



National Institutes of Health  
National Institute on Aging  
Laboratory of Genetics  
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October 31, 2005

Jeremy Bennett  
Faculty Search Coordinator  
Department of Biology  
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Dear Mr. Bennett:

Dr. Vincent VanBuren has asked me for a recommendation letter for the position of an Assistant Professor of Systems Biology, and I am very pleased to write very positively. I can comment favorably both on his interactions with others and on his productivity in science.

Dr. VanBuren has been a postdoctoral fellow in the Laboratory here for about 3 years, and has done an outstanding job. This was not surprising, because he had already demonstrated originality, resourcefulness, and a wide grasp of biology and bioinformatics in his thesis work. Starting with his initial interview and seminar here, it was clear that he has an unusual feeling not only for standard structural molecular biology and biochemical data but also for dynamic modeling of processes. Experts in that field often produce complex theoretical papers that are very difficult to apply; in contrast, the formulation and model derivation that Dr. VanBuren did as a graduate student produced a highly useful first model and explanation of features of microtubule assembly and energetics (his Proc. Natl. Acad. Sci. USA paper; number 3 in his bibliography). During his stay here, Dr. VanBuren completed further analyses, culminating last month in the publication of his mechanochemical model for microtubule structure and self-assembly kinetics (number 10 in his bibliography). The prowess he demonstrates in that paper is noted by the authorities Henry Schek and Alan Hunt in the "New and Notable" commentary in Biophys. J. BioFAST (August 12).

Dr. VanBuren has now also shown top notch skills in using his biology background to help solve complex computational problems associated with large-scale definition and expression analyses of an essentially full complement of mouse genes. His published work thus far has included the identification and annotation of a large set of mouse genes (number 4 in his bibliography), as

Page 2 - Jeremy Bennett

well as the computer-aided design of dependable oligonucleotide probes specific for each gene in the genome. Currently he has turned his attention to the problem of how to translate signal strength in microarray analyses into quantitative assessments of levels of transcription. He has made excellent progress with that project, which is one of several studies that he could continue in an independent position.

I want to emphasize that Dr. VanBuren does not hesitate to tackle difficult biological problems with a computational component, with an unusual blend of originality and persistence. He is also invariably polite, good-natured, soft-spoken, and matter-of-fact in all his interactions with others. This has facilitated his work both on his own and in team efforts. He does not advertise himself; but he is not reticent, and stands up well in discussions, putting in the extra effort required to explain complex computational issues to biologists with relatively weak quantitative backgrounds. All in all, I consider him an exceptional scientist with a broad, proven background. I recommend him for a position as an independent investigator without reservation.

Sincerely yours,

David Schlessinger, Ph.D.  
Chief, Laboratory of Genetics