

AdvanceVT
Seed Grant Recipient Follow-Up Report
2006 – 2007

AdvanceVT research seed grants provide funding to support junior faculty developing a successful proposal for external research funding. In addition to research supplies, the budget may also include travel funds for visiting colleagues at other universities or funds for graduate student support to acquire data needed for writing more competitive proposals for external funding. Seed grant recipients were selected competitively by an interdisciplinary committee with representative from four colleges. Grant recipients received \$10,000 from *AdvanceVT* that was matched by their college and/or department.

In May of 2008, *AdvanceVT* requested that the seed grant recipients for the previous academic year (2006 – 2007) complete an annual report to determine the longitudinal impact of the research seed grants on recipients' research and career progression. Five of the six recipients responded. The annual report form may be found at the end of this report.

The preparation of and application for external funding was stated in the proposals as a major goal of the seed grant. All but one of the recipients who reported has submitted proposals for external funding, either as PI or co-PI. One recipient was especially successful, receiving over \$400,000 in external funding. Under a collaborative effort with researchers from other universities, one recipient reported receiving NIH funding in excess of \$1,000,000. Several recipients still have proposals pending related to research conducted under the seed grant. Two recipients listed the NSF Career award as the desired target for that funding. However neither recipient has prepared a proposal for the NSF Career Grant to date. Two recipients provided information on awards received from national associations in their fields for research related to the grant.

The seed grant recipients also noted in their original proposals the importance of attracting high quality graduate and undergraduate students to support research goals. All but one of the respondents listed a graduate student or undergraduate student who supported fieldwork, lab research, or outreach programs under the seed grant. One respondent reported having both undergrad and graduate student support. The students, while providing research support, also undertook study under the recipient, and often published results related to the grant or completed a thesis or dissertation.

Collaboration, another key to the seed grant, also emerged as an endeavor undertaken by each recipient. Several recipients reported developing interdisciplinary collaborations across the university. Others reported developing cooperative arrangements with faculty at other universities, both nationally and internationally, and still others developed these relationships with key figures at national laboratories.

Most of the recipients stated as a goal in their seed grant proposals the production of publications, presentations, or instructional activities in order to raise the profile of the faculty member both on campus and in their field of study. Each respondent reported

having either presented at conferences, produced publications in high impact journals and/or participated in outreach in their subject area. Graduate and undergraduate students funded under the grant were instrumental in these efforts and were often listed as first or second author on related publications and presentations. Several of the students conducted research for their degrees related to the research supported by the grant.

Several of the seed grant recipients highlighted travel as key to their research. The funds provided by the grant facilitated recipient travel to conferences, to conduct collaborative efforts, to conduct fieldwork and to fund student travel. Each recipient noted the importance of this travel to the overall success of their research programs.

Seed grant recipients provided the following statements about the impact of the grant on their careers:

“The immune response to HEV infection is now a major focus of my research. I will be resubmitting my NIH R21 proposal for funding in November [2008]. In the meantime, I am collaborating with XJ Meng and Bill Pierson on an HEV project in the chicken model that have been funded by NIH. With this project I now have a technician and graduate student who are focused on studying this aspect of the disease.”

“The seed grant allowed me to explore a new research area that I would normally not be able to explore due to lack of resources. It was essential in the establishment of a collaboration with Vani Cheruvu that gave us the ability to meet several times in order to sync our research results.”

“Paleotempestology, the focus of my 2006 AdvanceVT award, is my main research focus at this time. I am continuing to seek out funding for a larger project, which will be an extension of my seed grant proposal. I have a new collaborator, Dr. Kam-biu Liu (LSU), who was able to fund further fieldwork in the Dominican Republic this year from one of his grants, while we await news on our revised NSF proposal (see table). I was able to attract an excellent female MS student for Fall 2008, who is interested in my ongoing paleotempestology research in the Dominican Republic. I was also able to obtain funding to pay an undergraduate to do laboratory work last summer on the sediments I collected during my AdvanceVT- funded fieldwork. This was excellent training for him and he is going to work for me again this summer performing similar analyses on my new data from this year’s fieldwork.

I have begun to carve out a new niche for myself in the emerging field of paleotempestology. After presenting result of my AdvanceVT project, I was invited to serve on the Executive Committee of the Paleoenvironmental Change Specialty Group, 2006, 2007, and chaired a special session at the annual meeting of the Association of American Geographers, Boston, 2008: 3502 Hurricanes IV: Paleotempestology and Emerging Proxy Records. I feel that my profile as a paleoenvironmental scientist has been raised in part due to my award.”

“The topic of the Advance seed grant has become a major component of my current research program on plant root defense compounds. The seed grant helped in obtaining important preliminary data to receive funding by an USDA NRI grant which in part investigates the biosynthesis and regulation of a homoterpene volatile in Arabidopsis roots. I currently have one postdoc and three graduate students whose projects are fully or in part related to the topic of the seed grant. I plan to submit an NSF CAREER grant this summer which will entirely focus on plant root defense metabolism. In summary, the Advance seed grant was very helpful in launching my research program and getting federal grant funding.

Both of my graduate students, Martha Vaughan and Jung-Hyun Huh, received best poster awards at the Biological Sciences Research Day in spring 2007 (M. Vaughan) and 2008 (J.H. Huh). Martha Vaughan was invited at this year’s research day for an oral presentation of her research on root volatiles. In addition, she received a departmental John Palmer research scholarship this spring.

I participated as a research mentor for MAOP student Marlissa Villette (St. John’s University) in summer 2007. She gave a poster presentation at the MAOP Summer Internship Research Symposium on the topic of volatile terpene biosynthesis in Arabidopsis roots.”