

# UNIVERSITY OF ILLINOIS AT CHICAGO

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Dr. Jeremy Bennett  
Faculty Search Coordinator  
Department of Biology  
Indiana University  
1001 East 3rd Street  
Jordan Hall 127  
Bloomington, IN 47405-3700

Dear Dr. Bennett:

I am writing this letter to **enthusiastically recommend Robert Stahelin** for the faculty position in your department. Rob is an exceptional researcher and teacher. Rob joined my research group in the Spring Semester of 1999. Rob's initial project was two-fold; structure-function studies of protein kinase C and establishing the surface plasmon resonance (SPR) technique for membrane-protein interaction studies. The former was the extension of our on-going research but the latter was a completely new project with which we had no expertise. Within a relatively short period of time, Rob made spectacular progress on both fronts. In particular, Rob learned the basic principles of SPR by himself and established all experimental conditions for our applications. This turned out to be a very difficult task because there were many unexpected problems he had to overcome to make this system work for our studies. Rob's success laid the foundation of all our ensuing biophysical studies of a wide variety of membrane targeting domains and membrane binding signaling proteins (peripheral proteins). This greatly helped us build the reputation as one of leaders in this highly competitive area of research. Rob's SPR work resulted in many papers, including an invited review article on the methodology he developed. He has been also invited to speak at BIACORE conferences.

Rob's research reached a new milestone in 2002 when he discovered that the complex cellular translocation and targeting of membrane targeting domains and peripheral proteins could be accounted for by simple biophysical principles that govern their *in vitro* membrane binding properties. This was an extremely important finding that has had a large and broad impact on our understanding of cell signaling and regulation, in that it allows the prediction of cellular behaviors of proteins based on their *in vitro* properties and, perhaps more excitingly, based on the homology to the proteins with known *in vitro* membrane binding properties. He initially started this line of work with C2 domains that are important for cell signaling but soon extended the



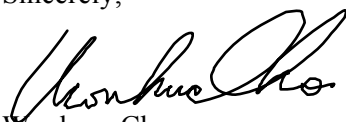
work into various membrane targeting domains involved in membrane trafficking. Overall, his research made very important contribution to the understanding of biophysical basis of cell signaling and membrane trafficking. Rob published several important papers based on this theme, which culminated in a recent Annual Reviews article.

Rob also played a key role in the development of a new biochemistry lab course (Chem455). In 2001, he and I planned to completely revamp the course to allow undergraduate students hands-on experience in modern molecular biology and biochemical techniques, and perhaps more importantly, real research experience. I had some basic ideas about the new curriculum but it was Rob who did all the important work, including establishing the experimental sequence and protocols, setting up a web-site, and so on. Also, he successfully taught and coordinated the course for the past three years. I have to stress that he did all this while working full-time on his research. Chem455 has tuned out to be one of our most successful courses in the department.

As you can see from his CV, Rob did both graduate and postdoctoral work in my lab, and some may view this as a weakness and expect Rob to lack the breadth. I'd like to stress that this is absolutely not the case. With his impressive credentials, Rob could have gone to any lab he wanted for postdoctoral work but he opted to stay in my lab because of family reasons and desire to complete the great new project he started. His graduate work mainly focused on biophysical studies of membrane targeting domains but his postdoctoral work has centered on cell studies, pushing the limits of real-time monitoring of protein translocation and lipid mediator metabolism. He also started to work on membrane trafficking by different proteins in collaboration with leading investigators in this area. Overall, his research experience is broader than most postdoctoral researchers. In addition, he has demonstrated a great talent as a research mentor, as he has successfully trained and mentored more than fifteen graduate students over the years. Finally, Rob has played a major role in all my grant proposal writing and he will have no problem preparing his own proposal.

Now, Rob is poised to embark on an independent career. Rob's proposed research on the C2 domain and the membrane curvature is a logical extension of this current research. These projects will not overlap with my on-going research and he will have all my blessing and support. The proposed study will undoubtedly produce the critical information about the cell signaling and membrane trafficking. Based on his remarkable contribution here, I have all the confidence in the world that Rob will continue to be a prolific researcher in years to come. In summary, Rob is a very impressive and promising young scientist who has demonstrated an exceptional ability in both research and teaching. Therefore, Rob is the most deserving candidate for the faculty position and I **recommend him with the highest degree of enthusiasm.**

Sincerely,



Wonhwa Cho

Liberal Arts and Sciences Distinguished Professor of Chemical Biology

**UIC**

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