

DIVISION OF BIOLOGY AND MEDICINE

APRIL 1951

Research Projects Approved During April 1951

The following research projects were approved for negotiation or renewal during the month:

	<u>No. of Projects</u>	<u>Amount</u>
Biology	17	\$ 177,638
Biophysics	1	107,075
Medical	<u>12</u>	<u>257,594</u>
Totals	30	\$ 542,307

Biology

Oklahoma A&M College (Contract AT (11-1) 71 - Renewal) - \$7,830

Investigator: Dr. R. M. Chatters

Title: "Effects of Radiation on Plant Growth"

University of Utah (Contract AT (11-1) 82 - Project #3 - Renewal) - \$8,944

Investigator: Drs. L. P. Gebhardt and L. T. Samuels

Title: "Use of Labeled Phosphorus in the Study of Nerve Tissue Metabolism During Invasion of Neurotropic Viruses"

Southern Illinois University - \$10,800 (1 year)

Investigator: Dr. Carl C. Lindgren

Title: "The Effects of X-irradiation on a Polyploid Series of Yeast Culture Containing Determined Amounts of DNA"

Oklahoma A&M College (Contract AT (11-1) 28 - Renewal) - \$2,376

Investigator: Dr. A. Eisenstark

Title: "Production of Bacterial Mutants in Genetic Recombination and Transformation Studies"

Indiana University (Contract AT (11-1) 84 - Renewal) - \$8,640

Investigator: Dr. T. M. Sonneborn

Title: "The Specific Immobilization Substances (Antigens) of Paramecium Aurelia"

University of California (Contract AT (11-1) 34 - Project #1 - Renewal) - \$35,230

Investigator: Dr. Max Kleiber

Title: "Studies on Metabolism and Biosynthesis in Large Animals, Particularly Farm Animals"

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South Dakota State College (Contract AT (11-1) 97 - Renewal) - \$4,644
Investigator: Drs. A. L. Moxon and E. I. Whitehead
Title: "Metabolism of Selenium and Sulfur in Plants"

University of Arizona (Contract AT (11-1) 103 - Renewal) - \$2,685
Investigator: Drs. W. H. Fuller and W. T. McGeorge
Title: "Utilization of Phosphorus From Biological Materials"

University of Texas (Contract AT (40-1) 1040 - Renewal) - \$6,756
Investigator: Dr. J. W. Foster
Title: "Research in Mold Metabolism"

University of California - \$9,475 (1 year)
Investigator: Dr. A. S. Crafts
Title: "The Translocation of Herbicides in Plants. The Use of Radioactive Isotopes and Other Indicators to Study Absorption and Distribution of Herbicidal Chemicals"

Purdue University (Contract AT (11-1) 111 - Renewal) - \$4,900
Investigator: Drs. Henry Keffler and P. A. Tetrault
Title: "Use of Radioactive Isotopes in Studying Mold Metabolism with Emphasis on the Assimilatory Mechanisms of Penicillium Chrysogenum and Other Representative Molds"

University of Oklahoma (Contract AT (40-1) 1042 - Renewal) - \$6,000
Investigator: Dr. Richard A. Goff
Title: "Effect of Isotopic Irradiation on Embryonic Capillaries"

University of Pittsburgh - \$12,258 (1 year)
Investigator: Dr. Ralph Buchsbaum
Title: "The Study of Normal and Virus-infected Living Cells in Tissue Culture in Perfusion Chambers Before, During and After Radiation"

Battelle Memorial Institute (Contract AT (11-1) 44 - Renewal) - \$14,200
Investigator: Dr. K. Starr Chester
Title: "Use of Radioactive Indicators in the Study of the Mode of Action of Fungicides"

University of Utah (Contract AT (11-1) 82 - Project #4 - Renewal) - \$24,000
Investigator: Drs. R. Lumry and J. D. Spikes
Title: "Studies of Photosynthetic Processes in Cell-free Preparations"

Duke University (Contract AT (40-1) 1031 - Renewal) - \$5,940
Investigator: Dr. Paul J. Kramer
Title: "A Study of the Factors Affecting the Absorption of Radioactive Phosphorus by Mycorrhizal and Non-mycorrhizal Roots of Pine"

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University of Arkansas - \$12,960 (1 year)

Investigator: Drs. P. L. Day, J. R. Tetter, J. S. Dinning and I. Meschan

Title: "Studies on the Biochemical and Nutritional Aspects of X-irradiation Injury"

Biophysics

University of Utah (Contract AT (11-1) 119 - Renewal) - \$107,075

Investigator: Dr. John Z. Bowers

Title: "Studies on the Biological Effects of Radiation"

Medical

University of Chicago (Contract AT (11-1) 98 - Renewal) - \$11,500

Investigator: Dr. Walter L. Palmer

Title: "A Study of the Carcinogenic Effect of Irradiation Therapy in Peptic Ulcer"

University of Virginia Medical School (Contract AT (40-1) 263 - Renewal) - \$9,200

Investigator: Dr. Chalmers L. Gemmill

Title: "The Metabolic Exchange of Radioactive Phosphorus and Potassium in Isolated Cell Systems"

University of Oregon (Contract AT (45-1) 225 - Renewal) - \$14,000

Investigator: Dr. E. S. West

Title: "Study of Labeled Acetic Acid and Ethanol in Relation to Fat Metabolism"

University of North Carolina (Contract AT (40-1) 266 - Renewal) - \$15,930

Investigator: Drs. C. D. VanCleave and C. T. Kaylor

Title: "Radioautographic Study of the Distribution and Retention of Beryllium-7 in the Rat"

University of Chicago (Contract AT (11-1) 46 - Renewal) - \$48,208

Investigator: D. C. P. Miller

Title: "The Bacteriological Aspects of Radiation Sickness"

University of Tennessee (Contract AT (40-1) 283 - Renewal

Title I - Investigator: Dr. Edward F. Williams

Title: "Calcium Metabolism" - \$4,072

Title III - Investigator: Drs. J. P. Quigley and L. Van Middlesworth

Title: "Study of the Metabolism of Radioactive Methionine in Tissues" - \$5,237

Title IV - Investigator: Dr. R. R. Overman

Title: "Mechanisms of Ionic Permeability of Na and K in Adrenal Insufficiency and Associated Pathological States" - \$9,083

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- Title V - Investigator: Drs. D. H. Sprunt, C. E. Nurnberger and A. H. Lipscomb**
Title: "Study of the Effect of Radioactive Iodine on Patients With Carcinoma of the Thyroid and With Hyperplastic Thyroids" - \$7,899
- Title VII - Investigator: Dr. J. L. Wood**
Title: "The Origin and Fate of Thiocyanate Ion in Metabolism" - \$8,316

University of Colorado (Contract AT (29-1) 787 - Part C - Renewal) - \$40,000
Investigator: Dr. Theodore Puck
Title: "Study of Normal and Radiation-Induced Mechanisms in Viruses and Their Host Cells"

Washington University, St. Louis, Mo. (Contract AT (29-1) Gen 77 - Renewal) \$19,500
Investigator: Dr. David Lipkin
Title: "Chemistry of Nucleic Acids, Nucleosides, Nucleotides and Related Organic Phosphorus Compounds"

Reed College (Contract AT (45-1) 227 - Renewal) - \$9,558
Investigator: Dr. Frank P. Hungate
Title: "Application of the Radioactive Tracer Technique in the Field of Cellular Metabolism"

University of Chicago (Contract AT (11-1) 93 - Renewal) - \$5,346
Investigator: Dr. H. S. Anker
Title: "Investigation on the Mechanism of Antibody Synthesis by the Tracer Technique"

University of Minnesota (Contract AT (11-1) 41 - Renewal) - \$27,269
Investigator: Dr. George E. Moore
Title: "Localization of Radioactive Material in the Nervous System"

Boston University (Contract AT (30-1) 897 - Renewal) - \$22,476
Investigator: Dr. Brenton R. Lutz
Title: "Effect of Irradiation on the Function of Small Blood Vessels of the Hamster and the Frog"

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