OVERVIEW
The MUSC Center for Genomic Medicine (CGM) is launching its third pilot project initiative with the goal of developing new paths of research in genomic medicine that make use of genomics technologies, including next generation sequencing (NGS) and bioinformatics capabilities on campus. The overall aim of this pilot initiative is to stimulate basic, translational, and clinical research in genomic medicine and genetics for faculty, staff, and students within MUSC who have become members in the CGM.

The main objective of the program is to promote the growth of the CGM through the development of new extramural grant funding, utilization of critical technologies and CGM Core services to allow investigators to obtain genomic data, including NGS based data, to be used in currently pending or future extramural grant applications.

PILOT PROJECT CATEGORY: In this round of funding, we expect to make up to six awards of up to $25,000 each. This year, the CGM will require matching funds from another Department or Center. Thus, total award amounts could be as high as $50,000. Budget cap is $50,000 direct costs which includes matching funds from Department or Center.

<table>
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<tr>
<th>Grant Category</th>
<th>Brief Description &amp; Aims</th>
<th>Award Amount</th>
<th>Award Duration</th>
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| Discovery      | • Address an important question in Genomic Medicine  
• Intended to drive the development of new genomics research to obtain preliminary data using genomics technologies.  
• Provide support for new pilot projects that will generate preliminary data for extramural grants applications. | Up to $25,000 plus matching funds    | Up to 1 year     |

TO APPLY:  
Access the application submission portal at:  
http://academicdepartments.musc.edu/sctr/programs/pilot_projects

PROGRAM QUESTIONS:  
Stephen P. Ethier, PhD  
Email: ethier@musc.edu  
Phone: 843-876-2298

ADMINISTRATIVE QUESTIONS:  
Contact Virginia Davis  
Email: daviv@musc.edu  
Phone: 843-876-2298

SCIENTIFIC SCOPE AND CGM CORES:  
Further information can be found at:  
http://academicdepartments.musc.edu/genomics/
PROGRAM ELIGIBILITY
This is a university-wide initiative that is open to all MUSC faculty who are members of the CGM. For faculty willing to participate, please apply for the Center membership at the CGM website: http://academicdepartments.musc.edu/genomics/index.html

THE APPLICATION PROCESS
Letter of Intent (LOI)
A one-page letter of intent is due by 5 pm on Friday, September 1, 2017. Letters should be sent to Virginia Davis (daviv@musc.edu) The following information should be included:

- Preliminary project title
- Brief outline of the study plan and its relatedness to genomic medicine
- The need for specific genomics technologies for completion of the project
- Complete listing of the investigative team, their academic titles, primary departments, and roles on proposed project.
- Unit, Department or Center with potential to provide matching funds.

All LOIs will be reviewed by the CGM Internal Advisory committee (current roster is on the CGM website). Those who submit a LOI will be notified by September 15th, 2017 on whether they are being invited to submit a full application.

Full Application
Full applications from those invited to submit them are due Monday, October 16th, 2017 by 5 pm. Applicants for a full award are required to consult with Dr. Robert Wilson in the Genomics core and Dr. Gary Hardiman in the Bioinformatics core prior to submission of the application so that budgets can be properly planned, and to ensure that the proper technologies are available. Applicants will be required to submit the names and contact information for five potential external reviewers with expertise in the area of work, and with whom no conflict of interest exists. Applications received by the deadline will be scientifically peer-reviewed by two reviewers and one expert in bioinformatics. One reviewer will be from the Internal Advisory Committee and at least one from an external reviewer, plus one reviewer from the CGM bioinformatics core. Notifications of awards will be made as early as December 1, 2017, with an anticipated start date of December 22, 2017.

Applicants should submit the application materials through the SCTR website (http://academicdepartments.musc.edu/sctr/programs/) by clicking the appropriate “Apply” link. All applications consist of an online form and four PDF uploads.

Online Form (Questions with an * are required fields)
- PI Name*
- PI eRA Commons User Name*
- PI Biosketch*. Please use PHS 398 Form Biographical Sketch Format Page (PDF Upload 1: Biosketch) NIH biosketches for all investigators are required in the new 5-page format (General Biographical Sketch Format Page – Forms Version D) https://grants.nih.gov/grants/forms/biosketch.htm
- Degree*
- PI Faculty Rank*
- PI Tenure Track*
- PI Home Institution*, College/School, Department*, Center Affiliation and Division within institution.
- PI Phone Number*
- PI Email Address*
- Business Manager Name*, Phone Number*, Email Address*, Mailing Address*
- Co-I information (similar to information captured for the PI)
- Project information (e.g. IRB, IACUC). Please note that funding cannot be released until all applicable institutional human, animal, and biosafety protocols (such as IRB, IACUC, IBC), and any other required regulatory documents (such as INDs, IDE, and CITI Training) have been approved. Investigators are strongly encouraged to begin the regulatory approval process prior to submitting the pilot project application.
Child Health Component*  
Intellectual Property Potential*  
Funding Entity Code* - SELECT GENOMICS  
Project Title*  
Grant Category* - SELECT DISCOVERY  

**PDF Upload 2: Project Summary and Relevance (listed as Upload Project Description)**  
- 30 lines of text for Project Summary, Arial font size 11, at least 0.5 margins, PDF only.  
- The Project Summary should serve as a succinct and accurate description of the proposed work when separated from the application. State the application's broad, long-term objectives and specific aims, making reference to the oral health relatedness of the project. Describe concisely the research design and methods for achieving the stated goals. This section should be informative to others working in the same or related fields and understandable to a scientifically or technically literate reader. Using no more than two or three sentences, describe the Relevance of this research to Genomic Medicine. The Relevance statement should be succinct and written using plain language that can be understood by a general, lay audience.  

**PDF Upload 3: Research Plan (listed as Upload Proposal)**  
- Specific Aims: State concisely the specific aim(s) to be achieved during the one year project period.  
- Research Strategy  
  o a. Significance of the work to genomic medicine  
  o b. Translational potential of the work  
  o c. Approach  
- Literature Cited: Select only those references pertinent to the proposed research. This is not included in the 3-page limit.  
- The Additional Review Criteria section should include a response, if applicable, to the points listed below. The Additional Review Criteria section must be limited to 1 page and 1 support letter.  
  1. The use of the funds for genomic analysis of experimental or clinical samples, preferably using technologies available in one of the on-campus genomics core labs  
  2. The likelihood that the work will lead to data that will be used in future grant applications in areas related to genomic medicine  
  3. The track record of the candidate in obtaining extramural funding. For junior investigators applying for funds, the track record of a faculty mentor will be strongly considered.  
  4. Translational potential of the work  
  5. Scientific merit of the specific aims and the proposed experimental approach  
  6. Though not a requirement for funding, availability of matching funds from another MUSC department, college, or Center will be considered a strength, but will not affect the scientific review.  
- Include in this section the names and contact information for potential external reviewers. This does not count toward the page limit.  

**PDF Upload 4: Budget and Justification**  
Use PHS 398 from page 4 (http://grants.nih.gov/grants/funding/phs398/phs398.html) followed by a written justification. **Budget cap is $50,000 direct costs which includes matching funds from Department or Center.** There are no indirect costs associated with this grant. No faculty salaries should be included. Any faculty effort related to this award must be listed and supported by the respective department as cost share. A cover page will be requested which should be provided by the department chair or business manager to verify and approve this cost share. While some salary support for laboratory personnel, post-doctoral fellows, study coordinators, etc. may be included, the majority of the funds must be used to support the use of genomics technologies in the experiments associated with the project. Include justification for all budget requests. Every budgeted item must be classified into a category with unit costs specified and defined. Equipment is not allowed. Travel expenses will not be allowed.
APPLICATION REVIEW CRITERIA AND PROCESS

Overview
Each application will be assigned to two reviewers and one expert in bioinformatics. One reviewer will be from the Internal Advisory Committee and at least one from an external reviewer, plus one reviewer from the CGM bioinformatics core. Reviewers are instructed to evaluate the quality of the research (significance, investigator(s), innovation, approach, environment) using the 9-point NIH rating scale (1= Exceptional to 9= Poor). The reviewers will address the ‘Additional Review Considerations’ listed below for each application as applicable, and will generate an Overall Impact Score based on the quality of the research and the ‘Additional Review Considerations’. The CGM Internal Advisory Committee will prioritize the applications based on the overall impact score, Summary Statement, and also on the programmatic needs of the CGM.

Additional Review Considerations for ALL Grant Categories
- The use of the funds for genomic analysis of experimental or clinical samples, preferably using technologies available in one of the on-campus genomics core labs
- The likelihood that the work will lead to data that will be used in future grant applications in areas related to genomic medicine
- The track record of the candidate in obtaining extramural funding. For junior investigators applying for funds, the track record of a faculty mentor will be strongly considered.
- Translational potential of the proposed research.