

Department of Biochemistry
and Molecular Biophysics

December 15, 2003

Biocomplexity Faculty Search
c/o Ms. Yana Teterina
Department of Physics
Indiana University
Swain West 117
727 East 3rd Street
Bloomington IN, 47405-7105

It is a pleasure to write on behalf of Dr Yong (Mike) Kong, who is applying for a faculty position at your Institution. I have known Mike from the summer of 1994, when he worked as a rotation student in my laboratory. During his short tenure (four months) in my laboratory he has developed an exact theory for ligand binding to one-dimensional lattices for the case of overlapping sites. This problem is central to the analysis of a variety of biological processes and most notably protein-nucleic acids interactions. Mike's theory applies to lattices of any length and for arbitrary cooperativity and includes the celebrated McGhee-von Hippel model as a special case. Development of such exact theory has eluded theorists for more than twenty years. Mike's result is of extraordinary importance and shows his truly remarkable talents as a theorist. While in my laboratory, Mike has also made substantial contributions to the two-dimensional Ising problem of cooperativity and has formulated a general recursive theory for tackling the three-dimensional case, which remains one of the toughest unsolved problems of statistical thermodynamics. Some of this work has been published recently in premiere journals.

After moving to CuraGen, Mike has continued to do well and has acquired a solid expertise in proteomics and functional genomics. CuraGen has been one of the major movers in the market during the genomics revolution and I am sure that Mike contributed significantly to that.

Mike was one of the most brilliant students that I have ever come across in my career. His knowledge of mathematics, thermodynamics, physical chemistry and computer programming is impressive. He is unassuming and always ready to help and share his knowledge with others. He is very shy, but has the stamina to succeed in any academic environment, and to excel in teaching and research. You will be fortunate indeed if he decides to join your Institution.

Sincerely,



Enrico Di Cera, M.D.
Professor of Biochemistry and Molecular Biophysics