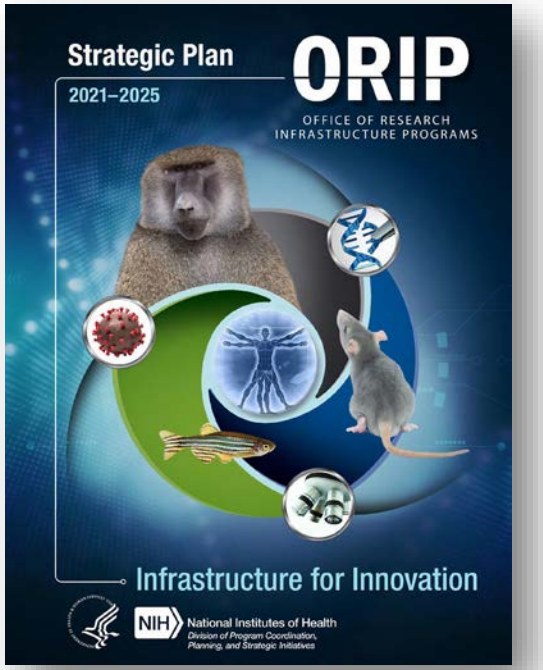
ORIP Strategic Plan 2026–2030

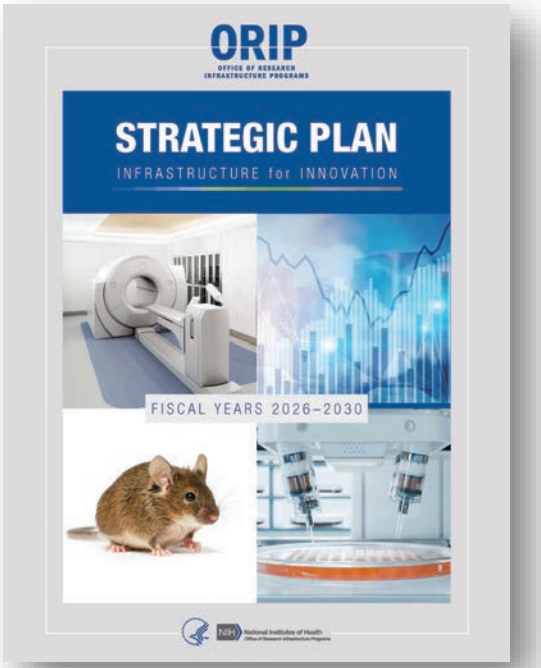
Franziska Grieder, DVM, PhD
Director, ORIP, DPCPSI

National Institutes of Health
Office of Research Infrastructure Programs

ORIP Vision

Advancing the nation's biomedical and biobehavioral research through rigorous models and biomaterials, modern instrumentation and sustainable physical infrastructure, and human expertise.





ORIP's Guiding Principle: Infrastructure for Innovation

- ORIP awards grants to support research resources, such as models for human disease and cutting-edge biomedical instrumentation.

- ORIP plans, organizes, and conducts workshops—both independently and in collaboration with NIH institutes, centers, and offices (ICOs)—to identify and pursue scientific opportunities.

- ORIP supports research training opportunities for biomedical scientists to capitalize on their distinct perspective and expertise based on a deep understanding of comparative medicine and insight into models for human diseases.

Alignment with NIH Priorities

- ORIP's new strategic plan is aligned with NIH's key priority areas:
  - Focus on human health
  - Emphasis on replicability and generalizability of research
  - Promotion of innovation and academic freedom
- ORIP plays a key role in advancing these priorities by investing in foundational infrastructure that supports research outcomes, as well as enabling progress across the research continuum—from basic discovery to real-world implementation.

Current Challenges in the Biomedical Landscape

- Investigators are facing new, complex needs in the biomedical research ecosystem:
  - Fostering reproducibility and rigor in science
  - Promoting the integration of new approach methodologies (NAMs)
  - Upgrading aging and obsolete research infrastructure
  - Addressing new opportunities and challenges due to the rapid changes in data science
- ORIP's deliberate, strategic planning for adaptable infrastructure will support a wide range of current and future research needs.

ORIP's Organizational Structure

- Division of Comparative Medicine (DCM)
  - Vertebrate and Invertebrate Models
  - Complimentary Models and New Approach Methodologies
  - Genetic, Biological, and Information Resources
  - Training and Career Development
- Division of Construction and Instruments (DCI)
  - Extramural Construction Programs
  - S10 Instrumentation Programs
  - S15 Equipment Program
- Small Business Programs (SBIR/STTR)

ORIP's Strategic Planning Process

ORIP Staff Retreat

August 2023

Focus and Advisory Groups

July 2024–May 2025

Strategic Plan Draft

August 2025

NIH Council of Councils

September 2025

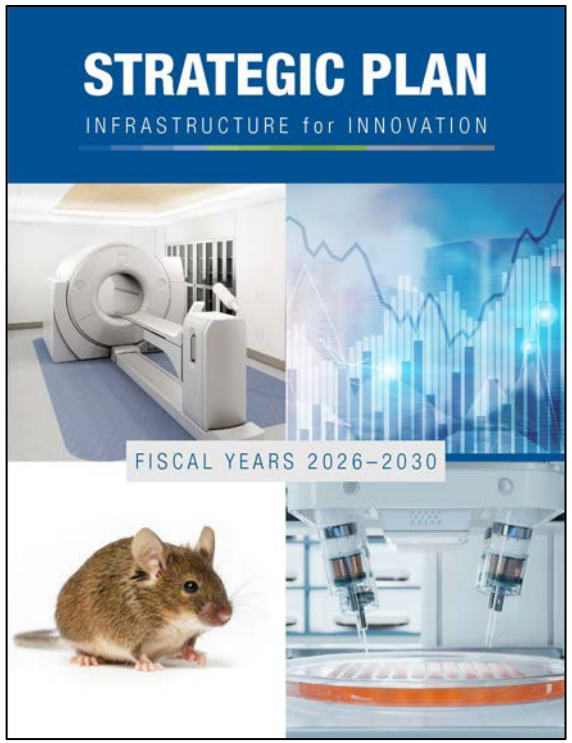
ORIP's Strategic Priorities

Capacity Priorities

- **Priority 1:** Model Resources to Advance the Study of Human Diseases
- **Priority 2:** Modern Physical Infrastructure to Accelerate Research Discoveries in Human Health and Disease
- **Priority 3:** Innovative Cross-Disciplinary Research Training in Model Systems for Human Health and Diseases

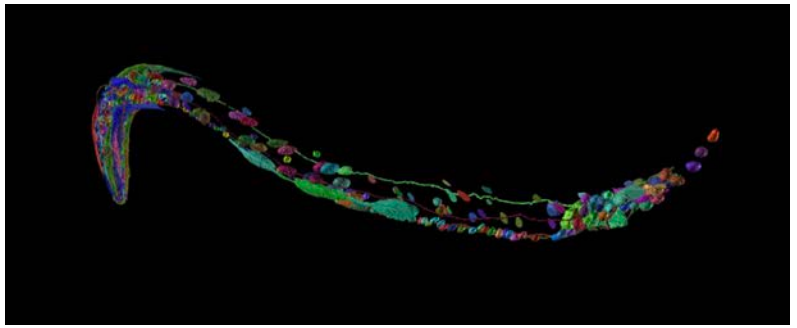
Operational Priority

- **Priority 4:** Expanding Outreach and Awareness of ORIP Resources and Programs



Priority 1: Model Resources to Advance the Study of Human Diseases

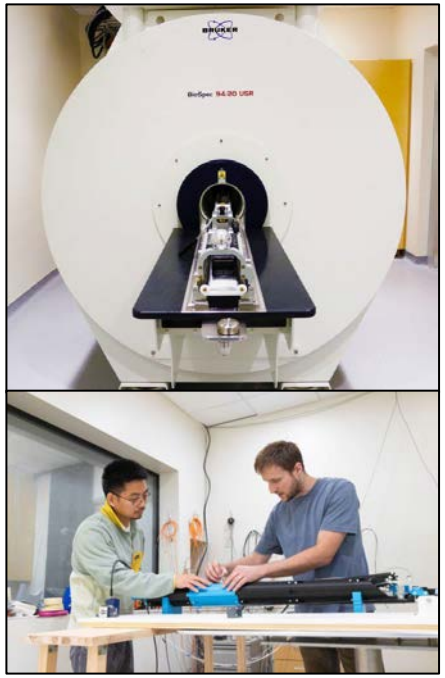
- **Priority 1.1:** Develop research models, biomaterials, and technologies to address emerging population health needs, prevent disease, promote health, and advance foundational science.
- **Priority 1.2:** Expand access to a broad range of research models, resources, and services—with high transparency standards and comprehensive data—to strengthen rigor and reproducibility in biomedical research.



A 3D model of a larval C. elegans *where each cell is annotated based on a full-length electron microscopy reconstruction. Image credit: Worm Atlas.*

Priority 2: Modern Physical Infrastructure to Accelerate Research Discoveries in Human Health and Disease

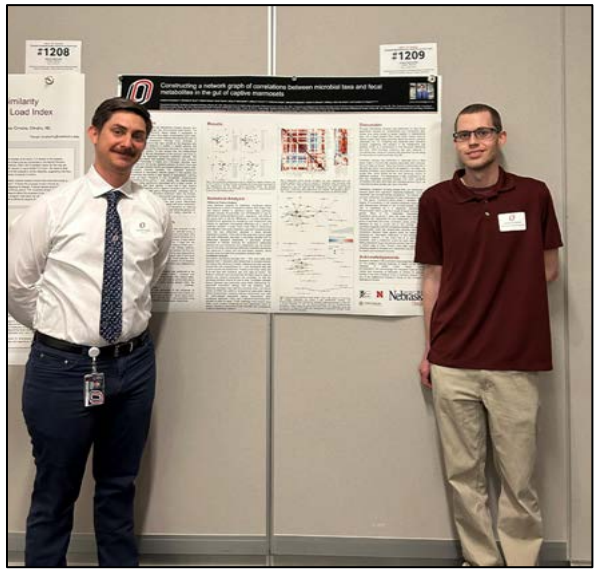
- **Priority 2.1:** Support the acquisition of state-of-the-art scientific instrumentation.
- **Priority 2.2:** Support the acquisition of equipment for the modernization of laboratories and other shared research-supporting facilities.
- **Priority 2.3:** Construct or modernize biomedical research facilities.



A 9.4T MRI scanner funded by ORIP's S10 programs. Image credit: The University of North Carolina at Chapel Hill.

Priority 3: Innovative Cross-Disciplinary Research Training in Model Systems for Human Health and Diseases

- **Priority 3.1:** Promote innovative approaches for integrated career development of biomedical researchers involving interdisciplinary teams.
- **Priority 3.2:** Advance career development of scientists that aligns with the management and use of comparative medicine resources.



Dr. Jonathan B. Clayton and Mr. Jordan B. Hernandez at a research conference. Image credit: University of Nebraska Omaha.

Priority 4: Expanding Outreach and Awareness of ORIP Resources and Programs

- **Priority 4.1:** Strengthen outreach to the biomedical research community.
- **Priority 4.2:** Expand collaborations with NIH ICOs and federal agencies.
- **Priority 4.3:** Promote ORIP's impact to the public and strategic partners.

ORIP staff present information on S10 Shared Instrumentation program

ORIP's Crosscutting Themes

- Conducting Responsible Stewardship to Maximize Research Efficiency
- Enhancing Scientific Transparency, Rigor, and Reproducibility
- Strengthening Resources and Infrastructure for Health Research
- Promoting Research and Training Opportunities

Conducting Responsible Stewardship to Maximize Research Efficiency

- ORIP has successfully leveraged collaborations across NIH and other federal agencies to fund research that focuses on shared strategic priorities and maximizes the return on scientific investments.
- ORIP is managing and maximizing NIH investments in biomedical research by identifying current research gaps and recognizing opportunities for growth.
- ORIP monitors innovative opportunities to invest in, such as NAMs, that will advance its mission in an efficient and cost-effective manner.

Enhancing Scientific Transparency, Rigor, and Reproducibility

- ORIP supports independent replication studies and validates new technologies to enhance research impact by collecting, maintaining, and distributing well-characterized research resources and providing services for basic, preclinical, and translational research studies.

- ORIP's centralized repositories provide research resources that help optimize and enhance scientific rigor, transparency, and reproducibility of biomedical research through robust infrastructure, well-trained personnel, and biomedical expertise to ensure health and genetic quality control and adherence to standards.

Strengthening Resources and Infrastructure for Health Research

- ORIP invests in model resources that are critical for explaining the complex biological mechanisms underlying many chronic diseases across populations.
- ORIP also invests in research that studies the effects of intrinsic factors—including sex, age, and genetic background—by modernizing biomedical research facilities.
- ORIP-funded researchers have access to state-of-the-art technologies and instruments to facilitate scientific studies that span these critical areas of human health.

Promoting Research and Training Opportunities

- ORIP invests in multiple programs to advance the careers of scientists engaged in basic and translational research. These researchers possess specialized expertise in the application of models and related resources.
- ORIP facilitates research training by supporting infrastructure updates to shared resource centers, outreach to the biomedical research community, and policy implementation to foster new collaborations.
- Through these efforts, ORIP promotes training at all levels, including investigators, students, research technicians, and other laboratory staff.

Contact Us

Office of Research Infrastructure Programs

Division of Program Coordination, Planning, and Strategic Initiatives

Office of the Director

National Institutes of Health

6700B Rockledge Drive, Suite 4400

MSC 6931

Bethesda, MD 20892-6931 (20817 for express mail)