

March 2018

Dr. Patrick Pease
Associate Vice Provost for Academic Affairs
University of Northern Iowa
Cedar Falls, IA 50613

Dear Dr. Pease,

I am thrilled to apply for the position of Associate Vice Provost for Research & Innovation/Dean of the Graduate School and am excited about the opportunity to develop this new role. At UNI, we have tremendously creative faculty and students who accomplish exciting new work daily. Too often, however, they succeed in spite of the structures of the university. I believe we can and should organize our administrative support and policies to make it as easy as possible to find the human and financial resources needed for our students and faculty to realize their creative goals. My driving motivation in seeking this role is to equip, embolden, and inspire our faculty and students to excel. This endeavor requires a variety of skills that I have developed across my career. Ultimately, I will feel successful if our faculty and students reach their goals and realize their visions.

The need for active support and encouragement for research was evident when I first came to UNI as Department Head of Chemistry and Biochemistry. At that time (2006), our department was faced with the challenge of regaining the proper balance of research and teaching. The department had always prided itself on being research active and engaging students in research. However, motivation for research was low and required immediate, bold action to get the department back on track. I re-aligned existing resources to provide our most active faculty the physical space needed to support their research. I also successfully sought funding to update both research and teaching spaces to better support our faculty and students. I worked with the UNI Foundation to expand alumni giving to include support of student research. Finally, I worked with individual faculty--including several junior faculty--on successful grant proposals for both research and equipment.

A direct outcome from this multi-pronged effort was that two very active faculty moved forward more quickly with their work and, as a result, were promoted to full professor within a few years. One of these faculty members represents the first woman in our department to be promoted to full professor. The improved quality of our spaces allowed us to make innovations in our courses and also contributed to the hiring of outstanding new faculty. When I left the role of Department Head, all the faculty were research active with thriving groups of students. Due to development efforts with our wonderful alumni, there are more funds available to support students in summer research projects and to provide opportunities for travel to major conferences, where students can present the results of their work in professional settings.

I would like to see UNI reach out more vigorously to potential industry partners to identify their research needs that will overlap with the interests of our faculty. As an example, I developed a multi-year project in chemistry with John Deere. This collaborative project funded a graduate student and several undergraduates, involved two faculty members, and funded the purchase of equipment now used regularly by our department. The project provided the company with a thorough examination of new materials that had the potential to improve cold weather functioning of their equipment.

How many more opportunities for industry-university partnerships could be developed? I believe that there are many and that these opportunities could involve faculty from all academic backgrounds--not just the science and technology arenas. What is required and, frankly, what I will enjoy doing, is to get to know many of our creative faculty and their interests and to learn more about industry needs. Then, we can bring these together either as a discussion or direct pitch, whichever approach is appropriate.

Getting to know the needs of potential industry partners will also create opportunities for graduate programs that could be developed. A currently popular movement is the creation of targeted "mini-masters" programs that meet the need of companies to develop their staff, whether that is on specific management and business skill sets, technical skills, or subject knowledge. Many of these mini-masters programs can be delivered online or in a combination of online courses coupled with a short workshop to provide hands-on skills in using equipment. I see my role as helping with topic discovery and then supporting departments in moving their proposals through the curriculum approval process.

Success in this effort requires an ability to understand and work with faculty from across the entire university. One of the strengths I bring to the position is my experience I working with the many academic cultures that exist on a university campus. Prior to coming to UNI, I held campus-level university administrative appointments that allowed me the opportunity to work with

faculty across academic units. For example, at Indiana University, I led five teams of faculty (Humanities, Social Sciences, Arts and Music, Physical and Life Sciences, and Mathematics) to align curricula in key courses taken by pre-service teachers. Each team had its own way of interacting as they defined and addressed the challenge. In order to progress and succeed each group had to develop trust and gain a thorough understanding of the process. In the end, we created excellent curricula that accomplished the goals set by the university and for which we collectively worked. In my work at UNI, I have partnered with faculty and staff in each of the four colleges on various projects. Not long after I joined UNI, for example, I teamed up with Cherin Lee. We obtained a grant from the U.S. Department of Education, "Engaging Iowa in Science and Mathematics" to develop several summer camps for elementary, middle, and high school students. We viewed this as a seed effort to encourage the campus in reaching out to the community to engage children in STEM activities and to foster interest in learning from all areas of the university. This effort to begin offering academic summer camps was successful and even now UNI offers a wide array of academic summer opportunities for children in the community.

I also have experience in business and marketing. How we market our programs and services in both the Graduate School and RSP is a critical area that needs attention. There are both internal and external audiences to consider, each with different needs and expectations. The first connection made with audiences is often through a website to gain information that will confirm a person's interest and, one hopes, lead to application to the program or a proposal for external funding (key "calls to action"). We need to examine and improve our online profile in order to market the programs, information, and services even more successfully.

For example, the Graduate School website has several areas requiring extra "clicks" to get to desired information. In some cases, the process is circular--beginning on the home page and ending there after clicking through several links. The button for "Resources for New Graduate Students" is a case where unnecessary steps are required to find desired information. That button leads to a landing page that has a link with the same title. The link provides a pdf page of annotated resources with additional links. Why isn't the pdf information provided immediately on the landing page? Research shows that having too many links results in a poor user experience and poor outcome regarding the organization goals. Basically, it frustrates people, and they lose trust in the organization's ability to meet their needs.

My experience in marketing and user experience comes as an unexpected outgrowth of my research using eye tracking techniques to understanding how students use visual information when learning chemistry. A non-traditionally aged psychology student worked with me and we began two new projects, both of which have resulted in spin-off companies. My former student became my business partner and together we developed these companies. One company started by using eye tracking for website usability and user experience testing. This company has now developed into a market research firm that provides a full range of market research services. I have recently exited the market research company through a buy-out and my partner has complete ownership. This company is local and has hired several UNI graduates as well as graduate and undergraduate student interns from both the School of Business and the Psychology Department. Through the work to develop these companies, I have learned a great deal about start-ups and the support for entrepreneurs present throughout the Cedar Valley and the state. I have also benefited by the assistance UNI provides to area businesses through the BCS staff and through the John Pappajohn Entrepreneurial Center. I appreciate the graciousness of the many successful entrepreneurs who I have come to know and who have provided excellent guidance and advice.

This brings me to the issue of technology transfer. At UNI, I am involved in the Intellectual Property Committee. This is an area that provides support for faculty, staff, and students with ideas, processes, and products that are potentially patentable or should be protected through copyright or trademark. The support capacity has improved over the past several years, but the community is still not aware of this support or how we can help move ideas into the marketplace. For example, there was a recent case of a graduate student who had a novel invention. It could not be fully protected, however, because the student was unaware of some timing issues and revealed portions of the invention prior to patent filing. Better communication with the campus community will help avoid similar situations and allow students and faculty to see their applications move from their labs into the "real world" with greater ease.

In all, I see tremendous strength in the focus, dedication, and creativity that abounds on campus and that is fostered by both the Graduate School and the Research and Sponsored Programs office. As a university, we have the capacity to do better and to do more to enable excellence in research, creative activity, and community engagement with our efforts. I look forward to the opportunity to provide leadership in these efforts through this challenging and innovative role and would consider it an honor to serve our UNI community in this way both on and off campus.

Sincerely,

William S. Harwood, Professor
Department of Chemistry and Biochemistry