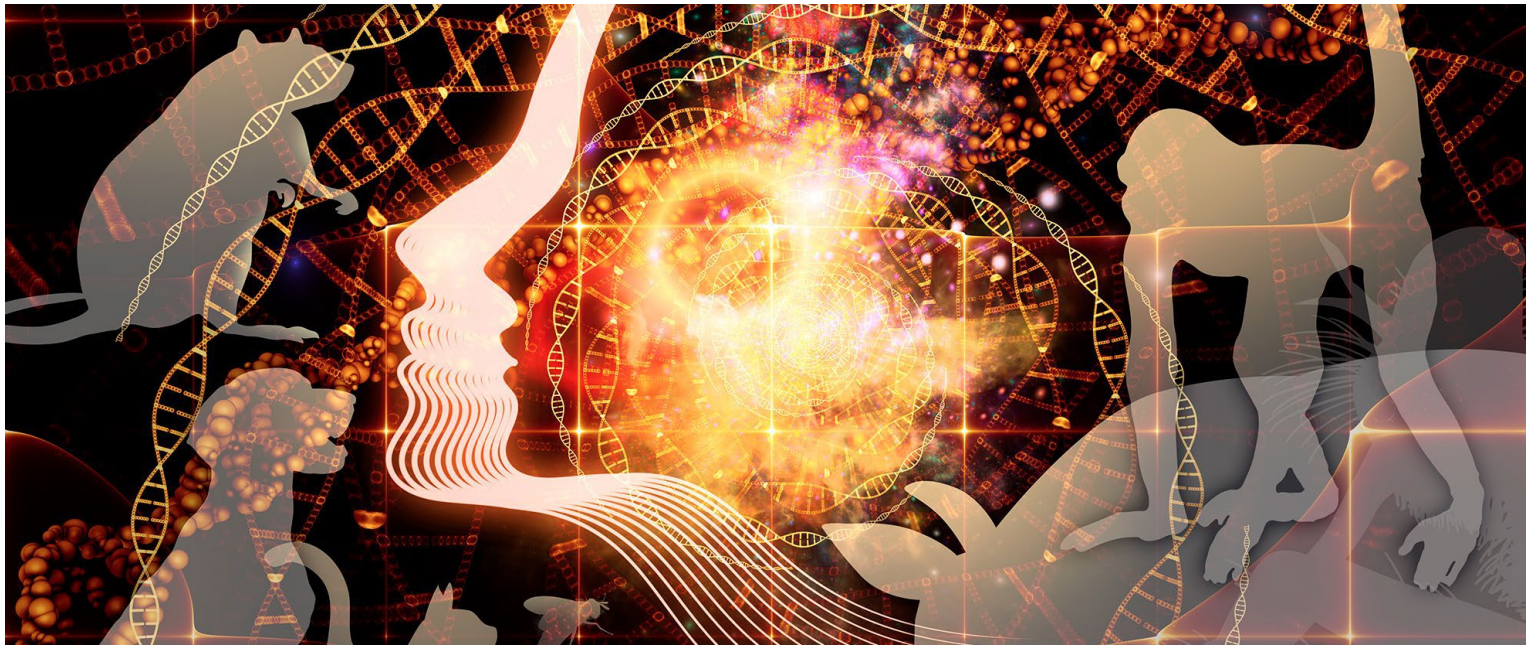
ORIP
OFFICE OF RESEARCH INFRASTRUCTURE PROGRAMS

Division of Comparative Medicine

Concept Clearance – Reissue

Resource-Related Research Projects for Development of Animal Models and Related Materials (R24)



Background

- ORIP's Strategic Plan emphasizes development and enhancement of models of human disease as well as expansion and accessibility of these models
- The R24 Animal Models Program is aimed at development of animal-based resources which require preliminary research
- ORIP uses R24 mechanism in a wide variety of ways to provide resources for research projects or to enhance research infrastructure
- ORIP's R24 program supports various types of resources related to animal models of human disease
- Resource-related research is often not hypothesis driven and cannot be addressed appropriately by NIH R01 or R21 grant applications

Purpose

- R24 program encourages applications focused on:
  - *Applied studies to characterize and develop new animal-based resources or to improve existing resources*
  - *Research projects that contribute to the knowledge of a model system, making the system more useful and accessible to the research community*
- As part of ORIP's trans-NIH emphasis, animal models and related materials to be developed must address the research interests of multiple NIH Institutes and Centers
- Projects can vary in regard to the balance of basic research versus resource-related activities
- Applications must demonstrate a wide community need for the resource or resource-related research activity

Progress and Impacts (FY13-FY19)

FOA	Type	Number of applications	Number of awards (% awards)	Publications by grantees
PAR-13-253 (2013-2016)				230
	New	104	20 (19%)	
	Renewal	26	12 (46%)	
PAR-16-369 (2016-2019)				
	New	54	6 (11%)	142
	Renewal	20	7 (35%)	
Total		204	45 (22%)	**372**

Percentage of Grant Awards By Animal Model Species (FY13-FY19)

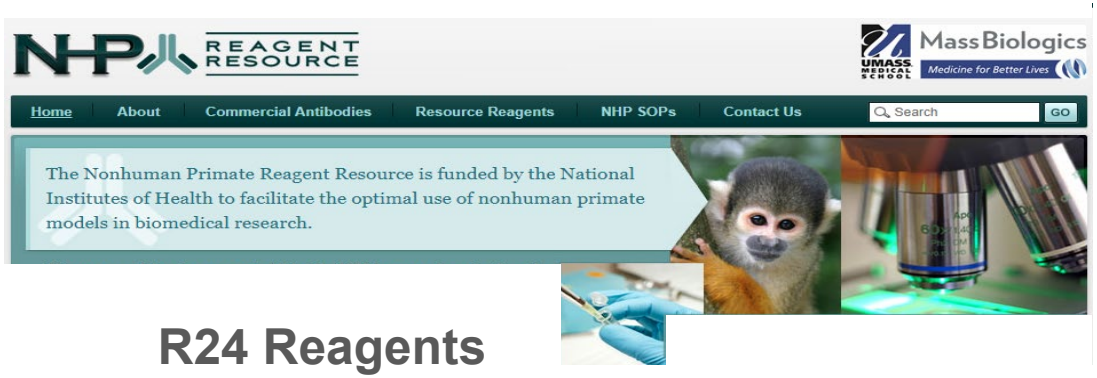
Concept Clearance

Continue supporting the “Resource-Related Research Projects for Development of Animal Models and Related Materials (R24)” program

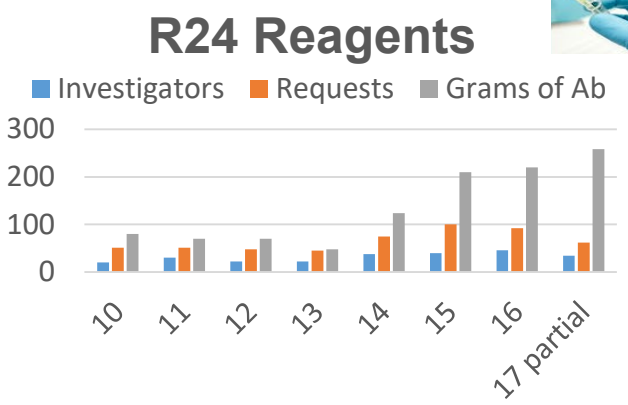
*Previously PAR-16-369

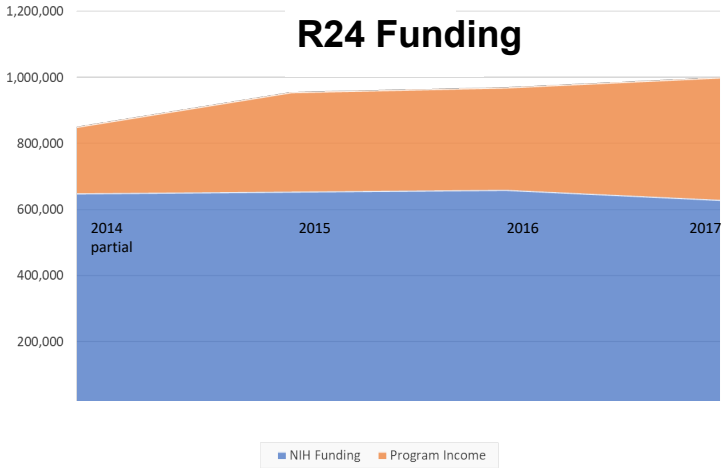
The Nonhuman Primate Reagent Resource
PI: Diogo Mangani, UMASS

R24OD010976-19
P40OD028116-01



Develops, manufactures and distributes immune cell-depleting antibody research reagents to optimize the usefulness of these animal models





First 5 years 90 grams Mab distributed to 60 NIH program

FY2018: 400 grams distributed to 50 NIH programs.

Program income grew steadily and now approaches 50% cost of operation

CRE Driver Strain Resources

PI: Stephen Murray, Jackson Lab.

R24 OD011190

The Jackson Laboratory

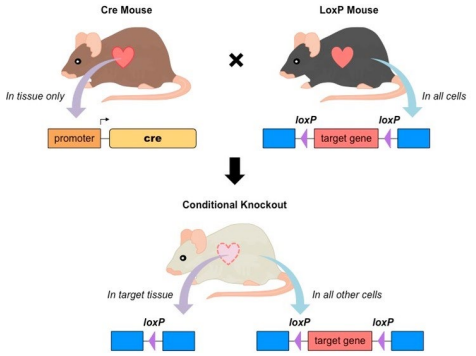
RESEARCH & FACULTY ⌄ EDUCATION & LEARNING ⌄

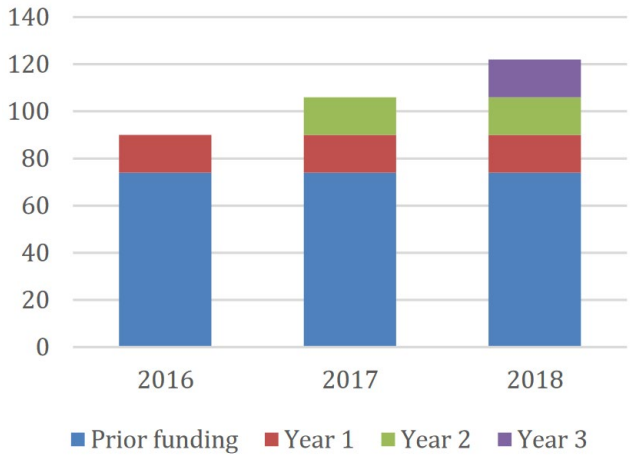
JAX Home > Research and Faculty > Research Tools and Resou

CRE PORTAL

The JAX Cre Repository's aim is to provide the scientific community with a centralized, comprehensive set of well-characterized Cre Driver lines and related information resources.

- Available strains include Cre expressing strains, inducible Cre strains, Cre reporter strains, and loxP-flanked (floxed) strains
- **Creportal** catalog: 2886 unique Cre driver lines using over 1179 unique drivers/promoters
- More then 16,000 visitors per year
- ~ 1200 lines available from public repositories (among them more then 500 from JAX repository)





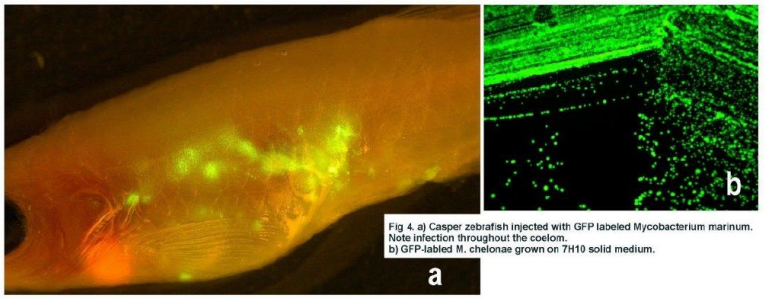
Functional and genetic characterization of the Cre lines

NIH National Institutes of Health
Office of Research Infrastructure Programs

Control and Impacts of Diseases of Zebrafish in Research Facilities
PI: Michael Kent, OSU

R24OD010998

- To develop methods to control or avoid common pathogens in zebrafish facilities
- To elucidate the effects of infections on research endpoints
- To develop efficacious antibiotics for treatment and non-lethal PCR-based tests to common pathogens for diagnosis



M. chelonae **visualization and tracking infections.**

Working closely with the Zebrafish International Resource Center (ZIRC), having a sustained, positive impact on the whole zebrafish research community

More than 30 publications for the last funding period

Areas of Interest for ORIP

- Antibodies or other reagents for quantifying or characterizing macromolecules or cells in animal models of specific diseases.
- Animal-based genetic, genomic, phenomic and proteomic tools.
- Methods to improve cryopreservation of animal cells and germ plasm.
- Methods and tools for advancing the techniques of regenerative medicine.
- Methods and tools for identifying, developing, screening and/or archiving specific animal models such as genetically engineered strains of mice, mutant nonhuman primates and specific aquatic models.
- Informatics tools related to use of animal models information.
- Systems biology approaches to make the data generated from use of animal models more globally discoverable and useful.
- Methods to identify emerging or potential pathogens in animal resource facilities.