



מכון ויצמן  
למדע

Weizmann Institute  
of Science

76100 רחובות 76100 Rehovot, Israel  
טלפון 972 8 934 3139 Phone 972 8 934 3139  
פקס 972 8 934 4109 Fax 972 8 934 4109

Department of Physics of Complex Systems

כבותמחלקה לפיסיקה של מערכות מור

Biocomplexity Faculty Search Committee,  
c/o Prof. Rob de Ruyter van Steveninck,  
Biocomplexity Institute,  
Indiana University,  
Swain Hall West 117,  
Bloomington IN, 47405-7105, USA

December 8, 2003

Re: Recommendation Letter for Dr. Stephan Thiberge

Dear Rob,

It is a great pleasure for me to write a recommendation letter for Dr. Stephan Thiberge, who was a post-doc in my laboratory for three years. During this time we worked together to develop a new technique of Wet Electron Microscopy, and I have had the utmost satisfaction from this collaboration.

Dr. Thiberge has a number of qualities that will make him an outstanding Professor at your University. He has an excellent vision of where the young field of Biological Physics is going. He combines excellent technical capabilities with a theoretical understanding of the underlying models. He has the ability to conduct research while being an educator, and he is innovative and imaginative.

Dr. Thiberge came to my lab after a successful Ph.D. in the Nonlinear Dynamics of liquid crystals, and made the dive into Biological Physics with no hesitation. He picked up extremely well and fast the necessary tools for maintaining a biological system, and has been expanding and improving his knowledge and capabilities. He is highly creative and innovative in his work, he learns well and adapts quickly to new techniques and approaches. He does this independently, at his own pace, his progress is continuous and after a relatively short my lab had come to rely on him in most things related to cell lines, tissue culture and manipulation of cells. He routinely counseled the students around him, both in my lab and in nearby ones, doing this in a very pleasant and interactive manner.

The project that Dr. Thiberge undertook in my laboratory was a highly ambitious one, seeking to invent a technique that most experts said could not work. He had to learn a totally new field - that of electron microscope physics and technology, and did so efficiently and in a short time. He showed feasibility of the project, then went on to implement the solution in the microscope facility at Weizmann. He adapted existing microscopes for wet imaging using both detection of electrons and of fluorescence photons, and has been using these to characterize

PHONE: 972-8-9343139; FAX:972-8-9344109; E-Mail: elisha.moses@weizmann.ac.il


biological samples, working in close collaboration with cell biologists, doctors and physicists alike. His work resulted in two patents that were recently bought by a company that is commercializing them, and I expect to see his work both published well and selling. While the papers are slow in getting published, this is only because the Electron Microscopy community is very closed and slow in accepting newcomers like me with new ideas. Since the data is compelling and his papers are of the highest quality, I expect to overcome the barrier to publication with at least two excellent papers in highly regarded journals.

Dr. Thiberge functions well both in the theoretical and the experimental aspects. He has, as a corollary to the main work, built up a complete single photon detection system from scratch, and inserted it into an existing SEM. With this he was able to show that simultaneous electron and photon images can be captured at high efficiency in a fluid. He has used the theory of electron interactions to simulate and explain his experimental data. On top of this he learned the Cell and Molecular Biology needed to run the experiment and to converse intelligently and productively with the biologists. His main strength is in getting the job done, quietly and efficiently. He has been able to advance a number of problems at once, a trait I have not seen in many post-docs, and his initiative has been crucial in maintaining the project on course.

On a personal level, Dr. Thiberge is extremely pleasant and unassuming, in my lab he was a very positive factor. If he has any fault it is a lack of assertiveness in his public relations, and I expect he will eventually change that, since his work offers much to be proud of. He will be very good with students, since he has much patience and a pedagogical ability to explain complex things simply.

In short, I am enthusiastic for Dr. Thiberge's future. I think he will be an asset in any Department he chooses to join, and I expect he will be able to develop a fruitful research program, creating a highly active environment and a bubbling laboratory.

Best Regards,



Elisha Moses

Professor of Physics