

Collection Activities and Initiatives in the USA: 2010. ICCC₁₂, Brazil

Kevin McCluskey
Curator

Fungal Genetics Stock Center



Collection Activities and Initiatives in the US: 2010.

- NSF •
- NIH •
- USDA •
- NPMGS •



NSF Collections programs

- NSF supports two collection programs



The screenshot shows the NSF website for the Living Stock Collections for Biological Research (LSCBR) program. The header includes the NSF logo and navigation links. The main content area features a sidebar with links for finding funding and a main section for the LSCBR program, including contact information and program guidelines.

NSF National Science Foundation
WHERE DISCOVERIES BEGIN

SEARCH

HOME | FUNDING | AWARDS | DISCOVERIES | NEWS | PUBLICATIONS | STATISTICS | ABOUT | FastLane

Funding

Find Funding
A-Z Index of Funding Opportunities
Recent Funding Opportunities
Upcoming Due Dates
Advanced Funding Search
How to Prepare Your Proposal
About Funding

Proposals and Awards

Proposal and Award Policies and Procedures Guide
Introduction
Proposal Preparation and Submission
Grant Proposal Guide
Grants.gov Application Guide
Award and Administration
Award and Administration Guide
Award Conditions
Other Types of Proposals
Merit Review
NSF Outreach
Policy Office

Division of Biological Infrastructure

Living Stock Collections for Biological Research (LSCBR)

CONTACTS

Name	Email	Phone	Room
Lita M. Proctor	LSCBR@nsf.gov	(703) 292-8470	

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

PROGRAM GUIDELINES

Solicitation [09-550](#)

Please be advised that the NSF Proposal & Award Policies & Procedures Guide (PAPPG) includes revised guidelines to implement the mentoring provisions of the America COMPETES Act (ACA) (Pub. L. No. 110-69, Aug. 9, 2007.) As specified in the ACA, each proposal that requests funding to support postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals. Proposals that do not comply with this requirement will be returned without review (see the PAPP Guide Part I: Grant Proposal Guide Chapter II for further information about the implementation of this new requirement).

DUE DATES

Full Proposal Target Date: July 7, 2010

SYNOPSIS

The Living Stock Collections for Biological Research (LSCBR) program supports improvements in and partial operation of existing collections of living organisms (including viruses and bacteriophages) to be used in basic biological research. The program provides support for two types of projects. Short-term projects are one-time awards (up to 36 months) leading to innovative handling of living stocks or to well-defined improvements in existing collections, including those not otherwise supported by LSCBR. Longer-term projects (up to 60 months) help support ongoing operation of collections significant to the NSF research community. Collections receiving longer-term support are expected to receive significant support from user fees or other mechanisms of revenue generation.





NSF Living Stock Collections

To view the abstract, click on the award number or title. Click on the data in other columns to perform a new search with that parameter.

[Refine Search](#)

14 awards found, displaying all awards.

Award Number	Title	NSF Organization	Program(s)	Start Date	Principal Investigator	State	Organization	Awarded Amount to Date
0841154	LSC: Bloomington Drosophila Stock Center at Indiana University	DBI	LIVING STOCK COLLECTIONS	08/01/2009	Matthews, Kathleen	IN	Indiana University	\$612,495.00
0742066	LSC: Bacillus Genetic Stock Center	DBI	LIVING STOCK COLLECTIONS	09/01/2008	Zeidler, Daniel	OH	Ohio State University Research Foundation	\$965,283.00
0742680	A Genetic Stock Center for Peromyscus	DBI	LIVING STOCK COLLECTIONS	09/01/2008	Felder, Michael	SC	University South Carolina Research Foundation	\$347,269.00
0742708	LSC: The Escherichia Coli Genetic Stock Center	DBI	LIVING STOCK COLLECTIONS	09/01/2008	Wertz, John	CT	Yale University	\$684,889.00
0742713	LSC: The Fungal Genetics Stock Center	DBI	LIVING STOCK COLLECTIONS	09/01/2008	Plamann, Michael	MO	University of Missouri-Kansas City	\$585,511.00
0929289	Tucson Drosophila Stock Center	DBI	LIVING STOCK COLLECTIONS	08/01/2008	Markow, Therese	CA	University of California-San Diego	\$386,863.00
0737501	LSC: Axenic Culture Collection of Insect Gut Fungi (Harpellales) and Other Symbionts of Arthropods: Incorporating the Isolates into Other Culture Collections	DBI	LIVING STOCK COLLECTIONS	07/01/2008	Lichtwardt, Robert	KS	University of Kansas Center for Research Inc	\$36,054.00
0650677	LSC: Operation of UTEX Culture Collection of Algae	DBI	LIVING STOCK COLLECTIONS	05/15/2007	Brand, Jerry	TX	University of Texas at Austin	\$770,452.00
0650735	LSC: INVAM, An International Culture Collection of Arbuscular Mycorrhizal Fungi	DBI	LIVING STOCK COLLECTIONS	04/15/2007	Morton, Joseph	WV	West Virginia University Research Corporation	\$312,295.00
0542034	The Arabidopsis Biological Resource Center at The Ohio State University	DBI	THE 2010 PROJECT, LIVING STOCK COLLECTIONS	05/01/2006	Grotewold, Erich	OH	Ohio State University Research Foundation	\$2,360,437.00
0549091	Continued Support of the Duke University Primate Center for the Study of Primate Biology and History	DBI	PHYSICAL ANTHROPOLOGY, LIVING STOCK COLLECTIONS	04/01/2006	Yoder, Anne	NC	Duke University	\$1,535,919.00
0443496	Operational Support for the Ambystoma Genetic Stock Center	DBI	LIVING STOCK COLLECTIONS	07/15/2005	Voss, Stephen	KY	University of Kentucky Research Foundation	\$990,054.00
0444335	Chlamydomonas Resource Center	DBI	LIVING STOCK COLLECTIONS	07/15/2005	Lefebvre, Paul	MN	University of Minnesota-Twin Cities	\$1,048,398.00
0342468	Collection of Mutant Types of Drosophila melanogaster	DBI	LIVING STOCK COLLECTIONS	09/01/2004	Matthews, Kathleen	IN	Indiana University	\$3,330,198.00

Export options: [CSV](#) | [Excel](#) | [XML](#)

Hint: Most browsers allow you to save the exported file by right-clicking on the link and choosing "save link target" from the menu options. See the [help](#) for more information.



NSF Drosophila Stock Center

- Howard Hughes Medical Institute supports expansion at NSF supported Drosophila stock center with \$350,000 grant in 2010

The screenshot shows the homepage of the Bloomington Drosophila Stock Center at Indiana University. At the top, there is a navigation bar with links: Order Form, Ordering, Accounts, Payment, Regulatory, Fly Work, About BDSC, and Links. Below the navigation bar is a decorative banner featuring several Drosophila melanogaster flies. The main content area is organized into several columns and sections:

- Search All Stocks at FlyBase:** Includes a search box with an "Info" button and a search input field.
- Search the Bloomington Web Site:** Includes a link to "Google™ Site Search".
- Download the Stock List:** Includes a link to "bloomington.csv" and an "Info" button.
- Stock Center News:** Lists recent news items with dates: "Server tweaks | 31 Dec 2009", "Stocks to be Removed | 12 Oct 2009", "New Scientist | 14 Sept 2009", "New Deficiency Kit | 22 July 2009", and "End-of-Year Shipping | 22 July 2009".
- Browse Stocks:** Includes links for "All Browse Options" and "Sequenced Strains".
- Deficiencies:** Lists "Bloomington Df Kit", "BSC Dfs", "Exelixis Dfs", "DrosDel Dfs", and "All Bloomington Dfs".
- Duplications:** Lists "Dp Kits: 1, 2, 3" and "CytoSearch at FlyBase".
- Mapping Stocks:** Lists "Meiotic Mapping", "Baylor Mapping Kit", and "SNP Mapping".
- Insertions:** Lists "All Insertions", "GBrowse", "Gene Disruption Project", "Exelixis", "Minos", "Potential Misexpression", "Protein-trap", and "Deletion Generators".
- Common Tools:** Lists "GAL4", "UAS", "GAL80", "FRT", "FLP", "Cre", "GFP etc.", "MARCM", "DTS lethals", "phiC31", "Gene KO", and "RNAi".
- Balancers:** Lists "Balancers in Stock", "Balancer Definitions", and "Balancer Breakpoints".

At the bottom of the page, a footer states: "The BDSC collects, maintains and distributes *Drosophila melanogaster* strains for research." and includes links for "Sources of Support", "Disclaimer", and "Contact Us".



FGSC

Fungal Genetics Stock Center



[Image Information](#)

[The FGSC in the news!](#)

Information

[Frequently Asked Questions](#)
[Material Request Form](#)
[Shipping/Fees](#)
[Annual Strain Subscription](#)

[The FGSC mailing list](#)
[Announcements, Meetings, and Jobs](#)
[Policy Committees](#)

Online Catalog

[Strain Database search](#)

[Neurospora strains deposited in 2009](#)
[Aspergillus strains deposited in 2009](#)

[Plasmids and gene libraries](#)
New plasmid interface 11/19/09
[Additional resources](#)

Organism Information

[The Neurospora Home Page](#)
[Neurospora strains and related material](#)
[The Neurospora protocol guide](#)
[The NIH Neurospora/model organism page](#)
[The Aspergillus Home Page](#) (*A. nidulans* KO Cassettes)
[Aspergillus strains](#)
[Aspergillus gene lists](#)
[Fusarium](#)
[Fusarium strains](#)
[Magnaporthe](#)
[Ustilago](#)
[Cryptococcus](#)
[Candida deletion sets](#)
[Pichia](#)
[Other Fungi](#)
[Strains from sequencing programs](#)

Genome Resources

[Neurospora Genomes](#)
[Neurospora crassa deletion strains](#)
[Magnaporthe grisea insertional mutants](#)
[Cryptococcus deletion mutants](#)
[Fosmid, Cosmid and BAC libraries](#)

Fungal Genetics Reports

Incorporating the Fungal Genetics Newsletter

Additional Resources

[Methods, recipes and hints](#)
[Video Demonstrations](#)
[Online bibliographies](#)
[Using fungi in teaching](#)

[FGSC deposit sheets](#)
[Online Images](#), [Fluorescence images](#)
[Video Microscopy](#)

The FGSC is indexed in [Straininfo.net](#)

[Genomes and other links](#)

Meeting information

[Fungal Genetics Conferences](#)

[Other Meetings](#)

[Online Material Request Form](#)

[Online payment](#)

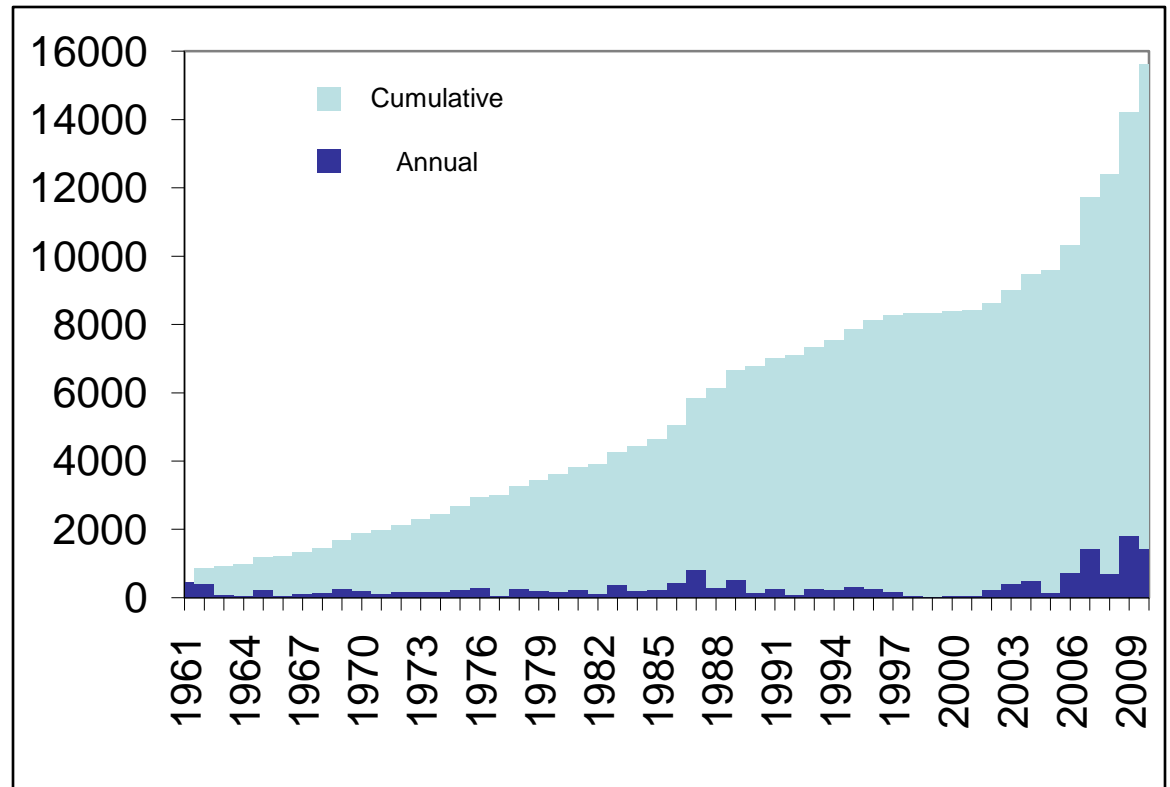


Please remember to [acknowledge](#) the FGSC when you use materials either directly from the collection, or derived from the collection. This is our most important way of demonstrating the value of the materials at the FGSC.

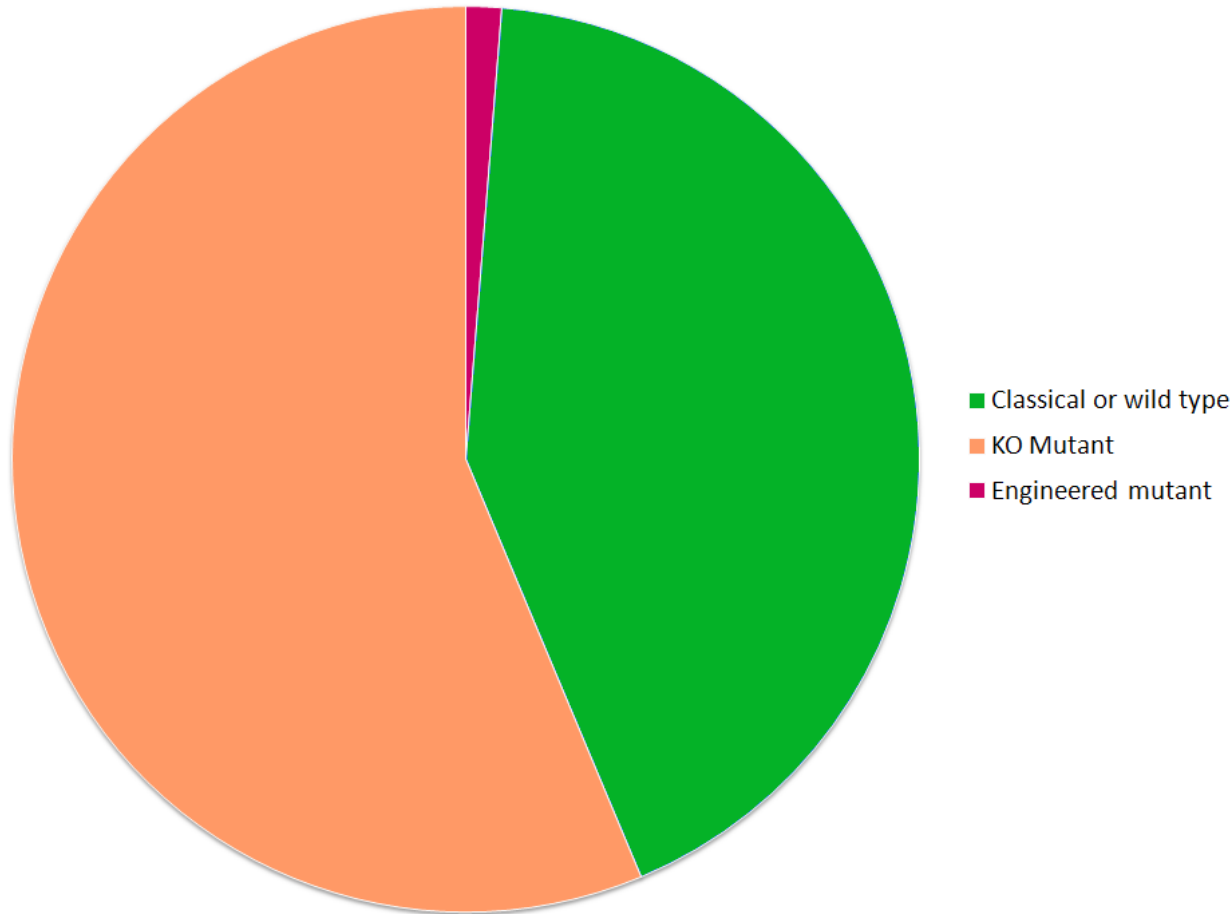


As community has grown, so has FGSC

- Number of strains doubled since 2004

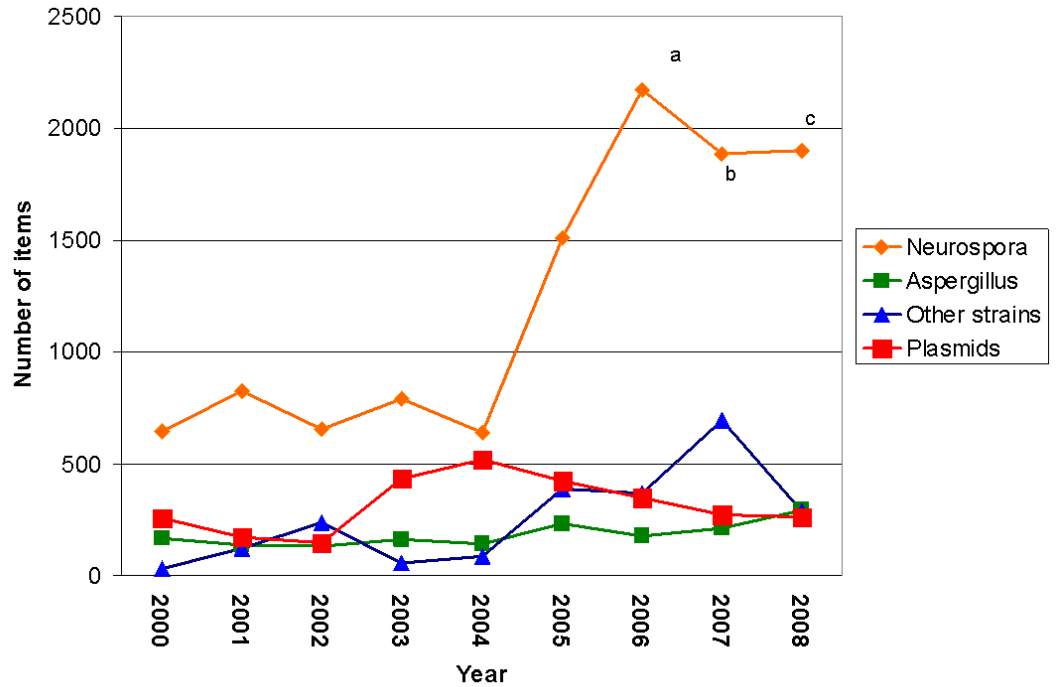


Increasing numbers of strains are Genetically Engineered



FGSC Distribution

- Individual strain distribution more than double
- Over 250,000 strains in arrayed mutant sets



Biological Research Collections

- Second NSF program supports collections of physical specimens



The screenshot shows the NSF website interface. At the top is the NSF logo with the tagline 'WHERE DISCOVERIES BEGIN'. A search bar is located in the top right. Below the logo is a navigation menu with links for HOME, FUNDING, AWARDS, DISCOVERIES, NEWS, PUBLICATIONS, STATISTICS, ABOUT, and FastLane. The main content area is titled 'Division of Biological Infrastructure' and 'Improvements to Biological Research Collections (BRC)'. It includes a 'CONTACTS' table with one entry for W. Carl Taylor, a 'PROGRAM GUIDELINES' section with a 'Solicitation 09-548' link, and a 'DUE DATES' section stating the target date is July 23, 2010. A 'SYNOPSIS' section follows, describing the BRC program's goals and supported activities.

NSF National Science Foundation
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SEARCH

HOME | FUNDING | AWARDS | DISCOVERIES | NEWS | PUBLICATIONS | STATISTICS | ABOUT | FastLane

Funding

Find Funding

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Award Conditions

Other Types of Proposals

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NSF Outreach

Email Print Share

Division of Biological Infrastructure

Improvements to Biological Research Collections (BRC)

CONTACTS

Name	Email	Phone	Room
W. Carl Taylor	dbibrc@nsf.gov	(703) 292-8470	

PROGRAM GUIDELINES

Solicitation [09-548](#)

Please be advised that the NSF Proposal & Award Policies & Procedures Guide (PAPPG) includes revised guidelines to implement the mentoring provisions of the America COMPETES Act (ACA) (Pub. L. No. 110-69, Aug. 9, 2007.) As specified in the ACA, each proposal that requests funding to support postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals. Proposals that do not comply with this requirement will be returned without review (see the PAPP Guide Part I: Grant Proposal Guide Chapter II for further information about the implementation of this new requirement).

DUE DATES

Full Proposal Target Date: July 23, 2010
Fourth Friday in July, Annually Thereafter

SYNOPSIS

The Improvements to Biological Research Collections Program provides funds for improvements to network, secure, and organize established natural history collections for sustained, accurate, and efficient accessibility of the collection to the biological research community.

The BRC program is encouraging collaborative proposals to network collections on regional and continental scales, especially collaborations that bring large and small collections together into networks. The BRC program also provides for enhancements to existing collections to improve collections, computerize specimen-related data, develop better methods of specimen curation and collection management through activities such as symposia and workshops.

Biological collections supported include those housing natural history specimens and jointly curated collections such as preserved tissues and other physical samples, e.g. DNA libraries and digital images. Such collections provide the materials necessary for research across broad areas



Collection Activities and Initiatives in the US: 2010.

- NSF •
- NIH •
- USDA •
- NPMGS •



NIH Programs



National Institute of Allergy and Infectious Diseases

Leading research to understand, treat, and prevent infectious, immunologic, and allergic diseases.

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Advanced Search

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[Health & Science](#)

[Research Funding](#)

[Research](#)

[News & Events](#)

[Labs at NIAID](#)

[About NIAID](#)

DMID Resources for Researchers

- ▶ Animal Models for Experimental Therapies and Vaccines
- ▶ Invasive Aspergillosis Animal Models
- ▶ Animal Models for Hepatitis B and C
- ▶ BEI Resources
- ▶ Clinical Laboratory Diagnostics for Invasive Aspergillosis
- ▶ Clinical Agents and Specimen Repository
- ▶ Regulatory Affairs Support
- ▶ Collaborative Antiviral Study Group
- ▶ Filariasis
- ▶ In Vitro and Animal Models
- ▶ International Clinical Sciences Support Center
- ▶ In Vitro Antiviral Screening Program
- ▶ Leprosy Research Support
- ▶ Malaria Vaccine Production Services
- ▶ MR4
- ▶ NARSA
- ▶ Biosafety Laboratories
- ▶ Phase I Clinical Trial Units for Therapeutics
- ▶ Preclinical Development of Therapeutic Agents
- ▶ Respiratory Pathogens Translational Research Services
- ▶ Schistosomiasis Resource Center
- ▶ Sexually Transmitted Infections Clinical Trials Group
- ▶ STEC

Services for Researchers

DMID Services - Biological Research Resources

- [Biodefense and Emerging Infections Research Resources Repository \(BEI\)](#)
- [Clinical Laboratory Diagnostics for Invasive Aspergillosis](#)
- [Filariasis Research Reagent Repository Center \(FR3\)](#)
- [Invasive Aspergillosis Animal Models \(IAAM\)](#)
- [Leprosy Research Support](#)
- [Malaria Research and Reference Reagent Resource Center \(MR4\)](#)
- [Network on Antimicrobial Resistance in *Staphylococcus aureus* \(NARSA\)](#)
- [Pathogen Functional Genomics Resource Center \(PFGRC\)](#)
- [Proteomics Research Centers \(PRCs\)](#)
- [Respiratory Pathogens Translational Research Services](#)
- [Shiga Toxin-Producing *Escherichia coli* Center \(STEC\)](#)
- [Schistosomiasis Resource Center](#)
- [Structural Genomics Centers](#)
- [Systems Biology for Infectious Diseases Research](#)
- [Tuberculosis Animal Research and Gene Evaluation Task Force \(TARGET\)](#)
- [Tuberculosis Vaccine Testing and Research Materials](#)
- [World Reference Center for Emerging Viruses and Arboviruses \(WRCEVA\)](#)

Web Site Tools

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National Center for Research Resources

National Institute of Health
Department of Health and Human Services

SEARCH NCRHR:

CHANGE TEXT SIZE: ⊖ ⊕ ⊗ ⊘ ⊙ ⊚ ⊛ ⊜ ⊝ ⊞ ⊟ ⊠ ⊡ ⊢ ⊣ ⊤ ⊥ ⊦ ⊧ ⊨ ⊩ ⊪ ⊫ ⊬ ⊭ ⊮ ⊯ ⊰ ⊱ ⊲ ⊳ ⊴ ⊵ ⊶ ⊷ ⊸ ⊹ ⊺ ⊻ ⊼ ⊽ ⊾ ⊿ Ⓚ Ⓛ

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NCRHR Home > [Scientific Resources](#)

Scientific Resources

Biological Materials Resources

Available to qualified investigators: microbes, cell cultures and DNA materials of more than 6,000 species and 1,500 genetic backgrounds; large-scale cell culture reagents for basic research; non-human embryo to stem cells; and genetically modified S. cerevisiae stocks. [READ MORE >>](#)

Biomedical Technology Research Centers

Provide qualified investigators with the newest and most advanced technologies and techniques created, developed, and disseminated by the core scientists within the resources and through their collaborative with other leading laboratories. [READ MORE >>](#)

Clinical and Translational Science Awards Consortium

Transforming low clinical and translational research is conducted, ultimately enabling researchers to provide new treatments more effectively and quickly to patients. [READ MORE >>](#)

Comparative Medicine Information Sources

Available to qualified investigators: database describing E. coli genes and all known enzymes and pathways of E. coli metabolism; atlas of C. elegans anatomy; guide lines; on laboratory animal care and use; publications on non-human primates; clearinghouse on non-human primate research; resources on issues related to laboratory animal care and welfare. [READ MORE >>](#)

Fish Resources

Provides a central repository for fish, marine, and sea invertebrates to the biomedical research community. [READ MORE >>](#)

General Clinical Research Centers

Offer qualified clinical investigators specialized environments with the infrastructure necessary to conduct sophisticated patient-oriented research. [READ MORE >>](#)

Genetic Analysis Resources

Provided to qualified investigators: transgenic or knock-in mouse; hybrid strains; genetic marker analysis of non-human primates; and referral for animal models of human genetic disease. [READ MORE >>](#)

Human Tissue and Organ Resource for Research

Provides a wide variety of human tissues and organs—both diseased and normal—to qualified researchers for laboratory studies. [READ MORE >>](#)

Human Islet Cell Resource Centers

Isolates and distributes pancreatic islets to clinical investigators for transplantation into type 1 diabetic patients enrolled in approved clinical protocols. [READ MORE >>](#)

Informatics Support

Bring together in a single research teams and the power of shared resources, multiplying the opportunities to improve human health. [READ MORE >>](#)

Invertebrate Animal Resources

Models and stocks provided to qualified investigators: Drosophila; Caenorhabditis elegans; Apis mellifera; Galleria mellonella; and macroalgae containing genomic and cDNA libraries from the sea urchin. [READ MORE >>](#)

National Gene Vector Biorepository

NCRHR replaced the National Gene Vector Laboratories in June 2009 with the National Gene Vector Biorepository and Coordinating Center. [READ MORE >>](#)

Nonhuman Primates Resources

Offer qualified biomedical researchers access to non-human primates. Also provide non-human primate cells, tissues, organs, and biological fluids. [READ MORE >>](#)

Rodent Resources

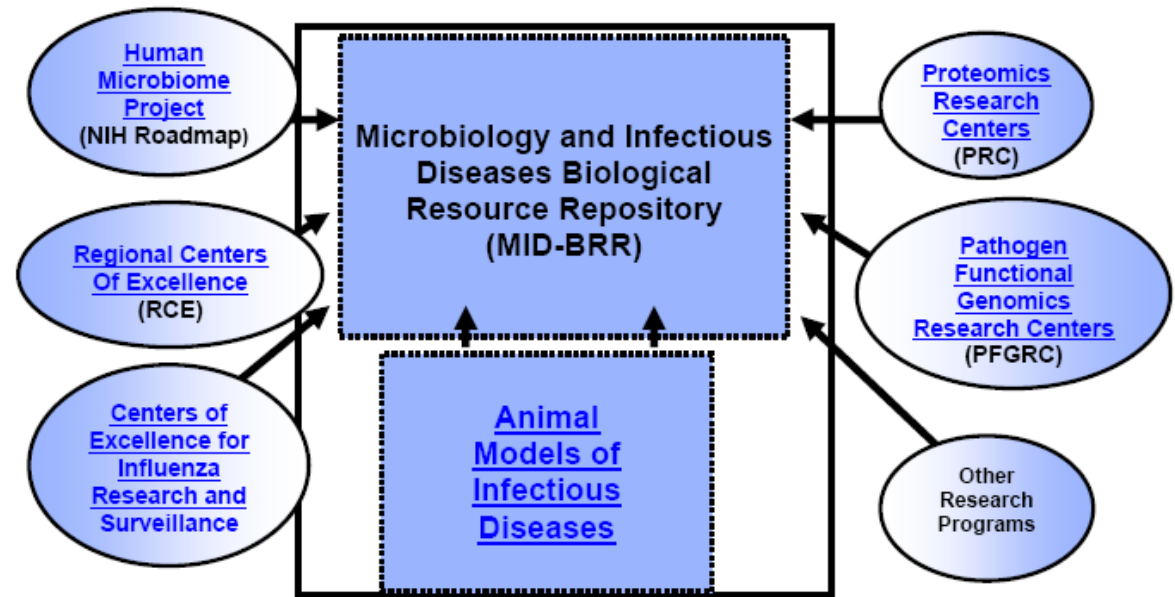
Distribute high-quality, well-characterized inbred, hybrid, and mutant rodents to qualified investigators. Also provide mouse embryonic and sperm from genetically defined strains or laboratory mice and rats, as well as other rodent resources. [READ MORE >>](#)



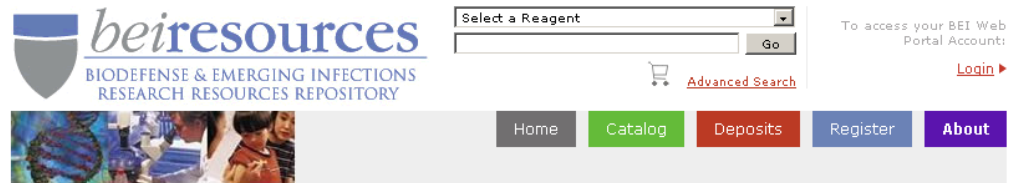
Consolidation of NIAID materials in one collection: MID-BRR

15,000 unique catalog items and more than a half million individual units

Microbiology and Infectious Diseases Biological Research Resources



Defense related materials



[About](#) » [Critical Reagents Program](#)

- BEI Resources
- ▶ **Critical Reagents Program**
- Human Microbiome Project
- Quality Control
- Requesting Reagents
- NIAID
- Resource Links
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Critical Reagents Program

The Critical Reagents Program collection is available through BEI Resources. Critical Reagent Program materials can be identified by the "DD" catalog item number prefix.

The collection includes:

- **Select agent inactivated antigens**
- **Genomic materials from traditional and non-traditional biological threat agents**
- **Monoclonal and polyclonal antibody preparations against biological threat agents**



Any scientist* who is registered with BEI Resources may request materials provided by the Department of Defense [Critical Reagents Program](#) (CRP) through the [BEI Resources online catalog](#). BEI Resources forwards the request to NIAID for approval. Upon NIAID approval and issuance of permits, reagents will be shipped to the requestor directly from the CRP production laboratory. CRP reagents are not manufactured by or stored at BEI Resources. For technical questions about CRP materials, contact the CRP office at (410) 436-2518.

*Scientists working for DOD agencies must order directly from the Critical Reagents Program and not through BEI Resources. Contact the CRP office directly at (410) 436-2518.

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Support
Provided
by NIAID

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ISBER

- NIH collections are largely allied with ISBER
- Part of American Society for Investigative Pathology
- Mostly tissue specimens

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ISBER
International Society for Biological and Environmental Repositories
A Division of the American Society for Investigative Pathology (ASIP)

ISBER News & Events

Industry News & Events

REGISTER TO ATTEND!
ISBER 2010 Annual Meeting & Exhibits
May 10-14, 2010
Rotterdam, Netherlands
De Doelen Concert Hall and Congress Centre

Join ISBER communities on:
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ISBER Newsletter: November 2009

NCI – Moving Forward: The Critical Importance of High-Quality Biospecimens in Cancer Research (video)
Cancer Research Reports
February 7, 2010

The cord connection is your lifeguard: India a favoured destination for stem cell banking, say experts
The tribune
February 7, 2010

UK Biobank
BC Forums
February 5, 2010

Vatican newspaper calls new stem cell source 'future of medicine'
Catholic Online
February 5, 2010

Monkey hybrid stem cells develop cellular features of Huntington's disease
7th Space Interactive
February 5, 2010

'Dad's death wasn't for nothing': Brain tissue bank key to research on Alzheimer's
The ChronicleHerald.ca Metro
February 5, 2010



Collection Activities and Initiatives in the US: 2010.

• NSF •



• NIH •

• USDA •

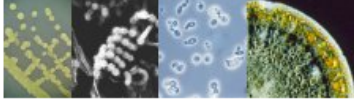
• NPMGS •



USDA Collections



United States Department Of Agriculture
Agricultural Research Service



ARS Culture Collection (NRRL)

ARS Home | About ARS | Help | Contact Us

Email this page

ARS Culture Collection (NRRL)

Welcome!

Welcome to the ARS Culture Collection (also known as the NRRL Collection) website. The Collection is one of the largest public collections of microorganisms in the world, currently containing approximately 95,000 strains of actinomycetes, bacteria, molds, and yeasts. The collection is housed within the [Bacterial Foodborne Pathogens and Mycology Research Unit](#) at the [National Center for Agricultural Utilization Research](#) in Peoria, Illinois.

This site provides information regarding the public ("open") collection of strains, which includes a searchable public access catalog for many of the holdings of well characterized strains. The site also provides information on the deposit and distribution of strains maintained in the ARS Patent Culture Collection, which is historically the first collection for strains related to patent applications in the world. The holdings of the patent strains, except for those that also serve as type strains, are not searchable, but the website provides the protocol for obtaining patent strains that are released to the scientific public.

A number of important endangered collections, including the Howard Dulmage collection of insecticidal *Bacillus* strains, the International *Streptomyces* Project (ISP) collection and the Jack Fell collection of marine yeasts, have been accessioned into the ARS Culture Collection and may be found in the online catalog. Several other endangered collections, such as the U. S. Army Quartermaster Collection of Fungi, are held here for safe-keeping but are not accessioned into the ARS Culture Collection.

NEW!

The online catalog of strains now permits users to request strains from search results and effort is being made to ensure that strains having NRRL accession numbers that are present in the published literature can be found in the online catalog. Please note that selections from each page of the search results must be added to the shopping cart before moving to a new page. Each request is limited to 12 strains (and must not exceed 24 strains per laboratory for a given calendar year) and must conform to the [ARS Culture Collection distribution policies](#). Patent strains still must be requested in writing from [Mr. James Swezey](#). The APHIS permits for distribution of strains pathogenic to plants or animals within the US can be uploaded in digital format during the strain selection process. International requests for these strains also still require either the appropriate national importation permit or documentation that no permit is needed, and these are to be uploaded during the request process. Inquiries for strains not listed in the online catalog but for which you have an NRRL accession number should also be directed to [Mr. James Swezey](#).

Updated 08-Jan-2010

ARS Home | USDA.gov | Site Map | Policies and Links
FOIA | Accessibility Statement | Privacy Policy | Nondiscrimination Statement | Information Quality | USA.gov | White House



USDA Collections

The screenshot shows the USDA Agricultural Research Service website. At the top, the USDA logo and 'United States Department of Agriculture Agricultural Research Service' are displayed. Below this is a navigation bar with links for 'Home', 'About ARS', 'Help', 'Contact Us', and 'En Español'. A search bar is located on the left side, and a 'Browse By Subject' menu is also visible. The main content area features a large banner for 'Fungi and Bacteria' with a stylized tree graphic. Below the banner, the 'ARS Collection of Entomopathogenic Fungal Cultures' is detailed, including information about the curator, location, and associated libraries.

USDA United States Department of Agriculture
Agricultural Research Service
The in-house research arm of the U.S. Department of Agriculture

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You are here: Products & Services /

Products & Services

Fungi and Bacteria

ARS Collection of Entomopathogenic Fungal Cultures

By Richard A. Humber

Location [U.S. Department of Agriculture, Agricultural Research Service, U.S. Plant, Soil, and Nutrition Laboratory](#), Tower Road, Ithaca, NY 14853-2901

Loans Cultures are distributed to recognized institutions and scientists

Associated libraries 2,000 books, journals, and reprints; across the street from the E.A. Steinhaus collection of more than 10,000 reprints on invertebrate pathogens and pathology

Number of accessions 5,500 isolates; ca. 375 fungal species from 900 hosts

Types Few in associated herbarium facility

Curator Richard A. Humber
Phone: (607) 255-1276, fax: (607) 255-1132
[e-mail](#)

[Home page](#)

Background The [Agricultural Research Service Collection of Entomopathogenic Fungi \(ARSEF\)](#) was established to provide fundamental support for basic and applied research on the fungi that attack and control insects. It was established in 1939 and is the largest collection of entomopathogenic fungi in the world.



Other USDA collections

- National Center for Genetic Resources Preservation
Fort Collins, Colorado
- Mostly plant material
- Some animal germplasm
- Increasingly serving as backup for microbial germplasm collections



Mission:

The mission of the National Center for Genetic Resources Preservation (NCGRP) is to acquire, evaluate, preserve, and provide a national collection of genetic resources to secure the biological diversity that underpins a sustainable U.S. agricultural economy through diligent stewardship, research, and communication.

[Plant Collections](#)

[Animal Collections](#)

[Genebanking Strategies](#)

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Other USDA Collections

- US Forest Service, Forest Product Laboratory, Madison, Wisconsin

United States Department of Agriculture
Forest Service

Research and Development
Forest Products Laboratory

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Center for Forest Mycology Research (Culture collection and Herbarium database)

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Research

Centers

Center For Forest Mycology Research

Culture Collection

The Reference Culture Collection at the Center for Forest Mycology Research is one of the largest assemblages of primarily Basidiomycetous fungi in the world, containing about 12,000 isolates representing about 1,500 species. Approximately 3,500 cultures are haploid isolates.

Mycologists at CFMR continuously collect new cultures of wood decay fungi as they conduct research on fungal biodiversity throughout the world. These fungi are brought back to the Forest Products Laboratory and identified by experts who specialize in particular groups of organisms (i.e. corticioid fungi, polypores, and agarics). Cultures of the freshly collected fruiting bodies are made from spores, fungal tissue, or both. DNA can be extracted from the living cultures and studied using techniques from molecular biology. Polymerase chain reaction (PCR), restriction fragment length polymorphisms (RFLPs), and DNA sequencing are used to study the relationships among and between groups of fungi. Haploid cultures are used in crossing experiments to learn about the genetics of the fungi.

Information about the cultures is catalogued in an electronic database. Cultures are then frozen under controlled conditions and maintained in liquid nitrogen to minimize genetic change and maximize longevity. A second set of "working" cultures is maintained at 4 C in sterile distilled water.

The fungi in the culture collection serve many purposes:

- Mycologists around the world who work on the classification of wood-inhabiting fungi may obtain cultures from CFMR for inclusion in their studies. By expanding their sample size, researchers can make better decisions on species relationships and limits.
- DNA sequences from our known cultures can be used to identify unknown decay fungi of concern to forest pathologists and ecologists. Many of our cultures have dried fruiting bodies associated with them so their identification to species accurately throughout the world is aided with

Sections

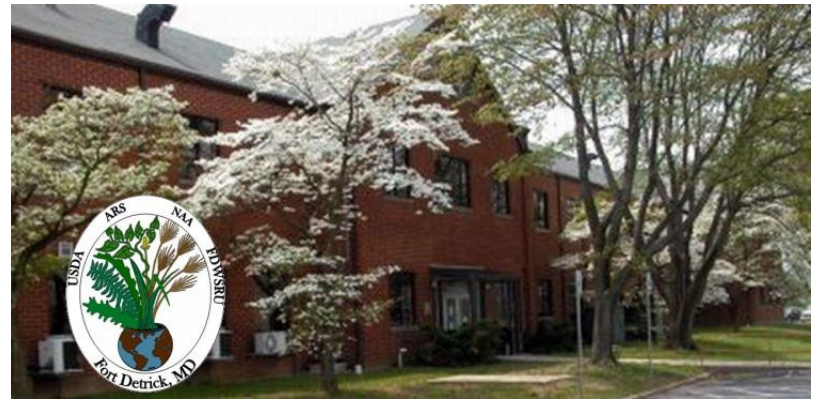
- Search the Herbarium and Culture Collection
- Culture Collection
- Herbarium



Other USDA collections

- International Collection of Phytopathogenic Bacteria

- >5000 isolates
- Ft. Detrick, MD



- National Soybean Pathogen Collection Center

National Soybean Pathogen Collection Center

(<http://nspcc.cropsci.uiuc.edu/>)

has been removed.



Other USDA collections

- Systematic Mycology and Microbiology Laboratory
- Not living specimens

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About Us

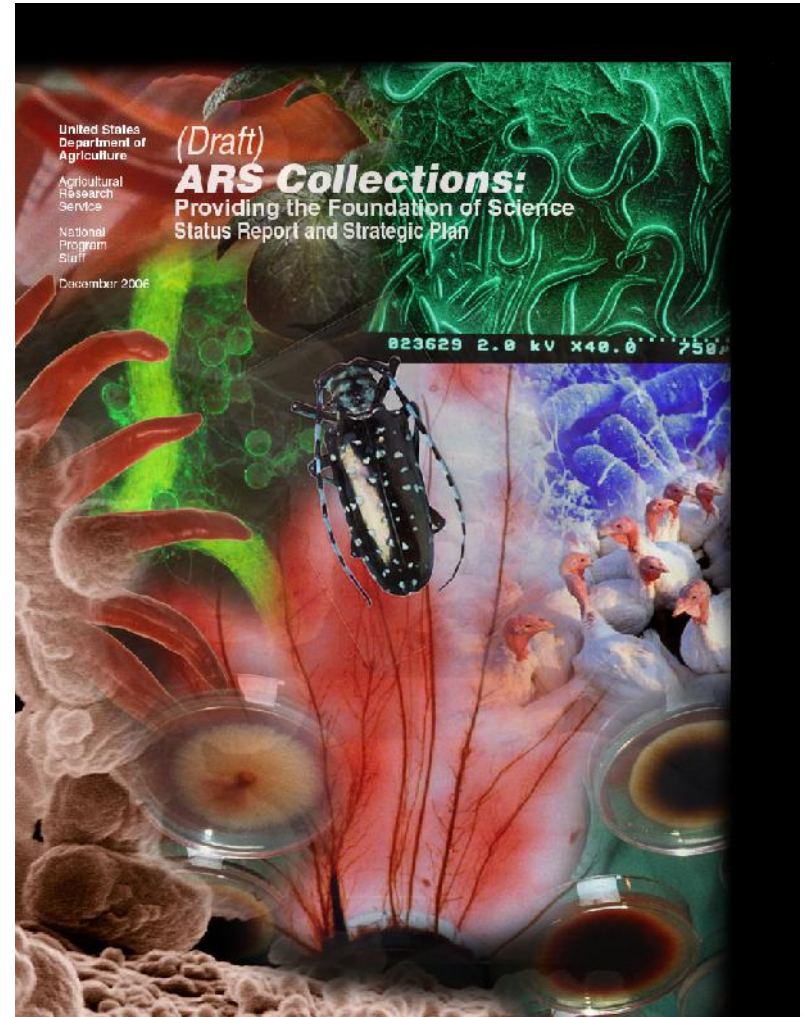
The mission of the Systematic Mycology and Microbiology Laboratory is to increase the knowledge and application of the systematics of fungi essential to solving problems in sustainable and conventional agriculture. Research emphasis is on organisms important as pathogens that threaten the production of a safe and abundant food supply and biological control agents of insects and diseases in order to reduce the need for chemical inputs in agriculture. On-line information about plant-associated fungi is provided to users through Internet access to electronic databases. The [U. S. National Fungus Collections](#) and [databases about fungi](#) serve as unique reference resources developed for use by customers throughout the world.

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USDA Collection Survey

- Range from viruses to plants in over 150 collections
- Survey identified continuity and preservation practices as two key areas for improvement
 - Nearly 100,000 fungal cultures
 - 250,000 bacterial cultures
 - Nematodes, protists, viruses



Collection Activities and Initiatives in the US: 2010.

• NSF •

• NIH •

• USDA •

• NPMGS •

•(National Plant Microbial Germplasm System) •



American Phytopathological Society/USDA Working Group



Culture Collections

- Goal: Establish a National Plant Microbe Germplasm System



Effort has been ongoing

- 2004 APS effort
 - Center for Agricultural Microbes: Pathogens, Parasites and Symbiotes

spinoplasmis **MICROBES AWAITING INCLUSION IN ARS MICROBIAL REPOSITORIES** *mycomhizae*

Ithaca (CAMPPS)	Beltsville (BRCC)	Peoria (NRRL)
fungi from invertebrates (ARSEF)	Rhizobium	bacteria
insect viruses*		actinomycetes
microsporidia*		yeasts
plant viruses*		Aspergillus/Penicillium
bacterial phytopathogens		Fusarium/other filamentous fungi
most fungal phytopathogens		Patent Culture Collection
endophytic fungi		
rust & smut fungi*		



American Phytopathological Society/USDA Working Group



Culture Collections

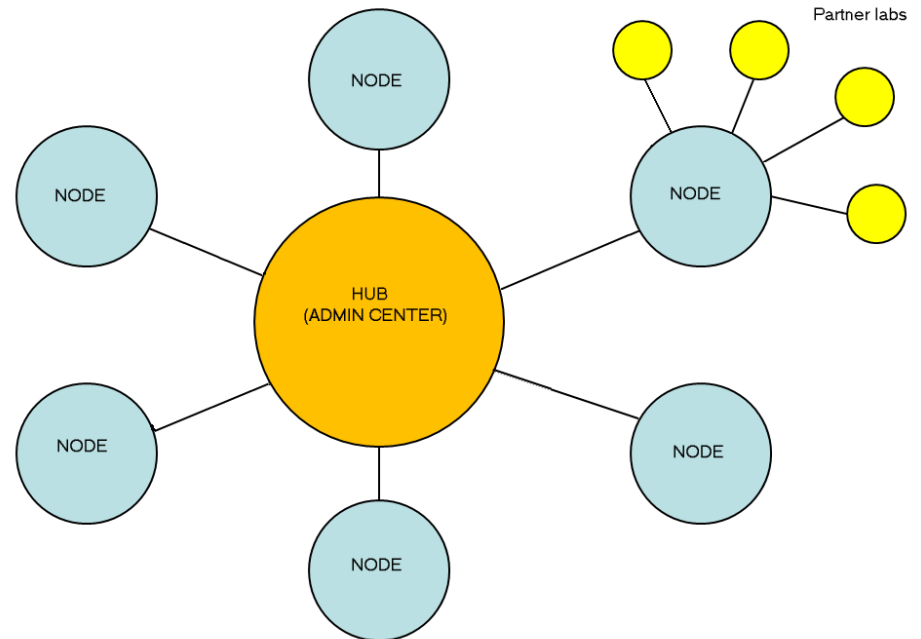
- Goal: Establish a National Plant Microbe Germplasm System
- Structure outlined, working group identified
- APS Survey identified nearly 600 independent collections



Proposed Structure of USDA System

Culture Collections

- Hub and spoke
- Nodes are existing collections



Current Status



Culture Collections

- Submitted Research Coordination Network proposal to US NSF
 - 1) Meetings of participants
 - 2) Teaching workshops as satellites of other meetings
 - 3) Development of a central website for the National Plant Microbe Germplasm Network
 - 4) Presentations at meetings and coordinated publications
 - 5) Laboratory exchange visits
 - 6) Outreach



Current Status



Culture Collections

- Submitted Research Coordination Network proposal to US NSF
 - Meeting topics
 1. Identifying partners and participants
 2. Identifying and implementing shared data format
 3. Reinforcing relationships with domestic and international partners
 4. Defining a structure for long term funding
 5. Establishing a strategy for assuring continuity of accomplishments of the RCN



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- US National Science Foundation
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