

A Nomination for the Chancellor's Award for Excellence in Service

Keith Stine

Professor

Department of Chemistry and Biochemistry

University of Missouri-St Louis

Nominated by

Dr. Christopher Spilling

Professor and Chair of the Department of Chemistry and Biochemistry

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Chancellor's Awards Committee
UM-St. Louis

Dear Faculty Awards Committee,

I am writing to nominate Prof. Keith Stine for the Chancellor's Award for Excellence in Service based on both the quantity and quality of his service to the Department, the Campus and his profession.

For several years, Keith has had a major impact on the Department as the Director of Undergraduate Studies and Chair of the Undergraduate Affairs Committee. He coordinates all of our undergraduate advising activities and deals with all curricular matters. Keith has around 30 advisees of his own. The smooth running of our undergraduate program is directly related to Keith's hardwork and dedication. In many ways Keith is an uncompensated associate chair. Many of the tasks Keith accepts do not fall under any particular committee, but he is willing to accept them because he is a good departmental citizen. He organizes a chemistry tutoring lab where undergraduate students can walk up and get help from graduate students with problems in introductory and organic chemistry. He performed an extensive retention study of chemistry majors covering over 10 years and helped act on the conclusions. He performed a similar analysis on the major field achievement test (MFAT) results produced by our students. The MFAT is the main measure of learning in the chemistry undergraduate degree programs. He is co-organizer of career day, which brings over 100 high school students to campus annually. He has helped judge JSEHS papers and presentations. Keith works extremely hard for the department and university and rapidly responds to requests from the chair. His work is thorough and he is completely reliable. Keith is totally selfless and works tirelessly for the good of the department and our undergraduates.

Keith's service is not limited to the department level. In particular, he played a major role in the campus reaccreditation efforts. If Keith was unwilling to step up and help, I believe the campus would have had considerably more trouble producing the accreditation self study and we would all ultimately suffer the consequences. There are not many faculty members willing to take on this arduous and seemingly unrewarding task. He served terms on several Senate committees, including chairing the Faculty Teaching and Service Awards Committee during 2006-2007. He served five consecutive

one-year terms as Secretary for the Saint Louis Section of the American Chemical Society and was Chair of the section. Keith was also Program Chair when I was General Chair of the very successful Midwest Regional Meeting of ACS held in St. Louis in 2000. He is an active reviewer of manuscripts for several journals, and of grant proposals for NSF and other agencies.

It should also be pointed out that on top of his exemplary service, Keith has an active research program, publishes regularly, and is an outstanding teacher in introductory and physical chemistry. He achieves all of this because he spends an inordinate amount of time at work, probably more than any faculty member I know.

Included below is summary of the activities that make Keith Stine an outstanding candidate for Chancellor's Award for Excellence in Service.

Sincerely,

Christopher D. Spilling
Professor and Chair

3. Nominee's statement of personal philosophy of service and how this philosophy is demonstrated in practice.

The boundaries between teaching, research, and service are soft boundaries and these are not mutually exclusive categories. Communicating science to the public, for example, is both a form of teaching and service. Advising students can have elements of all three especially if they are involved in research. In carrying out the activities that fall under service, my main thought is first the impact on the individuals for which we find ourselves responsible either directly or indirectly. Providing direct help to a student through advising, recognition of their accomplishments by presentation of an award, or inspiration to a young member of the public during a science outreach activity are very direct and satisfying forms of service. Other times, one may be dealing with something more indirect such as preparing a report or a study, developing policies departmental and otherwise, or summarizing student or institutional data. One should always keep in mind that these efforts also impact individuals by enabling better choices and decisions to be made at multiple levels. I believe that some of the most valuable forms of service that is not on a personal level results in the better use of resources to optimally benefit individuals. The direct and indirect forms of service both contribute to the overall goal of maximizing student potential and development. I believe in the notion of creating or providing value for those for whom I am performing the service. I want them to feel that they have had a beneficial experience as a consequence of my efforts. I think of those I serve as stakeholders, and not as customers. I do not subscribe to the overly cynical adage of the customer always being right. My service to students and student related issues is motivated by the goal of maximization of human potential. A significant fraction of my service to the American Chemical Society has been motivated by the desire to make a positive impact on young students of science, especially to spark their interest and to also seed their thinking in ways that will lead to them pursuing successful careers of their own.

Service should be approached with an inquisitive frame of mind. In addition, after one has carried out a service activity, one should think about whether the best possible outcome was achieved and what can be better done next time. This self-assessment is important if one is to improve the impact of one's service over time. One should try to delve into the details of those things for which one becomes responsible and aim to study and understand them, even though a full understanding will likely remain somewhat elusive. The outcome of this inquiry is to be able to function in a more informed and helpful manner in service in that area the next time, especially when it involves our students. I do not like to rely to conventional wisdom or anecdotes and would rather seek out and analyze data even if it is complex and not clearly correlated. Based on this disposition, I carried out studies of retention and of major field achievement test scores for my department that led to greater insight into our students. Within my service to the local ACS, I have used our detailed membership roster to gain insight into the age distribution of our members, and the breakdown of their employment. This led to my recruiting officers to head a committee serving the interests of younger chemists in the Saint Louis region as a foundation for providing future leaders of the local ACS. For the campus re-accreditation study, I am also involved in extensive data gathering. This

experience has opened up a new awareness that not all data is quantitative, but is often in the form of personal stories or historical accounts of events and that both ways of examining the organizations and people one is concerned with are valuable.

Service can have aspects of being a science, of being a business, and of being an art. Ideally, one should be performing service in areas where one is motivated and interested and believes that one can make a difference. Faculty should have service profiles that suit their aptitudes, interests, and personalities. There is a need for examining facts and history related to the service activity at hand so that one can see the context for the service. There is also a strong human element to service, especially when dealing with students and the public. There is clearly a need for efficient management of what one is responsible for, and there it often seems more like a business. Ultimately, something has to be done and situations cannot be overanalyzed or discussed for too long or opportunities may be lost. In service, one should not lose sight of the opportunity to take a creative approach and experiment a bit sometimes. I do not claim to have mastered these dimensions but I frequently feel that by observing and thinking about what is going on that the performance of service often results in insights into individuals, organizations, and society that are enriching and are not as likely to be achieved by other activities.

4. Evidence supporting the nomination criteria (comments taken from letters)

University Service (comments provided by Judith Walker de Felix)

Dr. Stine was a member of the Re-Accreditation Steering Committee and the sub-committee on the criterion related to learning. Since learning is the heart of the re-accreditation self-study, Keith's work on this criterion was central to the entire self-study process. As a researcher, Dr. Stine brought to the process the perspective that the University of Missouri Standards for Promotion and Tenure expects; namely, "The University seeks faculty members who are genuinely creative scholars and inspired teachers and who are dedicated to the pursuit of knowledge and its transmission to others" (<http://umsystem.edu/ums/departments/gc/rules/personnel/320/035.shtml>). The campus' self-study conveys this standard because of Keith's leadership on the learning criterion as well as his contributions to other committee members' drafts.

It is impossible to exaggerate the number of hours that Keith dedicated to investigating what departments across campus were doing to assess their students' learning and revise their teaching accordingly. He read, analyzed, and synthesized annual reports, Five-Year Review self-studies and reviewers' reports, Major Field Test scores, and other documents that departments submitted to our central database in order to document the university's strengths and weaknesses. If data were incomplete, he and his team member contacted administrators for more materials. This activity consumed much of fall semester 2007. In spring 2008, Keith had to reduce by two-thirds the original summary that that team had written in order to highlight the campus' truly exceptional activities related to learning. This crucial component of the self-study was strong because of Keith's extraordinary contributions. In addition to producing a Core Component of the self-study, each member of the Re-Accreditation Steering Committee had to meet monthly to share feedback designed to strengthen the review process and self-study document. These were intense meetings, but Keith attended faithfully.

Academic Affairs selected Dr. Stine for the Re-accreditation Steering Committee because of his work on the Senate Committee for the Assessment of Educational Outcomes. For two years Keith was one of two faculty members who not only attended the meetings consistently but also prepared beforehand. The chair of the committee had charged each member to study the web pages of comparator universities to learn what they were doing in preparation for accreditation visits. Since Keith had done considerable homework, he could lead conversations about what UMSL should be doing. Thanks to that work, the committee learned the gaps in the campus' assessment practices and pointed out the shortcomings to the Provost. The committee's Annual Reports to the Senate, in which Keith played a leadership role, document how much thought went into their analyses. Because of those reports, the campus was in a much better position to conduct a successful re-accreditation self-study.

Departmental Service

Dr. Stine plays a major role in the Chemistry Department as the Director of Undergraduate Studies and Chair of the Undergraduate Committee. He personally advises more than 30 undergraduates and is also responsible for preparing advising information for students and tabulating data for undergraduate awards. He has approached that role as a scholar by learning the expectations of the American Chemical Society so that the program maintains its certification, studying the results of the Major Field Test for ways to improve the program and the scores, and engaging with students about their learning. To help students succeed, Professor Stine organized the Chemistry Tutoring Lab (also known as the Chemistry Learning Center), where undergraduates can get help from teaching assistants in introductory and organic chemistry courses. Dr. Stine also attends UMSL Day and has a good reputation in Student Affairs for taking his responsibilities to students very seriously. Keith's leadership of the Chemistry undergraduate program exemplifies the role of scholar-teacher expected at research universities.

Professional Service

The second reason that the university should recognize Keith Stine for his exceptional service is that, in addition to his considerable service obligations on campus, he has also served as Chair-elect (2007) and Chair (2008) of the local section of the American Chemical Society (ACS). A major event for the St. Louis section of ACS is Career Day, where chemists promote chemistry to the community, especially future chemists. Keith has played a role in Career Day for several years, and other ACS members consider his contributions invaluable.

Again, as a researcher, Dr. Stine's contributions to the profession have involved extensive reviews of publications submitted to 16 different journals since 1999. He also reviews grant proposals for organizations as diverse as the ACS Petroleum Research Fund, the National Science Foundation, and the UM Research Board. Keith underscores the campus' research mission for his service as a panelist for NSF in their SBIR program. Meeting in Washington, the panels review diverse topics ranging from drug delivery and membrane technology to nanotechnology. The Program Director of the panel noted that Professor Stine commands the respect of his colleagues on the panel despite his unassuming manner.

Community Service

Chemistry professors are not expected to engage in community service activities, but that hasn't prevented Dr. Stine from actively participating in career talks, judging local science fairs, and providing demonstrations to young adults. Keith is an active participant in the campus' pre-collegiate programs. The director of the STARS program noted that Keith never refused any request that the program made of him.

Summary

It is clear that Keith Stine has a long record of contributions that deserve this award. He identifies problems and by informing himself of the issues, he then determines what is needed to resolve the issues. He provides leadership by doing the work, and whatever task he agrees to take on he does thoroughly. His teammate on the Re-accreditation subcommittee described Keith's service as amazing, "It is NOT just that he does the work (which is a good thing) but the quality of it is remarkable."

Every member of the Re-accreditation Steering Committee worked very hard behind the scenes to have a successful review, but few members immersed themselves in the process to the same degree as Professor Stine, perhaps because his experiences on the Senate Assessment Committee laid the foundation for the current work. It would also be fitting to recognize Keith's contributions to the St Louis section of the American Chemical Society.

UMSL is fortunate that Professor Stine is genuinely committed to contributing to the highest quality university and works diligently to achieve that quality. He deserves the campus' highest award for such service.