



Journal of Bioscience and Bioengineering (JBB) Cover Contest優勝者が決定しました。Vol. 108, No. 1~6 (2009年7~12月号)の表紙を飾る画像は、次の3名の方による共同作品です。

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## 表紙画像について

Cover illustration: Sake is the Japanese traditional alcohol beverage. Two microbes, *Aspergillus oryzae* and *Saccharomyces cerevisiae*, are utilized for brewing of sake from steamed rice. (Top Middle) Scanning electron micrograph of a conidial head in *A. oryzae*. (Top Left) Photograph of koji (steamed rice cultivated with *A. oryzae*). (Top Right) Photograph of sake mash into which koji, steamed rice and *S. cerevisiae* are added. Researches on the role of organelles of these microbes in sake brewing is now providing novel and critical insights into the technologies of sake brewing, and of general fermentation industries. Two fluorescent figures are representatives of these researches. (Lower Middle) Dynamic morphology of Endoplasmic reticulum (ER) in *A. oryzae*. Fluorescent images show the ER morphologies at two time points (0 s and 30 s represented in green and red, respectively). In the overlaid image green and red colors out of the co-localized yellow areas reveal the ER motility. This dynamic behavior of the ER may support vigorous filamentous growth and high ability of enzyme production in *A. oryzae*. (Lower Right, Lower Left) Morphology of mitochondria in *S. cerevisiae* during sake brewing. Tubular images (Lower Right) are the mitochondrial morphology of wild type strain, and networked image (Lower Left) is the mitochondrial morphology of *fis1* disruptant, which produces an increased amount of malate. Malate exhibits a crispy sour taste, which is an important taste component in sake.

The images by Assoc. Prof. Hiroshi Kitagaki at the Saga University, Prof. Katsuhiko Kitamoto and Assis. Prof. Jun-ichi Maruyama at The University of Tokyo were selected as the winner in the JBB Cover Contest. The JBB editorial board and journal staff would like to thank all participants of the contest for their contributions.