THE UNIVERSITY OF IOWA



October 27, 2005

Yves Brun
Systems Biology/Microbiology Faculty Search
Department of Biology
Indiana University Bloomington
Jordan Hall, Room 142
1001 E. 3rd Street
Bloomington, IN 47405-7005

Dear Dr. Brun:

This is a letter to recommend **Dr. Joshua Shrout** for your faculty position in Systems Biology/Microbiology in the Department of Biology at Indiana University at Bloomington. I have known Josh for the past 5 years during his Ph.D. work at the University of Iowa. I also served as his collaborator (Co-Principal Investigator) on a research grant using phytoremediation for perchlorate degradation at the Longhorn Army Ammunition Plant (LHAAP) near Marshall, Texas. He wrote most of the proposal and worked on the project for one year as a postdoctoral associate. We completed installation of a demonstration test plot of hybrid poplar trees to remove perchlorate from groundwater at LHAAP. The demonstration project was quite successful, and it has the potential to clean a large area of contaminated soils and groundwater at rocket test facilities throughout the nation.

Previously, Josh Shrout did a superb job on his Ph.D. research and course work in our department. He was awarded one of the prestigious NSF Research and Training Grant Fellowships on Gene Expression and Bioremediation. This is the only program of its kind in the country, where students complete scientific rotations in microbiology, biochemistry, and environmental engineering. During the course of his research, he successfully isolated several microorganisms that can degrade perchlorate to chlorate, chlorite, and eventually to the innocuous chloride ion. He gained experience in gene sequencing, PCR techniques, phylogenetic identification and isolation, and working in both pure and mixed cultures.

I have been present for several of his seminar presentations. He is always extremely well organized and gives an entertaining and informative lecture. I have also observed how well he relates to other students and colleagues, and I believe that he has the "people-skills" to be a truly marvelous professor. He can do it all—research, write, and teach. He cares about the students and this comes through in his approach.

We would be very happy to hire him as an Assistant Professor at the University of Iowa if he were not one of our own (at the risk of in-breeding). We will be sorry to see him depart, but I know he will be a credit to our field.

Please let me know if I can provide any further information.

Sincerely yours,

J J A Chmor Jerald L. Schnoor Allen S. Henry Chair College of Engineering