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Center Director
Citizenship and Immigration Services
Texas Service Center
4141 North St. Augustine Road
Dallas, TX 75227

Re: I-140 Petition of Clement Riedel

Dear Center Director:

It is a pleasure to provide my professional opinion and support of the work of Dr Clement Riedel, who is petioning for the EB1-Extraordinary Ability (I-140 Form) to obtain permanent resident status in the United States. I am happy to assure you that he is very well qualified for this honor, as he is an outstanding scientist whose contributions play a critical role at the University of California, Berkeley and whose contributions would be sorely missed if not able to remain in this country.

Before providing reasons for why Dr. Riedel should be granted the permanent resident status, I would like to first introduce myself and outline my professional credentials. I am the Director of the California Institute for Quantitative Biosciences (QB3), and a Professor of Molecular and Cell Biology at University of California, Berkeley. I am also the Education Director of Synberc, a synthetic biology consortium of UC Berkeley, UC San Francisco, Stanford, Harvard, and MIT. In addition, I am a member of the American Academy of Arts and Sciences and the American Association for the Advancement of Science. I was also honored by the San Francisco Business Times as one of the 100 Most Influential Women in the Bay Area.

My research on protein folding mechanisms is funded by both the National Science Foundation and the National Institutes of Health. I have published numerous articles in top internationally renowned scientific journals such as *Science*, *Nature*, and *Proceedings of the National Academy of Sciences USA*. I was also awarded the William C. Rose Award of the American Society for Biochemistry and Molecular Biology in 2012 for my outstanding contributions to the field of protein folding. Finally, I co-direct a US consortium on Protein Folding consisting of >20 of the top research labs in the US studying the protein folding problem. Based on my credentials, I believe that I am qualified to make an accurate judgment of the significance of Dr. Riedel's contributions and extraordinary abilities, in terms of their importance to the economy, human health, and scientific development of the nation.

In addition to the above qualifications, my own research interests overlaps with that of Dr. Reidel; hence I am uniquely positioned to comment on his work. He is currently working in the Bustamante Lab, one floor above my laboratory at UCB. He interacts regularly with persons from my laboratory and performs research using instrumentation in my laboratory. Because of his scientific approach, professional manner and unique knowledge

of nonobiophysics, he is appreciated and well accepted by our scientific community. As I will detail later, he has created a network of excellence, here in California and internationally.

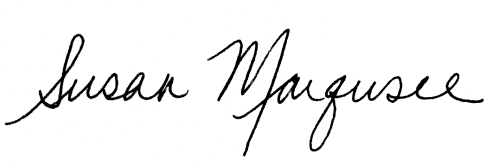
Dr. Riedel has an impressive academic background. He has published twelve articles in international peer-reviewed journals, presented his work in conferences around the world, and reviews articles for the top journal. Scientifically, he has essential skills needed to study soft and biological material at the nanoscale. At UCB, in the Bustamante Lab, he has been studying the effect of catalysis on the biophysical properties of an enzyme at the single molecule level. Remarkably, he has determined that upon catalysis, the enzyme shows enhanced diffusion. Based on these results together with theoretical analysis, Dr. Riedel has determined that the heat released by the chemical reaction is at the origin of this enhanced diffusion. This result is groundbreaking, and changes the fundamental basis for the mechanism enzyme catalysis. It has important consequences in the entire bio-medical field.

In order to achieve this fundamental discovery, Dr. Riedel had to overcome many scientific challenges. The first was experimental. First, he had to modify our single molecule fluorescence setup (which was built to measure fluorescence resonance energy transfer) in order to build a fluorescence correlation spectroscopy instrument that can measure the diffusion of molecule. Then, he had to master the biochemistry techniques needed to obtain clean and properly labeled samples. Finally, Dr. Riedel developed an assay that permits one to follow chemical reactions at the single molecule level (i.e. one chemical reaction at a time). These important results are being finalized for a planned submission to the journal *Nature*.

During his research at UC-Berkeley, Dr. Riedel interacts with scientists from around the country and world. Several of these scientists have altered their own research based on their interactions with Dr. Riedel. For example, scientists at the University of Chile have been interested by this cutting edge research and are currently performing molecular dynamics simulation of his work. Based on the current investment that Chile is putting into science and research, I believe that Dr. Riedel has helped to create a network of excellence between our two countries.

Dr. Riedel's leading and critical role is important and significant to the projects developed at the UCB. His combination of skills and ability in fluorescence correlation spectroscopy, data analysis, enzymology, single molecule chemistry are extremely hard to match. He is an accomplished researcher and as an American scientist, I hope we can keep Dr. Riedel's talent and expertise. Therefore, on the ground of his extraordinary research ability, I strongly advise the USCIS to accept his petition.
Thank you very much for your consideration.

Sincerely,



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