

## Yayoi Kamata



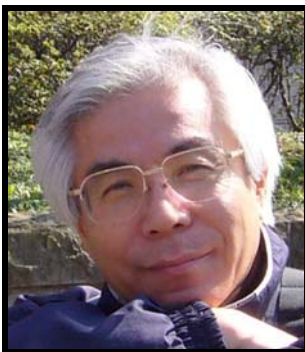
**Current Position:** Ph.D. student in the laboratory of Dr. Kazuhiko Ishihara in the Department of Biochemistry at the Graduate School of Medical Sciences at Kitasato University in Kanagawa, Japan

**Education:** Master of Medical Sciences (2005) from Kitasato University in Tokyo, Japan

**Non-scientific Interests:** Nature, music

After earning a Master of Medical Sciences at the Kitasato University in 2005, I worked as an assistant in Dr. Atsushi Takeda's biochemistry laboratory at Sagami Women's University in Kanagawa, Japan. During this time, I became interested in proteolysis and post-translational modification, and I focused my research on the physiological function of bleomycin hydrolase. In 2008, I began my Ph.D. thesis research at Kitasato University. In collaboration with Dr. Takeda's laboratory and Shiseido Research Center, I have been investigating the physiological function of bleomycin hydrolase in the mammalian epidermis. In the present study, we proposed a new aspect of the deiminated filaggrin processing mechanism for the production of amino acids acting as NMFs.

## Atsushi Takeda



**Current Position:** Professor in the Laboratory of Biochemistry, Graduate School of Nutritional Sciences and Department of Nutritional Sciences at Sagami Women's University in Kanagawa, Japan

**Education:** Ph.D. in Medical Sciences (1993) from Showa University; Ph.D. in Biochemistry (1978) from Aoyama Gakuin University

**Non-scientific Interests:** Travel, hiking

I began work on proteases and their inhibitors during my postdoctoral studies at the University of California, San Francisco from 1978 to 1981. In the Laboratory of Dermatological Science (the late Dr. W. L. Epstein), I investigated the function of the histidine-rich protein filaggrin in regulating enzyme activity in the epidermis. At the time, I had a strong interest in the mechanism of filaggrin degradation during terminal differentiation of the epidermis. I then returned to Japan and worked on the structure and function of cystatin A from rat epidermis at Aoyama Gakuin University. Next, I moved to Showa University where I showed that squamous cell carcinoma antigen in cancer patient serum was a novel cross-class protease inhibitor serpin. I also purified a high molecular weight neutral cysteine protease that is a bleomycin hydrolase from rat epidermis. The details of my findings were published in several papers. Here, I report that bleomycin hydrolase participates in the production of amino acids from filaggrin.

**Read Yayoi Kamata and Dr. Takeda's article entitled:** Neutral Cysteine Protease Bleomycin Hydrolase Is Essential for the Breakdown of Deiminated Filaggrin into Amino Acids ... <http://www.jbc.org/cgi/content/full/284/19/12829>