

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE
MINUTES OF THE BOARD OF REGENTS MEETING
(VIRTUAL MEETING)
May 12, 2020**

The 184th meeting of the Board of Regents (BOR) was convened remotely on May 12, 2020, at 9 a.m. The meeting was open to the public from 9 a.m. to 10:15 a.m., followed by a closed session that lasted until 2:15 p.m. The meeting adjourned at 2:15 p.m.

MEMBERS PRESENT (Appendix A)

Dr. Lourdes Baezconde-Garbanati, University of Southern California
Dr. Suzanne Bakken, Columbia University
Ms. Jane Blumenthal, University of Michigan (retired), Chair
Dr. Eric Horvitz, Microsoft Research
Dr. Carlos Jaén, University of Texas Health Science Center at San Antonio
Dr. S. Claiborne Johnston, The University of Texas at Austin
Dr. Gary Puckrein, National Minority Quality Forum
Mr. Neil Rambo, NYU School of Medicine (retired)
Dr. Heidi Rehm, Massachusetts General Hospital

EX OFFICIO AND ALTERNATE MEMBERS PRESENT

Dr. Carolyn Clancy, Veterans Health Administration
Capt. Joel Dulaigh, Office of the Surgeon General, U.S. Public Health Service
Dr. Mary Mazanec, Library of Congress
Dr. Brent Miller, National Science Foundation
Dr. Dale Smith, Uniformed Services University of the Health Sciences
Dr. Paul Wester, National Agricultural Library

SPEAKERS AND INVITED GUESTS PRESENT

Mr. Christopher Zinner, Accenture

MEMBERS OF THE PUBLIC PRESENT

Ms. Loretta Jurnak, Technical Resources International, Inc.
Dr. Barbara Redman, New York University/Friends of the National Library of Medicine
Ms. Joyce Wanga, Technical Resources International, Inc.

FEDERAL EMPLOYEES/CONTRACTORS PRESENT

Dr. Patricia Flatley Brennan, Director, NLM
Mr. Jerry Sheehan, Deputy Director, NLM
Dr. Milton Corn, Deputy Director, Research and Education, NLM
Ms. Stacey Arnesen, Division of Library Operations, NLM
Ms. Dianne Babski, Division of Library Operations, NLM
Dr. Olivier Bodenreider, Lister Hill National Center for Biomedical Communications, NLM

Dr. Anna Calcagno, Division of Extramural Programs, NLM
Ms. Brenna Cox, Office of the Director, NLM
Mr. Todd Danielson, Office of the Director, NLM
Dr. Dina Demner-Fushman, Lister Hill National Center for Biomedical Communications, NLM
Mr. Ivor D'Souza, Office of Computer and Communications Systems, NLM
Dr. Valerie Florance, Division of Extramural Programs, NLM
Ms. Kathryn Funk, National Center for Biotechnology Information, NLM
Mr. David Gillikin, Division of Library Operations, NLM
Dr. Michael Huerta, Office of Strategic Initiatives, NLM
Ms. Christine Ireland, Division of Extramural Programs, NLM
Ms. Eden Kinzel, Office of the Director, NLM
Dr. David Landsman, National Center for Biotechnology Information, NLM
Ms. Jennifer Marill, Division of Library Operations, NLM
Ms. Margaret McGhee, Division of Library Operations, NLM
Ms. Christie Moffatt, Division of Library Operations, NLM
Ms. Jody Nurik, Office of Communications and Public Liaison, NLM
Mr. James Pash, Division of Library Operations, NLM
Dr. Kim Pruitt, National Center for Biotechnology Information, NLM
Ms. Leigh Samsel, Office of Strategic Initiatives, NLM
Dr. Steve Sherry, National Center for Biotechnology Information, NLM
Ms. Tina Shrader, Division of Library Operations, NLM
Ms. Crystal Smith, Division of Library Operations, NLM
Ms. Samantha Tempchin, Division of Extramural Programs, NLM
Ms. Lisa Theisen, Division of Library Operations, NLM
Ms. Sara Tybaert, Division of Library Operations, NLM
Ms. Annemieke van der Sluijs, Division of Library Operations, NLM
Dr. Rebecca Williams, National Center for Biotechnology Information, NLM
Dr. Teresa Zayas-Cabán, Office of the Director, NLM

I. CALL TO ORDER AND INTRODUCTORY REMARKS

Ms. Jane Blumenthal, Chair, BOR

Ms. Blumenthal called the meeting to order, welcoming attendees and thanking them for their flexibility in meeting remotely. The meeting was broadcast to the public via streaming video at <https://videocast.nih.gov>.

II. REPORT FROM THE OFFICE OF THE SURGEON GENERAL

Capt. Joel Dulaigh, Office of the Surgeon General, U.S. Public Health Service

Capt. Dulaigh provided an update on efforts of the Office of the Surgeon General (OSG) related to the COVID-19 pandemic, noting the unprecedented difficulties in combating the disease as well as the mental health and economic issues arising from self-isolation.

Upcoming OSG publications will focus on the Community Health and Economic Prosperity initiative, examining social determinants of health and their consequences within communities, and on oral health, focusing on its impact on overall health. Two calls to action will also be

published, one for maternal health and one for hypertension. The call to action concerning hypertension will be expedited because of the comorbidity with COVID-19, especially in minority populations, and will be published in early summer 2020.

Capt. Dulaigh also highlighted OSG's efforts to fight misinformation by using social media to provide evidence-based information to the public, noting that public engagement with OSG's social media platforms had increased recently.

Commissioned Corps Headquarters, part of the U.S. Public Health Service, organizes the organization's COVID-19 efforts, with 3,320 members deployed within the agency or in the community. Strike teams also support key missions, including working with the Indian Health Service (IHS).

BOR members discussed how OSG was handling misinformation, noting the OSG communication team's efforts to encourage the public to visit trusted sites like the NIH or Centers for Disease Control and Prevention COVID-19 portals. BOR members also discussed IHS's work in areas such as the Navajo Nation, highlighting issues like language barriers and lack of access to running water.

III. FEBRUARY 2020 MINUTES AND FUTURE MEETINGS

Ms. Jane Blumenthal, Chair, BOR

Ms. Blumenthal listed the dates of future BOR meetings, including the addition of the spring 2022 BOR meeting on May 10–11, 2022. There were no objections or conflicts noted.

Motion: The BOR approved the motion to accept the May 10–11, 2022, meeting date.

Motion: The BOR approved the motion to accept the minutes of the February 4–5, 2020, meeting.

IV. REPORT FROM THE NLM DIRECTOR

Dr. Patricia Flatley Brennan, Director, NLM

Dr. Brennan previewed the video highlighting NLM's history, services, and mission that will be shown at the NLM Visitor Center. She noted the key pillars of NLM's 10-year strategic plan to accelerate discovery and data-driven health, engage with users in new ways, and workforce development. Over the next year, the BOR will be updating the strategic plan, including the allocation of resources, and will discuss possible updates during a breakout session later in the meeting.

Dr. Brennan reviewed NLM's accomplishments since the last BOR meeting, focusing on the response to the COVID-19 pandemic. NLM received \$10 million in supplemental funding as part of the CARES Act, which was being used to support COVID-19 initiatives such as providing high-quality information to health professionals and the public. Key initiatives included providing an open-access COVID-19 PubMed portal, improving data quality through standardization and training, and facilitating modeling and research through GenBank. Other accomplishments included uploading 26 petabytes of data to Amazon Web Services and Google

Cloud Platform as part of the NIH Science and Technology Research Infrastructure for Discovery, Experimentation, and Sustainability (STRIDES) Initiative and acquiring the papers of former Secretary of Health and Human Services Louis W. Sullivan.

Dr. Brennan noted departures from NLM and the BOR and new appointments within NLM. Dr. Zayas-Cabán, the acting assistant director for policy development, provided legislative and policy updates, noting NLM's input on NIH's data sharing policy and the Cures Act.

BOR members discussed NLM's cooperative endeavor with publishers to make COVID-19 and related literature freely available on PubMed. The White House Office of Science and Technology Policy and policy leaders sent a request to publishers in March for easily accessible, machine-readable literature. There are currently 49,000 articles from over 50 major journals, which have been accessed more than 8 million times, available through the PubMed COVID-19 portal.

V. REPORT FROM THE NOMINATING COMMITTEE FOR BOR CHAIR

Dr. Dale Smith, Uniformed Services University of the Health Sciences

Dr. Smith reported that the nominating committee for the next BOR chair had met and recommended Dr. Carlos Jaén, noting his accomplishments and key areas of interest, including improving preventive care and chronic disease complication prevention.

Motion: The BOR approved the motion to appoint Dr. Carlos Jaén as the next chair of the NLM Board of Regents.

VI. CONCEPT CLEARANCE FOR NEW FUNDING OPPORTUNITY ANNOUNCEMENTS AND NOTICES OF REISSUANCE

Dr. Valerie Florance, NLM

Dr. Florance noted the recent rule that all Institutes and Centers must invite input, during a public meeting, from their councils on new funding opportunities to help promote transparency. Further information about each new NLM opportunity and reissuance can be found in the handout provided to the BOR before the meeting.

There was a new initiative to issue a funding opportunity announcement for a Network of the NLM Evaluation Center. This will be an independent evaluation center with both administrative and technical experts, which will help meet evolving needs. There were also two reissuances: the NLM information resource grants to help reduce health disparities and the NLM grants for scholarly works in biomedicine and health sciences.

BOR members were notified of several Notices of Special Interest (NOSIs) issued since the last BOR meeting. Two COVID-19-related NOSIs were for small administrative supplements to existing R01 grants and for new R21 grant applications for two-year grants. There were three NOSIs for administrative supplements for different centers and programs within NIH's *All of Us* Research Program.

VII. WORKING GROUP BREAKOUTS

BOR members divided into four breakout groups. Representatives from the groups summarized the discussions later in the meeting.

VIII. CLOSED PORTION

The closed portion of the meeting took place from 11:30 a.m. to 2:15 p.m. on May 12, 2020.

IX. BOR WORKING GROUP REPORTS AND DISCUSSION

Strategic Planning

Ms. Blumenthal reported for the Strategic Planning Working Group. During the breakout session, NLM staff presented the progress made on the NLM strategic plan update, focusing on the monitoring of those updates. Ms. Blumenthal noted the progress made in fiscal year (FY) 2019, which included the development of definitions and responsibilities with the use of a more sophisticated portfolio analysis tool (on FY 2018 data). The final list included 46 offerings, which will be further analyzed by determining customer value and specific performance indicators. The group discussed how COVID-19 had affected both NLM staff and stakeholders, in terms of resources and connectivity, and what effects will continue into the future. The need for internet infrastructure standards and NLM's potential role in providing such support to the general public and in the health care arena in the post-COVID-19 world was also discussed.

Research Frontiers

Dr. Heidi Rehm, BOR member, reported for the Research Frontiers Working Group. The group discussed the artificial intelligence (AI)-related recommendations that were discussed during the last BOR meeting and NLM's potential role as a result of those recommendations, for both intramural and extramural activities. It was noted that NLM was leading the work on two of the five initiatives identified by another working group focused on extramural funding initiatives. The group suggested the formation of a task force within NLM to develop a strategic plan that details the support that could be provided and determines whether AI should be a major research focus or be incorporated into existing research. It was also suggested that NLM should focus intramurally on the extramural funding initiative areas that it had been assigned, for consistency and collaborative opportunities. It was emphasized that NLM was in a unique position to benefit from current advances in AI and that NLM should think about additional approaches, including strategic leadership and advocacy.

Collections

Ms. Jennifer Marill, NLM, reported for the Collections Working Group. During the breakout session, NLM staff presented on four topics related to NLM literature initiatives to support the response to COVID-19. The presentations focused on NLM activities such as interlibrary loan services and information dissemination to libraries despite pandemic-related challenges,

including limited staff and resources. Information about the COVID-19 web archive and the PubMed Central (PMC) COVID-19 initiatives was also provided. For the COVID-19 web archive initiative, audio and visual materials related to the COVID-19 pandemic, such as social media posts and news articles, are being captured. For the PMC COVID-19 initiative, publishers and professional societies are coordinating with NLM to provide expedited access to COVID-19 articles and datasets within PMC. Group members commented on the successful implementation of the latter initiative as an open-access model. Updates on the NIH Preprint Pilot were also provided. It was noted that NLM will be moving forward with this program and that lessons learned from the pilot will inform future efforts related to preprints. The first phase of the program is focusing on COVID-19 preprints, with expansion to discovery, researcher education, tracking and reporting, and community engagement anticipated in summer. The possibility of expanding the pilot period because of the pandemic was also mentioned.

Public Service

Dr. Carlos Jaén, BOR member, reported for the Public Service Working Group. The group discussed recent ClinicalTrials.gov modernization activities and the public meeting held remotely on April 30. The request for information (RFI), open from December 30, 2019-March 14, 2020, garnered 268 submissions, with 259 unique respondents; comments centered on web functionality, information submission, and data standards but also recognized the value of and expressed appreciation for ClinicalTrials.gov. The public meeting had approximately 400 attendees, with working group members presenting their perspectives on the varied uses of ClinicalTrials.gov; attendees were able to provide feedback through interactive electronic polling questions. Group members were encouraged by the amount of participation and number of real-time responses from attendees. It was agreed that determining which issues to focus on for the modernization effort is challenging. Next steps include the development of a modernization roadmap. More information will be shared with the BOR during the September 2020 BOR meeting.

The group also discussed additional topics under the RFI topic areas that should be considered as part of the roadmap. BOR members discussed the overall general budget for the modernization effort and how to improve ClinicalTrials.gov in relation to future NLM goals.

X. ADDRESSING NEW OPPORTUNITIES AND CHALLENGES THROUGH THE NLM STRATEGIC PLAN

Mr. Christopher Zinner, Accenture

The purpose of this session was to gather thoughts and comments from BOR members on any challenges and opportunities that had emerged since the NLM strategic plan was introduced in 2017. It was noted that identifying these challenges and opportunities will not result in a new plan but will give NLM direction on which topics to address as implementation of the plan continues. This session was recorded, and the input collected will be presented in a detailed report; notes collected by the Accenture team will be shared with BOR members. Input on the strategic plan is also being collected from other groups and stakeholders.

BOR members identified various challenges in areas relevant to the scope and mission of NLM such as policy, science, technology, methods of scholarly communications, and workforce considerations. These challenges included the need for better connectivity for consumers, the need to rethink the use of local libraries, modes of expansion for the use of NLM resources, federated approaches to data sharing and analysis, and the growth of dependence on commercial cloud computing for performing core scientific computing.

Opportunities related to the areas listed above were identified, and BOR members were also asked to name opportunities that were not related to challenges mentioned earlier in the session. They identified opportunities such as taking advantage of the rising adoption of the Fast Healthcare Interoperability Resources (FHIR) standard across health sectors, for data gathering, and for future clinical research studies; increasing awareness of science and medicine in the life of the community; providing more opportunities for training of under-represented minorities; and collaborating with other trusted sources of scientific information to emphasize science over myth.

The challenges and opportunities identified were organized into the following groups: large-scale cloud computing, machine learning/tools, leveraging stories, “last-mile” problems, and misinformation/scientific distrust. The majority of BOR members agreed that NLM should focus on items in the leveraging stories group.

XI. ADJOURNMENT

Ms. Blumenthal adjourned the BOR meeting at 2:15 p.m. on May 12, 2020.

Actions Taken by the Board of Regents:

- Approval of the February 4–5, 2020, BOR meeting minutes
- Approval of the May 10–11, 2022, meeting date
- Approval of the next BOR chair, Dr. Carlos Jaén

Appendix A. Roster — Board of Regents

I certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.


Digitally signed by Brennan,
Patti (NIH/NLM) [E]
Date: 2020.07.15 10:02:53
-04'00'

Patricia Flatley Brennan, RN, PhD
Director, National Library of Medicine


Jane Blumenthal, MSLS
Chair, NLM Board of Regents