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Biocomplexity Faculty Search
C/O C. Howard
Department of Physics
Indiana University
Swain West 117
727 East 3rd Street
Bloomington, IN 47405-7105

Dear C. Howard:

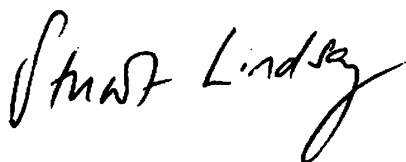
This letter is to recommend Dr. Yang Zhang to you for a faculty appointment in your department. Zhang is a highly creative theoretical physicist who has transferred his skills to theoretical biophysics.

I became aware of him after reviewing a remarkable theory paper of his. Physicists have a horrible habit of neglecting important biological details, but this work (on DNA elasticity) was different, and I was struck by the predictions it made. At the time, my group was imaging small DNA circles, and we had observed salt-induced formation of dramatic kinks in the DNA. It struck me that Dr. Zhang might be able to help us understand what was going on. Indeed he did, and the results are now published (H. Zhou, Y. Zhang, Z. Ouyang, X. Feng, S. Lindsay, P. Balagurumoorthy, and R. Harrington. Conformation and Rigidity of DNA Microcircles Containing waf1 Response Element for p53 Regulatory Protein. *J Mol Biol* 2001; **306**: 225-36). The interplay between sophisticated theory and experimental biophysics is evident in this paper.

After this collaboration, Dr. Yang went to work (with Jeffrey Skolnick) on structural biology. They worked on the problem of deducing 3D protein structures from amino acid sequences. Their new method is being exploited to generate whole sets of protein structures for many important genome organisms like *E. Coli*, humans etc. I am not an expert in this field, but the papers strike as quite amazing and an important advance.

Yang Zhang was a pleasure to collaborate with. He is truly unusual in combining what I can only call mathematical genius with a real feel for biology. He keeps asking questions until he has grasped the key points. He discards beautiful approaches that do not address the biology. He is a rarity in this field. I believe he will make stellar contributions to mathematical biology.

Sincerely

A handwritten signature in black ink that reads "Stuart Lindsay". The signature is written in a cursive, flowing style.

Stuart Lindsay
Nadine and Edward Carson Professor of Physics and Chemistry
Director of the Center for Single Molecule Biophysics, Biodesign Institute.