

Oct. 29, 2005

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

Dear Professor Bennett,

I would like to express my strongest support to my former graduate student, Dr. Weiwen Zhang for his application for the faculty position in systems biology/microbiology in Indiana University.

I am a research professor of microbiology in Shanghai Institute of Plant Physiology & Ecology, Chinese Academy of Sciences. Having been working in the field of molecular microbiology and molecular regulation of microbial metabolism for more than 10 years, I have authored/co-authored over 30 peer-reviewed articles and given a number of presentations at national and international conferences. Right now I am the principal investigator for a number of national grants, supported by National Natural Science Foundation of China and the National High Technology Development Program of China.

Dr. Zhang was admitted into our group after a competitive examination, in which he got the highest score. His doctoral research is part of a large project "Molecular mechanism of nitrate regulation of rifamycin SV production in *Amycolatopsis mediterranei* U32", supported by National Natural Sciences Foundation of China. His main work includes, 1) The study of methylmalonyl-CoA formation pathways: purification and characterization of methylmalonyl-CoA mutase, racemase and transcarboxylase, and cloning, sequencing and expression of mutase gene; 2) Molecular analyses of aspartate pathway: cloning, sequencing, expression and kinetic analyzing of aspartokinase and aspartate semialdehyde dehydrogenase (*ask/asd*) gene, and analyze regulatory network of aspartate pathways in *A. mediterranei* U32. 3) Analysis of signal transduction systems in secondary metabolism: cloning and characteristics of a novel serine/threonine protein kinase. It should be highlighted that Dr. Zhang's research has showed, for the first time that methylmalonyl-CoA mutase gene (*mutAB*) is a limiting step for polyketide biosynthesis; and the gene can be engineered for the increase of polyketide monensin A production. And for the first time we found and characterized an eukaryotic-like serine/threonine protein kinase gene in prokaryotes *Amycolatopsis*, which presented a new insight for the regulation of rifamycin SV production. Dr. Weiwen Zhang finished his Ph.D. thesis research with very good results, and first-authored many papers in the top Chinese journals and international journals, including *Acta Microbiologia Sinica*, *Chinese Journal of Antibiotics* and *Chinese Journal of Biochemistry*, *Gene*, *Applied Microbiology and Biotechnology*, *Applied Biochemistry and Biotechnology*, *Biochemical Biophysical Research Communication* and *European Journal of Biochemistry*. Such a high level of achievement could not be done without the ability, enthusiasm, dedication, motivation and expertise.

Dr. Zhang is a highly gifted scientist, whose excellent training in our institute and following postdoctoral training in a few leading European and American laboratories gives rise to the highest expectations for the future. His internal drive and his dedication to the scientific research have made him a distinguished researcher in microbiology.

In summary, I cordially recommend Dr. Weiwen Zhang for his application as an assistant professor in your university. I am confident that he will out-stand himself in the near future in the areas of molecular microbiology and systems biology.

Please let me know if I may be of additional assistance in this matter.

Sincerely yours,

Weihong Jiang, Ph.D.

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