ACD Liaison Report to the COPR

April 20, 2007

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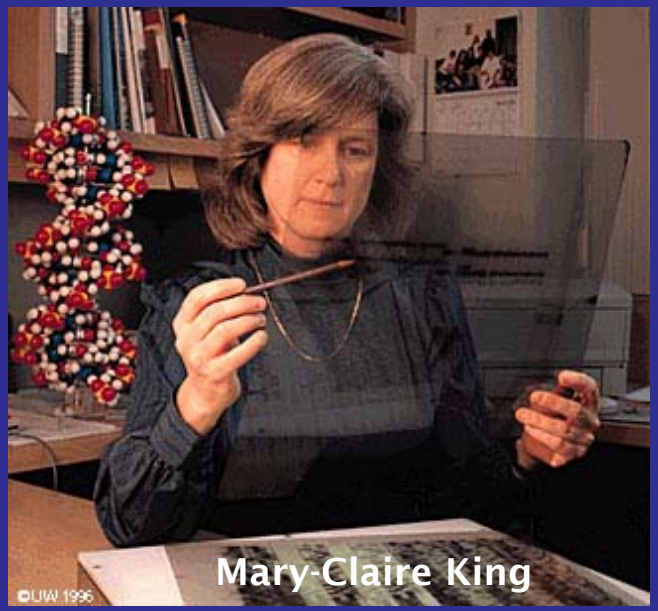
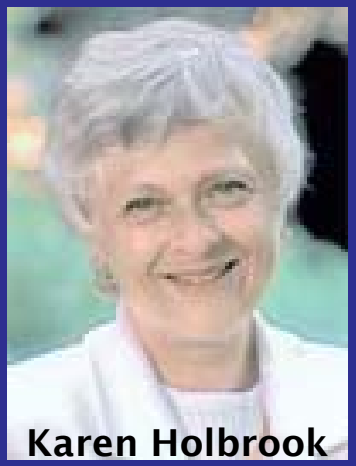
ACD Liaison to the COPR

The ACD met on December 1, 2006, and also teleconferenced on February 21, 2007



Mary-Claire King


Karen Holbrook


Barbara Wolfe

- Minutes of Dec. 1 meeting are included in the meeting binder.
- Three new ACD members:
  - Mary-Claire King, Ph.D., Professor, Departments of Medical Genetics and Genome Sciences, University of Washington
  - Karen A. Holbrook, Ph.D., President, Ohio State University
  - Barbara L. Wolfe, Ph.D., Professor,Departments of Population Health Sciences, Economics, and Public Affairs, University of Wisconsin Medical School

Discussions of the Peer-Review Process

- Concerns about the peer-review process: Budgets are tight, and number of applications is up; only a fraction of the most excellent and meritorious awards can be funded.
- Creates difficulties for applicants *and* peer reviewers: Applications given a "priority score" and a "percentile." The latter is the strongest determinant of funding.
- At present, relatively "low" percentiles needed for funding (7%–15%, depending on Institute and timing): Creates perception that only "perfect" applications can (or should) be funded, so tight funding changes *tone* of peer review process—R01s begin to seem almost unattainable.
- NIH is working to shield young investigators from the worst aspects of this situation: Special funding and turnaround criteria for first-time grantees; Pathway to Independence and New Innovator Awards as well.

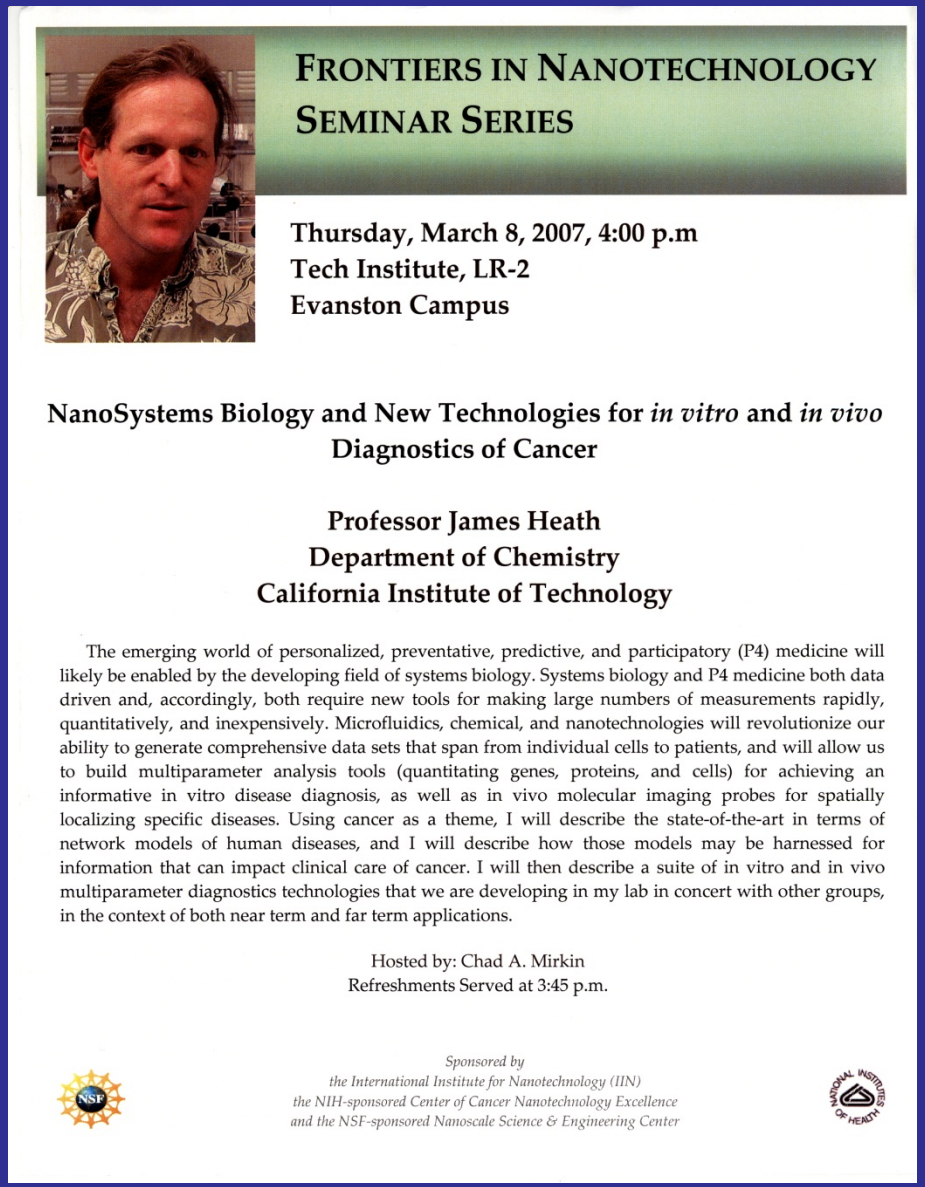
Potential Changes to Grant Proposal Guidelines to Streamline Peer Review

- An *ad hoc* "Peer Review Brainstorming Group" convened: Antonio Scarpa planning a "Blue Ribbon" panel.
- Acceleration of the peer-review process: Made possible by online e-submissions (rolled out very successfully); already being piloted—review cycle ~ 2 months shorter.
- Presently, R01 applications are 25 dense pages of 11 pt. font with small margins (R21s are 15 pages): Challenging to prepare *and* to review (**but** this is what makes NIH review process so rigorous and excellent…).
- NIH will consider shortening applications: A variety of alternatives under consideration—18 pages; 7 pages… any dramatic shortening would represent a *huge* change.
- COPR member thoughts on such a change? Ideas, input welcomed.

Increasing Synergy and Exchange between the ACD and COPR

- ACD members invited to attend a COPR meeting: John Nelson (retired physician, former AMA President) attending this meeting (and work group).
- A reciprocal program (one or two COPR members sitting in on ACD meetings) also could have very positive effects: A way to give public input to scientists.
- A "sea change" seems already to be afoot, with close connection between present ACD and COPR Liaisons.
- Director should consider transition period of new liaisons to/from either Council: Liaison-Elects attend one meeting of other Council with the current Liaison.
- COPR member ideas for strengthening bonds between ACD and COPR very welcome.

Update on COPR Impact: The "4 P's" Are Being Adopted, Acknowledged by Researchers



FRONTIERS IN NANOTECHNOLOGY
SEMINAR SERIES

Thursday, March 8, 2007, 4:00 p.m
Tech Institute, LR-2
Evanston Campus

NanoSystems Biology and New Technologies for *in vitro* and *in vivo* Diagnostics of Cancer

Professor James Heath
Department of Chemistry
California Institute of Technology

The emerging world of personalized, preventative, predictive, and participatory (P4) medicine will likely be enabled by the developing field of systems biology. Systems biology and P4 medicine both data driven and, accordingly, both require new tools for making large numbers of measurements rapidly, quantitatively, and inexpensively. Microfluidics, chemical, and nanotechnologies will revolutionize our ability to generate comprehensive data sets that span from individual cells to patients, and will allow us to build multiparameter analysis tools (quantitating genes, proteins, and cells) for achieving an informative in vitro disease diagnosis, as well as in vivo molecular imaging probes for spatially localizing specific diseases. Using cancer as a theme, I will describe the state-of-the-art in terms of network models of human diseases, and I will describe how those models may be harnessed for information that can impact clinical care of cancer. I will then describe a suite of in vitro and in vivo multiparameter diagnostics technologies that we are developing in my lab in concert with other groups, in the context of both near term and far term applications.

Hosted by: Chad A. Mirkin
Refreshments Served at 3:45 p.m.

Sponsored by
the International Institute for Nanotechnology (IIN)
the NIH-sponsored Center of Cancer Nanotechnology Excellence
and the NSF-sponsored Nanoscale Science & Engineering Center

- This Caltech chemist starts off his abstract (for invited scientific lecture at Northwestern) by talking about "4P Medicine": (personalized, preventive, predictive, participatory)
- Thinking about the 4 P's: I want to thank the COPR for allowing me (an ACD member) to truly participate in your discussions.