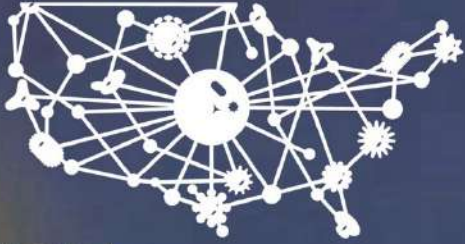


UNITED
STATES
CULTURE
COLLECTION
NETWORK



CONFERENCE 2026

*From Preservation to Innovation:
Connecting Microbial Collections
to Advance Science*

Providence, Rhode Island, USA – July 31





Welcome

Agenda

- Welcome & Opening Remarks
- Participant Introductions
- USCCN Overview
 - Fun engagement opportunity
- 4 thought-provoking session topics
 - ☐ Challenges & Opportunities
 - ☐ Success Stories
 - ☐ Collaborations Across Collections
 - ☐ Future of USCCN

Workshop Reminders

- Please silence cell phones
- Give speakers our undivided attention
- Engage in session topics; ask questions
- Networking opportunities:
 - ☐ Coffee and lunch breaks
 - ☐ Tonight's reception



Thank you to our Sponsors

Conference sponsors

- Oklahoma State University
- Phytobiomes Alliance

Reception sponsor

- ATCC



Participant Introductions

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THE U.S. CULTURE COLLECTION NETWORK – AN OVERVIEW

Dusti Gallagher
Project Manager



A NSF-funded Research Coordination Network

Bringing together scientists working with living microbe collections

A partnership with the
International Phytobiomes
Alliance for Research



Vision

USCCN seeks to optimize the quality and availability of microbial resources and become a central resource for U.S. microbe culture collections and their users

Mission

Facilitate the safe and responsible utilization of microbial resources for research, education, industry, medicine, and agriculture for the betterment of humankind by providing opportunities for U.S. culture collection workers to engage with each other and with the broader culture collection community.



Structure

Steering Committee

Identifies priorities for achieving vision and mission of the network and oversees the day-to-day activities.

Operating Committees

Lead and coordinate specific activities.

Steering Committee

Collections Registry

Standards & Procedures

Communications, Outreach & Education

Networking

Strategic & Long-term Planning

Membership

Why We are Here

We need your help planning

- Create Links to Broader Scientific Community
- Engage Research Collections
- Expand Communication
- Foster Alliances and Collaborations
- Provides Infrastructure for Orphaned and Endangered Collections
- Develop Best Practice Guidelines, Protocols, and Procedures



History of Support

- Limited support for:
 - ❖ agriculturally related, plant associated microbes
 - ✓ Exception: yeast & fungal collections
 - ❖ Back-ups
 - ❖ Preservation methods
 - ❖ Community coordination
- Raising awareness began
 - ❖ American Phytopathological Society (APS) Collection Committee

Background



1950: NSF established

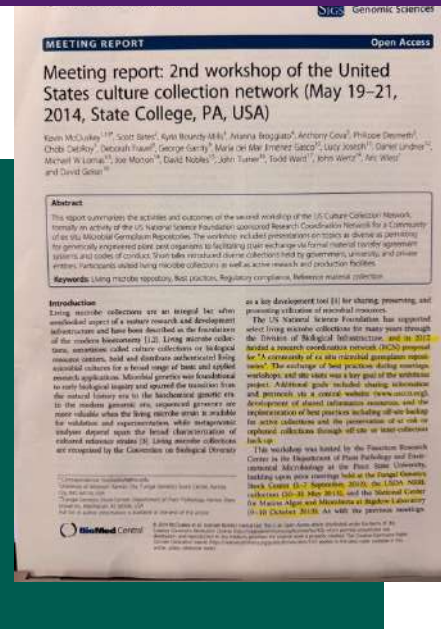
1970s: LSCBR provides long-term salary support

2000: Research Coordination Program began

2012: USCCN formed - 1st agriculturally related RCN that NSF funded

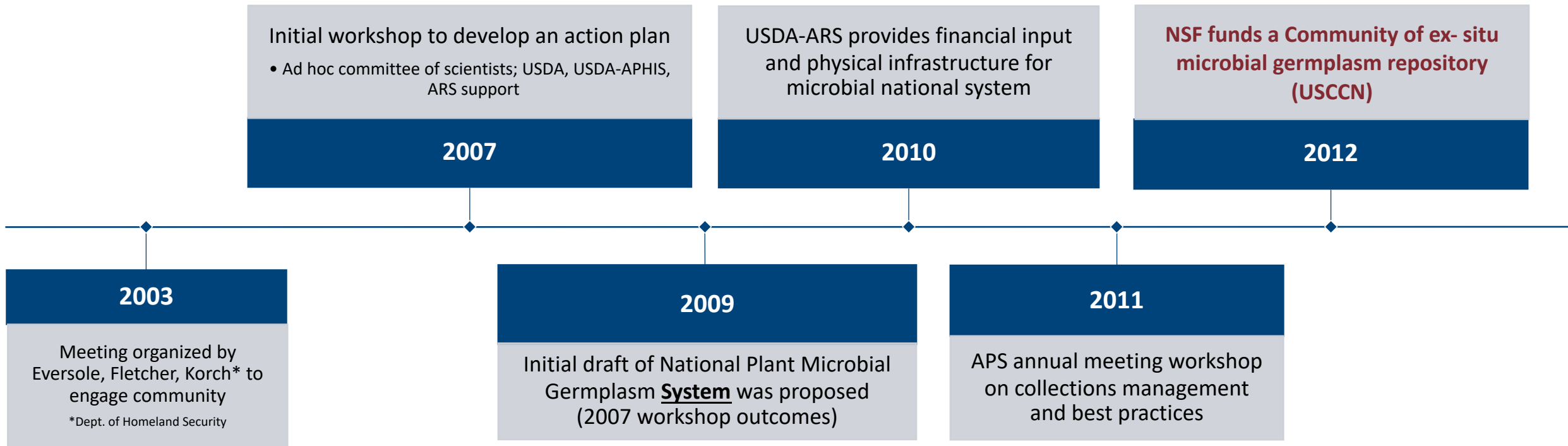
2022: USCCN 2.0

2027: USCCN 2.0 completes grant; prepares to be self funded



Pre-Network Events

Timeline



“composed of items acquired for scientific study rather than simply for historic or artistic value”

“provide an excellent return on the taxpayers’ investments”

- Engaged the living collection U.S. community more broadly
 - **Visited U.S. collection centers;** Held meetings, workshops, webinars
 - Promoted best practices
- Launched initial engagement with global community
 - Global meetings: WFCC, MIRRI, International Culture Collection Conference, World Data Centre for Microorganisms)



- Specimen use in genome sequencing projects
- Endangered collection preservation action
- Data standards, cryopreservation & other backup methods

First USCCN meetings

Accomplishments



*Fungal Genetics Stock Center
University of Missouri, Kansas City, MO
September 6-7, 2012*



*National Center for Agricultural
Utilization Research, Peoria, IL
May 30-31, 2013*



*National Center for Marine Algae and Microbiota at
Bigelow Laboratories, East Boothbay Harbor, ME
October 8-10, 2013*

Round 2 Funding Sought

Timeline (cont.)

NSF funds a Community of ex- situ
microbial germplasm repository (USCCN)

2012-2020

No-cost time
extension

Finished grant
reporting



Website facelift
Initiated registry
Wrote grant
proposal

Year 5 of 5

*Funding ends March
2027*

TODAY

2022-2027

USCCN 2.0
NSF funds expansion of activities



2022-2027

NSF supports new 5-year plan: USCCN 2.0

Aims

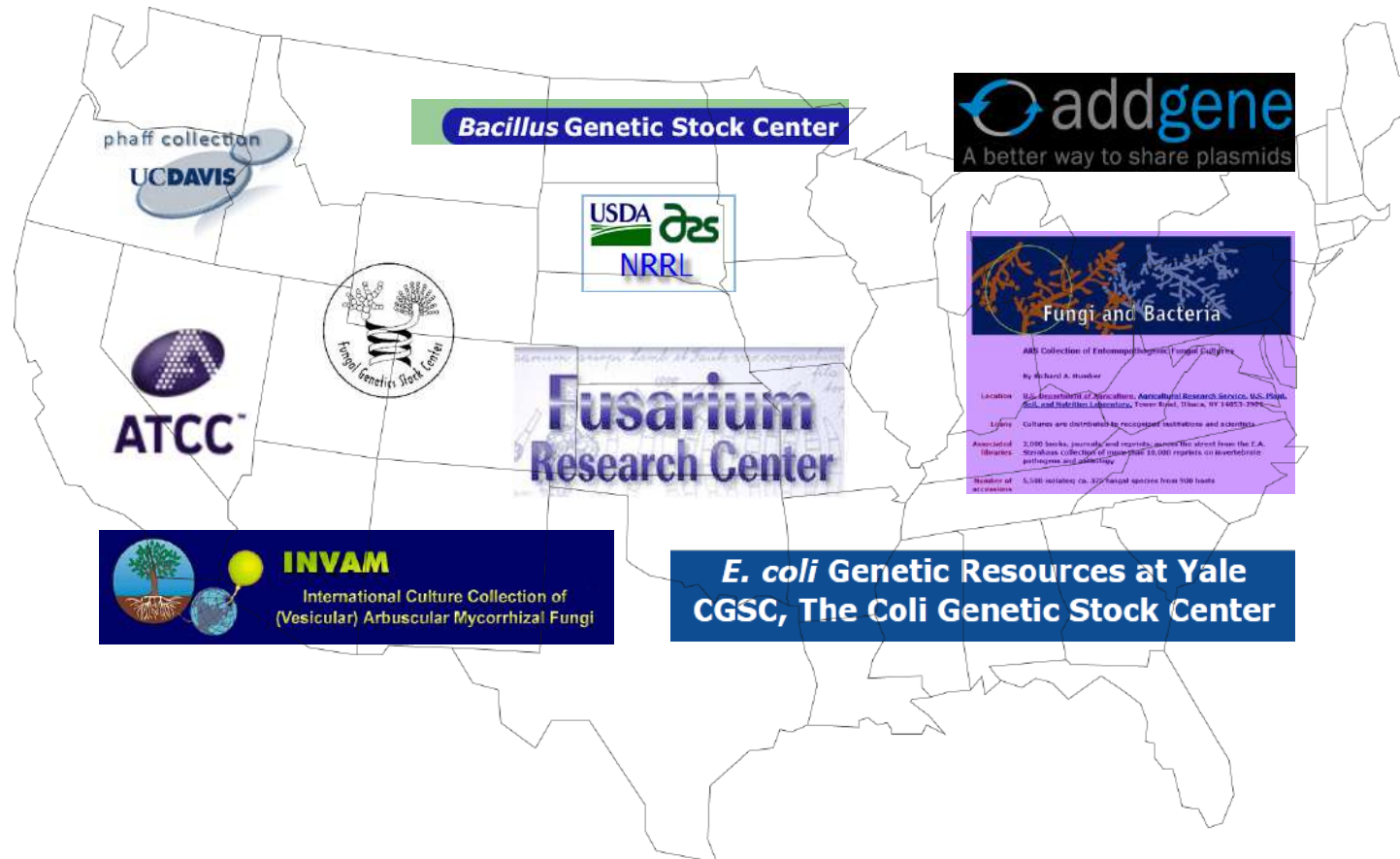
1. Increase participation in USCCN
2. **Cultivate long-term viability of USCCN and participating collections**
3. Enhance links with other collection registries and repositories

Objectives

- Create and maintain a registry of U.S. microbe collections
- Develop best practices guidelines, protocols, standard operating procedures, and other resources
- Develop processes and methods for preserving orphaned or endangered collections
- Strengthen and expand contacts among U.S. and international collections and users
- **Explore sustainable mechanisms for long-term structure and support**



U.S. Culture Collections Today



While the U.S. has numerous collections, there is no uniform system for locating & supporting microbial germplasm repositories

USCCN 2.0: Major Focus

A Public Registry & Database of U.S. Collections to Maximize Synergy and Minimize Duplication

- Documents the location, size, and holdings of collections
- Curated & updated
- Collections of all types are represented
- Includes small research collections at universities, as well as collections from government agencies, private industries, and nonprofit organizations



**Voluntary information in an open registry stored at usccn.org
Publicly available via an online searchable database
Register your collection at usccn.org/culture-collections**



USCCN 2.0 - Year 5 of 5

Report Card

Objectives	Activity	Grade
Setting the stage	2020 – Pre USCCN 2.0 grant • Proposal submission • Website & social media refresh • Began online registry • Organized, created structure • Initiated Steering Committee, operating committees	A
Create, maintain registry	• Revised registry (YR 1) • Launched registry (YR 2) • Outreach & promotion (YR 2-5) • Social media • Direct emails • Individual invites • Booth exhibit at ASM Microbe (YR 3) • Scientific & industry meetings, conferences (YR 2-5)	A-
Best practices, guidelines, protocols, SOPs	• Education & Outreach (YR 2-5) • Developed, wrote, published articles & blogs • Hosted webinars • Engaged with NSF, other agencies, other organizations on proposed SMP	B



USCCN 2.0 – Year 5 of 5

Objectives	Activity	Grade
Orphaned/endangered collections - preservation processes, methods	Connected vulnerable collections with other collections with expertise, capacity (YR 2-5)	B-
Strengthen, expand contacts with other collections – U.S., abroad	- Revived the J. Roger Porter Award (YR 2-5) - MOU with MIRRI-ERIC (YR 1) - Horizon Europe M4C project collaborator - Active engagement - AIBS, NSCA, BCoN, ICPP, BBMRI, UKBRC, ECCO, GBIF, GRSciColl, WDCM, ATCC, Addgene, JGI, CABI, Gingko Bioworks - Hosted 3 workshops (YR 2-4)	A+
Explore sustainable mechanisms for long-term structure, support	- Strategic & Long-Range Planning committee discussions (YR 2-5) - Hosted 3 workshops (YR 2-4) - Today's Year 5 Conference	B



FUTURE ROADMAP

TODAY'S CHALLENGE

- Active Participation & Engagement
 - ✓ What is needed from the network?
 - ✓ Suggestions for funding & sustainability

- It's important because:
 - ✓ Ag producers need choices for preparedness
 - ❖ Biologicals, other tools
 - ❖ Understand threats & address them
 - ❖ Understand opportunities & succeed
 - ❖ **RESEARCH SOLUTIONS: ACCESS TO MICROBIAL COLLECTIONS**





Join the Conversation

We'll be using Slido throughout the day for live polls

 Scan the QR code or
 visit slido.com and enter: #1941307

Please join now.



slido.com
#1941 307



Poll #1 – Who's in the Room?

What best describe your role today?



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PLACEHOLDER – POLL #1 results

Poll #2

In one or two words: what's the biggest challenge facing microbial collections right now?



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PLACEHOLDER – POLL #2 results

Thank You



usccn.org



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us-culture-collection-network



@USCCN3



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Session 1: Challenges and Opportunities with Microbial Collections

Moderator



Andrew Newman
Ginkgo Bioworks

Presenters



Jonathan Jacobs
ATCC



Ryan McCann
Ginkgo Bioworks



Thomas Roder
Abrinca Genomics



Maciej Wiatrak
University of
Cambridge