National Science Foundation
**Office of the Director**

February 24, 2020

Dear Colleague:

The National Science Foundation is beginning a national search for the Assistant Director of the National Science Foundation for Mathematical and Physical Sciences (MPS). We ask your help in the identifying visionary candidates to lead the Directorate during the coming years. The new Assistant Director will succeed Dr. Anne Kinney, who has served with distinction in this position since January 2018, and will have similar opportunities to shape future research and education in the mathematical and physical sciences and to lead MPS as a key participant in exciting new developments in the Foundation.

The Assistant Director for MPS manages a budget of approximately $1.5B and a portfolio consisting of a broad range of the mathematical and physical sciences. The Directorate includes the Division of Astronomical Sciences (AST), the Division of Chemistry (CHE), the Division of Mathematical Sciences (DMS), the Division of Materials Research (DMR), the Division of Physics (PHY), and the Office of Multidisciplinary Activities. The enclosed information sheet summarizes the Directorate's activities and the responsibilities of the position along with the criteria for the search and selection. Employment in the position may be on a temporary or permanent basis in the Federal Service or by temporary assignment under provisions of the Intergovernmental Personnel Act.

We are pleased that Professor Juan de Pablo, University of Chicago, Vice President for National Laboratories, Liew Family Professor in Molecular Engineering, and Senior Scientist at Argonne National Laboratory, and Professor Catherine A. Pilachowski, Distinguished Professor and Daniel Kirkwood Chair, Indiana University, will co-chair the Search Advisory Committee. Both the Committee and I seek your help in identifying candidates who are outstanding leaders, have a deep sense of scholarship, and understand the issues facing the mathematical and physical sciences, especially in the areas of education and fundamental research. Candidates must also have the skills and temperament to serve effectively as a key member of the NSF senior management team, working with the NSF Director and other Assistant Directors on cross-directorate activities. The AD for MPS also interacts with the executive and legislative branches of government and must be able to communicate effectively with leaders of business and industry as well as with the philanthropic community. We welcome recommendations of individuals from any sector including academia, industry, and government.

Please send your recommendations, including any supporting information that you might be able to provide, to the AD/MPS Screening Committee via e-mail (mpssrch@nsf.gov) or by post to the National Science Foundation, Office of the Director, 2415 Eisenhower Avenue, Alexandria, VA, 22314. We will appreciate receiving your recommendations by April 30, 2020.

I very much appreciate you help with this important task.

France A. Córdova
Director

Enclosures

**Search Committee Review Criteria**
**for the Assistant Director for Mathematical and Physical Science (AD/MPS), NSF**

**We are seeking demonstrated evidence of:**

**Strategic Vision**

- Working knowledge of the major current intellectual challenges and opportunities in the mathematical and physical sciences, including the stewardship and development of major research facilities.
- Ability to think strategically and formulate integrated plans for research and education activities in the mathematical and physical sciences, especially at the interfaces of, and boundaries with, other disciplines.
- Ability to bring about strategic change, both within and outside the organization, to meet organizational goals. Includes the ability to establish an organizational vision and to implement it in a continuously changing environment.

**Leadership, Direction, Representation**

- Ability to lead people toward meeting the organization's vision, mission, and goals. Includes the ability to provide an inclusive workplace that fosters the development of others, facilitates cooperation and teamwork, and supports constructive resolution of conflicts. Ability to provide innovative and transformative leadership of people, reflective of NSF's organizational values.
- Ability to serve effectively as a member of NSF's senior management team, helping to develop consensus both within the MPS directorate and across the agency on policy and plans.
- Ability to plan, prioritize, and coordinate interagency and international research, education, and infrastructure programs and to forge government-industry-university partnerships.
- Ability to manage an organization consisting of approximately 161 scientific and administrative professionals; ability to manage human, financial, and information resources strategically.
- Ability to communicate NSF policy and strategic plans to the external community, including the public, Congress, industry, and colleagues in other disciplines.
- Ability to meet organizational goals and customer expectations. Includes the ability to make decisions that produce high-quality results by applying technical knowledge, analyzing problems, and calculating risks.

**Commitment**

- Commitment to the goals of the NSF Strategic plan — Transforming the Frontiers, Innovating for Society, and Performing as a Model Organization — and to the strategies for achieving these goals through developing intellectual capital, integrating research and education, and promoting partnerships. Demonstrated ability to conceptualize the role of the mathematical and physical sciences in achieving those goals.
- Commitment to the appointment and development of a highly qualified staff that reflect the diversity of our nation and to the equitable representation of underrepresented groups and institutions on advisory committees, in workshops, and proposal review panels.
- Commitment to equitable representation of underrepresented groups in the national enterprise.

**Credibility within Research and Education Community**

- Substantial research contributions and experience in academic, government and/or private national research and education endeavors as evidenced in publications, innovative leadership in research administration and/or professional leadership awards.
- Ability to build coalitions internally and with other Federal agencies, State and local governments, nonprofit and private sector organizations, foreign governments, or international organizations to achieve common goals.
- Demonstrated commitment to scholarship and significant scientific contributions to the mathematical and physical sciences.
- Broad understanding of universities and other institutions where research and education in the mathematical and physical sciences are conducted.
- Familiarity with the existing U.S. and international infrastructure that supports research and education.

**The National Science Foundation**
**Directorate for Mathematical and Physical Sciences (MPS)**

The **National Science Foundation** (NSF) is an independent agency of the United States Government. Its vision is to enable the nation's future through its strategic goals of transforming the frontiers, innovating for society, and performing as a model organization. The Foundation seeks to realize these goals using five core values: vision, dedication to excellence, learning and growing, broad inclusiveness, and accountability to the research community and the taxpayer. NSF invests in supporting research that advances the frontiers of knowledge and establishes the nation as a leader in transformational science, in developing a world-class, broadly inclusive science and engineering workforce and scientifically literate citizenry, in building the nation's research capacity with critical investments in advanced instruments, tools and facilities, and in cultivating a capable and responsive organization that promotes excellence in science and engineering research and education.

The **Directorate for Mathematical and Physical Sciences (MPS)** is one of seven NSF directorates. The MPS Directorate aims to help the U.S. harness the collective efforts of the mathematical and physical sciences communities to address the most compelling scientific questions, educate the future advanced high-tech workforce, and promote discoveries to meet the needs of the Nation. Research in MPS-supported disciplines has led to advances in a host of world-wide applications, including laser technology, Global Positioning System navigation, integrated circuits, additive manufacturing, and advanced cybersecurity. Together, these goals strengthen our national capacity to perform and innovate, which, in turn, contributes to national prosperity, security, and welfare. A collection of large-scale facilities and experiments, such as telescopes, accelerators, specialized laboratories, and large-scale detectors, are an essential part of the MPS portfolio. The Directorate's goals and strategies for all scales of research mirror those of the Foundation. The MPS Directorate contains the Division of Astronomical Sciences (AST), the Division of Chemistry (CHE), the Division of Materials Research (DMR), the Division of Mathematical Sciences (DMS), the Division of Physics (PHY), and the Office of Multidisciplinary Activities. The Directorate staff of approximately 160 administers a budget of about $1.5 billion annually.

The **Assistant Director for Mathematical and Physical Sciences** (AD/MPS) serves as a key member of NSF's senior management and policy team and provides leadership and direction to the Directorate's programs and initiatives. The incumbent is responsible for planning and implementing programs, priorities, and policy within the framework of statutory and National Science Board authority. NSF seeks a candidate with outstanding leadership abilities, a deep sense of scholarship, a grasp of the issues facing the mathematical and physical sciences in the areas of education and research, and a commitment to the goals and strategies of the National Science Foundation.