

Oct. 25, 2005

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

Dear Dr. Brun:

I am writing this recommendation letter in support of Dr. Chen-Shan Chin, who has informed me that he is seeking a position in your department. I know Dr. Chin from my time at the University of California in San Francisco, when he and I worked in the same lab.

Dr. Chin is an outstanding scientist, and I believe he would be a strong addition to your department. Shortly after I met Dr. Chin, two of his excellent research traits quickly became apparent to me. The first was that he was able to rapidly master a diverse range of topics. For example, when he arrived at UCSF, his experience with computational biology was mostly in structural models of single proteins. However, just a few months after he arrived, he completed a project on protein-protein interactions, having taught himself all of the relevant biology on his own. Soon after, he made himself an expert on a variety of other topics, including biophysical models for transcription factor-DNA interactions, metabolism in yeast, and the comparative genomics of gene regulation. A few months ago, he built a novel experimental system for high throughput, high time resolution dynamic measurements of single cell protein abundances, no small feat for one trained as a theoretical physicist. I found this experimental system particularly exciting, as it seemed capable of having a quantum impact on how to characterize gene regulation at the protein level.

While for some people such breadth might have spread their efforts too thin, Dr. Chin was able to produce publications (or will soon have a publication) in all of these projects. During his exploration of these many fields he was forthright in learning from and working with scientists of all backgrounds, both experimental and theoretical. I believe that is because, in general, he is skilled at focusing on the scientific problems at hand, and is not easily bothered by cultural or other artificial impediments.

The second excellent trait I found in Dr. Chin was that he had a passionate technological curiosity, and this curiosity constantly improved his scientific

productivity. When he went home from lab, he would spend his spare time toying with and mastering all types of theoretical and experimental tools. This led to pet projects such as how to reverse engineer the communication signal between a PC and various electronic devices, how to map a DNA sequence onto the image of a yeast cell, and how to interpret traditional Chinese medicine in the context of Bayesian inference. Although these and other projects began as hobbies just for fun, several later had important benefits for his work. This ability to combine private diversions with professional results helped him consistently produce a stream of fresh research ideas, and I believe that will make his scientific career enduring and productive.

In summary, I wholeheartedly recommend Dr. Chin. Feel free to contact me if you have further questions.

Sincerely,

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