

Middle Tennessee Research Institute

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Yves Brun, Systems Biology/Microbiology Faculty Search
Department of Biology
Indiana University
Jordan Hall 142
1001 E 3rd St
Bloomington IN 47405-7005

Dear Dr. Brun:

I am writing to strongly support the application of Dr. Robert F. Clark for a faculty position at Indiana University. I have known Bob over the past 9 years, during 7 of which I was chairperson of the Department of Microbiology at Meharry Medical College. I am a human geneticist and worked with him in a variety of programs including a Meharry/Vanderbilt Genetics Training Program, a Medical Genetics course and other teaching activities with medical and Ph.D. students. We jointly served on several Committees of Instruction (thesis committees or COIs) for Ph.D. students, and I served on the COI of some of his graduate students, including Dr. Mark Murray, who received his Ph.D. and is now a medical student at Meharry. I am very familiar with his research on Alzheimer's disease (AD) and his broad interest in the genetics of neurodegenerative diseases. We continued to interact after I left Meharry in late 2003 to join the Middle Tennessee Research Institute at the VA Medical Center in Nashville and we often discuss our interest in elucidating underlying genetic mechanisms in complex diseases, and in seeking common genetic mechanisms in related diseases. Thus, I know Bob well and feel comfortable in evaluating his research, scholarly accomplishments, teaching ability, and professional service.

Bob was recruited to Meharry in 1996 under the auspices of the Research Centers in Minority Institutions (RCMI) Program at Meharry. He was one of several outstanding young geneticists to be hired at that time to help build a strong emphasis in human genomics. His expertise was also considered very appropriate to complement the program in neurosciences at the institution. At the time that he joined Meharry, he was given a joint appointment in the Division of Biomedical Sciences, in which I also held a joint appointment. The Division included a broad range of basic scientists, including geneticists and cell biologists, who reported primarily to the School of Graduate Studies. Shortly after Bob's arrival, the Division was merged with the Department of Microbiology.

From the time that I met Bob I was very impressed with his abilities and commitment to research and teaching. He is an excellent colleague with whom to discuss the genetics of complex diseases and various aspects of cell biology, and he has broad command of the molecular approaches involved in the cloning and characterization of disease genes. His training

and experience in cell and molecular biology, as well as in *Drosophila*, human, and most recently mouse genetics, have made him expert in a broader range of areas and experimental approaches than many other individuals in his field. His work in characterizing genes involved in AD has required an examination of signaling pathways that may play important roles in the pathogenesis of this devastating disease. Shortly before he joined the Meharry faculty he had succeeded in cloning and characterizing the gene responsible for chromosome 14 AD, and was the senior author of a paper in Nature Genetics that described that finding. He was well poised to further study genes involved in AD, and also to characterize presenilin-1 mutations in *Drosophila*. He has characterized its gene expression, developmental transcription pattern and localization at different stages of fly development. He has also exploited fly genetics and yeast two-hybrid approaches to identify proteins that interact with presenilin. At Meharry his research largely focused on the identification of multiple loci that increase the risk of AD in the African American population. After a great deal of work by Bob and his student, Mark Murray to gather DNA from a sufficient number of individuals at Meharry and elsewhere, they were able to show that a multi-locus model is highly predictive of AD in African Americans. His current studies in collaboration with colleagues at the University of Tennessee Memphis are aimed at identifying quantitative trait genes, loci, and regulatory gene networks in mice, characterizing homologous genes in humans, and testing their significance in samples of his African American study population. While these studies are specifically aimed at better understanding the genetics of AD the approaches are being increasingly applied to the elucidation of the genetics of a variety of complex diseases that have thus far resisted effective analysis.

With regard to teaching Bob is a very able and nurturing individual whose teaching philosophy is aimed at developing the abilities of students to not only obtain basic information but to integrate and use it to solve new problems. I have found him to be a most thoughtful and congenial colleague, who cooperated fully and effectively in all of our joint teaching and research activities. I have a great deal of confidence in him and his contributions. I have no reservations about recommending him to your program and do so with the highest level of enthusiasm. If you need any additional information I will be happy to provide it.

Sincerely,

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