OPEN CHANNELS

Re: "Funding decisions: the HHMI method," President's Message by Steven McKnight, May issue

In the March issue of ASBMB Today, Steve McKnight explained the Howard Hughes Medical Institute method for funding decisions and provided some explanations for its great success. But he did not mention that the task of the HHMI selection committee (i.e., to select and retain individuals who have the potential to make significant contributions to science) is just about the easiest job on Earth. This committee could not go wrong since it is already dealing with a highly selected pool of overachievers who are destined to succeed anyway. It is the same as asking somebody to predict who is going to win a Wimbledon tennis tournament in five years. The answer is likely those who won the junior title the past five years or the last year's winner. McKnight also did not speculate as to whom from the list of the Nobel laureates was going to win the prize anyway, irrespective of HHMI support. I suspect most of them.

The job of picking future stars in science is not difficult, if you know their accomplishments as independent juniors. The daunting task is to select among 100,000 applicants (old and new) those 5 percent to 10 percent who have the so-called "best" projects. Most winners and losers are separated by very few points. I wish I had a solution, and I speculate that the HHMI selection committee does not have one either. As we say in

science, in the end, this is a stochastic (good or bad luck) approach.

– Eleftherios P. Diamandis, Mount Sinai Hospital, University Health Network, University of Toronto

Re: "The reality that dare not speak its name," essay by Andrew Hollenbach, April issue

I completely agree with Andrew Hollenbach about the fairness of being able to obtain a research grant these days. Only a fraction of applications are now getting funded, and it depends on whom you know rather than the degree of creativity and excitement of your hypothesis. Funding now depends on buzz words, hype, "study-section think," confirmation of previously published boring data, and fundability — rather than the possibility of taking a risk that might make an important breakthrough contribution to advance a field of study.

Study-section issues and discrepancies notwithstanding, another big problem is the fact that the amount of federal funding for basic research is dwindling compared with the expanding number of aspiring young principal investigators. Also, more National Institutes of Health money is being moved from the pot of funding R01 and R21 grants to that of funding large centers, consortiums and infrastructure, which leaves out the PI who wishes to maintain a small lab and do hands-on, wet-bench research combined with proper mentoring. Another very serious problem cannot be ignored: The federal government currently spends about

\$3 billion each day beyond its budget. Someday, our exploding national debt, soon to reach \$20 trillion, must be curtailed by serious budgetary cuts (and/or massively increased taxes); when this happens, one can only hope that scientific research funds will not be severely slashed.

Hollenbach described having had a small lab, trying to be an outstanding mentor and failing to acquire additional research funding after having co-authored fewer than two dozen papers. An even more impressive example came from my own lab: a senior postdoc who became a research assistant and then tenuretrack assistant professor. In the third year of his five-year R01, he saw the writing on the wall and chose to leave academia to become a house-husband - caring for his two kids, brewing his own beer, volunteer-teaching science and music at local middle and high schools. Now he's sleeping better at night. He left academia with more than six dozen publications. - Daniel W. Nebert, professor emeritus at the University of Cincinnati College of Medicine and Cincinnati Children's Hospital

Clarification

Further analysis of the 2014 ASBMB graduation survey revealed that four schools may have reported incorrect numbers of American Indian or Alaskan Native graduates. As ASBMB Today has no means of independently validating their self-reported answers, it is possible that fewer American Indian or Alaskan Native students received biochemistry and/or molecular biology degrees in 2014 than was reported.

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