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I am writing to strongly support the application of Dr. Jinfeng Liu for a faculty position in your institution. I have known Jinfeng for about 5 years, as he is one of the key scientists in our Northeast Structural Genomics (NESG) Consortium. As Director of this project, I have been very involved with some of Jinfeng's work in Burkhard Rost's laboratory at Columbia University, and have coauthored 7 papers with him.

Over the last five years, Jinfeng has distinguished himself by carrying out a high quality graduate and postdoctoral research in the areas of structural bioinformatics and proteomics. He has interacted with several people in the NESG Consortium to apply his unique skills in bioinformatics. Jinfeng's primary role has been the selection of protein targets for this large-scale structural biology. He has be the leader of our project in the Rost lab to apply bioinformatics methods to identify potential domains in tens of thousands of protein sequences, and to clusters these hundreds of thousands of domain fragments into domain clusters. These clusters are then compared with protein structures available in the Protein Data Bank, and assessed with various biological and biophysical data, to generate high-impact protein target lists for cloning, expression, purification, and structure analysis. Jinfeng's protein targets drive this large-scale structural genomics effort, involving over 150 scientists and funded for at least 10 years. His work in target selection has resulted in over 200 3D protein structures, most providing the first structural information for large domain sequence families. These structures provide the basis for modeling some 50,000 protein structures, to date. Clearly, Jinfeng's bioinformatics work in this project will have a tremendous effect on our knowledge and understanding of protein structure and evolution, and will impact many researchers over the coming years.
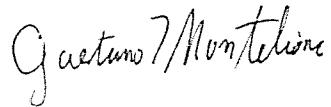
In the NESG project, Jinfeng has also been tremendously productive in getting his studies completed, and the resulting papers written and published. Some 25 papers have resulted from his graduate and postdoctoral work. His training in the Rost lab is rigorous and comprehensive. Although focused on bioinformatics analysis, the papers span a wide range of applications, from domain identification and target selection for structural genomics, to analysis of protein flexibility, protein cellular location, cDNA annotation, and functional annotation of new experimentally-determined protein structures. His broad repertoire of experience in structural bioinformatics is formidable. He has clearly developed the tools needed to establish a powerful independent program in computational biology.

In terms of overall intelligence, I rate Jinfeng in the top 10% of postdoctoral students I have known at similar points in their career development. He is also dedicated, hard-working, skilled, accurate, and careful. He has an excellent understanding of the basic science behind his research projects, the ability to get challenging tasks done, and he always keeps his eye focused on the key biological

question at hand. He has demonstrated excellent understanding of the practical experimental aspects of our collaborations, and has developed excellent relationships with many of the experimentalists in the NESG project.

Overall, I believe that Jinfeng Liu is an excellent candidate for an independent faculty position at your institution. I recommend him with my highest enthusiasm

Sincerely,

Gaetano T. Montelione

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Professor II, Molecular Biology and Biochemistry, Rutgers University
Director, Northeast Structural Genomics Consortium