

# **Annual Report for 2001**

## **Committee on Careers and Professional Development**

### ***Summary***

Members of the CCPD focused much of our attention this year to expanding and strengthening the Career and Professional Development Liaison (CPDL) program. We continue to work on enhancing the CPDL website, and the CPDL workshop at the APS March meeting has now become an entrenched activity of the committee. The CPDL program eventually will become mostly self-supporting; however, an increasing amount of staff time is required to deal with the logistics of offering workshops at not only the national, but also the regional level. Additional activities this year include the design and printing of a CCPD/CPDL poster, refining a questionnaire on career issues sent out to postdocs, and beginning an effort to create career profiles at selected companies. The CCPD has established an ambitious agenda and appreciates Society support in executing these programs. The plans to include additional funding for the CPDL program in the 21st Century Campaign will assure continuity of the present programs while at the same time allowing for expanded new activities.

### ***CPDL program***

The Career and Professional Development Liaison (CPDL) program began in 1998 as a means to establish a two-way communication network between the CCPD and physicists who are preparing students for the workplace. This network allows efficient dissemination of the materials developed by APS (and AIP), and also provides the committee with information as to the needs of APS members. The number of CPDLs at schools ranging from small liberal arts colleges to research universities continues to grow and now stands at over 200. As there are over 600 physics departments that are eligible to participate, there is still considerable room for this program to grow. The challenge to the CCPD is to identify and promote the benefits that accrue to departments that choose to join the CPDL network.

### ***CPDL Workshops***

The third CPDL workshop, "Careers and Curricula", was held in Seattle on March 10-11, 2001. The approximately 40 attendees participated in a Saturday evening reception at which posters on departmental programs and best practices were set up and informally discussed. The following Sunday morning session included three invited presentations followed by breakout sessions in which each breakout group (Ph.D, masters, and undergraduate) discussed and reported back to the workshop on possible strategies that departments could use to better prepare their students for careers. Lunch featured Dr. John Poate (Axcelis Corporation) who spoke about careers for physicists in the semiconductor industry. The following panel discussion, which included invited FIAP representatives, solicited comments from all participants and focused on curriculum changes to meet the needs of industry. Written evaluations and verbal comments from the participants showed that the workshop was well received and very successful. Future workshops will have a recorder present so that highlights of the workshop can be posted on the CPDL

webpage and be made available to interested parties that could not attend. Breakout groups, brainstorming sessions and/or a forum structure are considered to be an integral part of these workshops.

This year's upcoming workshop, "Careers in industry - Preparing your students", will take place on Sunday, March 17, 2002, in Indianapolis, just prior to the March Meeting. The workshop will again begin with an informal Saturday evening reception and poster session followed the next morning by a half-day session comprising (1) a short presentation on education and career statistics (Roman Czujko, AIP), (2) presentations of three invited (confirmed) speakers, and (3) a forum discussion moderated by CCPD member Rajinder Koshla. The forum will feature a 6-8 member panel including the invited speakers. The forum moderator will actively solicit audience participation in discussions relating to the workshop theme. Heather Galloway, CCPD member and chair designate for 2002, will act as official recorder to ensure that highlights of the discussions together with action items will be made available on the CPDL web page. The workshop will end with a sit-down lunch and a presentation by Venky Narayanamurti, Dean of Engineering at Harvard.

Participants will be primarily CPDLs (faculty members), department chairs, and others who have an interest in careers and career-related issues. To obtain a broader perspective, we have expanded the invitation list beyond CPDLs but will cap attendance at 100. A large turnout is expected this year because of overlap with a FIAP Tutorial, "Physicists get down to Business", which will follow the workshop lunch and which will be free to all workshop participants who state their intention to participate.

## ***CPDL Web Site***

The resources available on the web are very useful to CPDLs. There is clearly however a need to focus more resources on updating and expanding the web page. More effort needs to be spent on creating new content, updating statistics, and providing interactive discussion forums. These issues have been identified and discussed in last year's annual report. Additional funding and commitment of personnel will be needed to make an impact here.

## ***CCPD/CPDL Poster***

The CCPD in collaboration with APS staff has spent some time in designing a poster that advertises the benefits to physics departments in joining the CPDL program. This artfully designed color poster will be displayed at APS meetings and other APS sponsored events.

## ***Company profiles on CPDL Web Site***

At the urging of Judy Franz, the CCPD has begun discussions on posting company profiles on the APS Career web page (linked to CPDL) web page. The idea is to identify APS members who are employed at representative companies and who would be willing to provide information about physics careers at their respective companies. This might be a way to get realistic and current information to APS members, particularly students. The information would have to be

periodically updated. There might be some difficulty in discerning whether an individual's statement is in accord with company policy and whether appropriate approvals would be required.

## ***NAS Postdoctoral Report and Junior Member Survey***

David Elmore attended the NAS Post Doctoral Convocation and reported back to the committee on his experiences. The CCPD recognizes that it is important keep abreast of career issues concerning postdocs. The important position of postdoctorals as researchers and teachers makes this a critical issue to examine. In this regard, the CCPD also provided input to the APS Junior Member Survey, which was sent out in May and received 350 (30%) responses.

## ***Short Course***

The CCPD is sponsoring a half-day course titled "Management Problems of the Technical Person in a Leadership Role" which will take place on the morning of March 17, 2002 in Indianapolis. The course will be primarily advertised to FIAP members. A similar short course took place at the 1999 Centennial meeting and was well received.

## ***Acknowledgements***

The committee wishes to acknowledge the invaluable support and efforts of Arlene Modeste Knowles throughout the year. Judy Franz, Alan Chodos, Darlene Logan and Fred Stein have actively participated in our meetings. We also appreciate support from the American Institute of Physics's Divisions of Education and Statistics. Roman Cjzuko has provided statistical information to the committee, and to the CPDLs. Jack Hehn and Gary White (AIP) have attended meetings and contributed many ideas to the committee. Finally, we have benefited greatly from contributions from the Committee on Education through Ken Hass, and the Forum on Industrial and Applied Physics (Udo Pernisz, Robert Brown, Gordon Thomas). Continued communication ensures that we are not duplicating each other's efforts in areas of mutual interest.

Respectfully submitted  
For the Committee on Careers and Professional Development

Arthur F. Hebard, Chair