

ANNUAL REPORT



FY 1991-92

ARIZONA DISEASE CONTROL RESEARCH COMMISSION

ANNUAL REPORT

FY 1991-92

Fife Symington, Governor

Alethea O. Caldwell, Chairman

COMMISSIONERS

Medical Community

Herbert Abrams, M.D.
James Bloedel, M.D., Ph.D.
William Crisp, M.D.

Scientific Research Community

Mary Hendrix, Ph.D.
William O'Callaghan, M.D.
David Prior, Ph.D.

General Public

Barbara Barrett, J.D.
Frank Hidalgo
Beth Schermer, J.D.

STAFF

Executive Director, Dawn Schroeder, D.D.S., M.A.
Administrative Manager, Joseph Hashem
Administrative Assistant, Sandra Enkey

1740 West Adams Street, Room 408, Phoenix, AZ 85007
Telephone: (602) 542-1028

MESSAGE FROM THE CHAIRMAN

As Chairman of the Arizona Disease Control Research Commission (ADCRC), I am pleased to report on the progress of a unique State agency, whose mission is the improvement of the health of Arizona citizens. The ADCRC was established by the Arizona Legislature in 1984 to provide funds for research on the cause, epidemiology, diagnosis, treatment and prevention of diseases affecting Arizonans. This program is the result of innovative legislation which allows the expenditure of public funds for basic research on a wide range of medical and health concerns. Funds are appropriated annually from penalties or interest on delinquent taxes. The 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.



During the fiscal year, the Commission awarded 21 new contracts for 1992-95 for medical and health research in Arizona. Summaries of the progress of the 75 projects in force during 1991-92 are presented in the fifth volume of ABSTRACTS, a copy of which may be obtained from the Commission.

*Alethea O. Caldwell
Chairman*

Nine Commissioners serve to 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 medical community, three represent the scientific research community and three represent the general public. 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 serving during FY 1991-92 are presented below.

Chairman and *Ex-Officio* Member:

Alethea O. Caldwell

Director

Arizona Department of Health Services

Chairman Caldwell was appointed Director of the Arizona Department of Health Services by Governor Fife Symington in late August 1991. Prior to this position she was President and Chief Executive Officer of Ancilla Systems, Inc., a Chicago based hospital chain. Chairman Caldwell first came to Arizona in 1984 as General Manager and Chief Executive Officer of University Medical Center Corporation in Tucson. Chairman Caldwell received her M.S./M.B.A. in administration, with emphasis on systems and policy analysis, from the Graduate School of Administration at the University of California, Irvine. Her B.A. is in institutional management and dietetics from Pacific Union College in Angwin, California. Chairman Caldwell is a fellow with the American College of Healthcare Executives and was named one of HealthWeek's Top 25 National Turnaround Executives in 1989.

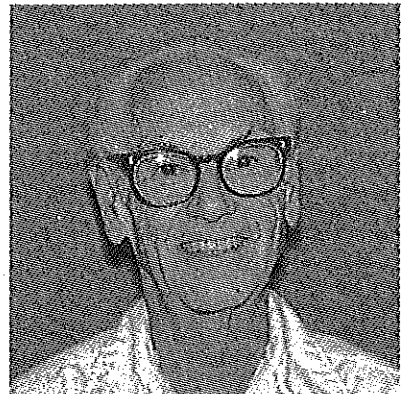


Medical Community Representatives:

Herbert K. Abrams, M.D.

Professor Emeritus
University of Arizona

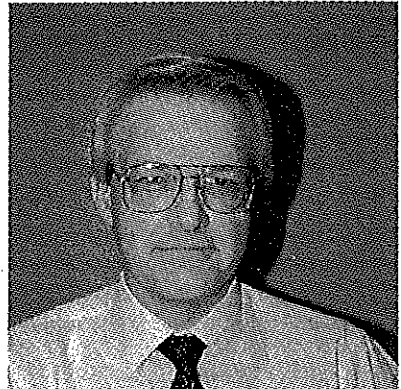
Commissioner Abrams was founder and Head (1968-1978) of the Department of Family and Community Medicine at the University of Arizona College of Medicine. From 1978 to 1983, he was Director of the Arizona Center for Occupational Safety and Health, which he also founded. He has been an Arizona resident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



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

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

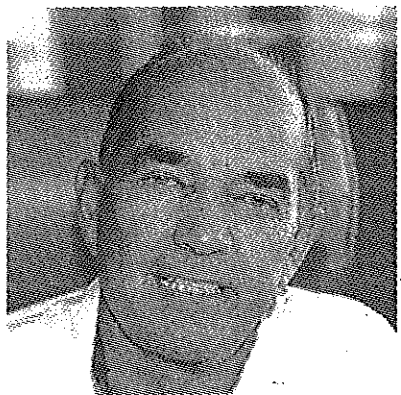
Commissioner Bloedel has chaired the Division of Neurobiology at the Barrow Neurological Institute in Phoenix since 1984. Before joining Barrow Neurological Institute, he was professor of neurosurgery and physiology at the University of Minnesota. Commissioner Bloedel received his doctorates from the 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. He has been awarded numerous grants from the National Institutes of Health and a large award from the National Science Foundation. The author of many publications in the field of neurobiology, he received the Jacob Javits Award in 1986. Appointed to the Commission in April, 1992, his term expires in January, 1995.



William E. Crisp, M.D.

Gynecology and Oncology
Phoenix

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



Medical Community Representatives:

Jon P. Rubach, M.D.
Oncology and Hematology
Mesa

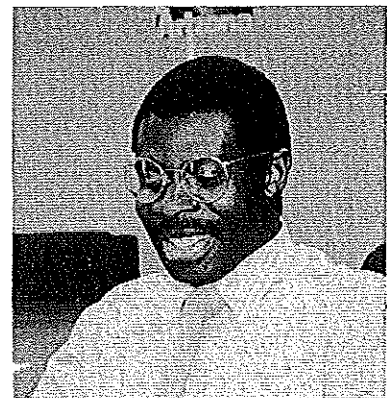
Commissioner Rubach has been a private practitioner in medical oncology in Mesa since 1976. He received his medical school training at the State University of New York at Buffalo from 1969-1973, and his internal medicine and oncology training at Affiliated Hospital in Buffalo from 1973-1976. He served as Secretary of the Maricopa County Medical Society in 1988 and is President-Chief of Staff of Desert Samaritan Hospital in Mesa. He also holds a law degree from the University of Notre Dame and a Bachelor of Science degree in Biology from Siena College. Appointed to the Commission by Governor Mofford in January of 1989, he served until June, 1992.



Scientific Research Community Representatives:

Emmanuel T. Akporiaye, Ph.D.
Department of Microbiology and Immunology
University of Arizona

Commissioner Akporiaye was born in Nigeria and is Associate Professor in the Department of Microbiology and Immunology in the College of Medicine at the University of Arizona. He specializes in cancer biology and the immune response system. He formerly was on the faculty at Northern Arizona University. He received his Master of Science degree in Biology from New Mexico Highlands University in 1978 and his Doctorate in Pathogenic Microbiology from the University of New Mexico in 1983. Appointed to the Commission in January, 1989, by Governor Mofford, he served as Commissioner until June 1992.



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 Associate Professor of Anatomy at the University of Arizona College of Medicine. 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.

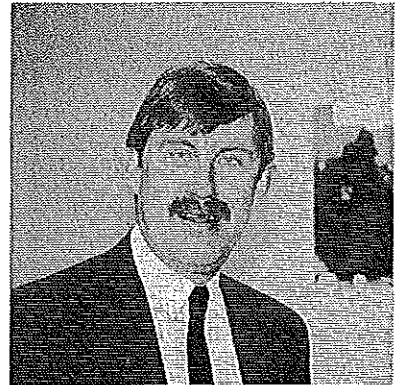


Scientific Research Community Representatives:

William G. O'Callaghan, M.D.

Cardiologist
Mayo Clinic

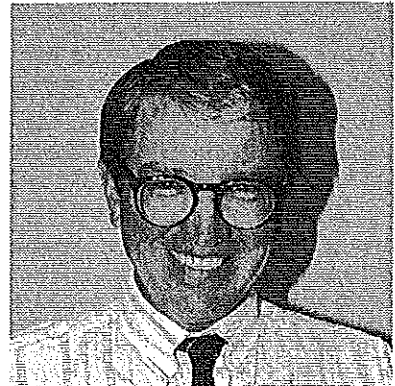
Commissioner O'Callaghan is a consultant in cardiovascular disease at Mayo Clinic Scottsdale. Born in Tipperary, Ireland he attended the National University of Ireland. He became a Member of the Royal College of Physicians of Ireland in 1979. He was a Fellow in Cardiology at the Duke University Medical 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 expires in January, 1993.



David J. Prior, Ph.D.

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

Commissioner Prior has been Professor and Chairman of the Department of Biological Sciences at Northern Arizona University since 1987. He was named Acting Dean of the College of Arts and Sciences in 1992. Commissioner Prior received his doctorate in neurophysiology in 1972 from the University of Virginia. He has received research support from the National Science Foundation, the National Aeronautics and Space Administration, the Alfred Sloan Foundation and the Whitehall Foundation. He recently received a grant award from the National Institutes of Health Minority Biomedical Research Support, and is the author of numerous publications in the area of neurophysiology. Appointed to the Commission in April 1992, his current term expires in January, 1995.



General Public Representatives:

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, she received J.D., M.P.A. and B.S. degrees from Arizona State University. Appointed to the Commission in April of 1992, her current term expires in January of 1995.

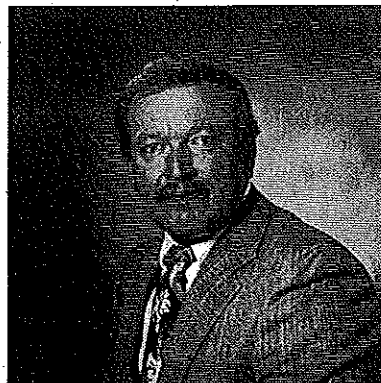


General Public Representatives:

Frank Hidalgo

Assistant Vice President, University Relations
Arizona State University

Commissioner Hidalgo has been Assistant for University Relations at Arizona State University since 1986. Early in his career he was a teacher in the Ann Ott School in Phoenix. Later, he served as Executive Director of the Governor's Council on Employment and Training from 1983 to 1984. Commissioner Hidalgo received his bachelor's degree 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. Appointed to the Commission in September, 1991, to fill a vacancy created by the resignation of Commissioner Karen Carter Owens, his current term expires in January of 1993.



James B. Matthews

Executive Secretary
Arizona Corporation Commission

Commissioner Matthews has been Executive Secretary for the Arizona Corporation Commission since 1985. Prior to this he was Deputy Director of the Arizona Health Care Cost Containment System (AHCCCS) and a policy advisor in the Arizona Department of Health Services. From 1979-1983 he was a special assistant to Governor Bruce Babbitt. He received his Bachelor's degree in Education and Political Science from the University of New Mexico and his Master of Public Affairs degree from Arizona State University. Appointed to the Commission by Governor Mofford in January, 1989, he served until June, 1992.



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. She 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.



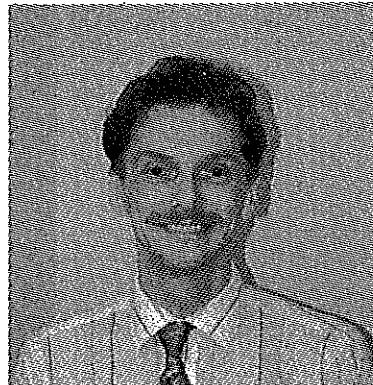
Commission Staff:

The ADCRC staff is composed of an Executive Director, an Administrative Manager and an Administrative Assistant.

Dawn Schroeder, D.D.S., M.A., Executive Director,
was appointed in 1992.



Joseph Hashem, Administrative Manager,
has been with the Commission since 1990.



Sandra Enkey, Administrative Assistant,
joined the staff in 1992.



Summary of FY 1991-92 Commission Activities

The Commission had 75 contracts with medical and health researchers in Arizona at the start of FY 1991-92. Approximately 850 Requests for Proposals (RFPs) for FY 1992-93 awards were mailed to potential applicants in August, 1991. The amount available for new contract awards was \$560,000. The Commission received 96 proposals by November 2, 1991, in response to the RFP. Appendix B presents summaries of the 96 research applications received. Appendix C contains a listing of the proposals received by priority area. In mid-November, the proposals were sent to panels of national scientific and medical experts for peer evaluation and review. An average of three reviews were sought for each proposal with a goal of receiving at least three evaluations for each one.

In January, the Commission received approximately 300 proposal evaluations prepared by more than 100 out-of-state peer reviewers. The goal of at least three reviews for each proposal was achieved. The proposals and evaluations were distributed to the Commissioners who were formed into three, three-person sub-committees to facilitate the review process. In April, the Commissioners selected 21 award-winning research projects from the 96 applications submitted. During FY 1992-93, the ADCRC will be managing 72 contracts.

Publications Reported for FY 1991-92

The commission staff compiled a bibliography consisting of 57 publications resulting from research projects funded by the ADCRC which appeared in professional literature and peer reviewed journals during 1991 and 1992. The publications listed have acknowledged Commission support and a copy of the reprint has been placed in the ADCRC files. A more complete multi-year bibliography, containing over 350 citations, is available from the Commission upon request.

The journal articles and publications represent a wide range of research topics and areas of interest of funded medical researchers within the state. Arizona researchers are training new professionals at the Master's and Doctoral level, helping to advance medical knowledge, and providing more effective treatment methodologies to their colleagues through research projects funded by the Commission.

Publications Reported for FY 1991-92

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APPENDICES

Appendix A: Contractors for FY 1991-92

Appendix B: Research Proposals Received for 1992-95 Contract Years

Appendix C: Awards for 1992-93 Contract Year

APPENDIX A

Contractors for FY 1991-92

Contractors for FY 1991-92

Cardiovascular and Other Circulatory Diseases/Disorders

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Brendel	University of Arizona	Cultured Myocardial Slices as an Alternative in Vitro Tool for Toxicity Evaluation	\$23,500
Burt	University of Arizona	Role of Gap Junctions in Vascular Responses	\$36,800
Carter	University of Arizona	Evaluation of Tissue Plasminogen Activator Therapy for the Treatment of Embolic Stroke	\$23,500
Gruener	University of Arizona	Ion Channel Modulation by Membrane Lipids	\$24,000
Johnson	University of Arizona	Vascular Reflexes in Hemorrhagic Hypotension	\$26,200
MacDonald	Harrington Arthritis Research Center	Role of Arachidonoyl-Diacylglycerol Kinase in Fatty Acid Homeostasis: Effects on Inhibitors on Cellular Functions Related to Cardiovascular Disease	\$21,000
Morkin	University of Arizona	Actions of Thyroid Hormone on the Heart: A New Basis for Treatment of Congestive Heart Failure	\$70,000
Nolan	University of Arizona	Clinical Pharmacokinetics of Amiodarone in the Elderly Obese and in Individuals with Hepatic Disease	\$24,900
Thorpe	University of Arizona	Signal Transduction by Guanylate Cyclase	\$25,000
Williams	University of Arizona	Whole-body Lymphangioscintigraphy and Lymphatic Transport Measurement in the Assessment of Peripheral Lymphedema	\$20,000

Health Effects of Environmental Pollutants

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Aickin	University of Arizona	Clustering System for Disease Surveillance	\$15,000
Cartmel	University of Arizona	Assessment of the Long Term Health Effects of Occupational Exposure to Tritium in Arizona	\$24,600
Pepper	University of Arizona	Health Risks Associated with Bacterial and Viral Pathogens in Groundwater	\$29,800

Contractors for FY 1991-92

Rykowski	University of Arizona	The Structure of Transposon Insertion Sites	\$25,000
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Health Promotion and Disease Prevention

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Bencherif	St. Joseph's Hospital/BNI	Mechanisms of Nicotine Addiction	\$23,500
Cooper	Arizona Department of Health Services	A Study of the Nature Incidence and Consequences of Elementary School Playground-Related Injuries in Arizona	\$23,500
Dillenberg	Arizona Department of Health Services	Survey of Oral Health Status and Treatment Needs of Arizona Elderly	\$24,100
Finley	University of Arizona	The Use of Recombinant DNA Technology and Restriction Fragment Length Polymorphism in the Study of Hemophilia A (Factor VIII Deficiency) and Carrier States in Arizona (Phase II)	\$22,200
Flores	University of Arizona	Fate of Dietary Carnitine during Development	\$23,500
Herman	Good Samaritan Regional Medical Center	Injury Surveillance: State of Arizona	\$26,100
Modiano	University of Arizona	Barriers to Cancer Screening in Hispanic Women: A Pilot Study	\$23,500
Roehrig	University of Arizona	Reduction of Patient Exposure in Pediatric Radiology	\$20,000
Unger	University of Arizona	Targeted MR Contrast Agents	\$23,500
Weiss	University of Arizona	Relationship between Illiteracy and Health Care Costs among Patients in the AHCCCS Program: Implications for Health Education	\$33,700

Infectious and Immunologic Diseases/Disorders

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Adam	University of Arizona	Giardia Lamblia an Immunization Strategy Based on a Major Surface Antigen	\$26,200

Contractors for FY 1991-92

Friedman	University of Arizona	Studies on the Invasion and Survival of Bordetella Pertussis in Human Monocytes	\$34,100
Galgiani	University of Arizona	Purification and Application of Antigens from Coccidioides immitis Phase II	\$40,000
Joens	University of Arizona	Investigations into the Invasive Properties of Campylobacter jejuni	\$19,000
Marchalonis	University of Arizona	Analysis of Synovial Tissue T Cell Receptor Heterogeneity in a Clinical Subset of Rheumatoid Arthritis	\$49,000
Payne	University of Arizona	Effect of Interferons and Interleukins of Natural Killer Cell-Mediated Damage to the DNA of Virally-Infected Target Cells	\$24,900
Petersen	University of Arizona	HIV Disease and Treatment in Arizona: Data Collection and Analysis	\$25,000
Shehab	University of Arizona	Molecular Pathogenesis of Epstein-Barr Virus (EBV) in Malignant Lymphomas and Chronic Illness	\$24,600
Timmermann	University of Arizona	Isolation of Anti-HIV Agents from Plants of Arizona	\$23,500
Zautra	Arizona State University	Life Stress and Neuro-Immune Function in Rheumatoid Arthritis	\$29,700

Malignant Neoplasms

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Bernstein	University of Arizona	Genotoxicity of Bile Acids and Protective Effect of Fiber: Relationship to Colon Cancer	\$20,000
Fennerty	University of Arizona	Clinical and Biologic Studies of Preneoplastic Gastric Lesions	\$23,300
Glasser	University of Arizona	Response of Human Multiple Myeloma to Akylylphospholipids: Applicability to Treatment and Bone Marrow Purging	\$23,500
Grimes	University of Arizona	Biochemical Studies of the LAK Phenomenon	\$30,000
Laird	University of Arizona	Mechanism of Benzodiazepine Modulation of Normal and Malignant Cell Growth	\$20,900
Lam	University of Arizona	Antigen-directed Immunotherapy in B-cell Lymphoma	\$21,000

Contractors for FY 1991-92

Miesfeld	University of Arizona	Molecular Determinants of Androgen-Independent Prostate Cell Growth	\$25,000
Pettit	Arizona State University	Discovery and Development of New Anticancer Drugs	\$205,000
Salmon	University of Arizona	Arizona Cancer Center Research Program	\$805,000
Seftor	University of Arizona	Signal Transduction Events Leading to Tumor Cell Invasion	\$23,500
Shimizu	University of Arizona	Aspects of Negative Regulation of EGF Receptor Gene Expression	\$21,900
Smith	Arizona State University	Regulation of c-myc Gene Expression by Interferons	\$25,000
Witte	University of Arizona	In Vitro Model of Kaposi Sarcoma: Phenotypic and Genotypic Profile	\$23,500
Yohem	University of Arizona	Modulation of Tumor Cell Invasion by Calcium Channel Blockers	\$24,900
Zoellner	Northern Arizona University	Metal-containing Potential Anti-cancer Agents Prepared by Metal Vapor Synthesis (MVS) Techniques. Synthesis Characterization and Comparative Deoxyribonucleic Acid (DNA) Binding Studies	\$20,000

Metabolic and Endocrine Disorders

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Burd	University of Arizona	Effects of Hyperthyroidism and Hypothyroidism on Neural Development	\$24,100
French	University of Arizona	Cellular Neurobiology of Psychosis Producing Drugs of Abuse: A Model for Schizophrenia	\$21,000
Gordon	University of Arizona	Localization of Synaptic Elements in Hybrid Muscle Cells	\$10,000
Johnson	University of Arizona	Effect of Alcohol and Phenobarbital Exposure on Neonatal Axonal and Dendritic Development	\$23,500
Leonard	St. Joseph's Hospital/BNI	Early Locomotor Training in Cerebral Palsied and Normal Infants	\$25,400
McMullen	University of Arizona	Central Nervous System Sequelae Following Neonatal Deafness	\$20,900

Contractors for FY 1991-92

Moore	University of Arizona	Central Nervous System Tissue Damage and Cognitive Impairments in Children with Acute Lymphoblastic Leukemia	\$24,900
Packard	Northern Arizona University	Alcoholic Anonymous Assistance Research Project	\$23,500
Prior	Northern Arizona University	Neural Modulation of Central and Peripheral Targets	\$20,000
Rogers	Institute for Biogerontology Research	Neuropathology of Memory Associated Regions in Alzheimer's Diseased Brain	\$21,000
Spetzler	St. Joseph's Hospital/BNI	Familial Cavernous Malformations: Study of the Natural History	\$21,100
Yamamura	University of Arizona	Antidepressant Drug Mechanisms Studied Using Recombinant Cells Expressing Human and Rat 5HT-1A Receptors	\$23,500

Neurologic, Mental and Behavioral Diseases/Disorders

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Burd	University of Arizona	Effects of Hyperthyroidism and Hypothyroidism on Neural Development	\$24,100
French	University of Arizona	Cellular Neurobiology of Psychosis Producing Drugs of Abuse: A Model for Schizophrenia	\$21,000
Gordon	University of Arizona	Localization of Synaptic Elements in Hybrid Muscle Cells	\$10,000
Johnson	University of Arizona	Effect of Alcohol and Phenobarbital Exposure on Neonatal Axonal and Dendritic Development	\$23,500
Leonard	St. Joseph's Hospital/BNI	Early Locomotor Training in Cerebral Palsied and Normal Infants	\$25,400
McMullen	University of Arizona	Central Nervous System Sequelae Following Neonatal Deafness	\$20,900
Moore	University of Arizona	Central Nervous System Tissue Damage and Cognitive Impairments in Children with Acute Lymphoblastic Leukemia	\$24,900
Packard	Northern Arizona University	Alcoholic Anonymous Assistance Research Project	\$23,500
Prior	Northern Arizona University	Neural Modulation of Central and Peripheral Targets	\$20,000

Contractors for FY 1991-92

Rogers	Institute for Biogerontology Research	Neuropathology of Memory Associated Regions in Alzheimer's Diseased Brain	\$21,000
Spetzler	St. Joseph's Hospital/BNI	Familial Cavernous Malformations: Study of the Natural History	\$21,100
Yamamura	University of Arizona	Antidepressant Drug Mechanisms Studied Using Recombinant Cells Expressing Human and Rat 5HT-1A Receptors	\$23,500

Respiratory Diseases

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Martinez	University of Arizona	The Role of Orally and Parenterally Administered Growth Factors in Lung Development	\$20,950
Tai	Arizona State University	Studies on the Iron Uptake System of Streptococcus Pneumoniae and Its Application in the Vaccine Development	\$23,500

Aging and Disease

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Allen	University of Arizona	Satellite Cell Activation in Aging Skeletal Muscle and the Role of Insulin-like Growth Factor I	\$23,500
Davis	University of Arizona	Somatostatin and Substance P Metabolism and Peptidase Activity Are Altered in Alzheimer's Disease	\$23,500
Jeevanandam	St. Joseph's Hospital/BNI	Adjuvant Growth Hormone Therapy for Geriatric Obese Traumatized Man'	\$24,000
Kay	University of Arizona	Cellular Life Span Manipulation in Aging and Alzheimer's Disease	\$47,000
Reed	University of Arizona	A Randomized Controlled Trial of Growth Hormone to Improve the Rehabilitative Outcomes of Total Knee Replacement in the Elderly	\$23,500
Regan	University of Arizona	Molecular Identification of Adrenergic Receptor Subtypes Involved in the Treatment of Glaucoma	\$23,500

APPENDIX B

Research Proposals

Received for 1992-95

Contract Years

Research Proposals Received for 1992-95 Contract Years

Cardiovascular and Other Circulatory Diseases/Disorders

<u>ID No.</u>	<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Yrs</u>	<u>Budget Amount</u>
2-095	Antin	University of Arizona	Mechanisms of Cardiogenesis	3	\$24,343 \$24,331 \$24,698
2-052	Appleton	University of Arizona	Prediction of Exercise Ability by Doppler Echocardiography in Patients with Heart Failure	2	\$24,640 \$24,640
2-059	Baldwin	University of Arizona	Does Stasis Affect Microvascular Surface Charges & Permeability?	3	\$24,724 \$24,130 \$24,687
2-074	Callister	University of Arizona	Influence of Borderline Hypertension & a Family History of Hypertension on Sympathetic Nervous System Activity at Rest & During Stress	3	\$24,750 \$24,750 \$24,750
2-051	Gaballa	University of Arizona	Hemodynamics, Transport of Water & Mechanical Properties of Large Arteries in Diabetic Rats: Effects of Hypoinsulinemia & Hyperglycemia	3	\$23,723 \$23,934 \$24,429
2-047	Guilbeau	Arizona State University	An Axially Configured, Skeletal Muscle Powered Cardiac Assist Device	2	\$25,000 \$25,000
2-009	Keller	Arizona State University	Determining Indicators of Obesity in Minority Women	1	\$24,895
2-043	Keller	St. Joseph's Hospital	Advancement of Magnetic Resonance Angiography Technology	3	\$23,320 \$22,976 \$24,361
2-002	Kern	University of Arizona	Myocardial Dysfunction Following Resuscitation from Cardiac Arrest	3	\$24,880 \$24,092 \$24,668
2-096	Mash	University of Arizona	Isolation & Characterization of a New Family of Naturally Occurring Cholesterol-Reducing Drugs	2	\$25,000 \$25,000
2-084	McDonagh	University of Arizona	Reperfusion Injury in the Diabetic Heart	3	\$24,242 \$24,726 \$24,685
2-042	Morkin	University of Arizona	Molecular Signals in Ventricular Remodeling	3	\$100,000 \$104,894 \$109,201

Research Proposals Received for 1992-95 Contract Years

2-022	Ovadia	University of Arizona	Development of New Anti-Inflammatory Electrically Conductive Biomaterials (Gold Alkanethiols & Organothiols) for Permanent Cardiac Pacemaking Applications	2	\$25,000 \$25,000
2-027	Schaeffer	University of Arizona	Endothelial Modulation of Lung Vascular Permeability	3	\$25,000 \$25,000 \$25,000
2-019	Sweeney	Arizona State University	Selective Electrical Stimulation of Latissimus Dorsi Muscle for Biomechanical Cardiac Assistance	2	\$25,000 \$25,000

Health Effects of Environmental Pollutants

<u>ID No.</u>	<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Yrs</u>	<u>Budget Amount</u>
2-034	Abbaszadegan	University of Arizona	Rapid Monitoring of Giardia Cysts in Reclaimed Waste Water Using Gene Probe and PCR Technology	2	\$25,733 \$22,672
2-064	Boyer-Hassen	University of Arizona	Southern Arizona Childhood Lead Study	3	\$23,604 \$25,153 \$23,123
2-056	Ulreich	University of Arizona	In Vitro Models for Assessment of the Mechanism(s) of Action of Halogenated Hydrocarbons on the Developing Heart	3	\$24,985 \$24,943 \$24,967

Health Promotion and Disease Prevention

<u>ID No.</u>	<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Yrs</u>	<u>Budget Amount</u>
2-080	Buller	University of Arizona	Sunshine & Skin Health: Evaluation of a Skin Cancer Prevention Curriculum	2	\$24,946 \$24,937
2-066	Dart	University of Arizona	Isolation & Efficacy of Anti-Scorpion Fab	1	\$25,000
2-041	Dillenberg	Arizona Department of Health Services	Assessment of Preventive Measures to Reduce Sports Related Injuries in Middle & Secondary School Children	3	\$24,950 \$25,000 \$24,750
2-048	Earnest	University of Arizona	Vitamin A Treatment & Increased Risk of Acetaminophen Liver Injury	2	\$24,912 \$24,606

Research Proposals Received for 1992-95 Contract Years

2-057	Giuliano	University of Arizona	Prospective Study of Nutritional Status & HPV Infection in Hispanic Americans & Anglo Americans	2	\$24,843 \$24,843
2-054	Greene	University of Arizona	Increasing Smoking Cessation Rates in Arizona: A Physician Based Program to Improve Efficacy, Effectiveness & Dissemination	3	\$44,741 \$36,405 \$20,512
2-012	Harrington	St. Joseph's Hospital	Will Neurological & Neuropsychological Outcome of Patients with Traumatic Brain Injury Improve if Field Identification of Hypoxia Permits Modification of Airway Management?	2	\$43,800 \$31,993
2-004	Kronenfeld	Arizona State University	Public Knowledge and Attitudes About Radon in Arizona	2	\$24,682 \$24,309
2-032	Lobell	Maricopa Medical Center	Barriers to Cancer Prevention, Diagnosis & Treatment in Hispanic Men & Women	3	\$25,000 \$25,000 \$25,000
2-050	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	3	\$21,695 \$24,448 \$24,399
2-060	Peng	University of Arizona	Role of Dietary Lycopene in Cancer Prevention: Analysis and Retention of Lycopene in Human Buccal Mucosal Cells	2	\$25,000 \$25,000
2-007	Pietrantoni	University of Arizona	Aspirin's Effect on Plasma Levels of ED1 + 'Cellular' Fibronectin As A Marker of Pre-eclampsia and the Fetal Patent Ductus Arteriosus	3	\$25,000 \$25,000 \$25,000
2-040	Pinnas	University of Arizona	Evaluation of Kissing Bug Sensitivity in Arizona Residents	2	\$25,000 \$25,000
2-028	Racowsky	University of Arizona	An Epidemiological Investigation of Elevated Temperatures, Caffeine Intake & Decreased Fertility Among Women Living in Arizona	2	\$25,000 \$23,568
2-045	Roberson	Arizona State University	The Influence of Ketoconazole on Protein Synthesis in <i>Coccidioides Immitis</i> : Pathogen Survival and Recovery	3	\$21,451 \$23,279 \$23,080
2-049	Santosham	John Hopkins University/Dept of Intl Hlth	Maternal Immunization with Pneumococcal & Haemophilus Influenzae Type B Vaccines	2	\$86,337 \$91,525

Research Proposals Received for 1992-95 Contract Years

2-069	Spaite	University of Arizona	Epidemiology of Trauma: An Analysis of the Distribution of Mortality by Person, Place & Time	1	\$24,908
2-070	Yanes	University of Arizona	Improving the Treatment of Cancer Pain	2	\$21,790 \$23,946

Infectious and Immunologic Diseases/Disorders

<u>ID No.</u>	<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Yrs</u>	<u>Budget Amount</u>
2-014	Ampel	University of Arizona	In Vitro Assessment of Immune Function in Patients with Coccidioidomycosis	2	\$25,000 \$25,000
2-088	DeLuca	University of Arizona	Use of In Vitro Chimeras to Study the Induction of Type I Diabetes	3	\$58,471 \$61,336 \$63,815
2-075	Finley	University of Arizona	DNA Fingerprinting in Bone Marrow Transplantation: HLA-PCR Fingerprinting Crossmatch in Organ Transplantation	3	\$22,202 \$22,202 \$22,202
2-083	Hall	University of Arizona	Herpes Simplex Virus DNA Polymerase Function	3	\$23,875 \$25,046 \$26,072
2-025	Joens	University of Arizona	Campylobacteriosis: Cell Invasion and its Relationship to Lesion Development in the Host	3	\$24,864 \$22,463 \$21,663
2-039	Mayersohn	University of Arizona	Amphotericin B Disposition Kinetics & Toxicity in Rats	3	\$27,500 \$27,500 \$27,500
2-079	Montgomery	University of Arizona	Regulatory Role of Prolactin in Acute Allograft Rejection	3	\$24,157 \$24,347 \$24,658
2-020	Nardella	Harrington Arthritis Research Center	Relationship Between Rheumatoid Factors and Microbial Fc Receptors	3	\$59,684 \$61,213 \$62,396
2-005	Stout	Arizona State University	Role of Capsule in E. coli Pathogenesis	3	\$20,580 \$22,477 \$24,183
2-011	Yeoman	University of Arizona	The Use of Human Umbilical Cord Blood for Allongeneic Bone Marrow Reconstitution and Transplantation	3	\$82,520 \$86,563 \$90,112

Research Proposals Received for 1992-95 Contract Years

Malignant Neoplasms

<u>ID No.</u>	<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Yrs</u>	<u>Budget Amount</u>
2-038	Bellamy	University of Arizona	Characterization of Cellular Markers Associated with Mitoxantrone-Selected Multidrug Resistant Human Tumor Cell Lines	3	\$23,320 \$24,210 \$24,918
2-029	Berens	St. Joseph's Hospital	Determinants & Treatment of Brain Tumor Invasions	3	\$25,000 \$25,000 \$25,000
2-026	Bjotvedt	Arizona State University	Testing of New Anticancer Drugs on Human Solid Tumor Transplantations in Athymic Mice for Efficacy and Toxicity	3	\$25,000 \$25,000 \$25,000
2-036	Blanchard	University of Arizona	Formulation of a Superpotent α -Melanotropin [4/10] Fragment Analogue (Melanotan-II) for Oral Delivery	2	\$39,164 \$34,467
2-094	Cartmel	University of Arizona	Assessment & Comparison of the Distribution of Mutant Alleles of the CYP2D6 (Debrisoquine) Gene in Melanoma Cases & Controls	2	\$24,708 \$20,976
2-033	Galbraith	University of Arizona	Flow Analysis of Metastatic Processes	3	\$25,000 \$25,000 \$25,000
2-035	Gatenby	University of Arizona	Population Ecology Issues in Tumor Growth	3	\$19,027 \$19,959 \$20,778
2-037	Gmitro	University of Arizona	Real-Time Magnetic Resonance Imaging	3	\$25,000 \$25,000 \$25,000
2-008	Harris	University of Arizona	Mineral Impregnated Collagen Sponge: A New Substitute for Bone	1	\$25,000
2-067	Harris	University of Arizona	Investigation Into the Use of Human Umbilical Cord Blood for Marrow Transplantation in Ethnic Minorities	3	\$55,273 \$57,981 \$60,358
2-031	Joy	St. Joseph's Hospital	Detection, Isolation & Characterization of PDGF-Like Proteins in Human Glioma Tissue	3	\$25,309 \$24,197 \$25,614
2-081	List	University of Arizona	Laboratory & Clinical Characterization of Growth Factor Responses in Myelodysplastic Syndromes	3	\$25,080 \$25,080 \$25,080

Research Proposals Received for 1992-95 Contract Years

2-076	Lukas	St. Joseph's Hospital	Mechanisms of Nicotine - Stimulated Lung Cancer Cell Growth	3	\$25,000 \$25,000 \$25,000
2-085	McGovern	University of Arizona	MRS Studies of Difluoromethylornithine in Intact Cells: Uptake & Effects of Intracellular Polyamine Metabolism	3	\$24,710 \$24,886 \$24,973
2-091	Nesemann	Harrington Arthritis Research Center	Collagen Sponge Delivery System for Acidic Fibroblastic Growth (aF6F): Rat Femoral Diaphyseal Defect model	1	\$24,980
2-063	Polt	University of Arizona	Cell-Surface Glycoconjugates	3	\$31,658 \$31,658 \$31,658
2-065	Scheck	St. Joseph's Hospital	Identification of Genes Associated with BCNU Resistance in Human Malignant Gliomas	3	\$27,500 \$27,500 \$27,500
2-077	Short	University of Arizona	Study of the Cause & Effects of Magnetic Inhibition of Cellular Adhesion in Human Malignant Melanoma	3	\$24,876 \$24,959 \$24,776
2-018	Skibo	Arizona State University	Design and Synthesis of New Antitumor Agents	3	\$120,560 \$126,468 \$131,651
2-062	Stephenson	Southwest Biomedical Research Institute	Cytogenetic and Fluorescence in Situ Hybridization (Fish) Analysis of Breast Fibroadenoma	3	\$24,200 \$24,200 \$24,750
2-086	Taetle	University of Arizona	A Severe Combined Immune Deficiency (SCID) Mouse Model of Human Myeloid Leukemia	3	\$24,699 \$24,802 \$24,760
2-078	Wu	Mayo Clinic Scottsdale	Molecular Mechanism of Extracellular Fibronectin Assembly	3	\$24,970 \$24,970 \$24,970

Metabolic and Endocrine Disorders

<u>ID No.</u>	<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Yrs</u>	<u>Budget Amount</u>
2-010	Bogardus	NIH/NIDDK	Further Localization of a Gene for Insulin Resistance and Non-Insulin Dependent Diabetes Mellitus on Chromosome 4q in Pima Indians	3	\$25,000 \$25,000 \$25,000
2-072	Bressler	University of Arizona	Decreasing the Overproduction of Glucose in Diabetes Mellitus	3	\$25,000 \$25,000 \$25,000

Research Proposals Received for 1992-95 Contract Years

2-046	Co	NIH/NIDDK	Cloning & Analysis of Protein Tyrosine Phosphatase Genes in Human Skeletal Muscle	3	\$25,000 \$25,000 \$25,000
2-030	Koldovsky	University of Arizona	Gastrointestinal Metabolism of Milk-Borne Growth Factors in the Human Neonate	3	\$38,346 \$41,389 \$43,181
2-071	Koldovsky	University of Arizona	Perinatal Development & Growth Factors	3	\$138,222 \$139,770 \$143,869
2-082	Lai	University of Arizona	Molecular Probe Analysis of Proximal 15q for Prader-Willi Syndrome Diagnosis & Determination of Clinical Spectrum	3	\$25,000 \$25,000 \$25,000
2-055	Philipps	University of Arizona	Kinetics & Degradation of IGF in the Suckling Rat	3	\$26,901 \$28,244 \$29,420
2-058	Tischler	University of Arizona	Insulin Control of Muscle Protein Loss After Severe Trauma	3	\$20,776 \$22,341 \$23,606

Neurologic, Mental and Behavioral Diseases/Disorders

<u>ID No.</u>	<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Yrs</u>	<u>Budget Amount</u>
2-089	Carter	University of Arizona	Influence of Tissue Plasminogen Activator, Heparin & Dextromethorphan on Brain Infarction in Experimental Cerebral Embolism	2	\$25,000 \$25,000
2-093	Gordon	University of Arizona	Localization of Synaptic Elements in Hybrid Muscle Cells	2	\$25,000 \$25,000
2-017	Hoffman	Arizona State University	Neuropsychiatric Involvement in Immunologic Disease	3	\$25,000 \$25,000 \$25,000
2-024	Lieberman	St. Joseph's Hospital	Neurodegenerative Diseases: Neural Grafting, Growth Factor & Gene Therapy	3	\$49,712 \$51,664 \$53,461
2-073	Lien	University of Arizona	Nuclear Magnetic Resonance (NMR) Study of Cell Volume Regulation in Cultured Brain Cells	3	\$25,000 \$25,000 \$25,000
2-015	McKinley	Institute for Biogerontology Research	CNS Cell Culture from Alzheimer's Disease Autopsies	3	\$25,000 \$25,000 \$25,000

Research Proposals Received for 1992-95 Contract Years

2-053	Mennemeier	University of Arizona	An Investigation of the Cognitive, Affective & Neuropsychologic Changes Associated with Primary Hypothyroidism	2	\$24,939 \$22,870
2-087	Montgomery	University of Arizona	Pathophysiology of Parkinsonism - Neuronal Studies in Monkeys	3	\$24,970 \$24,985 \$24,983
2-001	Rekate	St. Joseph's Hospital	Effect of Hemorrhagic Shock on a Cold-Injury Brain Edema Model	1	\$20,603
2-006	Spetzler	St. Joseph's Hospital	Familial Cavernous Malformations: Study of the Natural History	3	\$27,878 \$29,499 \$30,681
2-016	Stelmach	Arizona State University	The Locus of Bradykinesia in Parkinson's Disease	3	\$25,000 \$25,000 \$25,000
2-092	Weinand	University of Arizona	Long-Term Ictal Cortical Cerebral Blood Flow and Electroencephalographic Monitoring with Subdural Strip Electrodes for Selection of Temporal Lobectomy Candidates	3	\$23,944 \$24,162 \$25,000

Respiratory Diseases

<u>ID No.</u>	<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Yrs</u>	<u>Budget Amount</u>
2-061	Meloni	Southwest Biomedical Research Institute	Trisomies 7 & 10 in Bronchial Washings: Possible Indicators of Lung Cancer	3	\$23,980 \$23,980 \$24,530
2-013	Sonntag	St. Joseph's Hospital	Treatment of Fat Embolism Syndrome in a Canine Model	1	\$18,769

Aging and Disease

<u>ID No.</u>	<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Yrs</u>	<u>Budget Amount</u>
2-003	Bagnara	University of Arizona	Intrinsic Pigmentary Factors in Age Related Human Hypo and Hypermelanoses	3	\$25,000 \$25,000 \$25,000
2-068	Betancourt	Northern Arizona University	The Effect of Volunteerism on the Physical & Mental Health of Older Adults	2	\$24,831 \$20,962

Research Proposals Received for 1992-95 Contract Years

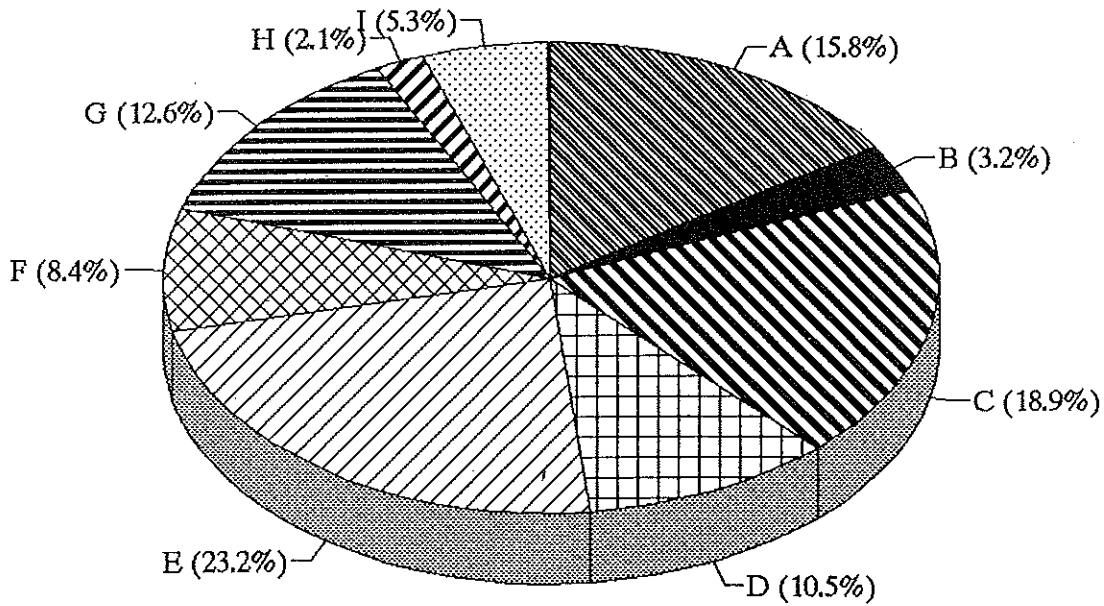
2-090	Kregel	University of Arizona	Influence of Aging on Sympathetic Nervous System Activity	3	\$24,548 \$24,702 \$24,673
2-021	Schultz	Institute for Biogerontology Research	Age-Related Prostate Involution and Tumorigenesis	3	\$25,000 \$25,000 \$25,000
2-023	Schwartz	St. Joseph's Hospital	Effect of Neurotrophic Factors in Aged, Learning-Impaired Rats	3	\$36,905 \$34,326 \$33,967

SUMMARY STATISTICS OF RESEARCH PROPOSALS RECEIVED
for 1992-95 Contract Years

November, 1991

Priority Area	Priority Area Description	No. of Proposals Received	Percentage
A	Cardiovascular and Other Circulatory Diseases	15	15.6%
B	Health Effects of Environmental Pollutants	3	3.1%
C	Health Promotion and Disease Prevention	18	18.8%
D	Infectious and Immunologic Diseases/Disorders	10	10.4%
E	Malignant Neoplasms	22	22.9%
F	Metabolic and Endocrine Disorders	8	8.3%
G	Neurologic, Mental and Behavioral Diseases/Disorders	12	12.5%
H	Respiratory Diseases	2	2.1%
I	Aging and Disease	5	5.2%
TOTAL:		95	100.0%

Note: Proposal No. 2-044 was withdrawn by proposer and not reflected in totals.



APPENDIX C

Awards for 1992-93

Contract Year

Awards for 1992-93 Contract Year

Cardiovascular and Other Circulatory Diseases/Disorders

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Baldwin	University of Arizona	Does Stasis Affect Microvascular Surface Charges & Permeability?	\$24,700
Brendel	University of Arizona	Cultured Myocardial Slices as an Alternative in In Vitro Tool for Toxicity Evaluation	\$23,500
Johnson	University of Arizona	Vascular Reflexes in Hemorrhagic Hypotension	\$27,100 ✓
Keller	St. Joseph's Hospital	Advancement of Magnetic Resonance Angiography Technology	\$23,300
Keller	Arizona State University	Determining Indicators of Obesity in Minority Women	\$24,800
Kern	University of Arizona	Myocardial Dysfunction Following Resuscitation from Cardiac Arrest	\$24,800
McDonagh	University of Arizona	Reperfusion Injury in the Diabetic Heart	\$24,200
Morkin	University of Arizona	Molecular Signals in Ventricular Remodeling	\$55,000
Nolan	University of Arizona	Clinical Pharmacokinetics of Amiodarone in the Elderly Obese & in Individuals with Hepatic Disease	\$24,900 ✓
Williams	University of Arizona	Whole-Body Lymphangioscintigraphy & Lymphatic Transport Measurement in the Assessment of Peripheral Lymphedema	\$20,000

Health Effects of Environmental Pollutants

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Boyer-Hassen	University of Arizona	Southern Arizona Childhood Lead Study	\$23,600
Pepper	University of Arizona	Health Risks Associated with Bacterial & Viral Pathogens in Groundwater	\$28,700 ✓
Rykowski	University of Arizona	The Structure of Transposon Insertion Sites	\$25,000 ✓

Awards for 1992-93 Contract Year

Health Promotion and Disease Prevention

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Bencherif	St. Joseph's Hospital/BNI	Mechanisms of Nicotine Addiction	\$23,500
Cooper	Arizona Department of Health Services	A Study of the Nature Incidence & Consequences of Elementary School Playground-Related Injuries in Arizona	\$5,000
Dart	University of Arizona	Isolation & Efficacy of Anti-Scorpion Fab	\$25,000
Dillenberg	ADHS/Division of Family Health Services	Survey of Oral Health Status & Treatment Needs of Arizona Elderly	\$24,900 ✓
Flores	University of Arizona	Fate of Dietary Carnitine during Development	\$20,000
Greene	University of Arizona	Increasing Smoking Cessation Rates in Arizona: A Physician Based Program to Improve Efficacy, Effectiveness & Dissemination	\$40,000
Herman	Good Samaritan Regional Medical Center	Injury Surveillance: State of Arizona	\$27,200
Lobell	Maricopa Medical Center	Barriers to Cancer Prevention, Diagnosis & Treatment in Hispanic Men & Women	\$25,000
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	\$21,600
Modiano	University of Arizona	Barriers to Cancer Screening in Hispanic Women: A Pilot Study	\$23,500
Roehrig	University of Arizona	Reduction of Patient Exposure in Pediatric Radiology	\$20,000
Unger	University of Arizona	Targeted MR Contrast Agents	\$23,500

Infectious and Immunologic Diseases/Disorders

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Adam	University of Arizona	Giardia Lamblia an Immunization Strategy Based on a Major Surface Antigen	\$20,600 ✓

Awards for 1992-93 Contract Year

DeLuca	University of Arizona	Use of In Vitro Chimeras to Study the Induction of Type I Diabetes	\$30,000
Finley	University of Arizona	DNA Fingerprinting in Bone Marrow Transplantation: HLA-PCR Fingerprinting Crossmatch in Organ Transplantation	\$22,200
Friedman	University of Arizona	Studies on the Invasion & Survival of Bordetella Pertussis in Human Monocytes	\$35,100
Joens	University of Arizona	Campylobacteriosis: Cell Invasion & its Relationship to Lesion Development in the Host	\$24,800
Marchalonis	University of Arizona	Analysis of Synovial Tissue T Cell Receptor Heterogeneity in a Clinical Subset of Rheumatoid Arthritis	\$60,000
Payne	University of Arizona	Effect of Interferons & Interleukins of Natural Killer Cell-Mediated Damage to the DNA of Virally-Infected Target Cells	\$24,900
Petersen	University of Arizona	HIV Disease and Treatment in Arizona: Data Collection & Analysis	\$25,000
Shehab	University of Arizona	Molecular Pathogenesis of Epstein-Barr Virus (EBV) in Malignant Lymphomas & Chronic Illness	\$24,600
Timmermann	University of Arizona	Isolation of Anti-HIV Agents from Plants of Arizona	\$23,500
Yeoman	University of Arizona	The Use of Human Umbilical Cord Blood for Allogeneic Bone Marrow Reconstitution & Transplantation	\$25,000
Zautra	Arizona State University	Life Stress & Neuro-Immune Function in Rheumatoid Arthritis	\$29,700

Malignant Neoplasms

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Bernstein	University of Arizona	Genotoxicity of Bile Acids & Protective Effect of Fiber: Relationship to Colon Cancer	\$20,000
Fennerty	University of Arizona	Clinical & Biologic Studies of Preneoplastic Gastric Lesions	\$24,200
Glasser	University of Arizona	Response of Human Multiple Myeloma to Akylysophospholipids: Applicability to Treatment & Bone Marrow Purging	\$23,500

Awards for 1992-93 Contract Year

Gmitro	University of Arizona	Real-Time Magnetic Resonance Imaging	\$25,000
Miesfeld	University of Arizona	Molecular Determinants of Androgen-Independent Prostate Cell Growth	\$25,000 ✓
Pettit	Arizona State University	Discovery & Development of New Anticancer Drugs	\$210,000
Salmon	University of Arizona	Arizona Cancer Center Research Program	\$825,000
Shimizu	University of Arizona	Aspects of Negative Regulation of EGF Receptor Gene Expression	\$24,900 ✓
Smith	Arizona State University	Regulation of c-myc Gene Expression by Interferons	\$25,000 ✓
Witte	University of Arizona	In Vitro Model of Kaposi's Sarcoma: Phenotypic & Genotypic Profile	\$23,500
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	\$20,000 ✓

Metabolic and Endocrine Disorders

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Bernstein	University of Arizona	Genotoxicity of Bile Acids & Protective Effect of Fiber: Relationship to Colon Cancer	\$20,000
Fennerty	University of Arizona	Clinical & Biologic Studies of Preneoplastic Gastric Lesions	\$24,200
Glasser	University of Arizona	Response of Human Multiple Myeloma to Akyllsophospholipids: Applicability to Treatment & Bone Marrow Purging	\$23,500
Gmitro	University of Arizona	Real-Time Magnetic Resonance Imaging	\$25,000
Miesfeld	University of Arizona	Molecular Determinants of Androgen-Independent Prostate Cell Growth	\$25,000
Pettit	Arizona State University	Discovery & Development of New Anticancer Drugs	\$210,000
Salmon	University of Arizona	Arizona Cancer Center Research Program	\$825,000

Awards for 1992-93 Contract Year

Shimizu	University of Arizona	Aspects of Negative Regulation of EGF Receptor Gene Expression	\$24,900
Smith	Arizona State University	Regulation of c-myc Gene Expression by Interferons	\$25,000
Witte	University of Arizona	In Vitro Model of Kaposi's Sarcoma: Phenotypic & Genotypic Profile	\$23,500
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	\$20,000

Neurologic, Mental and Behavioral Diseases/Disorders

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Burd	University of Arizona	Effects of Hyperthyroidism & Hypothyroidism on Neural Development	\$24,400 ✓
Gordon	University of Arizona	Localization of Synaptic Elements in Hybrid Muscle Cells	\$10,000
Johnson	University of Arizona	Effect of Alcohol & Phenobarbital Exposure on Neonatal Axonal & Dendritic Development	\$23,500
Lien	University of Arizona	Nuclear Magnetic Resonance (NMR) Study of Cell Volume Regulation in Cultured Brain Cells	\$25,000
McMullen	University of Arizona	Central Nervous System Sequelae Following Neonatal Deafness	\$21,800 ✓
Montgomery	University of Arizona	Pathophysiology of Parkinsonism	\$24,900
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	\$23,500
Stelmach	Arizona State University	The Locus of Bradykinesia in Parkinson's Disease	\$25,000
Yamamura	University of Arizona	Antidepressant Drug Mechanisms Studied Using Recombinant Cells	\$23,500

Awards for 1992-93 Contract Year

Respiratory Diseases

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Tai	Arizona State University	Studies on the Iron Uptake System of Streptococcus Pneumoniae & its Application in the Vaccine Development	\$23,500

Aging and Disease

<u>Principal Investigator</u>	<u>Institution</u>	<u>Project Title</u>	<u>Award Amount</u>
Allen	University of Arizona	Satellite Cell Activation in Aging Skeletal Muscle & the Role of Insulin-like Growth Factor I	\$23,500
Davis	University of Arizona	Somatostatin & Substance P Metabolism & Peptidase Activity Are Altered in Alzheimer's Disease	\$23,500
Jeevanandam	St. Joseph's Hospital/BNI	Adjuvant Growth Hormone Therapy for Geriatric Obese Traumatized Man	\$27,000
Kay	University of Arizona	Cellular Life Span Manipulation in Aging & Alzheimer's Disease	\$55,000
Kregel	University of Arizona	Influence of Aging on Sympathetic Nervous System Activity	\$24,500
Regan	University of Arizona	Molecular Identification of Adrenergic Receptor Subtypes Involved in the Treatment of Glaucoma	\$23,500
Verdery	University of Arizona	A Randomized Controlled Trial of Growth Hormone to Improve the Rehabilitative Outcomes of Total Knee Replacement in the Elderly	\$23,500