Our History with HHMI

Smith has been one of the few institutions nationwide to receive over 25 years of continuous HHMI grant funding.

Since 1988, our HHMI awards have totaled over \$7 million dollars, providing critical support for curricular and programmatic innovations, including:

- Mentoring support
- SURF student stipends
- Smith Summer Science Program for high school girls
- Acquiring advanced
 scientific equipment
- Science K-12 outreach
- Funding an NSC faculty line
- Student travel to scientific meetings
- Establishing and helping to equip our interdisciplinary science research centers

Be sure to keep an eye out for announcements about divisionwide conversations for our HHMI pre-proposal this fall.

What can we do next?



FROM THE CLARK SCIENCE CENTER DIRECTORS' OFFICE

Summer 2015

Special HHMI Issue

This spring, the Howard Hughes Medical Institute (HHMI) released an announcement about its <u>next grant competition</u> for funding science education in higher education called "Inclusive Excellence: Engaging all students in science." According to their announcement, "The goal of this initiative is to help institutions build their capacity to effectively engage all students in science throughout their undergraduate years, especially those who come to college from nontraditional pathways."

HHMI's newest competition is different from years past because of its central focus on *building institutional capacity for inclusion*. In essence, they are looking to leverage their grant awards as investments in catalyzing institutional change that lasts beyond the end of the granting period. As the Project Investigator for our current HHMI Capstone grant (see back), I attended a studio meeting at their Chevy Chase headquarters in early June on "Promoting Persistence and Success." At that meeting, HHMI staff emphasized that they will carefully consider proposals in relation to capacity building, repeatedly posing the question: "What can a grant like this do to change the way an institution does business?"

So, the question I pose to you is how can we imagine leveraging HHMI funds in order to change the way that we do business here at Smith in our continued pursuit of inclusive excellence? We already have a number of interesting ideas on the table for this purpose, given our recent strategic planning. At our division's open meeting in May, we agreed that one of the best ideas for Smith's future focused on student-centered and inquiry-based collaborative learning that has impact and meaning beyond the classroom. Indeed, these learning experiences are established, empirically-based approaches to improving persistence of students in STEM.

So, what can we do next with a million dollars? I need your help in identifying how best to gather communities and collaborators who can realize our strategic vision by building pedagogies and curriculum toward lasting change. This kind of institutional work is only successful when we identify momentum, inspire stakeholders, and think creatively. Look for my invitations in the fall at which we will imagine this future and continue our work to "prepare women of promise for lives of distinction."

--Patty DiBartolo

welcome



In what ways can an institution provide all beginning students...with the learning opportunities that have been shown to work, including active learning in the classroom, research experiences, and a support system of advising and mentoring? --HHMI's "Inclusive Excellence" announcement

WE'RE AN HHMI CAPSTONE INSTITUTION! WAIT, WHAT?

Smith has a longstanding history of HHMI support (see front). Our current \$1 million dollar Capstone grant helps support our AEMES and outreach programs as well as our pilot first year course-based research experience classes in biology and the allied disciplines of geosciences and mathematics/statistics. In the 2012 grant competition, only 11 institutions (Smith, Barnard, Bryn Mawr, Carleton, Grinnell, Hope, Hunter, Morehouse, Smith, Spelman, Swarthmore, and Xavier) were designated Capstones in recognition of "sustained excellence and important contributions to undergraduate science education." But what exactly does it mean to be an HHMI Capstone awardee?

In 2012, HHMI unveiled the Capstone designation at the time of award, giving all such institutions two instructions. First, we are required to engage in a summative assessment of our institution's programs, articulating strategies we've identified for their success. I see this as one critical piece of my charge as Faculty Director. The sciences at Smith are fortunate to have a long history of collaboration with Institutional Research in tracking program outcomes. As a result, faculty and staff have invested recent efforts in disseminating the success of our HHMI-funded work. We are or will soon present on AEMES, SURF, and course-based research experience outcomes at conferences as wide-ranging as the HHMI Studio meeting in June, the CUR meeting in Oklahoma this summer, and AAC&U's PKAL meeting in Seattle in November. There are efforts underway to publish this work, in journals and elsewhere. Smith is leading an HHMI Capstone collaboration with the Science Education Resource Center (SERC) at Carleton College in which we are developing a website to share data and outcomes for our HHMI-funded and other innovative initiatives.

The second note given to Capstone awardees was that HHMI expected us to propose *new* ideas in future competitions, based to some degree on our summative efforts. Pieces of our current grant (e.g., SURF and AEMES) have been funded in part by contiguous HHMI awards. Fortunately, AEMES funding is slated to become part of the college's core operating budget in the near future. We are working to secure funding for SURF student stipends once our HHMI grant expires and submitted this as a "big idea" proposal to CMP in their spring call for college-wide planning. Efforts are underway to fund other ongoing Science Center needs, including equipment asset management.

HHMI is clear that we must think creatively with any new grant submission. And we must, because the competition for this round of grant awards promises to be stiff. Over 600+ institutions, including Smith, submitted an intent to apply to the competition in which HHMI will award 30 \$1 million dollar awards. Even with long odds, there are good reasons to pursue this opportunity. Smith is well-positioned to meet the challenges of the competition, given our institutional commitment to access, recent strategic planning, and excellent and sustained contributions to science education, especially for women in science. We are dedicated and working hard to exceed HHMI's expectations for their Capstone awardees. Finally, even if we do not receive an HHMI award, we can use our proposal to pursue other funding, especially as the college continues its own strategic plan. Through these efforts, we can craft a proposal that builds on our distinctive strengths, helping position us to achieve our vision for the future.

HHMI "INCLUSIVE EXCELLENCE" COMPETITION DEADLINES

December 1, 2015Pre-proposal dueMay 2016HHMI announces invitations to submit full proposalsOctober 2016Full proposals dueMay 2017Announcement of awardsSeptember 2017First-year payments issued for awardees

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