

## **Background:**

CY 2020 represents the fifth and final year of the current NIGMS Strategic Plan, and NIGMS has begun the process of developing a strategic plan for CY 2021- 2025. As a first step in this process, Institute staff have developed a draft framework (below) of broad goals and objectives that can be incorporated into the new plan. Please note that this is an early framework and comments will be used to help shape future versions of both this framework and ensuing plan.

### **Strategic Goals and Objectives: Balancing Continuity and Change**

*Prior to creating a draft framework, NIGMS has reflected on the ways in which the biomedical landscape has changed over the past five years and how that change affects the Institute’s goals and objectives. Hence, some of the goals in this draft framework are maintained from the current plan to reflect a continuation of the core needs that NIGMS provides for the biomedical research community including a focus on investigator-initiated research (Goal 1) and continued support of research training, diversity, and technology development programs (Goals 2 and 3). While some objectives remain constant, the current landscape may require new strategies to continue to deliver on our mission. For instance, over the past 5 years, NIGMS shifted significant resources from legacy programs established during the NIH budget doubling to investigator-initiated research. The Institute must now consider additional strategies to sustain maximal support for this critical aspect of its portfolio. To reflect new or amended priorities based on a changing landscape, NIGMS has made modifications or additions to strategic goals and objectives such as improvement of data gathering (e.g., Objectives 2.2 and 5.3), evaluative, and analytic capacities within the Institute (Goal 6); and establishment and expansion of the MOSAIC program (e.g., Objective 2.1). For additional context on progress and changes over the last five years that have informed this new framework, please see the [NIGMS Strategic Plan Outcomes 2015-2020 report](#).*

## **Anticipated Structure:**

The structure for the 2021- 2025 NIGMS Strategic Plan will be similar to the structure of the current plan and will consist of the following elements required of strategic plans across NIH:

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*Strategic Goals and Objectives*

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*Responsible Stewardship of Public Funds (Goal 4-6)*

*Implementation Strategies*

*Description of Strategic Plan Development Process*

## Proposed Goals and Objectives:

### Goal 1: Sustain Strong Support for Investigator-Initiated Research

- Objective 1.1.\* Invest in and sustain a broad and diverse portfolio of highly meritorious fundamental biomedical research.
- Objective 1.2.\* Promote the ability of individual investigators to pursue new research directions, novel scientific insights, and innovative ideas.

### Goal 2: Invest in the Development of a 21<sup>st</sup> Century Scientific Workforce

- Objective 2.1. Support highly effective, evidence-based research training at all stages of the educational and biomedical research career pathway.
  - *This objective will expand with the inclusion of the SEPA and MOSAIC programs and include a focus on the career “lifespan” of the developing scientist. Training encompasses not only formal research training from undergraduate education onward, but also informal education to interest and encourage students at the pre-K-12 level to pursue science as a career. This section will include the efforts that NIGMS pursues to diversify the biomedical research workforce and to modernize biomedical research training.*
- Objective 2.2. Promote and enable the enhanced utilization of data in the development, assessment, and pursuit of research training outcomes.
  - *[Proposed new strategic objective]. Training objectives in the prior strategic plan focused on conducting assessments of research training outcomes. One major finding of such assessments was that data gathering procedures and resources would benefit from substantial improvement. Thus, this objective will focus on supporting improvements in outcomes data collection and on promoting the use of such data by both NIGMS and the training community to continuously improve outcomes and provide transparency.*

### Goal 3: Enhance Research Capacity and Enable Access to Critical Research Resources

- Objective 3.1.\* Support access to essential research resources and the development of new technologies that enable novel scientific advances.
  - *This objective remains relevant, although its emphasis may expand from developing specific technologies to supporting these technologies throughout their lifespan (development to maturity and subsequent use*

*as resources), including national research resources, biobanking, and data repositories.*

- Objective 3.2.\* Catalyze the development of institutional research capacities, particularly in traditionally underserved states, regions, and communities.
  - *This objective remains relevant, although a greater focus will be given to more recent initiatives such as regional accelerator hubs, rural health research, practice-based research networks focused on the unique needs of underserved communities, and other specific activities of the IDeA-CTR.*

#### **Goal 4: Advance the Public’s Understanding of the Critical Role Played by Fundamental Biomedical Research**

- Objective 4.1.\* Leverage a broad range of outreach approaches and resources to disseminate accurate, timely and clear information about NIGMS goals, activities, results, and returns on investment to the public.
- Objective 4.2.\* Continue to engage in an open and reciprocal dialogue with NIGMS stakeholders about the importance and impact of NIGMS programs, processes and policies.

#### **Goal 5: Maintain or Enhance Investments in the NIGMS Workforce to Better Enable Delivery of Mission**

- Objective 5.1.\* Foster a proficient, effective, and diverse NIGMS workforce.
- Objective 5.2. Maximize the efficiency of NIGMS operations by continuously assessing, identifying, and applying the most effective business practices to promote effective and efficient management and stewardship of taxpayer investments.
  - *[Minor modification]. This objective focuses on optimizing the use of NIGMS business practices like strategic planning, evaluation, and emerging technology solutions (e.g., machine learning) to streamline and automate (when possible) the work of NIGMS staff to better serve the NIGMS mission.*
- Objective 5.3. Enhance the collection, analysis, and utilization of data to iteratively assess, evaluate, and optimize NIGMS operations.
  - *[Proposed new strategic objective]. This objective will focus on the incorporation of data analytics to inform and optimize internal operations.*
- Objective 5.4. Continue to enhance and evolve NIGMS information systems, technologies, and related infrastructures to ensure maximal security and utility.

- *[Proposed new strategic objective]. This objective will focus on the important and ongoing work and contributions of the NIGMS Information Resources Management Branch and the role that such work plays in ensuring both the safety and security of NIGMS data and IT resources.*
- Objective 5.5.\* Develop and optimize cooperative and synergistic partnerships with other NIH institutes and centers, other federal agencies, and other organizations.
  - *[Minor modification]. This objective will focus on the optimization of such partnerships and relationships rather than on simply maintaining them.*

## **Goal 6: Evaluate and Iteratively Optimize NIGMS Programs and Portfolios**

- Objective 6.1. Continue to enhance NIGMS' data collection and analytics capabilities in order to measure program performance.
  - *[Proposed new strategic objective]. This objective will focus on continuing to improve the Institute's ability to collect and analyze data related to its extramural grants programs.*
- Objective 6.2. On a rolling basis, evaluate the outcomes and effectiveness of each NIGMS program and grants portfolio and use this information to optimize program performance in support of the NIGMS mission.
  - *[Proposed new strategic objective]. This objective will focus on ensuring that all NIGMS programs and grants portfolios are evaluated periodically using outcomes data and input from external experts and stakeholders, and on using the outcomes of these evaluations to iteratively improve program performance. It will also include sustaining an internal culture that embraces critical assessment of program performance.*
- Objective 6.3. Communicate the results of these evaluations and the Institute's actions in response to them to stakeholders.
  - *[Proposed new strategic objective]. This objective will focus on transparently disseminating the results of program evaluations and program changes made in response to them.*

\*Continuing strategic objective. Core components of the NIGMS mission such as support for investigator-initiated research and training, enhancement of diversity in the scientific workforce, and provision of critical technological resources throughout the country remain relevant. Thus, a certain percentage of the 2021-2025 NIGMS Strategic Plan will represent a continuity of these important and existing 'core' efforts.