgo
Assistant Vice President, University Relations
Arizona State University

Commissioner Hidalgo has been Assistant Vice President for University Relations at Arizona State University since 1986. He served as Executive Director of the Governor's Council on Employment and Training in 1983. Commissioner Hidalgo received his BA in Education in 1964 from Arizona State University. He has served as a board member on numerous organizations, including Chicanos por las Causa and the Hispanic Women's Foundation. Commissioner Hidalgo was originally appointed to the Commission in 1991 and reappointed in 1993 by Governor Symington. His term expires in January of 1993.



Beth Schermer, J.D.
Partner
Lewis and Roca

Commissioner Schermer is a partner in the law firm of Lewis and Roca. Her practice is concentrated primarily in the areas of hospital and health care law. She has also been involved in federal and state regulatory arenas as well as with legislative efforts on behalf of health care clients. Commissioner Schermer is a member of the American Academy of Hospital Attorneys and the National Health Lawyers Association. She graduated Summa Cum Laude from Yale University in 1977 and received her law degree from Harvard University in 1980. Appointed to the Commission by Governor Symington in January, 1991, her current term of office expires January, 1994.

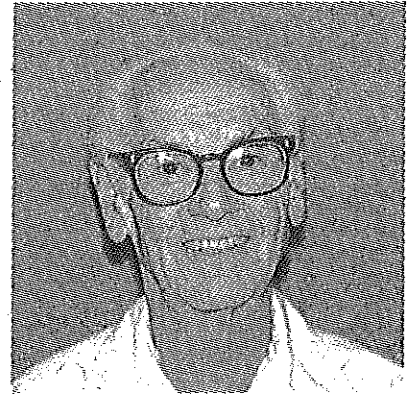


Medical Community

Herbert K. Abrams, M.D.

Professor Emeritus
University of Arizona

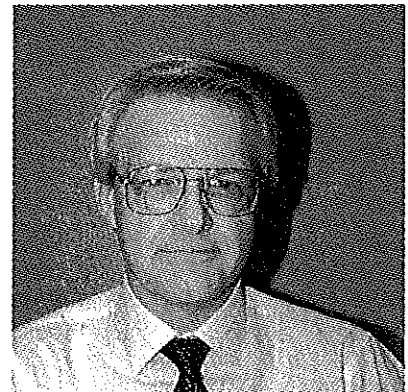
Commissioner Abrams was founder and Head (1968-1978) of the Department of Family and Community Medicine at the University Arizona College of Medicine. From 1978 to 1983, he was Director the Arizona Center for Occupational Safety and Health, which he also founded. He was first appointed to the Commission by Governor Babbitt, and subsequently reappointed in 1987 and 1990. His current term expired in January, 1993.



James R. Bloedel, Ph.D., M.D.

Chairman, Division of Neurobiology
Barrow Neurological Institute
St. Joseph's Hospital and Medical Center

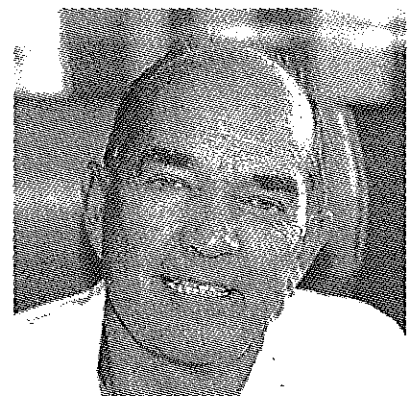
Commissioner Bloedel has chaired the Division of Neurobiology at the Barrow Neurological Institute in Phoenix since 1984. Before joining Barrow Neurological Institute, he was professor of neurosurgery and physiology at the University of Minnesota. Commissioner Bloedel received his doctorates from the University of Minnesota in 1967 and 1969. He received his bachelor's degree (summa cum laude) from St. Olaf College in 1962 where he was awarded Phi Beta Kappa and Blue Key honors. The author of many publications in the field of neurobiology, he received the Jacob Javits Award in 1986. Commissioner Bloedel was appointed to the Commission in 1992. His term expires in 1995.



William E. Crisp, M.D.

Gynecology and Oncology
Phoenix

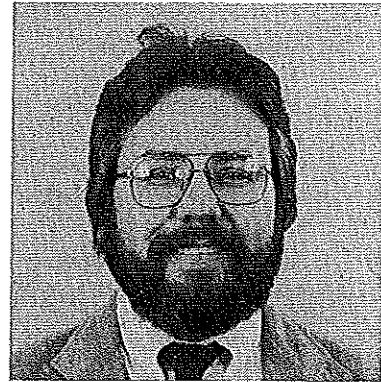
Commissioner Crisp practices gynecology and oncology in Phoenix. He is also a Clinical Associate Professor at the University of Arizona College of Medicine. Commissioner Crisp served as Chairman of the Department of Obstetrics and Gynecology at Good Samaritan Hospital and has been President of the Arizona Medical Association and the Maricopa County Medical Society. Commissioner Crisp was appointed to the Commission by Governor Mofford in 1988, and reappointed by Governor Symington in 1991. His current term expires in 1994.



Carlos R. Gonzales, M.D.

Family Practice
Patagonia

Commissioner Gonzales graduated in 1977 from Carleton College in Northfield, Minnesota and received his M.D. from the University of Arizona, College of Medicine in 1981. Commissioner Gonzales completed his Family Practice Residency in 1984 at the University of New Mexico Hospital, Albuquerque and completed a fellowship in Adolescent Medicine and School Health in 1985. From 1988 to 1993 Commissioner Gonzales served as Medical Director of the El Rio Neighborhood Health Center. Commissioner Gonzales is a family practice physician in Patagonia, Arizona. He was appointed to the Commission by Governor Symington and his term expires in 1996.



Scientific Research Community

Mary J. C. Hendrix, Ph.D.

Department of Anatomy
University of Arizona

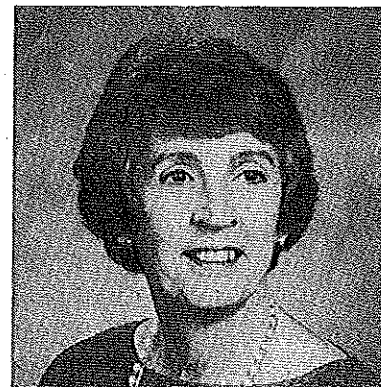
Commissioner Hendrix received her doctorate in Anatomy from the George Washington University in Washington, D.C. followed by a postdoctoral fellowship in Cell Biology at Harvard Medical School. She is currently a Professor of Anatomy at the University of Arizona College of Medicine and Vice President of the American Association of Anatomists. Commissioner Hendrix was first appointed to the Commission in March, 1985 by Governor Babbitt, and subsequently reappointed by Governor Mofford in January, 1988 and by Governor Symington in January, 1991. Her current term of office expires in January, 1994.



Patricia D. Moore, Dr.P.H., R.N.

Chair, Division of Community Health Nursing
Arizona State University

Commissioner Moore received her Doctorate and Master's degrees in Public Health from the Johns Hopkins University School of Hygiene and Public Health and a Master's degree in Nursing from the Catholic University of America. Commissioner Moore is an Associate Professor and Chair of the Division of Community Health Nursing, Arizona State University. She is a Fellow of the American Academy of Nursing. Appointed to the Commission by Governor Symington in 1993, Commissioner Moore's term expires in 1996.



William G. O'Callaghan, M.D.

Cardiologist
Mayo Clinic

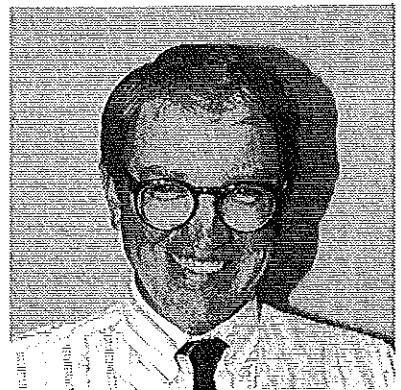
Commissioner O'Callaghan is a consultant in cardiovascular disease at Mayo Clinic Scottsdale. Born in Tipperary, Ireland he attended the National University of Ireland. He became a Member of the Royal College of Physicians of Ireland in 1979. He was a Fellow in Cardiology at the Duke University Medical Center from 1983 to 1986. He became a Diplomate of the American Board of Internal Medicine in 1988. As a medical researcher on cardiovascular disease, he is the author of numerous publications. Appointed to the Commission by Governor Mofford in January, 1990, his current term of office expired in January, 1993.



David J. Prior, Ph.D.

Chairman, Department of Biological Sciences
Dean, College of Arts and Sciences
Northern Arizona University

Commissioner Prior was Professor and Chairman of the Department of Biological Sciences at Northern Arizona University from 1987 to 1992 and was appointed Dean of the College of Arts and Sciences in 1992. Commissioner Prior received his doctorate in neurophysiology in 1972 from the University of Virginia. The author of numerous publications in neurophysiology, Commissioner Prior was appointed to the Commission in 1992 by Governor Symington. His term expires in 1995.



Summary of FY 1992-93 Commission Activities

The Commission had 72 contracts with medical and health researchers in Arizona at the start of FY 1992-93. Contract summaries are contained in Section A.

Approximately 900 Requests for Proposals (RFPs) for FY 1993-94 awards were mailed to potential applicants in August 1992. The amount available for new contract awards was just under \$570,000. In response to the RFP, the Commission received 94 proposals by November 4, 1992. Section B summarizes the research proposals received.

In late November and early December the proposals were sent to a panel of national scientific and medical experts for peer review and evaluation. In January and February, the Commission received approximately 300 proposal evaluations prepared by more than 100 out-of-state peer reviewers. Three reviews were received for each proposal. The proposals and evaluations were distributed to the Commissioners who were formed into three, three-person subcommittees to facilitate the final review process. In April the Commissioners selected 25 award-winning research projects from among the 94 applications submitted. The New Awards are listed in Section C.

During FY 1993-94, the ADCRC will be managing 68 contracts. The contracts of Drs. Kregel and Tai were terminated. Both Principal Investigators relocated to out-of-state institutions. The continuing contracts are listed in Section D.

Contract and Proposal Summaries

- Section A Contracts for FY 1992-93**
- Section B Research Proposals Received for FY 1993-96**
- Section C New Awards for FY 1993-96**
- Section D Continuing Contracts for FY 1993-94**

Section A

Contracts for FY 1992-93

Cardiovascular and Other Circulatory Diseases/Disorders

Principal Investigator	Institution	Project Title	Amount
Baldwin	University of Arizona	Does Stasis Affect Microvascular Surface Charges & Permeability?	\$24724
Brendel	University of Arizona	Cultured Myocardial Slices as an Alternative in In Vitro Tool for Toxicity Evaluation	\$24589
Johnson	University of Arizona	Vascular Reflexes in Hemorrhagic Hypotension	\$49412
Keller	Arizona State University	Determining Indicators of Obesity in Minority Women	\$24895
Keller	St. Joseph's Hospital	Advancement of Magnetic Resonance Angiography Technology	\$23320
Kern	University of Arizona	Myocardial Dysfunction Following Resuscitation from Cardiac Arrest	\$24880
McDonagh	University of Arizona	Reperfusion Injury in the Diabetic Heart	\$24242
Morkin	University of Arizona	Molecular Signals in Ventricular Remodeling	\$100000
Nolan	University of Arizona	Clinical Pharmacokinetics of Amiodarone in the Elderly Obese & in Individuals with Hepatic Disease	\$24998
Williams	University of Arizona	Whole-Body Lymphangioscintigraphy & Lymphatic Transport Measurement in the Assessment of Peripheral Lymphedema	\$24393

Health Effects of Environmental Pollutants

Principal Investigator	Institution	Project Title	Amount
Boyer-Hassen	University of Arizona	Southern Arizona Childhood Lead Study	\$23604
Pepper	University of Arizona	Health Risks Associated with Bacterial & Viral Pathogens in Groundwater	\$28791
Rykowski	University of Arizona	The Structure of Transposon Insertion Sites	\$25000

Health Promotion and Disease Prevention

Principal Investigator	Institution	Project Title	Amount
Altman	ADHS/Division of Family Health Services	Survey of Oral Health Status & Treatment Needs of Arizona Elderly	\$24900
Bencherif	St. Joseph's Hospital/BNI	Mechanisms of Nicotine Addiction	\$25000
Cooper	Arizona Department of Health Services	A Study of the Nature Incidence & Consequences of Elementary School Playground-Related Injuries in Arizona	\$5860
Dart	University of Arizona	Isolation & Efficacy of Anti-Scorpion Fab	\$25000
Flores	University of Arizona	Fate of Dietary Carnitine during Development	\$23744
Greene	University of Arizona	Increasing Smoking Cessation Rates in Arizona: A Physician Based Program to Improve Efficacy	\$44741
Herman	Good Samaritan Regional Medical Center	Injury Surveillance: State of Arizona	\$27200
Lobell	Maricopa Medical Center	Barriers to Cancer Prevention	\$25000
Misra	Arizona State University	Novel Antibiotic Targets Among Bacterial Pathogens that Cause Urinary Tract Infections & Sexually Transmitted Diseases	\$21695
Modiano	University of Arizona	Barriers to Cancer Screening in Hispanic Women: A Pilot Study	\$25000
Roehrig	University of Arizona	Reduction of Patient Exposure in Pediatric Radiology	\$24999
Unger	University of Arizona	Targeted MR Contrast Agents	\$25000

Infectious and Immunologic Diseases/Disorders

Principal Investigator	Institution	Project Title	Amount
Adam	University of Arizona	Giardia Lamblia an Immunization Strategy Based on a Major Surface Antigen	\$36232

Contracts for FY 1992-93

DeLuca	University of Arizona	Use of In Vitro Chimeras to Study the Induction of Type I Diabetes	\$58471
Finley	University of Arizona	DNA Fingerprinting in Bone Marrow Transplantation: HLA-PCR Fingerprinting Crossmatch in Organ Transplantation	\$22202
Friedman	University of Arizona	Studies on the Invasion & Survival of Bordetella Pertussis in Human Monocytes	\$70292
Joens	University of Arizona	Campylobacteriosis: Cell Invasion & its Relationship to Lesion Development in the Host	\$24864
Marchalonis	University of Arizona	Analysis of Synovial Tissue T Cell Receptor Heterogeneity in a Clinical Subset of Rheumatoid Arthritis	\$137932
Payne	University of Arizona	Effect of Interferons & Interleukins of Natural Killer Cell-Mediated Damage to the DNA of Virally-Infected Target Cells	\$24998
Petersen	University of Arizona	HIV Disease and Treatment in Arizona: Data Collection & Analysis	\$25000
Shehab	University of Arizona	Molecular Pathogenesis of Epstein-Barr Virus (EBV) in Malignant Lymphomas & Chronic Illness	\$24651
Timmermann	University of Arizona	Isolation of Anti-HIV Agents from Plants of Arizona	\$25000
Yeoman	University of Arizona	The Use of Human Umbilical Cord Blood for Allogeneic Bone Marrow Reconstitution & Transplantation	\$82520
Zautra	Arizona State University	Life Stress & Neuro-Immune Function in Rheumatoid Arthritis	\$59503

Malignant Neoplasms

Principal Investigator	Institution	Project Title	Amount
Bernstein	University of Arizona	Genotoxicity of Bile Acids & Protective Effect of Fiber: Relationship to Colon Cancer	\$25000
Fennerty	University of Arizona	Clinical & Biologic Studies of Preneoplastic Gastric Lesions	\$24237
Glasser	University of Arizona	Response of Human Multiple Myeloma to Akylysophospholipids: Applicability to Treatment & Bone Marrow Purging	\$25000
Gmitro	University of Arizona	Real-Time Magnetic Resonance Imaging	\$25000

Contracts for FY 1992-93

Miesfeld	University of Arizona	Molecular Determinants of Androgen-Independent Prostate Cell Growth	\$25000
Pettit	Arizona State University	Discovery & Development of New Anticancer Drugs	\$286328
Salmon	University of Arizona	Arizona Cancer Center Research Program	\$1358502
Shimizu	University of Arizona	Aspects of Negative Regulation of EGF Receptor Gene Expression	\$24997
Smith	Arizona State University	Regulation of c-myc Gene Expression by Interferons	\$25000
Witte	University of Arizona	In Vitro Model of Kaposi's Sarcoma: Phenotypic & Genotypic Profile	\$24970
Zoellner	Northern Arizona University	Metal-Containing Potential Anti-cancer Agents Prepared by Metal Vapor Synthesis (MVS) Techniques. Synthesis Characterization & Comparative Deoxyribonucleic Acid (DNA) Binding Studies	\$23297

Metabolic and Endocrine Disorders

Principal Investigator	Institution	Project Title	Amount
Lynch	University of Arizona	Inter-Relations Between Hexokinase & Glucokinase Activities in Modulating Cell Energy State & Excitability in Insulin Secreting Cells	\$25000
Phillips	University of Arizona	Kinetics & Degradation of IGF	\$26901
Putnam	University of Arizona	Inhibition of Hepatic Regeneration: Predisposition to Hepatic Failure	\$24440
Rance	University of Arizona	Morphological Alterations in the Central Nervous System of Postmenopausal Women	\$24692
Rao	University of Arizona	Role of Epidermal Growth Factor in Gastrointestinal Secretions	\$24164
Rowles	National Institutes of Health	Regulation of Protein Tyrosine Phosphatase Activity by Insulin in Skeletal Muscle of Human Subjects with Different Degrees of Insulin Resistance	\$25000

Neurologic, Mental and Behavioral Diseases/Disorders

Principal Investigator	Institution	Project Title	Amount
Burd	University of Arizona	Effects of Hyperthyroidism & Hypothyroidism on Neural Development	\$24437
Gordon	University of Arizona	Localization of Synaptic Elements in Hybrid Muscle Cells	\$25000
Johnson	University of Arizona	Effect of Alcohol & Phenobarbital Exposure on Neonatal Axonal & Dendritic Development	\$24976
Lien	University of Arizona	Nuclear Magnetic Resonance (NMR) Study of Cell Volume Regulation in Cultured Brain Cells	\$25000
McMullen	University of Arizona	Central Nervous System Sequelae Following Neonatal Deafness	\$21860
Montgomery	University of Arizona	Pathophysiology of Parkinsonism	\$24987
Moore	University of Arizona	Central Nervous System Tissue Damage & Cognitive Impairments in Children with Acute Lymphoblastic Leukemia	\$24,900
Packard	Northern Arizona University	Alcoholic Anonymous Assistance Research Project	\$25000
Stelmach	Arizona State University	The Locus of Bradykinesia in Parkinson's Disease	\$25000
Yamamura	University of Arizona	Antidepressant Drug Mechanisms Studied Using Recombinant Cells	\$24750

Respiratory Diseases

Principal Investigator	Institution	Project Title	Amount
Tai	Arizona State University	Studies on the Iron Uptake System of Streptococcus Pneumoniae & its Application in the Vaccine Development	\$25000

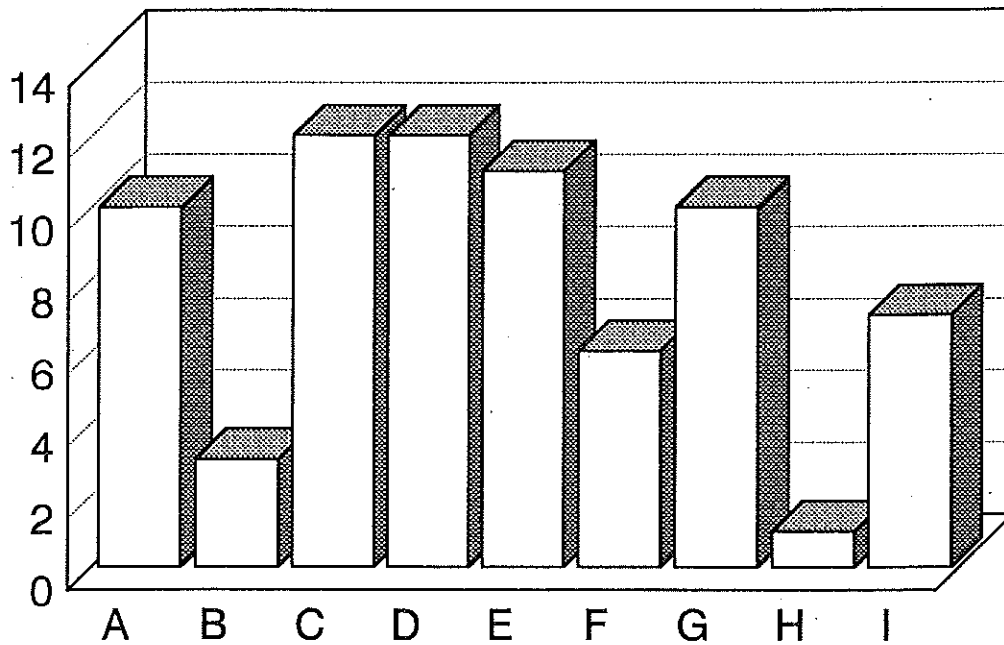
Aging and Disease

Principal Investigator	Institution	Project Title	Amount
Allen	University of Arizona	Satellite Cell Activation in Aging Skeletal Muscle & the Role of Insulin-like Growth Factor I	\$24811

Contracts for FY 1992-93

Davis	University of Arizona	Somatostatin & Substance P Metabolism & Peptidase Activity Are Altered in Alzheimer's Disease	\$27651
Jeevanandam	St. Joseph's Hospital/BNI	Adjuvant Growth Hormone Therapy for Geriatric Obese Traumatized Man	\$30377
Kay	University of Arizona	Cellular Life Span Manipulation in Aging & Alzheimer's Disease	\$117897
Kregel	University of Arizona	Influence of Aging on Sympathetic Nervous System Activity	\$24548
Regan	University of Arizona	Molecular Identification of Adrenergic Receptor Subtypes Involved in the Treatment of Glaucoma	\$25036
Verdery	University of Arizona	A Randomized Controlled Trial of Growth Hormone to Improve the Rehabilitative Outcomes of Total Knee Replacement in the Elderly	\$24974

Contracts for FY 1992-93 by Priority Area (N=72)



- A Cardiovascular and Other Circulatory Diseases/Disorders
- B Health Effects of Environmental Pollutants
- C Health Promotion and Disease Prevention
- D Infectious and Immunologic Diseases/Disorders
- E Malignant Neoplasms
- F Metabolic and Endocrine Disorders
- G Neurologic, Mental and Behavioral Diseases/Disorders
- H Respiratory Disease
- I Aging and Disease

Section B

Research Proposals Received for FY 1993-96

Research Proposals Received for 1993-96 Contract Years

Cardiovascular and Other Circulatory Diseases/Disorders

Principal Investigator (Proposal ID)	Institution	Project Title	Annual Budget Amount
Antin (3-059)	University of Arizona	Growth Factor Regulation of Myocardial Cell Development	\$24726 24356 24356
Berg (3-064)	University of Arizona	Evaluation of the Need for Ventilation During Cardiopulmonary Resuscitation in a Swine Cardiac Arrest Model	\$25000 25000 25000
Brown (3-074)	University of Arizona	Lipid Deposition in Atherosclerosis Studied by NMR Spectroscopy	\$25000 25000 25000
Burt (3-087)	University of Arizona	Regulation of Expression & Function of Gap Junction Channels Composed of Cx40	\$25000 25000 25000
Dachman (3-038)	Maricopa Medical Center	Variability in Responsiveness to Alpha and Beta Agonist Between Caucasians, Hispanics & Native Americans	\$35568 29961 30240
Flink (3-076)	University of Arizona	Characterization of Cellular Nucleic Acid Binding Protein	\$25000 25000 25000
Gruener (3-061)	University of Arizona	Modulation by Membrane Lipids of Vascular Muscle Ion Channels in Hypertension	\$24977 24977 24977
Manciet (3-080)	University of Arizona	Effects of Exercise on the Structure & Function of the Diabetic Rat Heart	\$25000 25000 25000
Markle (3-023)	Northern Arizona University	Physiology of Enhanced Vascular Permeability in Diabetes	\$25000 25000
Massia (3-094)	VA Medical Center	Evaluation of Balloon Angioplasty-Related Modes of Direct Mechanical Injury on Vascular Smooth Muscle Cells in Vitro	\$25000 25000 25000
Ovadia (3-084)	University of Arizona	Development of New Anti-Inflammatory Electrically Conductive Biomaterials (Gold Alkanethiols & Organothiols) for Permanent Cardiac Pacemaking Applications	\$25000 25000
Slepian (3-093)	University of Arizona	Tissue Reactivity, Hemocompatibility & Patency of Biodegradable Polymeric Arterial Thin Films	\$24926 24502

Research Proposals Received for 1993-96 Contract Years

Health Effects of Environmental Pollutants

Principal Investigator (Proposal ID)	Institution	Project Title	Annual Budget Amount
Bourque (3-073)	University of Arizona	Construction & Cloning of Recombinant DNA Vectors to Introduce Mammalian Cytochrome P-450 Genes into Plants	\$25000 25000 25000
O'Rourke (3-065)	University of Arizona	Acute & Chronic Respiratory Health Effects from Exposure to Pollen, Mold & Mites	\$79283 81868 83964
Santosham (3-040)	Johns Hopkins University	Effect on Indoor Air Pollutants on the Severity & Duration of Lower Respiratory Illness in Native American Children	\$97414 65886
Ulreich (3-079)	University of Arizona	Immunotoxicology of Common Groundwater Contaminants in Arizona	\$54455 54538 56184

Health Promotion and Disease Prevention

Principal Investigator (Proposal ID)	Institution	Project Title	Annual Budget Amount
Aickin (3-072)	University of Arizona	Arizona Biomedical Data Bank	\$25000 25000
Altman (3-037)	ADHS/Office of Dental Health	Assessment of Preventive Measures to Reduce Sports Related Injuries in High School Athletes	\$24950 24750
Applegate (3-058)	ADHS/Div of Family Health	Use of AZ Birth Defect Monitoring Program for Early Medical Referral & for Service Needs Assessment	\$23658 20000
Balcazar (3-050)	Arizona State University	The Effect of Acculturation on Birth & Postnatal Outcomes Among Mexican American Women in Arizona	\$24719 24719 18976
Berg (3-095)	Maricopa County	Immunization Action Plan Focus Groups	\$23449
Buller (3-022)	University of Arizona	Sunny Days, Healthy Ways: Evaluation of a Skin Cancer Prevention Curriculum	\$25000 24990
Camilli (3-060)	University of Arizona	Identification & Prevention of Growth-Retarded Infants Among Mexican American & Non-Hispanic Whites	\$24848 24310
Geisler (3-036)	St. Joseph's Hospital/BNI	Program of Women Empowered with Education & Risk Reduction	\$25000 25000 25000

Research Proposals Received for 1993-96 Contract Years

Gilkey (3-052)	University of Arizona	Membrane Fusion in an Animal Model System	\$20427 15760 16344
Howell (3-068)	University of Arizona	Energy Balance in Free-Living Obese & Lean Women Using Doubly Labeled Water as a Criterion Method to Measure Energy Expenditure	\$14813 24105 24105
Leischow (3-069)	University of Arizona	Safety & Efficacy of Nicotine Patch for Smoking Cessation in a Self-Help Program	\$25000 25000 25000
Manore (3-044)	Arizona State University	Alterations of Body Fat deposition & Chronic Disease Risk Factors in Moderately Obese Hispanic Women Following an Extended Diet & Exercise Program	\$24997 24998 24992
Meister (3-008)	University of Arizona	Increasing Childhood Immunization Coverage: Strengthening Communications Between Parents and Health Personnel	\$25000 25000
Nichols (3-067)	University of Arizona	Influence of Undergraduate Medical Education on Medical Students' Practice Location Preferences	\$25000 25000
Ritenbaugh (3-078)	University of Arizona	Navajo Beliefs & Behaviors Regarding Early Childhood Food Intake	\$25000 6070
Roosa (3-026)	AZ Family Planning Council	Relationship of Childhood Victimization to Teenage Pregnancy and Sexually Transmitted Diseases	\$83709 76449
Shand (3-028)	Northern Arizona University	Isolation & Characterization of Halocin Genes from Extremely Halophilic Archaeobacteria	\$24651 25887 22913
Taren (3-066)	University of Arizona	Measurement of Food Intake in Arizona Populations	\$39994 58911

Infectious and Immunologic Diseases/Disorders

Principal Investigator (Proposal ID)	Institution	Project Title	Annual Budget Amount
Ampel (3-018)	VA Medical Center	Th1 and Th2 Clones in Human Coccidioidomycosis	\$22099 24409
Dodson (3-077)	University of Arizona	Biochemical Characterization of the Helicase-Primase of Herpes Simplex Virus Type 1	\$24996 24995 24996
Friedman (3-003)	University of Arizona	Further Investigations on the Invasions and Survival of Bordetella Pertussis in Human Macrophages	\$87618 83806 86992
Ito (3-063)	University of Arizona	Rapid Detection of Human Cytomegalovirus in AIDS & Immuno-Suppressed Patients	\$53277 53862 53428

Research Proposals Received for 1993-96 Contract Years

Montgomery (3-082)	University of Arizona	Human Lymphoid Cell Lines as Models for Study of Lymphocyte Derived Prolactins	\$24453 24453 24453
Schram (3-007)	University of Arizona	Mass Spectrometry & Immunology of Proteins in Latex Rubber Medical Devices	\$57233 56683 47333
Schumacher (3-070)	University of Arizona	A Cure for Fatal Blood Diseases in Arizona Children Made Possible by an Umbilical Cord Blood Bank	\$125964 87715 89504
Stout (3-042)	Arizona State University	Virulence Mechanisms of Colonic Acid Capsule	\$23309 24125 24970
Zautra (3-049)	Arizona State University	Stress & Disease Activity in Rheumatoid, Osteoarthritis & Healthy Controls	\$73032 73032 73032

Malignant Neoplasms

Principal Investigator (Proposal ID)	Institution	Project Title	Annual Budget Amount
Berens (3-032)	St. Joseph's Hospital/BNI	Invasion Pathways of Malignant Brain Tumors	\$25001 25000 25000
Blanchard (3-016)	University of Arizona	Formulation of Melanotan-II for Oral deliver	\$25000
Grimes (3-011)	University of Arizona	Peptides Bound to HLA and Human Disease	\$30698 30604 30604
Harris (3-009)	University of Arizona	Comparison of Umbilical Cord Blood Versus Bone Marrow for Familial Transplantation	\$25000 25000 25000
Hoffmann (3-001)	University of Arizona	Potential Antitumor Agents from Southwestern Plants	\$25000 25000 25000
Kenney (3-045)	Arizona State University	Analyses of the Relationship of Hormonal Contraceptives, Multiple Sex Partners, & Coitus before 18 years Old to Cervical Human Papillomavirus (HPV) Infections	\$31376
Krupinski (3-013)	University of Arizona	Computer-Assisted Visual Search: An Aid for the Early Detection of Cancer in Mammograms	\$25000 25000 25000
Lam (3-086)	University of Arizona	Antigen-Directed Immunotherapy of a Murine Lymphoma Cell Line	\$25000 25000 25000

Research Proposals Received for 1993-96 Contract Years

McQueen (3-024)	University of Arizona	The Molecular Basis of Acetylator Phenotype in Native Americans	\$24860 24860
Milton (3-015)	Maryvale Samaritan Medical Center	The Effect of a Relaxation technique on cancer Pain and Functional Status	\$23234
Moffet (3-091)	St. Joseph's Hospital/BNI	Molecular Mechanisms of Altered Basic FGF Function in Human Malignant Astrocytoma	\$24647 24981 24328
Parker (3-010)	University of Arizona	Identification of Genes Regulating Eucaryotic Gene Expression by mRNA Deadenylation	\$24998 24998 24998
Richards (3-030)	University of Arizona	Feasibility Study of Noninvasive Microwave Hyperthermia for the Treatment of Intracranial and Extracranial Tumors of the Head	\$25000
Smith (3-047)	Arizona State University	Regulation of Cell Cycle Control Genes by Interferons	\$25000 25000 25000
Stone (3-029)	Southwest Biomedical Research Institute	In vitro Identification & Cloning of Tumor Suppressor Genes	\$25000 25000 25000
Taylor (3-019)	University of Arizona	A Severe Combined Immune Deficiency (SCID) Mouse Model of Multi-Drug Resistant Human Myeloid Leukemia	\$24824 24824 24650

Metabolic and Endocrine Disorders

Principal Investigator (Proposal ID)	Institution	Project Title	Annual Budget Amount
Bieber (3-046)	Arizona State University	Structural Studies of Parathyroid Hormone & Related Peptides by Two & Three Dimensional Nuclear Magnetic Resonance	\$25000 25000 23785
Kling (3-089)	University of Arizona	Growth & Developmental Regulation of Erythropoietin Production	\$24846 24866 24882
Koldovsky (3-002)	University of Arizona	Gastrointestinal Metabolism of Milk-Borne Growth Factors in the Human Neonate	\$33418 35089 36925
Lai (3-075)	University of Arizona	Molecular Probe Analysis of Proximal 15q for Prader-Willi Syndrome Diagnosis & Determination of Clinical Spectrum	\$25000 25000 25000
Matt (3-043)	Arizona State University	Neuroendocrine Regulation of Reproduction	\$24730 24730 24730

Research Proposals Received for 1993-96 Contract Years

Neurologic, Mental and Behavioral Diseases/Disorders

Principal Investigator (Proposal ID)	Institution	Project Title	Annual Budget Amount
Carter (3-012)	University of Arizona	Cerebral Blood Flow Measured by Thermal Dosimetry as A Basis for Decision-Making in Patients with Severe Head Injuries	\$24492
Caselli (3-006)	Mayo Clinic Scottsdale	Kinematic Studies of Upper Limb Apraxia	\$23231 23997 24912
Clewell (3-051)	Good Sam Medical Center	Therapeutic Amniocentesis & Developmental Outcome in Twin to Twin Transfusion Syndrome	\$25616 25166
Dickman (3-035)	St. Joseph's Hospital/BNI	Biomechanics of Upper Cervical Spinal Instability	\$24472 24498 24836
French (3-088)	University of Arizona	Remoxipride, a Potential Pharmacological Treatment for Cocaine Addiction: Evaluation in an Animal Model of Drug Self-Administration	\$22703
Harrington (3-034)	St. Joseph's Hospital/BNI	Will Neurological & Neuropsychological Outcome of Patients with Traumatic Brain Injury Improve if Field Identification of Hypoxia Permits Modification of Airway Management	\$35535 23792
Hoffman (3-041)	Arizona State University	Neuropsychiatric Involvement in Immunologic Disease	\$25000 25000 25000
Kammer (3-083)	Arizona State University	Mechanisms of Action of Rattlesnake Toxins	\$25000 25000 25000
Khayata (3-092)	St. Joseph's Hospital/BNI	Endovascular Treatment of Cerebral Aneurysms & Arteriovenous Fistulas with Vascular Stents	\$25027
McDonagh (3-085)	University of Arizona	Neural Basis of Spasticity: An Experimental Analysis	\$24891 24079 24994
Mennemeier (3-071)	University of Arizona	An Investigation of the Cognitive, Affective & Neuropsychologic Changes Associated with Primary Hypothyroidism	\$24939 22870
Montfort (3-027)	University of Arizona	Microtubules & Associated Proteins	\$25000 25000 25000
Moore (3-020)	University of Arizona	FABMS/MS of CSF Phospholipids in Children with Cancer, HIV Infection and Coccidioidal Meningitis	\$25000 25000 25000

Research Proposals Received for 1993-96 Contract Years

Polt (3-014)	University of Arizona	Crossing the Blood-Brain Barrier. Glycosylation of Neuro-Active Peptides to Produce Physiologically Active Drugs	\$27500 28408 29487
Satterlie (3-039)	Arizona State University	Invertebrate Model of Repetitive Firing in Muscle Cells	\$24918 24275 24615
Schindler (3-031)	CODAC Behavioral Health Services Inc.	Teen Smoking Cessation: A Study of Reinforcement Strategies with a Disadvantaged Population	\$24488 24746
Zabramski (3-033)	St. Joseph's Hospital/BNI	Natural History of Familial Cavernous Malformations	\$94646 75100 80314

Respiratory Diseases

Principal Investigator (Proposal ID)	Institution	Project Title	Annual Budget Amount
Lantz (3-062)	University of Arizona	Alcohol & Alveolar Macrophage Dysfunction	\$64976 61430 63750
Macia (3-090)	Arizona State University	Noninvasive Measurement of Respiratory Resistance	\$24935
Akporiaye (3-004)	University of Arizona	Age-Dependent Changes in Tumor Immunity: Immunomodulation by Dehydroxyepiandrosterone (DHEA)	\$85380 91483 83727

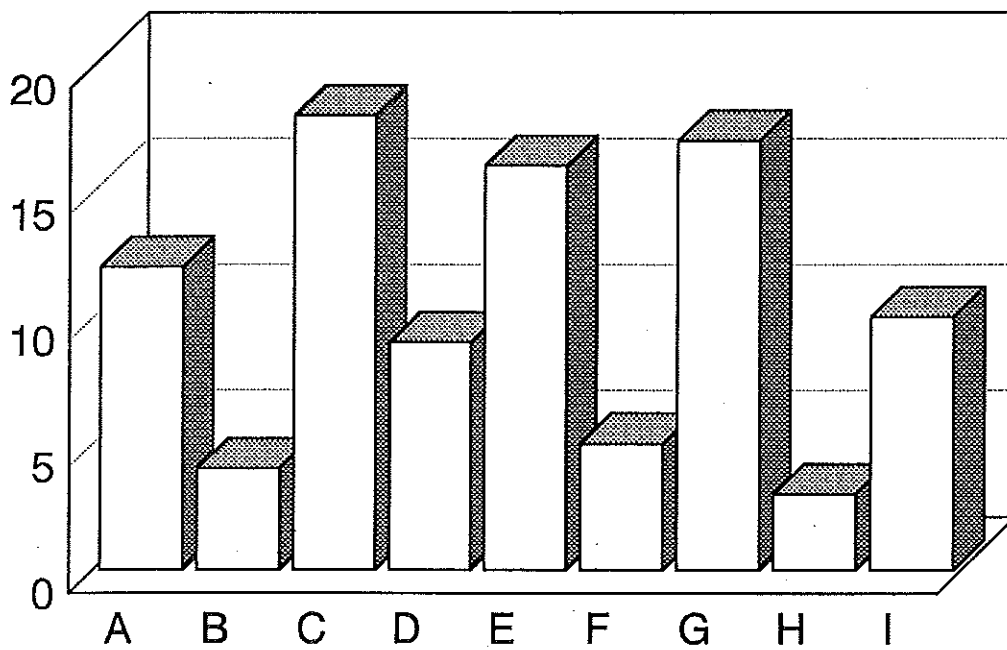
Aging and Diseases

Principal Investigator (Proposal ID)	Institution	Project Title	Annual Budget Amount
Brachova (3-057)	Sun Health Research Institute	Functional Correlates of Complement Activation in Alzheimer's Disease	\$25000 25000 25000
Brown (3-053)	Northern Arizona University	The Impact of Informed Caregiving on the Health of the Elderly in Rural Arizona	\$24927
Drach (3-081)	University of Arizona	Ultrasonic Transrectal Hyperthermic Therapy for Benign Prostatic Obstruction	\$33521 31913 21434
Eng (3-025)	University of Arizona	Utilization of Prescription Drugs Purchased in Mexico by Arizona Elderly Residents	\$76184 78796
Gamble (3-021)	University of Arizona	Brain Aging & Disease Intervention	\$24900 24900 24900

Research Proposals Received for 1993-96 Contract Years

Logan (3-017)	VA Medical Center	Studies on the Mechanism of Renal Aging: The Role of Compensatory Hypertrophy	\$25000 25000
McKinley (3-055)	Sun Health Research Institute	Development & Propagation of CNS Cell Cultures from Alzheimer's Disease Autopsies	\$25000 25000 25000
Murphy (3-048)	Arizona State University	Determining Indicators of Elderly Health Services Utilization	\$24957
Schultz (3-054)	Sun Health Research Institute	Prostatic Tumor Specific Gene Expression	\$25000 25000 25000
Tuohy (3-056)	Sun Health Research Institute	Beta-Amyloid Induced Complement Cytopathogenesis in Cultured Cells	\$25000 25000 25000

Research Proposals Received for FY 1993-96 by Priority Area (N=94)



- A Cardiovascular and Other Circulatory Diseases/Disorders
- B Health Effects of Environmental Pollutants
- C Health Promotion and Disease Prevention
- D Infectious and Immunologic Diseases/Disorders
- E Malignant Neoplasms
- F Metabolic and Endocrine Disorders
- G Neurologic, Mental and Behavioral Diseases/Disorders
- H Respiratory Disease
- I Aging and Disease

Section C

New Awards for FY 1993-96

New Awards for 1993-96 Contract Years

Cardiovascular and Other Circulatory Diseases/Disorders

Principal Investigator	Institution	Project Title	Award Amount
Flink	University of Arizona	Characterization of Cellular Nucleic Acid Binding Protein	\$25000
Markle	Northern Arizona University	Physiology of Enhanced Vascular Permeability in Diabetes	\$25000
Ovadia	University of Arizona	Development of New Anti-Inflammatory Electrically Conductive Biomaterials (Gold Alkanethiols & Organothiols) for Permanent Cardiac Pacemaking Applications	\$25000

Health Effects of Environmental Pollutants

Principal Investigator	Institution	Project Title	Award Amount
Ulreich	University of Arizona	Immunotoxicology of Common Groundwater Contaminants in Arizona	\$54455

Health Promotion and Disease Prevention

Principal Investigator	Institution	Project Title	Award Amount
Balcazar	Arizona State University	The Effect of Acculturation on Birth & Postnatal Outcomes Among Mexican American Women in Arizona	\$24719
Berg	Maricopa County	Immunization Action Plan Focus Groups	\$23449
Buller	University of Arizona	Sunny Days, Healthy Ways: Evaluation of a Skin Cancer Prevention Curriculum	\$25000
Leischow	University of Arizona	Safety & Efficacy of Nicotine Patch for Smoking Cessation in a Self-Help Program	\$25000
Roosa	AZ Family Planning Council	Relationship of Childhood Victimization to Teenage Pregnancy and Sexually Transmitted Diseases	\$83709
Shand	Northern Arizona University	Isolation & Characterization of Halocin Genes from Extremely Halophilic Archaeobacteria	\$24651
Taren	University of Arizona	Measurement of Food Intake in Arizona Populations	\$39994

New Awards for 1993-96 Contract Years

Infectious and Immunologic Diseases/Disorders

Principal Investigator	Institution	Project Title	Award Amount
Dodson	University of Arizona	Biochemical Characterization of the Helicase-Primase of Herpes Simplex Virus Type 1	\$24996

Malignant Neoplasms

Principal Investigator	Institution	Project Title	Award Amount
Grimes	University of Arizona	Peptides Bound to HLA and Human Disease	\$30698
Hoffmann	University of Arizona	Potential Antitumor Agents from Southwestern Plants	\$25000
Kenney	Arizona State University	Analyses of the Relationship of Hormonal Contraceptives, Multiple Sex Partners, & Coitus before 18 years Old to Cervical Human Papillomavirus (HPV) Infections	\$31376
Moffet	St. Joseph's Hospital/BNI	Molecular Mechanisms of Altered Basic FGF Function in Human Malignant Astrocytoma	\$24647
Parker	University of Arizona	Identification of Genes Regulating Eucaryotic Gene Expression by mRNA Deadenylation	\$24998
Richards	University of Arizona	Feasibility Study of Noninvasive Microwave Hyperthermia for the Treatment of Intracranial and Extracranial Tumors of the Head	\$25000
Smith	Arizona State University	Regulation of Cell Cycle Control Genes by Interferons	\$25000

Metabolic and Endocrine Diseases/Disorders

Principal Investigator	Institution	Project Title	Award Amount
Kling	University of Arizona	Growth & Developmental Regulation of Erythropoietin Production	\$24846

Neurologic, Mental and Behavioral Diseases/Disorders

Principal Investigator	Institution	Project Title	Award Amount
Caselli	Mayo Clinic Scottsdale	Kinematic Studies of Upper Limb Apraxia	\$23231

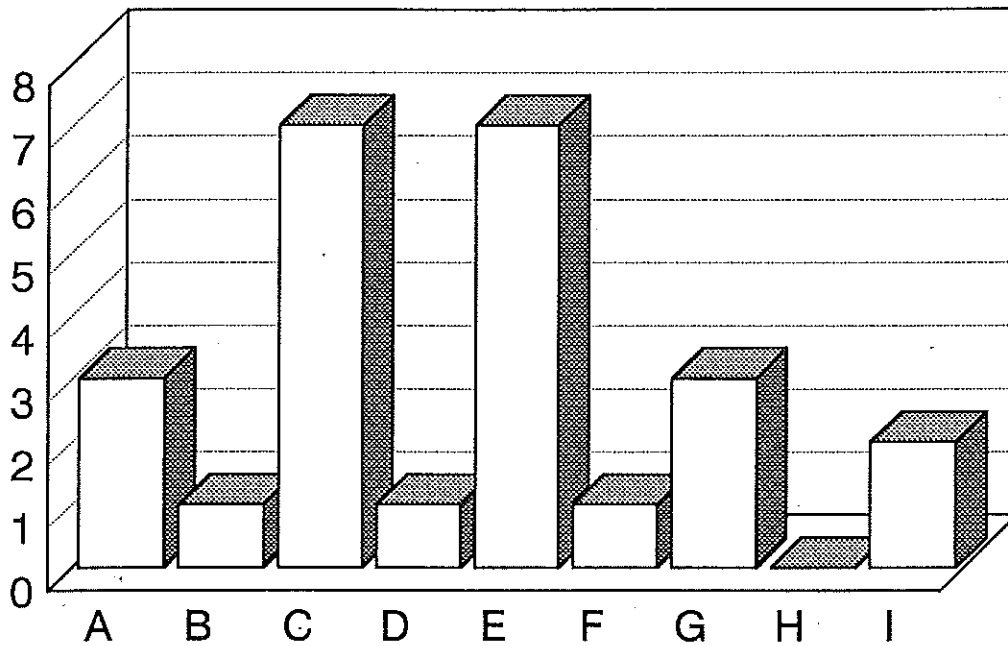
New Awards for 1993-96 Contract Years

Montfort	University of Arizona	Microtubules & Associated Proteins	\$25000
Polt	University of Arizona	Crossing the Blood-Brain Barrier. Glycosylation of Neuro-Active Peptides to Produce Physiologically Active Drugs	\$27500

Aging and Diseases

Principal Investigator	Institution	Project Title	Award Amount
Brachova	Sun Health Research Institute	Functional Correlates of Complement Activation in Alzheimer's Disease	\$25000
Logan	VA Medical Center	Studies on the Mechanism of Renal Aging: The Role of Compensatory Hypertrophy	\$25000

New Awards for FY 1993-96 by Priority Area (N=25)



- A Cardiovascular and Other Circulatory Diseases/Disorders
- B Health Effects of Environmental Pollutants
- C Health Promotion and Disease Prevention
- D Infectious and Immunologic Diseases/Disorders
- E Malignant Neoplasms
- F Metabolic and Endocrine Disorders
- G Neurologic, Mental and Behavioral Diseases/Disorders
- H Respiratory Disease
- I Aging and Disease

Section D

Continuing Contracts for FY 1993-94

Continuing Contracts for 1993-94 Contract Year

Cardiovascular and Other Circulatory Diseases/Disorders

Principal Investigator	Institution	Project Title	Award Amount
Baldwin	University of Arizona	Does Stasis Affect Microvascular Surface Charges & Permeability?	\$24100
Brendel	University of Arizona	Cultured Myocardial Slices as an Alternative in In Vitro Tool for Toxicity Evaluation	\$24000
Keller	St. Joseph's Hospital	Advancement of Magnetic Resonance Angiography Technology	\$22900
Kern	University of Arizona	Myocardial Dysfunction Following Resuscitation from Cardiac Arrest	\$24000
McDonagh	University of Arizona	Reperfusion Injury in the Diabetic Heart	\$24700
Morkin	University of Arizona	Molecular Signals in Ventricular Remodeling	\$57600
Williams	University of Arizona	Whole-Body Lymphangioscintigraphy & Lymphatic Transport Measurement in the Assessment of Peripheral Lymphedema	\$20000

Health Effects of Environmental Pollutants

Principal Investigator	Institution	Project Title	Award Amount
Boyer-Hassen	University of Arizona	Southern Arizona Childhood Lead Study	\$25000

Health Promotion and Disease Prevention

Principal Investigator	Institution	Project Title	Award Amount
Bencherif	St. Joseph's Hospital/BNI	Mechanisms of Nicotine Addiction	\$24000
Flores	University of Arizona	Fate of Dietary Carnitine during Development	\$24000
Greene	University of Arizona	Increasing Smoking Cessation Rates in Arizona: A Physician Based Program to Improve Efficacy Effectiveness & Dissemination	\$36400
Lobell	Maricopa Medical Center	Barriers to Cancer Prevention Diagnosis & Treatment in Hispanic Men & Women	\$25000

Continuing Contracts for 1993-94 Contract Year

Misra	Arizona State University	Novel Antibiotic Targets Among Bacterial Pathogens that Cause Urinary Tract Infections & Sexually Transmitted Diseases & the Role of the Outer Membrane in Antibiotic Resistance	\$24600
Modiano	University of Arizona	Barriers to Cancer Screening in Hispanic Women: A Pilot Study	\$24000

Infectious and Immunologic Diseases/Disorders

Principal Investigator	Institution	Project Title	Award Amount
DeLuca	University of Arizona	Use of In Vitro Chimeras to Study the Induction of Type I Diabetes	\$31000
Finley	University of Arizona	DNA Fingerprinting in Bone Marrow Transplantation: HLA-PCR Fingerprinting Crossmatch in Organ Transplantation	\$22200
Joens	University of Arizona	Campylobacteriosis: Cell Invasion & its Relationship to Lesion Development in the Host	\$22400
Marchalonis	University of Arizona	Analysis of Synovial Tissue T Cell Receptor Heterogeneity in a Clinical Subset of Rheumatoid Arthritis	\$65000
Timmermann	University of Arizona	Isolation of Anti-HIV Agents from Plants of Arizona	\$24000
Yeoman	University of Arizona	The Use of Human Umbilical Cord Blood for Allogeneic Bone Marrow Reconstitution & Transplantation	\$25000

Malignant Neoplasms

Principal Investigator	Institution	Project Title	Award Amount
Bernstein	University of Arizona	Genotoxicity of Bile Acids & Protective Effect of Fiber: Relationship to Colon Cancer	\$20000
Gmitro	University of Arizona	Real-Time Magnetic Resonance Imaging	\$24700
Pettit	Arizona State University	Discovery & Development of New Anticancer Drugs	\$215000
Salmon	University of Arizona	Arizona Cancer Center Research Program	\$840000
Witte	University of Arizona	In Vitro Model of Kaposi's Sarcoma: Phenotypic & Genotypic Profile	\$24000

Continuing Contracts for 1993-94 Contract Year

Zoellner	Northern Arizona University	Metal-Containing Potential Anti-cancer Agents Prepared by Metal Vapor Synthesis (MVS) Techniques. Synthesis Characterization & Comparative Deoxyribonucleic Acid (DNA) Binding Studies	\$23000
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Metabolic and Endocrine Disorders

Principal Investigator	Institution	Project Title	Award Amount
Lynch	University of Arizona	Inter-Relations Between Hexokinase & Glucokinase Activities in Modulating Cell Energy State & Excitability in Insulin Secreting Cells	\$24000
Philipps	University of Arizona	Kinetics & Degradation of IGF	\$25000
Putnam	University of Arizona	Inhibition of Hepatic Regeneration: Predisposition to Hepatic Failure	\$24000
Rao	University of Arizona	Role of Epidermal Growth Factor in Gastrointestinal Secretions	\$24000

Neurologic, Mental and Behavioral Diseases/Disorders

Principal Investigator	Institution	Project Title	Award Amount
Gordon	University of Arizona	Localization of Synaptic Elements in Hybrid Muscle Cells	\$10000
Johnson	University of Arizona	Effect of Alcohol & Phenobarbital Exposure on Neonatal Axonal & Dendritic Development	\$24000
Lien	University of Arizona	Nuclear Magnetic Resonance (NMR) Study of Cell Volume Regulation in Cultured Brain Cells	\$25000
Montgomery	University of Arizona	Pathophysiology of Parkinsonism	\$24900
Packard	Northern Arizona University	Alcoholic Anonymous Assistance Research Project	\$24000
Stelmach	Arizona State University	The Locus of Bradykinesia in Parkinson's Disease	\$25000
Yamamura	University of Arizona	Antidepressant Drug Mechanisms Studied Using Recombinant Cells	\$24000

Continuing Contracts for 1993-94 Contract Year

Aging and Disease

Principal Investigator	Institution	Project Title	Award Amount
Davis	University of Arizona	Somatostatin & Substance P Metabolism & Peptidase Activity Are Altered in Alzheimer's Disease	\$24000
Jeevanandam	St. Joseph's Hospital/BNI	Adjuvant Growth Hormone Therapy for Geriatric Obese Traumatized Man	\$28000
Kay	University of Arizona	Cellular Life Span Manipulation in Aging & Alzheimer's Disease	\$60000
Kregel	University of Arizona	Influence of Aging on Sympathetic Nervous System Activity	\$24700
Regan	University of Arizona	Molecular Identification of Adrenergic Receptor Subtypes Involved in the Treatment of Glaucoma	\$24000
Verdery	University of Arizona	A Randomized Controlled Trial of Growth Hormone to Improve the Rehabilitative Outcomes of Total Knee Replacement in the Elderly	\$24000