CENTER FOR COMBINATORIAL GENE REGULATION

Request for Research Proposals
Application Deadline: June 25, 2021 at 5:00 pm

The NIH-funded Duke Center for Combinatorial Gene Regulation (CCGR), a Center of Excellence in Genomic Science, announces a request for research proposals that investigate and support the ambitious Center goal to make combinatorial studies of the function of regulatory elements and noncoding variants routine. These pilot grants will support collaboration, training, and further develop the translational components of the Center. Priority will be given to projects that bridge technology development, computational methods, and/or translational research areas.

The CCGR aims to develop and deploy technologically ambitious and highly collaborative set of studies and methods to characterize noncoding variants. This will be accomplished by a highly collaborative team approach with PIs and Co-Is, trainees, and research staff representing diverse expertise spanning Duke University.

The intent of this RFP is to support pilot studies that integrate the aims of the CCGR (see Figure 1). The Center will deploy newly developed technologies and analyses to identify novel gene regulatory mechanisms contributing to a spectrum of phenotypes including common, rare, and ultra-rare diseases. We will prioritize cohorts based on: 1) the strongest evidence for noncoding genetic causes of disease; 2) the potential impact on patients and patient care; 3) availability of patient genome sequences and phenotypes; 4) availability of patient samples or recall options for validation studies; 5) disease expertise on our investigative team; and 6) diseases that likely involve combinatorial regulatory effects.
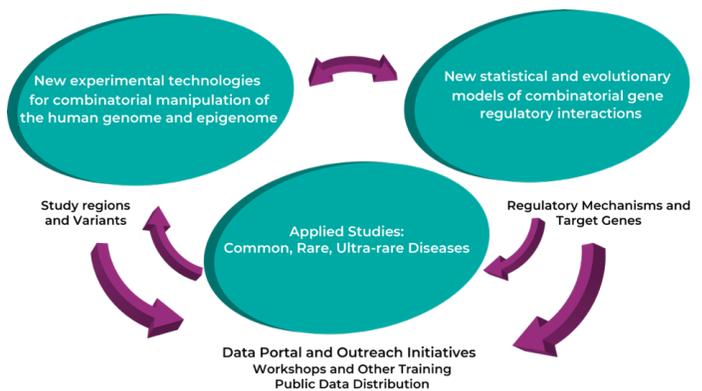

Figure 1. Aims of the CCGR

Potential projects that align with this RFP include projects that aim to:
• Find or characterize new patient cohorts that fit criteria (see above)
• Prioritize noncoding variants based on clinical fit
• Develop decision tree for patients with different criteria and/or modes of inheritance
• Support functional follow-up studies
• Support diagnostic sequencing pipeline development

Key Dates
Intent to Submit deadline: May 31, 2021 [submitted via MyResearchProposal]
Application Submission deadline: June 25, 2021 [submitted via MyResearchProposal]
Earliest Award Start Date: August 1, 2021

Eligibility
Proposals may be submitted by Duke trainees (medical residents or fellows, postdoctoral fellows or associates, or medical instructors). Trainees should specify a faculty mentor on the application. Individuals may submit more than one proposal, but are only eligible to receive one award per cycle.

Funding
Each award will consist of up to $15,000 (direct cost only) to support trainee research activities. Funds supporting mentor effort are not allowable. The proposed research should be able to be accomplished within one year, and serve as a pilot project for external grant submission; however there will be an opportunity to

renew for an additional year when scientifically justified. Future RFPs will be available to support further integration of cohort(s) identified during this phase in the CCGR studies.

Priority will be given to projects that bridge technology development, computational methods, and/or translational research areas. We are particularly interested in proposals that build new collaborations and/or new teams and might lead to extended productive and externally funded collaborations. It is recommended that individuals interested in applying reach out to Shannon Clarke (shannon.clarke@duke.edu) 30 days prior to due date.

Application Submission Procedure
Intent to Submit and Proposal are submitted via Duke's MyResearchProposal online submission system.

• To apply visit http://bit.ly/myresearchproposal, click on "Create New User" (or log in if you already have an account). Proposals must be submitted under the Trainee's name.
• A step-by-step user's guide for applying via the MyResearchProposal software is available - Please review this document.
• Enter Access Code 'trainee' then select the "Trainee Pilots - Duke Center for Combinatorial Gene Regulation" opportunity and follow the instructions.
• For any questions concerning MyResearchProposal passwords or system issues, please contact Anita Grissom or Lesia O'Hara at myresearchproposal@duke.edu

Applicants will enter general project information via the web-based form:
• Project Title, Brief Description, and Amount Requested
• Primary Contact Name, Department, Email
• General Project Information
• Trainee Information and Engagement Plan
• Involvement of Human Subjects and/or Animals

The following proposal sections will be uploaded as individual PDF files. The application sections are:

Research Proposal (3-4 pages) detailing:
• A research question centered on function of regulatory elements and noncoding variants
• The study cohort of interest detailing: 1) evidence for noncoding genetic causes; 2) the potential impact on patients and patient care; 3) availability of patient genome sequences and phenotypes; 4) availability of patient samples or recall options for validation studies; 5) diseases/phenotype expertise; and 6) diseases/ phenotypes that likely involve combinatorial regulatory effects.
• Data required to answer the research question
• A plan for follow-on funding applications
• Proposed training team to consist of at least two Function Center investigators and clinical Faculty mentor

Budget:
• Upload a one-year spending plan including a brief budget justification using PHS Form 398 (Form Page 4 and Form Page 5).

Experience:
• Include a CV or NIH Biosketch for the trainee and mentor(s). This is not required if you are listing a CCGR PI/Co-I as a mentor. Include all CVs/Biosketches as one PDF. Each individual CV/Biosketch may not exceed five pages.

Letter of Support:
• Include a letter from your clinical mentor confirming access to data for clinical cohort.

Budget Guidelines
Any requested funds should directly support the progress of the CCGR project. All expenses on this award should follow NIH cost principles being: reasonableness, allocability, consistency, and conformance

Grant funds may be budgeted for:
• Salary support and/or tuition remission for the trainee
• Research supplies and lab costs, including sequencing costs

Grant funds may not be budgeted for:
• Mentor salary support
• Travel
• Purchase of a laptop/PC or other computer devices (tablet, monitor, memory, etc).

Terms of the Award
1. Approvals required prior to the funding start date:
   • Prior to receiving funds, research involving human subjects must have appropriate approvals from the Duke IRB. If the research includes animals, the appropriate IACUC animal research forms must also be approved before the project's start date. Failure to submit documents in the requested timeframe may result in cancellation of funding.
   • Completion of the Duke offered CITI Training Modules and any other required training associated with human subjects research at Duke.

2. Participation in specified CCGR group meetings
   • The CCGR leadership team will identify weekly group meetings aligned with the proposal as well as larger bi-weekly CCGR group meetings that cover overarching CCGR progress.

3. Any funds not expended will be returned to the CEGS parent code. Prior approval by the CCGR PI team is required to use any funds to purchase components/items/services/etc. outside of the stated budget justification. The trainee's home department or program will assume responsibility of any funds exceeding the awarded budget.

4. Post-Award Reporting
   • When requested, all awardees will be expected to provide updates with a final report at the conclusion of the project.

It is recommended that individuals interested in applying reach out to Shannon Clarke (shannon.clarke@duke.edu) 30 days prior to due date. For additional programmatic information or questions, please also email shannon.clarke@duke.edu.