



# ODSS-NHLBI Collaboration

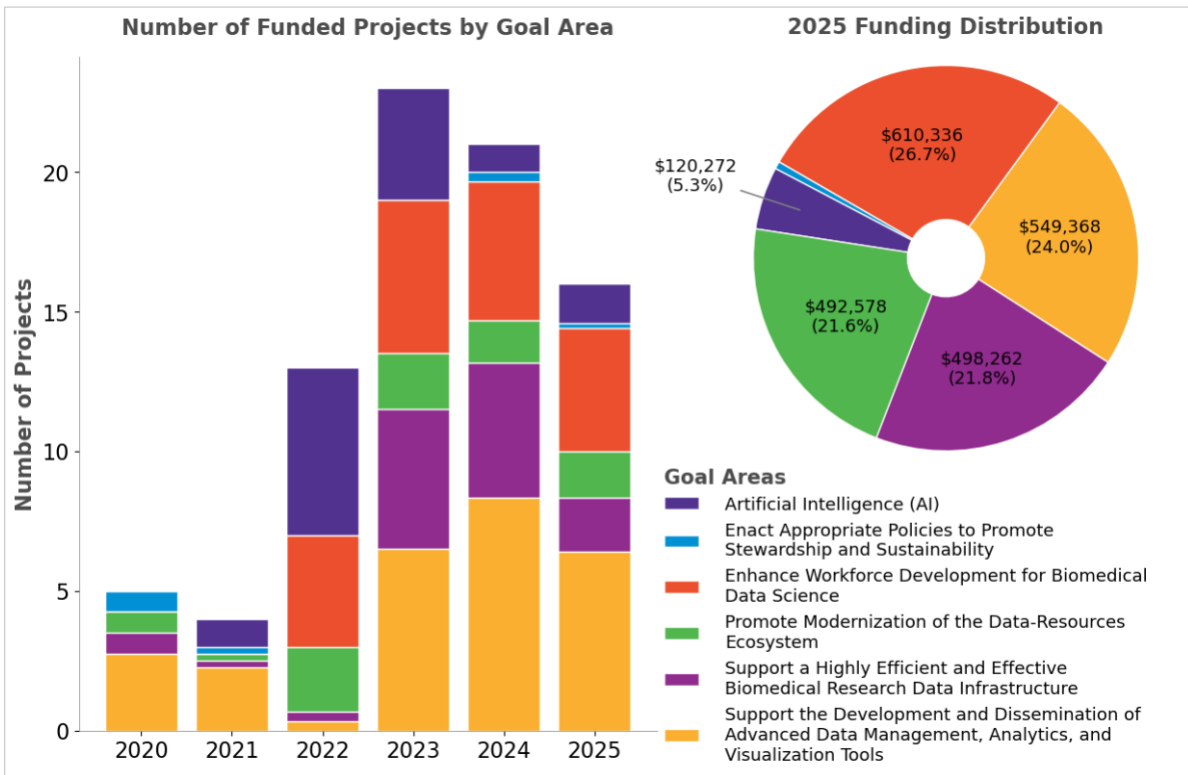
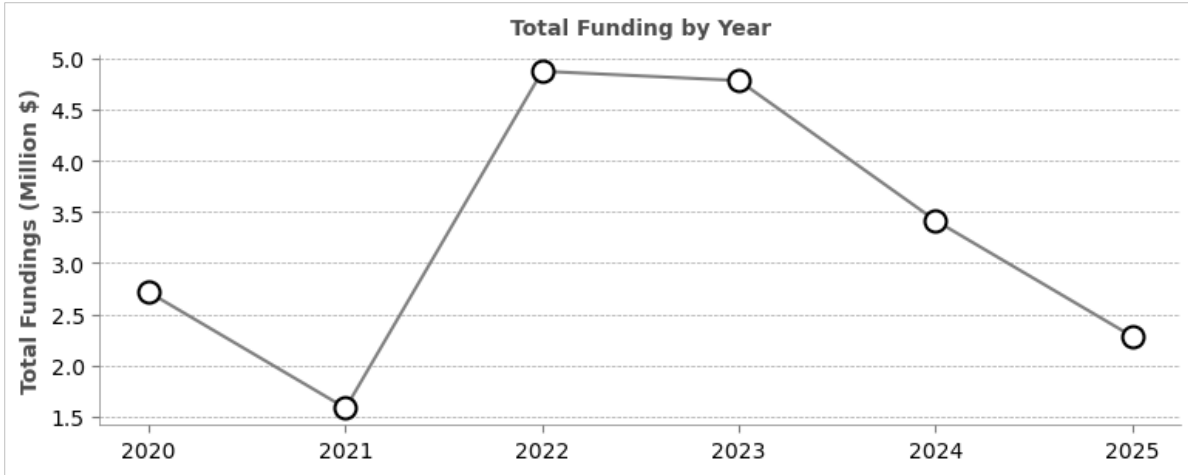
2025



# 2025 ODSS Funding for NHLBI

In 2025, ODSS provided \$2,285,403 in funding to NHLBI, supporting 16 co-funding awards across 6 goal areas.

- **Funding Trend:** Funding surged in 2022 and 2023 and has since fallen to above 2021 levels.
- **Strategic Goal Trends:** NHLBI and ODSS have consistently partnered to develop advanced tools, with data infrastructure, AI and workforce development efforts making up significant shares in recent years.



## Co-funding Highlights

- **Computational Medicine in the Heart, Integrated Training Program (Grant #: 5 T32HL166155-03).** ODSS provided \$318,080 to NHLBI to support this new multidisciplinary T32 program at Stanford to provide cutting-edge training for postdoctoral fellows. This co-funding supports one goal area — workforce development.
- **Research Software Engineering Support for The Simvascular Open-Source Project (Grant #: 1 R50HL181976-01).** ODSS awarded \$154,000 to NHLBI to support development of SimVascular, a vibrant and growing open-source software project for modeling blood flow and biomechanics in the heart and circulatory system. This co-funding supports one goal area — advanced tools development.
- **SCH: AI-Guided Intraoral Multimodal Active Sound Sensing for Advanced Pulmonary Function Characterization (Grant #: 1 R01HL184140-01).** ODSS provided \$150,000 to NHLBI to support the development of a novel, non-invasive, AI-based smart pacifier device for real-time, continuous respiratory monitoring, particularly for neonates. This co-funding supports one goal area — advanced tools development.



<sup>1</sup> Data sources: QVR and iTools. Fiscal Years: 2020-2025. These are output numbers associated with core awards, filtered to include only outputs that occurred after an ODSS-associated application was funded.

<sup>2</sup> (Collaborative support from CIT and ODSS) The NIH Science and Technology Research Infrastructure for Discovery, Experimentation, and Sustainability (STRIDES) Initiative is a partnership with commercial cloud service providers (CSPs) to allow NIH-supported researchers to affordably explore the use of cloud services and environments to streamline NIH data use.

<sup>3</sup> To enhance NIH workforce training, ODSS collaborates with NLM to fund and manage the NIH Coursera Program that offers a limited number of free Coursera licenses to NIH staff. Over the course of FY25, there were a total of 1388 Coursera users, covering all 27 ICs. Please note that Coursera paused on 9/6/2025 due to contract processing delay but will restart as soon as acquisition is processed in the new fiscal year.

<sup>4</sup> ODSS, in collaboration with OD, CIT, NHLBI, and NIA, developed an NIH community pilot LLM chatbot called [ChIRP](#). ChIRP is funded by ODSS and OIR, aiming to create a secure environment for NIH staff to safely explore how generative AI technologies. As of November 2025, ChIRP had 863 active users.

<sup>5</sup> (Collaborative support from CIT and ODSS) The NIH Researcher Auth Service (RAS) is part of NIH's efforts toward a modernized, FAIR, biomedical data ecosystem. RAS facilitates access to participating NIH data assets and repositories in a consistent, secure, and user-friendly manner and provides researchers with a single sign-on experience.

<sup>6</sup> ODSS sponsors the Data and Technology Advancement (DATA) National Service Scholar Program to recruit and engage advanced data science experts to come to the NIH for one or two years and help tackle challenging biomedical and health data problems. ODSS in collaboration with the General Services Administration's U.S. Digital Corps (USDC) in the DataPath Fellow Program to recruit and engage early career data professionals. DATA Scholars and DataPath Fellows are supported 50% by ODSS and 50% by the ICO where they are matched.

## Collaboration Highlights

- ODSS supported NHLBI's BioData Catalyst (BDC), a multi-platform data ecosystem, to implement comprehensive security protocols for RAS to enable both authentication and authorization.
- ODSS led NIH-wide collaborations to develop and implement common data elements (CDEs) in priority areas such as chronic, autoimmune, and immune-mediated conditions. ODSS collaborated with NHLBI for the following CDE projects:
  - HeartShare DeCODE-HF: Data translation center to Combine Omics, Deep phenotyping, and Electronic health records for Heart Failure subtypes and treatment targets
  - Common Data Elements (CDE) for Indigenous Determinants of Health: The Strong Heart CDE Study
- ODSS, in collaboration with OIR, OD, CIT, NHLBI, and NIA, developed and implemented a NIH community pilot LLM chatbot called [ChIRP](#) to create a secure environment for NIH staff to safely explore how generative AI technologies.
- Dr. Alan Remaley from NHLBI and Dr. Joe Marcotrigiano from NIAID published [an article in Nature](#), revealing for the first time how the main structural component of low-density lipoprotein (LDL) binds to its receptor—a key process that initiates the clearance of LDL from the bloodstream. The NIH STRIDES and the funds provided through the ODSS High-Value Datasets program significantly accelerated the research by offering immense computational power.