



NATIONAL SCIENCE FOUNDATION
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NSF 17-090

Dear Colleague Letter: Updated Focus of Programs within the Engineering Biology and Health Cluster, Division of Chemical, Bioengineering, Environmental, and Transport (CBET) Systems

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Dear Colleagues:

The Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET) has realigned and refocused several of the programs within its Engineering Biology and Health cluster. This effort was undertaken to clarify the scope of each of the programs and to minimize programmatic overlap. Effective immediately, the programs in the cluster are as follows:

Biophotonics

This program's scope remains unchanged.

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505337

Cellular and Biochemical Engineering (CBE)

The name change for this program, formerly Biotechnology and Biochemical Engineering (BBE), indicates the addition of the characterization and engineering of therapeutic live cells to the program. Another significant revision is that all proposals are required to include a section on the impact of proposed research on the associated biomanufacturing process.

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505334

Disability and Rehabilitation Engineering (DARE)

This program has been refocused from the previous General and Age Related Disabilities Engineering (GARDE) program. The new scope retains the primary emphasis on engineering advancements that will positively impact the lives of individuals with disabilities while expanding the focus to include fundamental research in two areas: human movement and injury mechanisms. Fundamental research in these focus areas is linked directly to both minimizing disabilities and improving outcomes for individuals with disabilities.

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505335

Engineering of Biomedical Systems (EBMS)

This program has been refocused from the previous Biomedical Engineering (BME) program. The primary shift in focus is to emphasize the engineering nature of research to be funded by EBMS, as compared to an application of existing technology. The targeted themes were removed to instead focus on the engineering process of studying biomedical systems, including the validation of hybrid system designs and models of physiological and pathophysiological systems.

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501023

Nano-Biosensing

This program was revised to emphasize the importance of incorporating reproducibility of measurements and sensor performance, while decreasing error rate in the developed nano-biosensing systems.

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505340

PROGRAM GUIDANCE

All prospective investigators are encouraged to contact the Program Directors of the program to which they are considering submitting their proposal to discuss their research objectives. There are certain areas that each program considers, which are listed within the program description on the NSF website. To avoid having your proposal returned without review, please discuss proposals that fall outside the listed areas with the program director prior to submitting.

Additional Programs for Consideration

In addition to the programs of the Engineering of Biology and Health cluster within CBET, other programs within NSF also fund related research. Prospective investigators are encouraged to explore all of the relevant programs and talk with the appropriate program directors in order to identify the program that best matches the planned research. The following is a list of related research programs at NSF:

- [Biomaterials](#) (Division of Materials Research - DMR)
- [Biomechanics & Mechanobiology](#) (Division of Civil, Mechanical, and Manufacturing Innovation - CMMI)
- [Collaborative Research in Computational Neuroscience](#) (cross-directorate/interagency)
- [Communications, Circuits, & Sensing Systems](#) (Division of Electrical, Communications, and Cyber Systems - ECCS)
- [Computational and Data-Enabled Science and Engineering](#) (cross-directorate)
- [Cyber-Physical Systems](#) (Computer & Information Science & Engineering - CISE)
- [Dynamics, Control, & System Diagnostics](#) (CMMI)
- [Electronics, Photonics, and Magnetic Devices](#) (ECCS)
- [Fluid Dynamics](#) (CBET)
- [Integrative Strategies for Understanding Neural and Cognitive Systems](#) (cross-directorate)
- [Manufacturing Machines & Equipment](#) (CMMI)
- [National Robotics Initiative](#) (cross-directorate)
- [Smart and Connected Health](#) (CISE)

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