



Department of Human Genetics

October 26, 2005

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

Dear Dr. Brun:

Kirst King-Jones is applying for a faculty position in your department and has asked me to write a letter of recommendation. I am very happy to do so. I believe Kirst is one of the very best young scientists out there today and I will describe in some detail below why I think he will continue to make significant contributions as well as why he would make a terrific colleague in your department. I should make it clear at the beginning that Kirst was neither a student or postdoc of mine, nor have I collaborated on any research problem with him. However, since my own laboratory is located adjacent to Carl Thummel's laboratory and I also work in the field of *Drosophila* genetics and developmental biology, I had continuous contact with Kirst throughout his postdoctoral tenure in Carl's lab. It is probably an indication of Kirst's style of open communication and broad interests that I feel comfortable in writing a letter of recommendation for someone outside of my lab. What I believe I can contribute in this letter, instead of going over the specifics of what he has accomplished in his research, is to give you some idea of what it is like to have Kirst as a colleague in the same department.

Kirst arrived in Carl's lab with a solid background in *Drosophila* genetics and molecular biology, having worked with Guenter Korge and Michael Lehmann at the Free University of Berlin in Germany. He then took up two projects: analyzing the function of two nuclear receptors, DHR4 and DHR96, for which virtually nothing was known. He began by generating mutations of these two genes, by P element insertion for DHR4 and homologous recombination by DHR96. Both procedures are standard genetic techniques in *Drosophila*. What was unusual, however, was that Kirst didn't just follow the published protocol for homologous recombination by Rong and Golic. He studied the published method and decided that an improvement can be made to the procedure. The improvement he devised is actually non-trivial: it allows an additional important step of converting disrupted but duplicated target gene into a deleted gene. To this end, Kirst generated his own vector and successfully carried out the new procedure. This was soon after he arrived in Carl's lab, and I was very impressed that he already possessed the ability to critically evaluate the task that he faced and to have the resourcefulness and confidence to follow his own path rather than tread the established path that others have developed. This creativity and, in some sense, intrepidity that he showed at the onset also characterize the work he has produced during the subsequent years. The analysis of the two nuclear receptors has taken Kirst to the areas of research -- metabolism and physiology -- that have so far received relatively little attention, at least from the investigators working with genetically tractable model systems. How growth and maturation during animal development are integrally regulated is something we understand

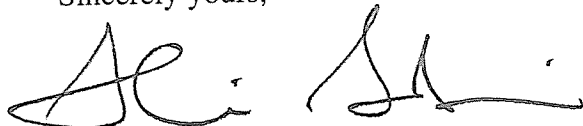
poorly. Also little genetic work has been done on the question of how organisms respond to environmental toxic assaults and stress. I believe that approaching these problems using *Drosophila* is going to take these research topics to a new and deeper level of understanding. And I also believe that Kirst is perfectly suited to pioneer this new approach and to lead the field into a molecular genetics era.

Now I wish to write about what it is like to have Kirst as a colleague. Kirst is, first and foremost, likes to think about interesting problems. He therefore shows genuine interests in other people's work, be it in a journal club or research-in-progress setting. We have weekly journal club and RIP meetings for developmental geneticists in our department, and Kirst has been a valuable participant who has contributed to raising the intellectual level of these meetings. Whenever one talks to him about some issue, one is struck by his genuine interest and incisive comments. Because of his extensive knowledge in genetics and molecular biology, people often seek out his advice. And Kirst is very generous with his time when answering questions. I myself often go to him when I have questions about the genomics of *Drosophila*. He reads widely and extensively. And therefore he seems to be familiar with, and to understand, almost every new development in molecular biology and genomics. In other words, he is not only an excellent resource for information, but also a great person to bounce ideas. This kind of deep interest and understanding in science is not something one can easily teach to a student. Either he has it or he doesn't. Kirst certainly has it. And this makes it a joy, not to mention "useful", to have him as a colleague.

On the personal level, Kirst is open and communicative and is very likable. That he is helpful to his colleagues should be clear from what I have already mentioned. His intellectual curiosity extends to topics outside of science, and it's a lot of fun to talk to him about world affairs, literature, and good places to hike. He has an even and calm temperament and appears to be well liked by those who work closely with him.

In conclusion, I believe Kirst is one of the very best young scientists that I have seen here and elsewhere. Our department has been recruiting and hiring new faculty, and I have seen now many outstanding candidates who have come through for interviews during the last three years. Even among this group I think Kirst would rise to the top few, were he to interview here. In Kirst, you will find a consummate intellectual who is also an outstanding experimentalist. I recommend him with the highest regard that I can give anyone.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Shige Sakonju', written in a cursive style.

Shige Sakonju, Ph.D.

Associate Professor of Human Genetics