Department of Defense
US Army Medical Research and Materiel Command

Fiscal Year 2001
Neurofibromatosis Research Program
Awards Book

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Introduction

The US Army Medical Research and Materiel Command is pleased to present the award list of funded projects for the fiscal year 2001 (FY01) Neurofibromatosis Research Program. Award negotiations were completed on September 30, 2002. The awards listed in this document were selected by a competitive two-tiered review process. Funding decisions were based upon scientific excellence evaluated in the first tier of review, followed by programmatic relevance judged in the second tier. These projects represent a diverse portfolio of scientific research directed toward the program's overall goal of promoting studies toward the understanding, diagnosis, and treatment of neurofibromatosis, as well as the enhancement of the quality of life for persons with the disease.

Congressional direction for FY01 specified $17 million for neurofibromatosis research. Following the receipt of funds, a programmatic strategy was developed, proposals were solicited and evaluated, award recommendations were made, and contract negotiations were completed. The FY01 programmatic strategy called for New Investigator, Idea, Investigator-Initiated Research (with or without Nested Postdoctoral Traineeships), Therapeutic Development, and Clinical Trial Awards. The intent of the New Investigator Award is to prepare new, independent investigators for careers in neurofibromatosis and to attract established investigators that are new to the neurofibromatosis field. The Idea Award is intended to encourage innovative approaches to neurofibromatosis research. Idea Awards and New Investigator Awards do not require preliminary or pilot data. The intent of the Investigator-Initiated Research Award is to sponsor basic research leading to clinical trials relevant to neurofibromatosis or drugs that can be introduced into clinical trials. Nested Postdoctoral Traineeships, offered as an optional component of the Investigator-Initiated Research Award, are intended to enable doctoral degree graduates to either extend ongoing research related to neurofibromatosis or broaden the scope of their research to include work relevant to neurofibromatosis. The Therapeutic Development Award was offered for the first time in FY01 in order to boost the number of clinical trials in the neurofibromatosis field. The intent of the Therapeutic Development Award is the development and evaluation of preclinical model systems for neurofibromatosis type 1 (NF1) and NF2. Finally, the Clinical Trial Award is intended to sponsor clinical pharmacologic or gene therapy studies that look at toxicities (Phase 1) or investigate the efficacy (Phase 2) of any novel therapeutic approach for NF1 or NF2. A total of 20 studies was funded in FY01.

As the funded scientists embark on these projects, the Department of Defense and the US Army gratefully acknowledge the participation of their scientific advisors, people living with neurofibromatosis, and the neurofibromatosis advocacy community. The expertise, vision, and diversity of perspectives of all individuals who contributed to this program were vital to developing a sound investment strategy on behalf of all persons living with neurofibromatosis. It is with great anticipation and excitement that we await the outcomes of this research.

Clinical Trial Award

Log Number	PI Last Name	PI First Name	Institution	Proposal Title	Award Amount
NF010042	Packer	Roger	Children's Hospital, Washington, DC	Phase I and Phase II Studies of Pirfenidone in Children with Neurofibromatosis Type 1 and Progressive Plexiform Neurofibromas	$1,460,142

Idea Awards

Log Number	PI Last Name	PI First Name	Institution	Proposal Title	Award Amount
NF010064	Bradlyn	Andrew	West Virginia University	Health-Related Quality of Life for Pediatric NF1 Patients	$427,504
NF010070	Fehon	Richard	Duke University	Whole Genome Analysis of Gene Expression Changes Caused by NF2/Merlin Mutations	$462,367
NF010096	Gusella	James	Massachusetts General Hospital	Chromosomal Changes in NF Tumors by CGH Array Analysis	$519,000
NF010112	Imamoto	Akira	University of Chicago	Modulation of Ras Signaling by NF1 and CRKL in Development	$452,966
NF010130	Soloway	Paul	Roswell Park Cancer Institute, Buffalo	The Role of RASGRF1 in Neurofibromatosis--Validating a Potential Therapeutic Target	$510,165
NF010100	Stern	Michael	Rice University	Signaling Pathways Controlling the Growth and Proliferation of Drosophila Perineural Glial Cells	$437,298
NF010059	Vogel	Kristine	University of Texas, San Antonio Health Science Center	Neurofibromin and Neuronal Apoptosis	$331,575
NF010111	Zhong	Yi	Cold Spring Harbor Laboratory	NF1-Dependent Gene Regulation in Drosophila Melanogaster	$332,000

Investigator-Initiated Research Awards

Log Number	PI Last Name	PI First Name	Institution	Proposal Title	Award Amount
NF010051	Chang	Long-Sheng	Children's Hospital, Columbus	Post Transcriptional Regulation of the Neurofibromatosis 2 Gene	$233,529
NF010016	Giovannini	Marco	Institut national de la sante et de la recherche medicale (INSERM)	Development of Mouse Models of NF2-Associated Meningioma: The Role of Nf2 and Protein 4.1B Gene Mutations in Meningioma Tumorigenesis	$785,230
NF010097	Gusella	James	Massachusetts General Hospital	Role of a Novel Merlin-Specific Interacting Protein in NF2	$1,191,027
NF010054	Ratner	Nancy	University of Cincinnati	Driving Neurofibroma Formation in Mice	$706,506
NF010144	Silva	Alcino	University of California, Los Angeles	Molecular and Cellular Mechanisms Underlying the Learning Deficits Associated with NF1	$389,595

New Investigator Awards

Log Number	PI Last Name	PI First Name	Institution	Proposal Title	Award Amount
NF010149	Chong	Jayhong	Children's Hospital, Boston	Transcriptional Regulation of the Neurofibromatosis Type 1 Gene	$473,983
NF010126	Lambert	Stephen	University of Massachusetts Medical Center	Characterization of Cytoplasmic Merlin and Molecular Mechanisms Underlying Its Translocation to the Plasma Membrane	$475,876
NF010138	Stephan	Dietrich	Children's Hospital, Washington, DC	Biological Basis of Neurodevelopmental Deficits in NF: Insights through Expression Profiling	$449,919
NF010022	Yu	Qin	University of Pennsylvania	CD44-Related Function of Merlin, the Gene Product of the Neurofibromatosis Type 2 (NF2)	$475,500

Therapeutic Development Awards

Log Number	PI Last Name	PI First Name	Institution	Proposal Title	Award Amount
NF010057	Kurtz	Andreas	Massachusetts General Hospital	Therapy of Experimental Nerve Sheath Tumors Using Oncolytic Viruses	$781,749
NF010093	Shannon	Kevin	University of California, San Francisco	Preclinical Mouse Models of Neurofibromatosis	$4,169,173

FY01 Neurofibromatosis Research Program Peer Reviewers

Peer Reviewers	Degree	Institution/Affiliation
Ahn, Chul	Ph.D.	University of Texas Medical School at Houston
Barald, Katharine F.	Ph.D.	University of Michigan Medical School
Boyan, Barbara Dale	Ph.D.	University of Texas Health Science Center
Carroll, William L.	M.D.	New York University-Mount Sinai
Cichowski, Karen	Ph.D.	Harvard Medical School
Clapp, David Wade	M.D.	Indiana University School of Medicine
Fehon, Richard G.	Ph.D.	Duke University
Feldman, Doreen S.		Neurofibromatosis, Inc., Mid-Atlantic Chapter
Field, Jeffrey M.	Ph.D.	University of Pennsylvania School of Medicine
Fisch, Gene S.	Ph.D.	Yale University
Friedman, Jan Marshall	M.D., Ph.D.	University of British Columbia
Haber, Roberta	Ph.D.	Executive Secretary
Hock, Janet M.	Ph.D.	Indiana University School of Medicine
MacCollin, Mia	M.D.	Massachusetts General Hospital, East, Neuroscience Center,
Mahacek, Rhonda A.		Neurofibromatosis, Inc.
McClatchey, Andrea I.	Ph.D.	Harvard Medical School
Ratner, Nancy	Ph.D.	University of Cincinnati, College of Medicine
Saccomanno, Colette F.		The National Neurofibromatosis Foundation, Inc.
Scoles, Daniel R.	Ph.D.	Cedars-Sinai Medical Center
Symons, Marc H.	Ph.D.	Picower Institute
Welling, Duane Bradley	M.D.	Ohio State University
Yoder, Marilyn D.	Ph.D.	University of Missouri-Kansas City

Fiscal Year 2001 Neurofibromatosis Research Program
Integration Panel (IP) Members

IP Members	Degree	Institution/Affiliation
Rubenstein, Allan (Chair)	M.D.	Mount Sinai School of Medicine; The New York Neurofibromatosis Institute
Adamson, Peter	M.D.	Children's Hospital of Philadelphia
Bellermann, Peter (Chair-Elect)	M.P.A.	The National Neurofibromatosis Foundation
Copeland, Neal	Ph.D.	National Cancer Institute, Frederick Cancer Research and Development Center
Duffy, Brenda	M.S.	Neurofibromatosis, Inc.
Fischbeck, Kurt	M.D.	National Institute of Neurological Diseases and Stroke, National Institutes of Health
Hall, Zach	Ph.D.	University of California, San Francisco
Mulvihill, John	M.D.	University of Oklahoma Health Sciences Center
Murray, Jr., Robert	M.D., Ph.D.	Howard University
Pleasure, David (Chair Emeritus)	M.D.	University of Pennsylvania and Children's Hospital of Philadelphia
Vézina, Louis-Gilbert	M.D.	George Washington University and Children's National Medical Center

Fiscal Year 2001 Neurofibromatosis Research Program
Ad Hoc Programmatic Reviewers

Ad Hoc Reviewers	Degree	Institution/Affiliation
Fisher, Nancy	M.D., M.P.H.	Regence BlueShield and University of Washington, Seattle
Gibbs, Jackson	Ph.D.	Merck Research Laboratories
Legius, Eric	M.D., Ph.D.	Catholic University Leuven

Glossary of Terms

Clinical Trial Award: The intent of this award mechanism is to sponsor clinical pharmacologic or gene therapy studies that look at toxicities (Phase 1) or investigate the efficacy (Phase 2) of any novel therapeutic approach for neurofibromatosis type 1 (NF1) or NF2. Applicants must include preliminary data to support the feasibility of their hypotheses and approaches, along with a detailed plan to conduct a Phase 1 or 2 clinical trial during the course of the award. Ultimately, the goal of this award mechanism is to sponsor novel research that will substantially improve today's approach to the treatment of neurofibromatosis.

Idea Award: The intent of this award mechanism is to encourage innovative ideas and technology in neurofibromatosis research. These proposals may represent a new paradigm in the study of neurofibromatosis, challenge existing paradigms, or look at an existing problem from a new perspective. The proposed studies may be untested, but present a high probability of revealing new avenues of investigation. Although this research is inherently risky in nature, the research plan must demonstrate solid scientific judgment and rationale. Preliminary or pilot data is not required for this award mechanism.

Investigator-Initiated Research Award: The intent of this award mechanism is to sponsor basic research leading to clinical trials relevant to neurofibromatosis or drugs that can be introduced into clinical trials. These grants are intended to fund independent investigators across a broad spectrum of disciplines. This award mechanism also supports the establishment of synergistic, goal-focused, and non-exclusionary consortia. Preliminary data relevant to neurofibromatosis research is required for these awards. Nested Postdoctoral Traineeships are being offered as an optional part of the Investigator-Initiated Research Award. The intent of the Nested Postdoctoral Traineeship is to enable doctoral degree graduates to either extend ongoing research related to neurofibromatosis or broaden the scope of their research to include work relevant to neurofibromatosis under the guidance of a designated mentor who is participating in the proposal.

***New Investigator Award*:** The intent of this award mechanism is to promote and reward innovative ideas and technology from investigators in the early phases of their careers as well as those investigators new to neurofibromatosis research who have little or no preliminary neurofibromatosis data. This research may represent a new paradigm, challenge existing paradigms, or look at an existing problem from a new perspective. A New Investigator is defined as an independent investigator below the level of associate professor with access to appropriate research facilities. Preliminary or pilot data is not required for this award mechanism.

Therapeutic Development Award: The intent of this award mechanism is to sponsor the development and evaluation of preclinical model systems for NF1 and NF2. The overall goal of this award mechanism is to allow neurofibromatosis investigators to develop the skills and generate the preclinical data necessary to conduct clinical trials after completion of the research. The proposed studies are expected to be empirical in nature and product-driven rather than hypothesis-driven. It is anticipated that the agents and model systems generated from these awards will lead to the development of a broad platform on which to test future therapies. The submission of preliminary data relevant to the phase(s) of the preclinical drug development process covered by the research is required for this award mechanism.