



Howard Hughes Medical Institute
Research Laboratories

Robin P. Wharton, Ph.D.
~~Assistant~~ Investigator

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

October 4, 2005

To whom it may concern:

I am writing in strong support of the application of **Marito Araki** for a position as an Assistant Professor in your Department. Marito has been a post-doc in my lab for the last five years; during this period, the cell cycle project has budded off under the auspices of Maki Asano, Research Assistant Professor, whose group is inter-mingled with mine. Marito is smart, works hard, and focuses on mechanism-based answers to important biological questions. He is without question the best post-doc to emerge from my group since my arrival at Duke, and by a number of criteria (e.g., acquisition of outside funding, high profile publications) one of the best currently in the Department.

Marito arrived with excellent training as a biochemist from his graduate studies with Hanaoka and essentially no experience working with *Drosophila*. He has mastered the genetic and cell biology tradecraft necessary for working with the organism. His project has focused on the cell cycle-regulated degradation of ORC1, a key component of the DNA replication complex that probably plays many other roles in the organism too. In his first paper with me, Marito showed that the timing of ORC1 degradation is different in an interesting way in *Drosophila* and human cells, the fly protein lingering throughout G2 because it is targeted by the APC. Preliminary experiments suggested that none of the typical signals mediate ORC1 degradation. In his second paper from my group, Marito chased this down, defining a new APC targeting signal that is present in at least two (and probably more) cell cycle regulators. This work leaves him in an excellent position to launch an independent research program and establish a niche, using the new targeting signal both to identify novel cell cycle regulators and to investigate APC mechanism.

Marito is a terrific experimentalist and perhaps the most careful young scientist I have met in the last decade. His standard of proof is very high, and it is a pleasure to discuss the ramifications of "minor" observations that most would have missed, because he brings such a thoughtful approach to the table. He works very independently: most of the work in the *EMBO* paper and all of the work in the *Genes & Development* paper is his, with the other authors contributing advice or reagents. Marito also shows great initiative; in response to reviewers' criticisms he set up the collaboration with Hongtao Yu, went to his lab to learn methods first hand, and acquire key reagents.

Duke University Medical Center
Carl Building Room 324
Post Office Box 3657
Durham, North Carolina 27710
(919) 681-4365

As for some of the less tangible skills that fuel success for Assistant Professors, I believe Marito is well endowed here as well. He has shown great initiative in obtaining outside funding, with most of his time in my lab supported by prestigious private foundation fellowships from Japan. Although he has worked quite independently in my lab, I believe he understands well (perhaps better than I) how to sustain the professional relationships with graduate students and technicians that raise productivity and maintain a civil environment. My judgment here is based on the advice Marito has given me regarding some of my graduate students over the years, as well as his concern when the relationship between two other members of the lab soured a few years ago. Marito was the beneficiary of some close mentoring during his graduate studies with Dr. Hanaoka, and apparently he learned a great deal about both doing experiments and mentoring from the experience. Finally, Marito's writing is quite good; I contributed some general advice and broad criticisms of an early draft of the research plan that accompanies his application, as well as a quick fix of articles and prepositions in the final draft.

In summary, I think Marito is set to make a major contribution to our understanding of regulated proteolysis in cell cycle progression. His personality is much better suited to pursuing science in the United States than in Japan (based on my limited understanding of the latter). He has the intellectual tools, a love and respect for experimentation, depth and breadth of training, and the drive to make it happen.

Please do not hesitate to contact me if you would like more information.

Sincerely yours,



Robin P. Wharton
Investigator HHMI
Professor of Molecular Genetics & Microbiology,
Duke University Medical Center

Graduate School of Frontier Biosciences
Osaka University

1-3 Yamada-oka
Suita, Osaka 565-0871
Japan
TEL : +81-6-6879-
FAX: +81-6-6877-9382
E-mail :

October 6, 2005

Dr. Yves Brun
Department of Biology
Indiana University
Jordan Hall 142, 1001 E 3rd Street
Bloomington, IN 47405-7005
U. S. A.

Application by Dr. Marito Araki for a faculty position

I am writing to introduce and strongly support the application from **Dr. Marito Araki** for a faculty position in your department. Marito had been my student in Osaka University and is currently a post-doctoral fellow in Prof. Robin P. Wharton's laboratory at Howard Hughes Medical Institute, Duke University Medical Center.

I first became acquainted with Marito when he came to my laboratory in RIKEN Institute as an undergraduate student in 1994. After that, Marito had joined and been working in my laboratory as a graduate student. He was awarded M.Sc. and Ph.D. degrees from Osaka University in 1997 and 2000, respectively.

His major contribution in my laboratory is the reconstitution of human nucleotide excision repair system using SV40 mini-chromosomes with purified proteins. In the course of this study, Marito identified a third subunit of the XPC protein complex that had been believed to consist of two subunits. The third component turned out to be Centrin2, a well-known centrosome protein. Marito also contributed to identify a novel DNA polymerase, the xeroderma pigmentosum variant responsible gene product (Pol eta). Especially, he worked on the purification of the protein and a cell-free assay for translesion synthesis.

Marito impressed me as an intellectually gifted, knowledgeable, and creative researcher. During the reconstitution experiments, he showed his excellent ability to learn methods from others and polish them by himself. His finding of Centrin2 tells his thoughtfulness, outstanding skills in protein purification, and a keen sense of serendipity. Because of his excellent learning ability, he needed only minimum advises for his projects. At the time of graduation, Marito was already extremely mature experimentalist.

After finishing his Ph.D. study, he joined a group of Prof. Robin Wharton and Dr. Maki Asano where he is currently working as a post-doctoral fellow. He published two excellent papers on *Drosophila* ORC1 metabolism (EMBO J, 2003; Genes Dev., 2005). I believe his continuous and excellent achievement will continue after he becomes an independent researcher.

Marito is a very intelligent and dedicated young scientist with an imagination and an ability to translate his idea into practice. His explanation of his project is always lucid and his awareness of

*Graduate School of Frontier Biosciences
Osaka University*


*1-3 Yamada-oka
Suita, Osaka 565-0871
Japan
TEL : +81-6-6879-
FAX: +81-6-6877-9382
E-mail :*

the problems in his projects is surprisingly wide and deep. In addition to his outstanding professional qualifications and abilities, Marito has a pleasant personality and kindness that makes him highly regarded by all the laboratory's personnel. He had also been an excellent mentor for younger graduate students in my laboratory.

Finally, I can only reemphasize my full support for **Dr. Araki**, whom I consider a valuable colleague as well as a personal friend. He is my best student among ca. 80 graduate students to whom I played a role as supervisor. I have no doubt, that he will make significant contributions in the fields of cell biology and molecular genetics.

I remain available for any further inquires about Dr. Araki's qualifications.

Sincerely,



Fumio Hanaoka
Professor
Graduate School of Frontier Biosciences
Osaka University
&
Chief Scientist of Cellular Physiology Laboratory
Discovery Research Institute of RIKEN

Mailing address: Division of Cellular Biology
Graduate School of Frontier Biosciences
Osaka University
1-3 Yamada-oka, Suita
Osaka 565-0871, Japan
Phone: +81-6-6879-7975
Fax: +81-6-6877-9382
E-mail: fhanaoka@fbs.osaka-u.ac.jp