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October 25, 2005

Please find enclosed a letter of support for Dr Yu Xia. Let me just say that I recommend him in the highest possible term.

Should you need more information, do not hesitate to contact me, either by e-mail ([koehl@cs.ucdavis.edu](mailto:koehl@cs.ucdavis.edu)), or directly by phone (530-754-5121).

Yours Sincerely,

A handwritten signature in black ink, appearing to read "Patrice Koehl", with a large, sweeping flourish at the end.

Patrice Koehl  
Associate Professor  
Department of Computer Science and Genome Center  
University of California, Davis.



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CONFIDENTIAL

**Letter of recommendation for Dr Yu Xia**

October 25, 2005

Dr Yu Xia is an outstanding scientist, and I would place him among the top 2% of all students I had the chance to interact with, either as an advisor or as a colleague.

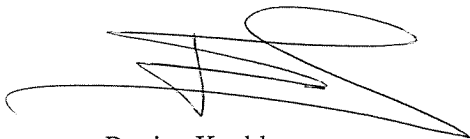
I have met Yu for the first time in September 1997 as I joined the group of Prof. Michael Levitt at Stanford, on a sabbatical from a CNRS position in France. At that time, Yu Xia had been in Michael Levitt's lab for 6 months. Based on my first interactions with him, it was immediately obvious that Yu Xia is very bright, creative and very eager to learn. The following years corresponding to his thesis work confirmed and enhanced these first impressions. I have been truly impressed with the ease and speed at which he was able to pick up the concept of structural and computational biology, to integrate and expand on the ideas that he would pick from the literature, as well as to develop his own innovative ideas that have led to publications in major scientific journals. Yu Xia came to the United States from China in 1995. When I first met him, his English was already good, and at the end of his graduate work, his scientific English is superb, and his writing shows a clarity that perfectly reflects his mastery on the subjects he has been working on. All this has made him both successful in his own research, and in his collaboration with other members of the laboratory. I have no doubt that Yu Xia has the potential to contribute most significantly to any area of basic biophysical and biomedical sciences.

During his thesis, Yu Xia was initially involved in a collaborative project with other members of the Levitt lab, mainly Prof. Ram Samudrala (now at the University of Washington) and Prof. Levitt. They worked on the definition of a new strategy for protein structure prediction, involving exhaustive sampling of protein structure space using crude lattice models, followed by a filtering of the corresponding models to select native like structures. This strategy proved successful both at CASP3 and CASP4. Dr Yu Xia's inquisitive and inventive intellect was a very valuable asset in the development of this project. In particular, he undertook a detailed analysis of the theory behind the statistical scores used to distinguish native-like protein models among non native models, leading to a new understanding of their limitations and potentials. His subsequent work focused on understanding the protein sequence space compatible with a protein structure. He developed a simplified lattice model that allowed him to characterize exhaustively the sequence and structure space of short protein chains. His analysis of these exhaustive searches has led to a new understanding of the role of mutations and recombination in protein sequence evolution. I would like to insist on the fact that Yu Xia initiated and developed this project independently from others, and has been and is extremely successful in bringing this project to a high level of international recognition.

Dr Yu Xia has since joined the laboratory of Prof. Mark Gerstein at Yale, where he follows a more data-driven (bioinformatics) approach to the analysis of protein evolution. He is particularly interested in membrane proteins. His publication record over the years he has spent in Dr Gerstein's lab is excellent, establishing him as one of the rising star in bioinformatics.

In summing up, let me say that I recommend Yu Xia in the strongest possible terms. Should you need more information, do not hesitate to contact me, either by e-mail ([koehl@cs.ucdavis.edu](mailto:koehl@cs.ucdavis.edu)), or directly by phone (530-754-5121).

Yours Sincerely,

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