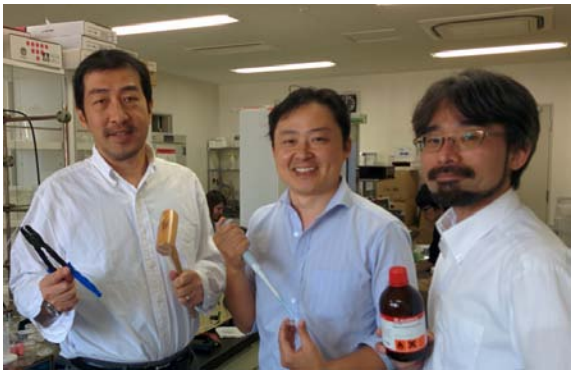
Topics : Letters from alumni

Emilio Satoshi Hara
JSPS Postdoctoral Fellow Department of Biomaterials Graduate School of Medicine, Dentistry and Pharmaceutical Sciences Okayama University

My experience in research at Okayama University started in 2003, where I began as a research student on an initial one-and-a-half year placement. A friendly relationship between two professors - Prof. Tetsuo Saito from the dental school at the University of Sao Paulo, Brazil and Prof. Atsushi Yamashita at Okayama University led to the suggestion that I should come to Okayama. From the very beginning, the experience was totally new and fascinating. I began by learning how to design clinical research involving mainly prosthodontics and temporomandibular joint disorders.

Prof. Kuboki, me and Assist. Prof. Ono - the two major people who supported me during my doctorate.

After some time, I began conducting experiments in biochemistry and the molecular biology of mineralized tissues (bone and cartilage) to obtain a deeper understanding of the biological mechanisms of tissue development, disease and repair. My Ph.D thesis involved the identification of chemicals that can enhance the repair of articular cartilage, under the supervision of Prof. Takuo Kuboki (Department of Oral Rehabilitation and Regenerative Medicine), in collaboration with Prof. Masaharu Takigawa (Department of Biochemistry and Molecular Dentistry).



Prof. Matsumoto, me and Assoc. Prof. Okada. In this picture, we are holding some of the instruments linking different fields (materials/bioengineering, molecular biology and chemistry/engineering) to highlight the many different expertise in our department.

Despite my initial background in clinical research, one of the most important changes in my research career was to start doing basic science, which opened new doors to me in the scientific world. I am extremely grateful to Prof. Kuboki, who encouraged me to pursue this.

Currently, in the latest step of my career as a post-doctoral researcher at the Department of Biomaterials (under the supervision of Prof. Takuya Matsumoto), I am learning from other fields of basic science, including biomaterials, biophysics and bioengineering. This post-doctoral fellowship has been unique and timely, and a very important opportunity to develop other aspects of my career

related to education as well as research. I am enormously grateful to Prof. Matsumoto for this opportunity. With one-to-one meetings we are able to discuss and exchange ideas readily, exploring many different opinions from across these fields of research. To my mind, this is one of the key strengths in our department; that, we can gather researchers with different fields of expertise and discuss research ideas from different perspectives. The research topic for my post-doctorate fellowship is re-analyzing the mechanisms of biomineralization and bone crystal formation from a more extensive view-point based on biology, materials science and crystal formation.

Collaboration among researchers with different backgrounds in a single department is an excellent basis for the development of new and promising research ideas, and can be very fruitful for the development of novel concepts, methods and devices.

