

# 大学院GP: 歯科医学における基礎・臨床融合型 ボーダレス教育研究拠点の形成

## ボーダレス・セミナーのお知らせ

(グローバル COE 海外研究者講演会共催)

日時: 平成 23 年 1 月 31 日 (月) **16:30~17:30**

時間が変更になりました。ご注意ください。

会場: 歯科外来事務棟4階 歯学部特別講堂

演者: **Atsushi Ohazama** 大峽 淳



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演題: **The role of primary cilia in orofacial development**

口腔顔面領域発生における一次繊毛の役割

Primary cilia are surface organelles found on most cells in vertebrates. They play a critical role in many aspects of biology, including development, and have recently been shown to be implicated in Shh signaling pathway that is also involved in orofacial development. In order to investigate the role of the primary cilia in orofacial development, we examined mice with a mesenchymal conditional mutation of *Polaris* (*Polaris<sup>fllox/fllox</sup>/Wnt1Cre*) and *Kif3a* (*Kif3a<sup>fllox/fllox</sup>/Wnt1Cre*), in addition to *Ofd1* null mutant mice. Multiple abnormalities were found in many orofacial organs of all three mutants, resulting from either up- or down-regulation of Shh signaling. The action of primary cilia on Shh signaling is thus negative or positive, depending on the tissue context. In addition, different cilia proteins exert different functions on the mechanisms of cilia-directed regulation of Shh activity.

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