

March 24, 1986

Draft Minutes

Board on Basic Biology Meeting, March 3, 1986

March 3, 1986

9:00 a.m. - 5:00 p.m.

*No mention of genome
Part of the Woods Hole had
major discussion (fall
afternoon, & morning) devoted to*

Board Room
National Academy of Sciences Building
Washington, D.C.

Board

Francisco Ayala, Chairman
Nina Fedoroff
Simon Levin
Harold Morowitz
Harold Mooney
Joseph Varner
John Dowling, ex officio

Attendees

*it is special program
Projectus = CSR? / NPT / Sci. Coverage?*

NRC Staff

John Burris, BBB
David Policansky, BBB
Walter Rosen, BBB
Alvin Lazen, CLS
Frances Walton, BBB
James Tavares, BA

Proposed

The meeting was called to order at 9:00 a.m. by Francisco Ayala. John Dowling, new chairman of CLS, welcomed the Board on Basic Biology (BBB) members to the first BBB meeting to be held separately from CLS. Francisco Ayala introduced the new members of the Board, Harold Morowitz and William Paul (absent).

John Burris provided some background information on the progress of the Committee on Research Opportunities in Biology chaired by Peter Raven. Board members were concerned that there be a more formal mechanism for interaction of BBB with the committee. In particular, the members present wanted to know how the committee had responded to earlier suggestions from the Board.

Harold Mooney and others were concerned that the study was too discipline-oriented and not problem-oriented, as had been originally proposed. John Burris responded that at both committee meetings this concern had been raised, but the committee decided that the subcommittee structure and topics proposed would result in the most effective final report. John Burris agreed to convey to Peter Raven the BBB'S belief that a problem orientation and interdisciplinary approach should be incorporated into the report. The BBB asked that Peter Raven be invited to the August 5 BBB meeting at Woods Hole to provide a briefing on progress of the study. BBB members also felt that some of the proposed subcommittees for the Raven study were not fully representative of their respective fields. Suggestions were made for possible additional members to increase breadth of several subcommittees.

Walter Rosen and Joseph Varner then led a discussion of the forthcoming report of the panel on cell biology. The BBB felt that it should be actively involved in the review of this report and in making suggestions to George Palade, panel chairman, for his briefing to Erich Bloch at the National Science Foundation (NSF). Walter Rosen stated that when the report is sent out for review, copies will be distributed to all BBB members for their comments. Because of the short time before the deadline (March 31), there will probably not be sufficient time for BBB members to see the panel's response to reviewer comments. Although the BBB felt it would prefer having input at both levels of the review, in this situation it was decided that two BBB members should be designated to represent the Board and offer suggestions to the panel chairman after the panel responded to the reviewers' comments. Nina Fedoroff and Joseph Varner were appointed to fill this role. They both also agreed to review the preliminary draft given to them at the meeting.

Timothy Goldsmith then joined the meeting via telephone conference to discuss the BBB's efforts to initiate a study in precollege education. He discussed the problems the BBB had had in gaining NSF support and in receiving guidance on the Education Directorate's goals. He also pointed out that since the BBB had begun its efforts, numerous other activities had been initiated that also are addressing the question of precollege education, most notably Project 2061 of the AAAS.

Timothy Goldsmith suggested that a workshop to review various projects and the question of what the NRC can do in this area might be worthwhile. The workshop should include the principals involved in the various projects. After extensive discussion, it was decided that at this time the BBB should cease its efforts to receive NSF support for an education project. Dr. Ayala will write a letter to Dr. Shakashiri expressing the Board's interest in precollege education, but indicating that BBB will not initiate a project until it receives a specific request from NSF.

The Board recessed for lunch with the United States National Committee (USNC) of the International Union of Biological Sciences (IUBS). A joint session with USNC/IUBS followed (list of USNC/IUBS members and guests attached as Appendix A). Harold Mooney discussed the International Geosphere—Biosphere Program (IGBP), a project of the International Council of Scientific Unions, designed to develop an integrated view of global change. At present the working groups are trying to decide on three to four problem areas for further development. Frank Golley then discussed a set of proposals he has made to the USNC/IUBS to examine biological diversity and influence on global processes. Although no formal decision was reached on involvement of BBB/CLS in the IGBP program, the BBB members were enthusiastic about the project and asked to be kept informed.

Simon Levin then presented the results of a meeting of 10 directors of ecosystem research centers. This group is concerned about the amount and distribution of funding for ecosystem studies and feels that there should be better coordination and integration of programs. It was suggested that the BBB might be involved through a committee that would look at the state of the field, research priorities, etc., for ecosystems research. BBB might help articulate the societal needs for research in ecosystems science.

BBB did not take any formal action on this proposed activity. Simon Levin and David Policansky will develop an action item for BBB if it is deemed appropriate. In developing this item, they were cautioned to make sure that ecosystem centers, small and large schools, and several agencies are included. An evaluation of the structure of ecosystem science and the emerging problems in ecology that could benefit from an aggregated research approach seem to be worthwhile goals of such a study.

David Policansky provided background information on the Biotechnology Nomenclature Conference. This conference is scheduled for May 5-6 in Leesburg, Virginia.

Walter Rosen and Harold Mooney discussed the Forum on BioDiversity, scheduled for September 1986, which is designed to explain the issues to the public. It was characterized as a three-day exercise in consciousness-raising.

David Policansky and Harold Mooney reported on the Mono Lake study. The lead unit in this study is the Board on Environmental Studies and Toxicology, with the collaboration of BBB through the staff work of David Policansky. Drs. Ayala and Mooney pointed out the controversial nature of this issue and urged that the committee be extremely careful in its deliberations.

Simon Levin and David Policansky reported that the report of the Committee on Applications of Ecological Theory to Environmental Problems will be released in mid-March.

Nina Fedoroff and John Burris discussed the BBB efforts to get funding for a study on the release of genetically engineered organisms into the environment. Federal agencies have not funded the proposals submitted by BBB. The BBB felt that this issue is worth pursuing and suggested that NRC program initiation funds be sought to conduct a workshop to evaluate what scientific issues and questions need to be resolved and to clarify the role, if there is one, of the NRC.

Walter Rosen stated that the macromolecular structure and function proposal will soon be submitted to the Department of Energy. He also reported that a proposal on the previously approved study on rates of species extinction will

not be submitted to possible funding agencies and foundations until it is clearer what needs to be done. Several other groups are active in this area, and more information on their progress is required.

The meeting concluded with a discussion of possible new members for BBB and the role of the BBB. It was decided that three to five new members should be added to BBB before its next meeting on August 5, 1986, in Woods Hole, Massachusetts. These new members should represent areas such as cell biology, molecular biology, developmental biology, and systematics and evolution.

The BBB then discussed its role. It was suggested that the BBB should deal with biological issues and questions that have societal implications and also be concerned with the health of biology in the nation. The staff was directed to prepare a statement about the purpose and goals of the BBB. This statement will then be circulated to the members for comments.

The Board also discussed the need to secure core funding for its activities. Board members were urged to suggest possible foundations or agencies that might be interested in providing such funds.

The meeting adjourned at 5:20 p.m.