**Ectodermal morphogenesis – the emergence of the neurogenic placodes**

The neurogenic placodes are focal thickenings of the cranial ectoderm that contribute extensively to the sensory systems of the head. In recent years there have been an ever increasing number of studies aimed at dissecting the genetic network that underpin the formation of these structures. There has, however, been relatively little analysis of the cellular nature of placode formation. Previous work from our lab has shown that the fully mature placodes exhibit a pseudostratified morphology while the adjacent ectoderm is squamosal, but is unclear how this situation is arrived at. It must, however, involve remodelling of the cranial ectoderm. The aim of this project is to detail the morphogenetic changes that occur within the cranial ectoderm prior to and lead towards the emergence of the neurogenic placodes and to assess the roles of a number of mechanisms in realizing their formation.

Supevisor – Prof Anthony Graham

Student – Mr Peter Hardy

MRC Centre for Developmental Neurobiology

King’s College London

London SE1 1UL