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Strasbourg, le 11/4/05

**Concerning Dr. Jean PECCOUD
To Whom it May Concern**

It is with pleasure that I provide this reference for Dr. Jean Peccoud

I am a member of the faculty of the Université Louis Pasteur School of Medicine in Strasbourg (France). I am responsible for a "service de Biologie de la Reproduction" (Artificial Reproductive technology ward) at the University Hospital of Strasbourg. In addition to this clinical charge, I lead a research team in reproductive biology at the Institute of Genetics and Molecular and Cellular Biology (http://www.igbmc.fr/index_uk.html). I met Jean in 1987 while we were both interns in the same company. A few months later, we happened to join Diane Mathis and Christophe Benoist's group as research assistants, working toward our doctorate. Assigned to different research projects, we worked side by side during 3 years. Diane and Christophe had very high standards. They were demanding mentors who chose to work on very competitive projects.

Jean was thriving in this environment. First, he quickly mastered the molecular biology techniques required by his project. This allowed him to put together, in a very short time, a series of mutants that was considered very large at the time. At a later stage he conducted experiments that required growing mammalian cells on a large scale to evaluate the effect of the mutations he introduced in the gene he was studying.

Jean was incredibly productive at the bench. Thoughtful in the design of his experiments and capable of successfully running several of them in parallel, he managed, in less than 3 years, to get 6 publications including one as first author in the EMBO Journal. His collaboration with Paulo Dellabonna, who was a post-doc in our group, led to a landmark paper in Cell who is still cited 15 years later. As the time of his defense approached, Jean was progressively looking beyond the immediate reward of publishing the results of molecular biology experiments in high impact journals. His experience at the bench prompted him to seek new avenues to understand and control the stochastic nature of the biochemical reactions in vitro like PCR or cloning techniques or in vivo such as the mechanisms controlling gene expression. During the last few months of his fellowship he took classes in applied mathematics to develop a working knowledge of various mathematical modeling tools that could be used to represent the way genes

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interact in the cell. During his defense in 1991, Jean presented some stochastic simulations of gene networks.

This scientific transition seemed really bizarre to most of us. At the time, concepts like bioinformatics, systems biology, gene networks, were inexistent and we all thought that Jean was committing himself to a scientific dead-end. However, I personally revised this opinion in the following years as I noticed in the literature mounting evidence of the biological significance of molecular noise. Also the emergence of systems biology and the recognized need for more quantitative methods in molecular biology made me recognized how insightful Jean was when he initiated a long term investment in this field in the early 90s.

After a short post-doc, he managed to get a Charge de Recherche position at INSERM by presenting a research project that combining mathematical modeling and experimental work. One of the oddities of the French academic system is that funds to pay personnel and funds used for research expenses are completely separated. A new faculty member does not get a "start-up package" after he is appointed. Getting grants is very difficult for junior scientists who often need to walk in the steps of well-established scientists to secure a minimal funding for their own research. Jean managed to fund the modeling aspect of his research but did not get the funds necessary to start the wet lab that was necessary to run the experiments complementing the computational aspects of his work. After 5 years, he left his department to join an engineering department at the University of Washington where his theoretical work could be applied experimentally. Obviously he did not look back and finally resigned from a tenured position that did not allow him to live his scientific aspirations.

I thought it might be helpful for you to understand that Jean is not computer scientist or an engineer who sees a field of opportunity in the life sciences. Jean is molecular biologist who likes and values lab work. He thinks about biological questions quantitatively and is able to interact with computer scientists, engineers, and mathematicians to develop creative approaches to biological problems. Jean's research plans are outside of my field of expertise. However, I see that he wants to run experiments to collect flow-cytometry data that he would use to build quantitative stochastic models of gene networks across multiple species. I can see how this project builds on the experimental skills he gained while working under the guidance of Diane and Christophe. Most biologists would probably still dismiss his project as unrealistic. Because Jean earned my personal and scientific respects over the last 15 years, I personally consider his project ambitious and daring rather than unrealistic. I am confident than in a favorable environment, Jean will over deliver on his scientific promise. Forward looking, he will anticipate scientific trends and manage to stay slightly ahead of his time giving his students a head start in the scientific careers.

Professor Stephane Viville,