

PANEL #1:

How do we sustain and enhance our strength and excellence in basic science research especially given the current NIH funding climate?

1. What should we be doing to provide an environment that continues to support innovation, excellence and scientific breakthroughs in a declining funding environment?

Summary of Comments:

- Problems with the grant review and funding process: “peer” review does not necessarily equate to a review on the quality of the research. Stanford should work towards changing the NIH process.
- Collaboration across the 7 Schools at Stanford and between investigators will distinguish Stanford grants.
- PPGs (program project grants): differing opinions on the importance and applicability of PPGs at Stanford resulted in a recognized need to better understand the size and nature of current PPGs.
- Efforts to nurture and support junior faculty need to be initiated (e.g., with reduced funding, junior faculty will lose confidence and become more conservative in their science).
- It was noted that some strong labs are currently experiencing funding problems.

Suggested Action Items:

- Undertake initiatives to change the NIH grant process:
 - Need to induce a fundamental change in NIH process to include track record. Study section for PIs with ≤ 7 years since last training. Another for PIs with > 7 years.
- Develop mechanisms to encourage and support multi-PI projects:
 - Need to collaborate across departments to better use available resources and ideas.
 - Take advantage of 7 world-class schools at Stanford. Collaborations across schools will distinguish Stanford grants. Unique Stanford advantage. Institutional sponsored funds should be set aside for junior investigators.
 - Need to better understand how to develop multi-PI proposals and how and where to submit them.
 - Need to report on these PPG activities more clearly.
 - Turn PPG leadership over to the BSc PI or we need a complete change in CSc PI culture.
- Establish funding mechanisms and programs targeted to junior investigators:
 - Also need bridge funding mechanisms to support young investigators during tight years.
 - Focus junior faculty on work where they can clearly be identified as the main driver (in run up to tenure).
 - Need to encourage junior faculty to apply for Junior Pioneer Awards.
- Develop new fundraising strategies:
 - Need to be creative in fundraising for our science.

2. In what ways can we ensure that the most talented and creative scientists see Stanford as the place where they will be able to do their best work?

Summary of Comments:

- The concept of a “Junior Chair” was introduced: SoM is currently experiencing difficulty in raising the money to attract full professors. On the main campus, “Faculty Scholars” programs (~\$2M) are used to support junior faculty – this might be more attractive to some donors (vs. ~\$4M). To overcome limitations in reserves with the recruitment costs, a system of joint funding (including department-to-department funds) was proposed.
- The tenure rate is regarded as a measure of SoM’s success and also attracts junior faculty.
- Leadership training should be encouraged. The term “mentorship” has a negative connotation with some people. Every single tenure failure points to a lack of mentorship. However, the issue of making mentoring mandatory elicited a fair amount of debate.
- Issues on relocation and family responsibilities (e.g., child care) for junior faculty goes beyond gender – it’s more of a generational attribute.

Suggested Action Items:

- Develop an endowment for “Junior Chairs” or “Faculty Scholars”:
 - Can we develop “junior chairs”?
 - Faculty scholars programs (at about \$2m) are used to support junior faculty on the main campus.
 - LPCH endowment program for younger faculty.
 - “Folding” chairs to be passed around.
- Develop effective policies encouraging the use of payout from endowed chairs:
 - We need to encourage faculty to use these funds now.
- Set greater expectation for effective mentoring of junior faculty:
 - Need to offer a leadership training/mentorship option – but not require it.
 - We need to programs to prepare sr. faculty to be effective mentors.
 - We require that all Asst Prof have mentors.
 - Develop “leadership” as a criterion in A&P considerations.
- Develop new funding mechanisms for junior faculty, especially those with family obligations, looking to a variety of sources (departments, school, hospitals, and university):
 - Need help in how to say “no.”
 - Chairs must use department funds if needed.
 - To overcome limitations in reserves we may need a system of joint funding – including department-to-department funds.

Translating Discoveries – Leading the Way

**3. How can we develop and optimize core technologies to enhance basic research?
(Will the methods that produced success in the past continue to work as well in the future?)**

Summary of Comments:

- Beneficial core technologies provide value across the academic community and provide a service that is not externally available. Stanford should work towards eliminating the low value cores.
- Stanford is very effective at translating inventions into core technologies. One common problem is the difficulty in distinguishing between investigation and service. A need for guidelines for working with core technologies that would cover the investigation/service issue was identified.

Suggested Action Items:

- Develop a better defined institutional “mission” for core facilities, including:
 - We need to ensure that we preserve and enhance the research and service aspects of cores.
 - Need to reduce their isolation and increase ability to interact.
 - We need a best-practices for cores.
 - Learn for our peers who have been able to differentiate these from cores.
 - Consider changing “Strategic Centers” to “Enabling Technologies.”

4. What can we do to promote changes in NIH grant review and funding policies?

Summary of Comments:

- Currently experiencing difficulty in finding people to serve on Study Sections. Historically, the “best and brightest” served on the Sections.
- An assessment of the current models (DARPA, HHMI, and NIH) should be conducted.

Suggested Action Items:

- *(See actions items from first question.)*
- Work to change incentives for serving on Study Sections so as to attract top scientists:
 - Engage in a “scientific study of science”: what type of funding yields the best results in terms of scientific advances (i.e., ROIs vs. Program Project Grants).
 - We should figure out what works best.