

## トランスジェニックアコヤガイを用いた貝殻タンパク質の機能解析 Functional analysis of shell proteins using transgenic pearl oysters

趙然<sup>1\*</sup>; 遠藤一佳<sup>1</sup>  
ZHAO, Ran<sup>1\*</sup>; ENDO, Kazuyoshi<sup>1</sup>

<sup>1</sup> 東京大学 地球惑星科学専攻

<sup>1</sup>Dept of Earth and Planetary Sciences, University of Tokyo

For the study of biomineralization, the mollusc *Pinctada fucata* is arguably an attractive genetic model system, with its draft genome sequence having been deciphered recently. It produces two crystallographically different shell layers, including the industrially important nacreous layer. We are interested in developing knock-out pearl oysters to analyze the functions of shell matrix proteins, the key players in biomineralization processes, including the unusually acidic protein Aspein. In this study, the widely used Minos transposon system is applied to generate insertional mutagenesis. The first step in developing transposons as tools for mutagenesis is to demonstrate their mobile elements function efficiently and stably in the target organism. Therefore, green fluorescent protein (GFP) is integrated into the transposon to reflect its efficiency.