

SHORT COMMUNICATION

Withdrawn by the authors: Substituting Abstract

O-12. ROLE OF HOXA2 IN MOUSE EXTERNAL EAR MORPHOGENESIS: A MODEL TO DECIPHER HUMAN CRANIOFACIAL GENETIC DISORDERS

M. Minoux^{1,2}, S. Ducret² & F.M. Rijli²

¹Faculté de Chirurgie Dentaire, Université de Strasbourg, 1 Place de l'Hôpital, 67000 Strasbourg, France ²Friedrich Miescher Institute for Biomedical Research, Maulbeerstrasse 66, 4058 Basel, Switzerland

A variety of human conditions affect external ear morphogenesis, including microtia and partial duplications. A human *HOXA2* partial loss of function induces a bilateral microtia associated to an abnormal shape of the auricle [1]. In the mouse, *Hoxa2* is indispensable for the patterning of second arch neural crest cells (NCCs) and their derivatives including external ear structures. Indeed, *Hoxa2* inactivation resulted in the duplication of the external auditory canal and absence of the auricle [2,3]. Thus, functional analysis of *Hoxa2* in mouse may provide insights into the molecular mechanisms of external ear morphogenesis and a suitable model to understand the etiology of human abnormalities.

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2- Rijli F.M., Mark M., Lakkaraju S., Dierich A., Dollé P. and Chambon P. (1993). A homeotic transformation is generated in the rostral branchial region of the head by disruption of *Hoxa-2*, which acts as a selector gene. *Cell* 75, 1333-1349.

3- Santagati F., Minoux M., Ren S. Y. and Rijli F.M. (2005). Temporal requirement of *Hoxa2* in cranial neural crest skeletal morphogenesis. *Development* 132, 4927-4936.