Impact of Genomic Variation on Function (IGVF) Pre-Application Webinar

Gustav Allotey, Devon Bumbray-Quarles, Lisa Chadwick, Dan Gilchrist, Mike Pazin, Milan Yorke

National Human Genome Research Institute, Division of Genome Sciences and Grants Administration Branch

30 October 2026
1:00-2:00 PM ET

We will start at 1:02 PM

National Human Genome Research Institute

The Forefront of Genomics

Agenda

- **Webinar Logistics** – ~1 min
- **NHGRI and IGVF Overview** – ~5 min
- **Application Guidelines and Cooperative Agreements**– 10 min
- **Individual Funding Announcements** – 20 min (5 min each)
- **Q&A Session** – Until we run out of questions or time, whichever comes first

Webinar Logistics

- Please ask your questions during the webinar via Q&A (not chat)
- All attendees will be muted, cameras off
- These slides and a list of frequently asked questions and answers (FAQ) will be made available at a later date on the webinar event link
- This webinar will focus on high level aspects of the NOFOs. Questions relating to your specific proposed application should be directed to the IGVF mailbox:

NHGRI-IGVF@mail.nih.gov

IGVF Consortium: Phase 1

- Established in 2021
- Developed framework and infrastructure to map, perturb, and predict variant impact on function
  - Collaborative projects explored non-coding and coding variants individually and in context of networks and exemplar diseases
  - Generated datasets, models, processing pipelines, standards
  - Developed IGVF Data Portal, Catalog, and underlying knowledge graph

IGVF Phase 2 Goals

To enhance development and application of the IGVF framework for understanding the effects of genomic variation on genome function and to create an expanded, user-friendly community resource to support future studies

1) Test impact of individual genomic variants on function
2) Study the effects of genomic variant interactions on function
3) Model and predict the impacts of genomic variation on function and phenotype
4) Expand a set of resources to enable future studies

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Four Interrelated IGVF NOFOs

Characterization

RFA-HG-27-007: Systematic Characterization of Genomic Variation to Assess Effects of Individual Variants on Genome Function and Phenotype (UM1)

Interactions

RFA-HG-27-009: Genomic Variant Interactions With Other Variants Or The Environment (UM1)

Modeling

RFA-HG-27-010: Computational Modeling and Analysis of the Impact of Genomic Variation on Function (UM1)

DACC

RFA-HG-27-008: IGVF Data and Coordinating Center (U24)

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IGVF Phase 2 timeline

NOW:	Contact NHGRI about your ideas
Receipt date:	December 14, 2026
Review:	June 2027
Council:	August 2027
Earliest start:	September 2027

When preparing your application

- Read the entire announcement carefully
- Note non-responsiveness criteria (Section I)
- Follow specific application and budget instructions (Section IV)
- Note any additional review criteria that may apply (Section V)

You may apply to more than one NOFO

You do not need to have been funded in IGVF phase 1 to apply

All applications are NEW applications – not renewals

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IGVF Consortium: Shared Activities

ALL funded projects and centers will work collaboratively with each other to:

- Contribute data, metadata, analyses, models, and software to the DACC and appropriate repositories
- Participate in planning, implementation, and analysis of consortium-wide or component-wide projects
- Develop standards and establish data quality metrics
- Share best practices and lessons learned
- Contribute to outreach efforts

Collaborative projects across the consortium will be required

Budget for Consortium Activities

All IGVF NOFOs include specific budget instructions to ensure support for consortium/shared projects

- 20% of the direct costs of the award must be allocated to support shared work (RFA-HG-27-007, -009, -010)
- Must include funds to support travel to IGVF kickoff meeting and annual IGVF Consortium meetings
- Must include funds for project manager and appropriate effort for PI/MPI/project manager

IGVF awards will be Cooperative Agreements

- Used when substantial programmatic involvement is anticipated between NIH and the recipient
- For roles and expectations please review Cooperative Agreement “Terms and Conditions of Award” (Section VI)
- Your actual project and milestones may change in order to achieve consortium-wide goals

How to contact us

To discuss your aims

NHGRI Program Team: NHGRI-IGVF@mail.nih.gov

For Financial/Policy questions

Grants Administration Branch: nhgrigab@mail.nih.gov

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RFA-HG-27-007: Individual Variant Characterization Centers

Individual Variant Characterization Centers

Test Variant Impact

Purpose:
To characterize the impact of individual variants on genome function

Budget:
- You may request up to $2M direct costs per year
- We intend to fund up to 5 awards

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RFA-HG-27-007: Individual Variant Characterization Centers

Individual Variant Characterization Centers

Test Variant Impact

Objectives:

- Select genomic variants and/or elements for systematic testing in these studies.
- Apply genomic perturbation methods and assay the impact on biologically relevant phenotypes.
- Develop robust, reproducible, and portable data processing pipelines.

RFA-HG-27-007: Individual Variant Characterization Centers

Individual Variant Characterization Centers

Test Variant Impact

Scope also includes:

- Contribute to expansion of the IGVF catalog for the community.
- Generate multi-omic reference maps of gene and regulatory element activity at single-cell resolution (optional).
- Improve generalizable approaches for high-throughput functional characterization assays (optional).

RFA-HG-27-009: Variant Interaction Centers

Variant Interaction Centers

Study interactions

Purpose:
To study the effects of genetic or environmental interactions on genomic variant impact

Budget:
- You may request up to $1.5M direct costs per year
- We intend to fund up to 5 awards

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RFA-HG-27-009: Variant Interaction Centers

Variant Interaction Centers

Study interactions

Objectives:

- Propose a theoretical and quantitative framework for assessing interactions.
- Apply the proposed framework to characterize interactions.
- Contribute results of tested variant combinations (as well as models for predicting the most important combinations to test) as part of the IGVF catalog.
- Enable others to perform related studies using these approaches

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RFA-HG-27-009: Variant Interaction Centers

Variant Interaction Centers

Study interactions

Optional elements:

- Improve generalizable approaches or technologies for high-throughput assays (optional)
- Describe how the results will be used to predict untested joint effects (optional)

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RFA-HG-27-010: Modeling and Analysis Centers

Modeling and Analysis Centers

Model and Predict Variant Impact

Purpose:
Develop, apply, and test predictive models and perform integrative analyses to determine the impact of genomic variation on genome function

Budget:
- You may request up to $800K direct costs per year
- We intend to fund up to 5 awards

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RFA-HG-27-010: Modeling and Analysis Centers

Modeling and Analysis Centers

Model and Predict Variant Impact

Objectives:

- Develop, apply, and test models predicting the impact of genomic variation on function and phenotype
- Share predictions with the research community through the IGVF catalog and data portal
- Guide and optimize IGVF experimental design
- Provide analytical expertise, leadership, and support for consortium-wide integrative analyses
- Work with other consortia and international groups to facilitate data integration and joint analyses

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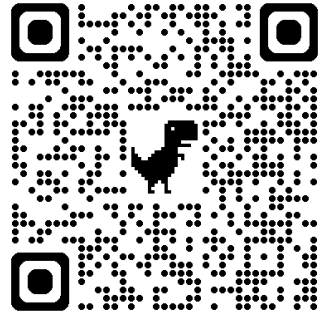
RFA-HG-27-010: Modeling and Analysis Centers

Modeling and Analysis Centers

Model and Predict Variant Impact

Please note:

- IGVF is a collaborative program – Modeling and Analysis applications must include a Collaborative Proposal
- Models should leverage new or existing IGVF data
  - Visit **data.igvf.org** to explore existing IGVF data types



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RFA-HG-27-008: IGVF Data and Coordinating Center

Data and Coordinating Center

Build Community Resource

Purpose:
Serve as coordinating center for the IGVF consortium and its public resources

Budget:
- You may request up to $4M direct costs per year
- We intend to fund 1-2 awards

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RFA-HG-27-008: IGVF Data and Coordinating Center

Data and Coordinating Center

Build Community Resource

Objectives:

- Build on IGVF efforts to develop a comprehensive and searchable catalog of genomic function and variant impacts.
- Coordinate data submission and further develop a portal for housing and sharing of consortium resources
- Organize and facilitate consortium activities and collaboration.
- Lead outreach efforts and develop strategies for engaging with the broader research community.

RFA-HG-27-008: IGVF Data and Coordinating Center

Data and Coordinating Center

Build Community Resource

IGVF is a resource generating program

Ensure broad usability

- "seek and incorporate user feedback"
- "tools designed with end users in mind"
- Work with other related consortia to ensure data interoperability, "enable searches across resources"

Expand user base

- Understand target audience(s)
- Lead outreach efforts to encourage their use of resources

Flexibility is key

- Data types generated, scale of data/analyses/predictions
- May need to adjust over time to meet consortium needs

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How will these applications be reviewed?

The review meetings will be coordinated by the Center for Scientific Review

Review meeting information will be found in your eRA Commons account

Are you planning a foreign component?

Foreign subawards are no longer allowed

You will apply using the PF5 Activity Code

- Apply through PA-26-002 – NOT the IGVF NOFO number
- Put the IGVF NOFO number in box 4b on the SF424 application
- Include a cover letter from your AOR that includes the required information
- Your application will be due on the date listed in the IGVF NOFOs (December 14, 2026)
- You should follow the application instructions in the IGVF NOFO

Watch this instructional video

Are you planning a foreign component?

The PF5 application structure is different from what the IGVF NOFOs allow

Three required components

- Overall component (12 page limit)
  - must include Foreign Justification and Dispute Resolution Plan

} May submit ONE

- Project component (6 page limit)
- International project component (6 page limit)

} May submit MORE THAN ONE

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Are you planning a foreign component?

- ✓ Stay within 30 page limit outlined in IGVF NOFOs
- ✓ Distribute required elements outlined in IGVF application instructions across the required PF5 components
- ✓ Reviewers will use IGVF NOFO Review Criteria

Example

Overall Component	12
Research Project	6
Research Project	6
International Project	6
Total pages	**30**

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Question and Answer Session

- Please ask your questions via Q&A (not chat)
- Questions that are very specific to your proposed application should be directed to the IGVF mailbox:

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Q. What are the requirements for preliminary data in these proposals?

- Standard NIH considerations
- Each NOFO has specific application instructions

Q. Guidance on what should be considered as a “genomic perturbation assay”, regarding the “up to 3 assays” for individual variant characterization centers?

A. If the data are going to be analyzed together and listed on the portal as one assay, they count as one assay. If they are sufficiently different that they should be analyzed separately, and listed on the portal separately, and used separately in AI learning and prediction tools, they are separate assays.

Q. Are there specific outreach & education efforts that all members of the consortium participate in? Or is that component of the grant very PI/Institution dependent?

A. All groups are expected to contribute to training across the consortium, cross consortia efforts, and broader outreach efforts. The specific activities will be determined by the consortium, working with NHGRI.

Question and Answer Session

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