NIMS National Institute for Mathematical Sciences | South Korea

Faculty Search Commitee,
Department of Neuroscience,
Brown University, Providence, RI

Daejeon, April 23rd 2012

Re: Reference letter for Dr.Sachin S. Talathi

Dear Search Committee Members,

It is with great pleasure that I am writing this letter to illustrate the scientific background and activities of Dr. Sachin S. Talathi, with the aim of recommending him for one of the tenure-track positions offered in your department.

Let me first say that I consider a great fortune the opportunity of strictly collaborating with Dr. Talathi from 2006 to 2009, Dr. Talathi and myself worked as postdoctoral researchers at the Department of Biomedical Engineering, University of Florida. During that period, I strongly collaborated in most research projects with Dr. Talathi. Since then he is one of my major scientific collaborators.

I can therefore well witness that Dr. Talathi has an excellent scientific background in neuroscience and a solid understanding on computational neuroscience, signal analysis and nonlinear dynamics gathered through a prominent educational track, making him certainly one of the best computational neuroscientists that I know.

Dr. Talathi and myself collaborated in the study of the synchronization of inhibitory neural network through a mathematical model of neuronal activities. We demonstrated that synaptic plasticity as well as shunting synapses can enhance neural synchrony in the presence of heterogenity in neurons. His work on experimenal animal models of epilepsy demonstrated for the first time the importante of circadian rhythm dysregulation in epilepsy. These scientific results have been published in internationally renowned academic journal such as Physical Review E, Neuroscience Letters, and the Journal of Computational Neuroscience.

Furthermore, Dr. Talathi's scientific interests are very widespread ranging from modeling neural circuit of songbird, to large scale neuronal disorder such as epilepsy. In facing difficult problems, Dr. Talathi clearly demonstrated the rare capability of interplaying with data analysis and mathematical modeling, always with a strong creative theoretical contribution and a very close relationship with concrete experimental applications. Besides that, I have personally witnessed that Dr. Talathi

is very open in entering new challenging research lines, and is very passionate to solve a scientific question.

From a human point of view, Dr. Talathi is an excellent person, and I am sure that he will be able to establish very nice human relationships with all members of any scientific group he will work with. I am considering him as one of the most pleasant persons with whom I had the chance of interacting during my career.

Based on the highest consideration that I have through the collaborations with him, and his scientific capabilities, I strongly support his application for a tenure-track position in your department. I consider him to be the most natural choice to integrate the skills and expertises that are seen and appreciated at the signature of the abolute quality of your department.

Should at any future stage additional information or reference be needed on Dr. Talathi's scientific skills and expertises, please do not hesitate to contact me further.

Sincerely Yours

Dong-Uk Hwang 

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