

**National Advisory Council for Human Genome Research**  
**May 17, 2021**  
**Concept Clearance for PAR**

**Renewal of the Centers of Excellence in Genomic Science Program**

**Purpose:** The Centers of Excellence in Genomic Science (CEGS) program establishes academic Centers for advanced genome research. Each CEGS award supports a multi-investigator, interdisciplinary team to develop transformative genomic approaches to address a biomedical problem. A CEGS project will address a critical issue in genomic science, genomic medicine, or computational genomics, proposing a highly innovative solution that would be a major advance. The research will entail substantial risk, balanced by outstanding scientific and management plans and very high potential payoff. A CEGS will focus on the development of novel technological or computational methods for the production or analysis of comprehensive data sets, on a genome-scale biomedical problem, or on other ways to develop and use genomic approaches for understanding biological systems or furthering the application of genomic knowledge, data, and methods towards clinical applications. Each CEGS will nurture genomics at its institution by facilitating the interaction of investigators from several disciplines. By training new and experienced investigators, it will expand the pool of genomics scientists and engineers.

**New or renewal/modified initiative:** We request approval to renew the NHGRI CEGS program originally established in 2000 (see <https://www.genome.gov/Funded-Programs-Projects/Centers-of-Excellence-in-Genomic-Science>; PAR-19-204 <https://grants.nih.gov/grants/guide/pa-files/PAR-19-204.html>)

This Concept proposes to maintain the CEGS program essentially in its current form, with modifications to address the following considerations:

1. Alignment of application topics to the new NHGRI Strategic Vision <https://www.genome.gov/2020SV>.
2. Language and review criteria to accommodate applications in areas that have been under-represented in the CEGS program, e.g., computational approaches and translation of genomics to the clinic.
3. Clarification about key CEGS criteria (novelty, degree of advance, integration, risk), including language indicating that applications will be considered unresponsive if they fail to achieve one or more of the key criteria.
4. Clarification about the requirement for outreach and training plans, including more explicit review criteria.
5. Limit on maximum number of total CEGS awards made by NHGRI at any one time (propose ~7-10) and clarification of funds available per award.
6. Clarification of eligibility and funding criteria based on whether an applicant institution has previously received CEGS funding.
7. Requirement for site visits.

**Mechanism of Support:** RM1 (clinical trial optional)