

**Topical Conference**  
**"OPPORTUNITIES IN BIOLOGY FOR PHYSICISTS"**  
**September 27 – 29, 2002**  
***Sheraton Hotel, Boston, MA.***

## **CONFERENCE SUMMARY**

### **Purpose and Audience:**

In 2001, the Executive Board of the American Physical Society (APS) decided to organize a specialized, topical conference on an emerging field of physics; one that would inform physicists of future opportunities. After broad consultation, it was decided to aim the conference at early career physicists who were interested in exploring the possibilities of working at the interface between physics and biology. The intended audience would be graduate students and postdocs considering applying methods of physics to biological research, and those who advise others on such opportunities.

### **Organization and Planning:**

A Steering Committee of outstanding researchers, with Robert Austin of Princeton University as chair, was appointed. A planning meeting was held December 4, 2001 at the American Center for Physics. Five major topic areas were identified as areas of particular importance for the future and a list of potential speakers in each area was developed. The areas identified were as follows:

- Genomics and Evolution
- Biological Networks
- Biomolecular Dynamics
- High-Resolution Imaging of Living Cells
- Technologies for Biological Investigation

A tentative budget was drawn up with plans to contact a variety of funding agencies. It was decided that a special effort should be made to secure external funding to provide 50 – 100 travel grants of up to \$500 for graduate students and postdocs.

### **Participants:**

Email messages were widely distributed to APS members, announcing the conference, and announcements of the conference were also made at the APS March 2002 and April 2002 meetings. A website was established to provide detailed information about the conference and enable people to apply for an application and request a travel grant. Because the Steering Committee wanted to limit attendance to 200, people interested in attending were required to apply to receive a registration form. Those requesting a travel grant were asked to provide information regarding their current area of interest/study and how they thought they might benefit from attending the conference. Eighty-two individuals were selected to receive travel grants. The APS Committee on International Scientific Affairs (CISA) provided funds for two international students to attend the conference.

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### **Conference:**

A complete program with the names of all speakers and Steering Committee is provided. 205 people, including 89 graduate students, 53 postdocs, steering committee members, speakers, and panelists, attended the conference.

One of the highlights of the conference was a reception after the first day of talks. Thirteen "booths" of organizations having programs or providing funding in biophysics research fields were arranged in the reception area. The reception also provided an extended informal time for conference participants to network and discuss areas of interest. Another highlight of the conference was a "Lunch with the Experts" for all graduate students. A box lunch was provided and participants signed up to sit at a table hosted by one of the conference "experts". Eighty-nine graduate students participated.

### **Follow-up:**

All of the speakers did an excellent job of planning their talks for physicists with little or no knowledge of biology. Most of the talks can be viewed on the web at:  
<http://www.aps.org/meet/biology-physics/weblectures.html>

A follow-up survey of participants was taken shortly after the conference. A summary of responses to the 10-question survey with some comments has been provided. A complete list of comments for all questions will be provided upon request.