

An in-depth overview of the Genome Technology Program at NHGRI

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Abstract

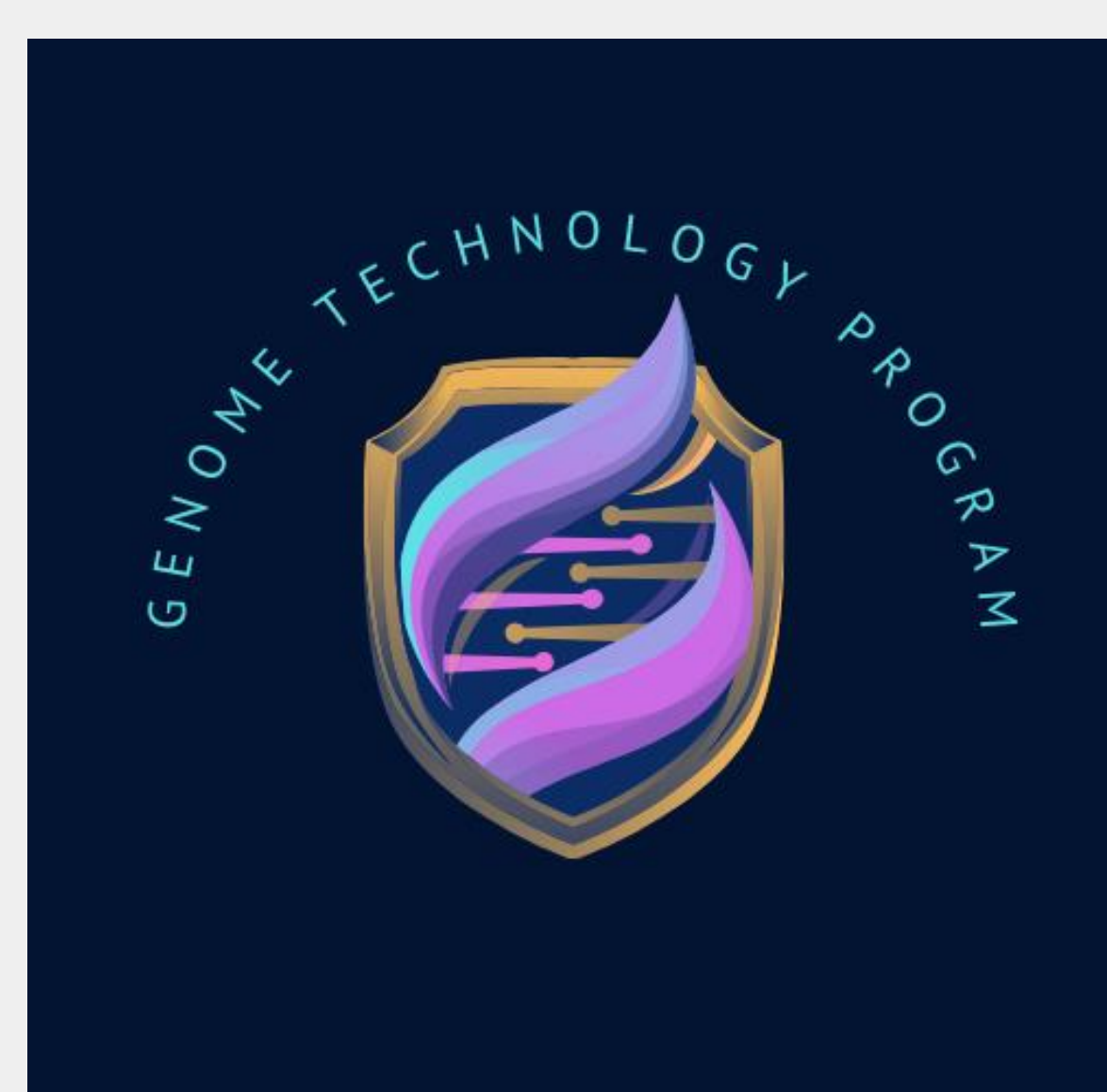
The **Genome Technology Program (GTP)** supports cutting-edge research that innovates and develops novel methods, technologies, and systems focused on enabling rapid, low-cost determination of nucleic acid sequence and genotyping along with epigenetic, functional, and synthetic genomics experiments. Moreover, GTP research that builds on current genomic technologies aims to increase efficiency and decrease cost while maintaining or improving data quality and process integration. The GTP also supports technology transfer and coordination, strengthening the developer-user pipeline, while also promoting collaborative efforts that coalesce projects in both academia and industry.

The Technology Development Coordinating Center (TDCC), a component of the GTP, enhances the joint interactions among grantees and drives technology innovation. The TDCC is a facilitation body that organizes genomic technology events/webinars, disseminates relevant information about program advances, and develops resources to share with the community.

As the GTP prepares for the future, it will continue to focus not only on the importance of innovation and goals that will advance genomic technology, but also on cross-program collaborations at NHGRI including the Small Business program.

Acknowledgements

Special thanks to the Technology Coordinating Center and our colleagues at The Jackson Laboratory for all their help in organization of TDCC events and dissemination of valuable GTP information to our grantees.



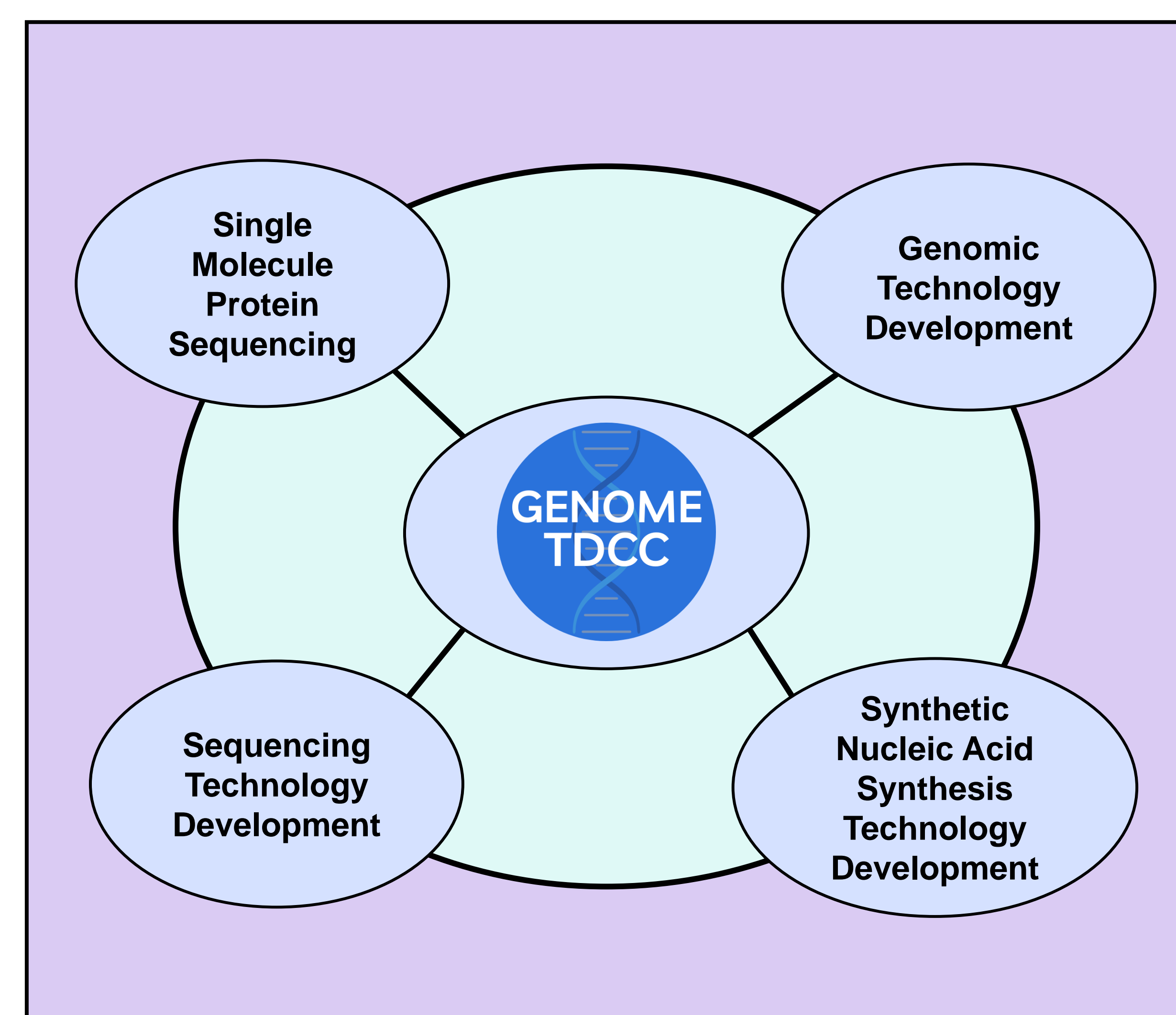
Program Goals & Objectives

- ❖ Develop novel approaches and cutting-edge genomic research
- ❖ Coordinate the combined efforts of numerous genomic technologies
- ❖ Promote and support work that moves the field of genomics beyond the likely next steps in technological advancement

Genome Technology Program Structure

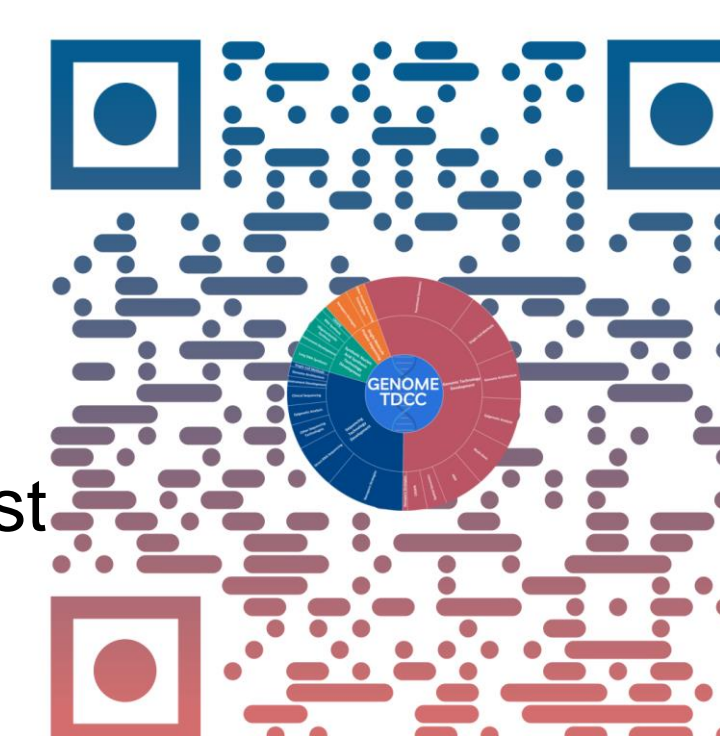
Active Programs as of July 2023:

Genomic Technologies- 33
Nucleic Acid Sequencing- 21
Single-Molecule Protein Sequencing- 9
Nucleic Acid Synthesis- 10



Scientific working groups meet every month with the following goals:

- Extend interactions beyond the Annual Meeting through regular monthly meetings
- Support collaboration around areas of shared interest
- Promote development of standards
- Facilitate community outreach
- Manage Opportunity Funds



Scan me for an interactive GTP experience!

Active GTP Funding Opportunities

NOT-HG-21-018: Advancing Genomic Technology Development for Research and Clinical Application
(R01, R21, R41, R42, R43, R44)

Small Business Opportunities within the GTP



U.S. Small Business Administration

NIH: **\$1.3 billion** in congressionally mandated small business funding



SBIR (R43/R44)

- Focus: **innovation research**
- Funding may be obtained **with or without** an academic partner
- PI must be employed by the **small business**

STTR (R41/R42)

- Focus: **technology transfer**
- Requires **partnership** with U.S. nonprofit research institution
- PI can be employed by the **small business** or the **academic institution**

SB Funding Opportunities:
PA-23-230, PA-23-231, PA-23-232, PA-23-233, PA-21-345, PAR-23-219, PAR-22-073

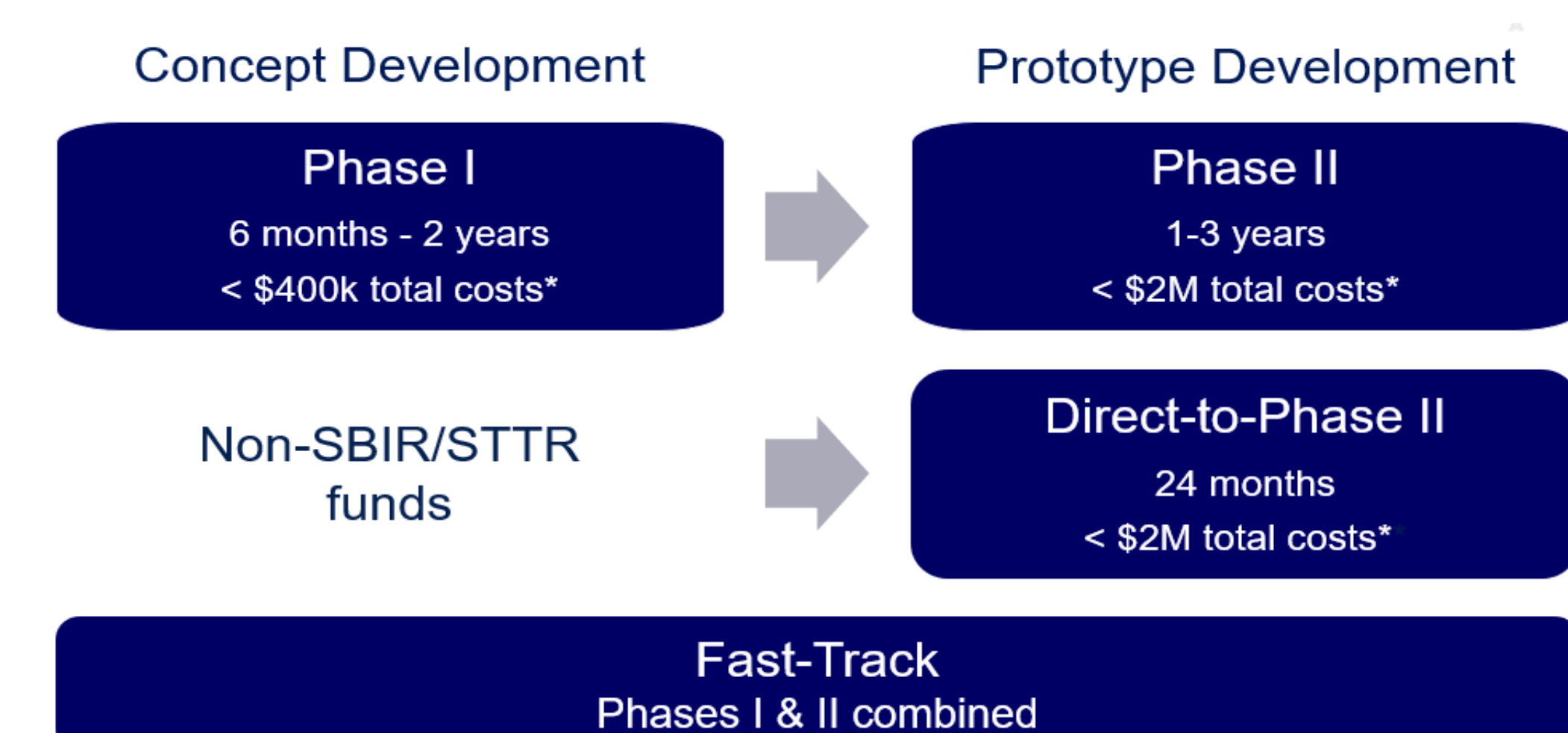
Total # of SB Grants in the GTP (2019-Present)
= **22 (7 Active)**

Some GTP grants have converted into Small Business grants, and we are currently working to visualize these numbers

The dissemination and adoption of genomic technologies is a goal of this program. Commercialization is an avenue of dissemination strongly supported by NHGRI.

The SB program supports genome (or transcriptome)- focused projects

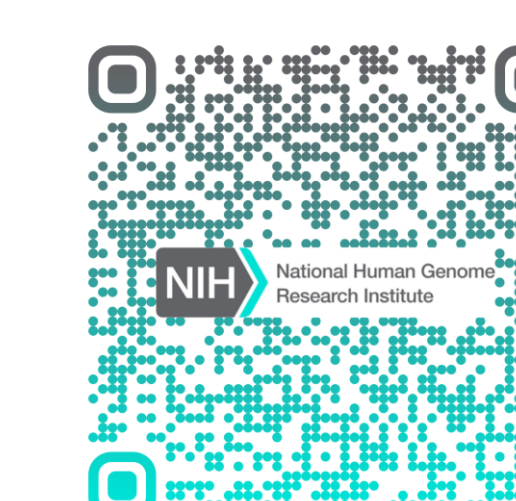
SB Program Funding Paths



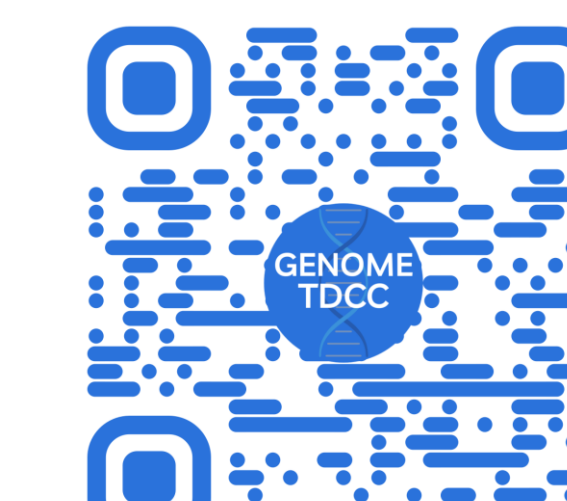
*For applications that align with a range of [specific topics](#) in genomics

Additional Resources

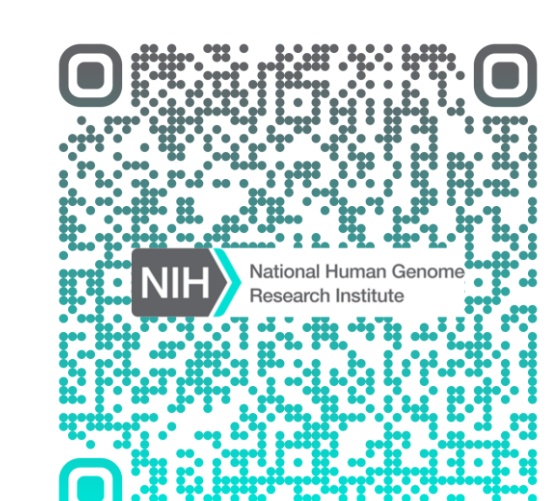
To learn more about the Genome Technology Program, TDCC, or the Small Business Program please visit the webpages below. Resources on each page range from funding opportunities, ways to get involved, and general information about the programs. If you have specific questions for myself or the program directors, please email us at NHGRI_Technology_Development@mail.nih.gov and NHGRI_SmallBusiness@NIH.gov.



NHGRI Genome Technology Program



Technology Development Coordinating Center



NHGRI Small Business Program