UNIVERSITY OF OREGON

STARS Innovation Credit Letter: Nation's first environmentally friendly "green" chemistry education program, University of Oregon

January 22, 2011

To whom it may concern:

I am the Lokey-Harrington Chair in Chemistry and the Associate Vice President for Research and Strategic Initiatives at the University of Oregon (UO). As a leader in green chemistry education and research I serve on the Governing Board of the American Chemical Society Green Chemistry Institute, am a member of the Oregon Green Chemistry Advisory Group and have served on several committees and panels of the National Academies on green chemistry research and education. My own research interests are in the application of green chemistry to the emerging field of nanotechnology. For the last decade I've been a leader in the green chemistry education. Thus, I feel qualified to provide and assessment of the innovative nature of the green chemistry education program at the UO.

Green chemistry seeks to reduce the impacts of chemicals on human health and the environment while maximizing the performance and societal benefit of chemical products. Given that essentially all products derive from chemistry, green chemistry offers a powerful approach to achieving sustainability goals and, for this reason, has become an attractive pursuit for incoming students. Application of green chemistry in laboratory courses also offers the opportunity to create a safer working environment, reduce energy costs, and minimize use and costs associated with raw materials and waste streams. *Although the infusion of green chemistry throughout the curriculum seems like a common-sense approach, implementation is remarkably difficult due to the entrenched nature of the chemistry curriculum. The UO was the first to overcome these barriers and is the national model for success.*

I am writing to offer my endorsement of the STARS Innovation Credit for the University of Oregon's Green Chemistry Education Program. The UO was one of the pioneers in greening the chemistry curriculum and has emerged as the world leader in this field. Among the many firsts related to this effort – the first comprehensive curricula for the general and organic laboratory courses, the first undergraduate green chemistry textbook (*Green Organic Chemistry: Strategies, Tools and Laboratory Experiments* authored by UO faculty Kenneth Doxsee and James Hutchison), the first laboratory space designed for green chemistry, the first outreach program that catalyzes the efforts of faculty around the world to implement our curriculum at their institutions, and the first on-line resource of green chemistry educational materials for chemists.

The green chemistry education program has had a significant impact at UO and around the world. On the UO campus, a recent survey shows that green chemistry has been infused into 20 courses (including an oversubscribed course for non-majors, *The Chemistry of Sustainability*) and has spurred new avenues of research, including successful new research centers, the NSF Center for Green Materials Chemistry and the nation-leading Safer

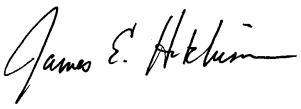
DEPARTMENT OF CHEMISTRY AND MATERIALS SCIENCE INSTITUTE

1253 University of Oregon, Eugene OR 97403-1253 T (541) 346-4228 F (541) 346-0487 hutch@uoregon.edu

Nanomaterials and Nanomanufacturing Initiative. As of 2010, our workshops (week-long immersion programs for faculty) have reached over 200 educators (faculty from universities, colleges and community colleges) from around the world. The vast majority of those educators has adopted the UO curriculum at their institution and has collectively brought green chemistry to 30,000 of their students. Members of the UO's faculty frequently advise faculty and departments at other institutions, architectural firms seeking to design facilities for green chemistry and national organizations seeking to promote green chemistry.

In my opinion, the green chemistry education program meets the criteria for a STARS Innovation Credit. If you require further information or would like the names of experts in the field who can speak to any of the points provided above, please don't hesitate to contact me.

Best regards,



Jim Hutchison
Lokey-Harrington Chair in Chemistry
Associate Vice President for Research and Strategic Initiatives
University of Oregon
hutch@uoregon.edu