

## Lay Summary

**BRAIN UK Ref: 14/016**

### **Molecular Characterisation of Childhood Craniopharyngioma and Identification and Testing of Novel Drug Targets**

**Dr. Juan-Pedro Martinez-Barbera (Correspondance with Dr. John Apps, UCL Institute of Child Health**

Dr J P Martinez-Barbera and colleagues at the UCL Institute of Child Health will be undertaking a study into craniopharyngioma. Craniopharyngioma is an aggressive brain tumour in children that causes severe and long-term health problems. The tumour tends to recur after treatment and may require multiple operations. This results in poor quality of life for the patients and sometimes results in death. Currently, the lack of specific treatments and tools to predict patient outcome are barriers in the management of patients with this disease, and these problems can't be addressed until we gain a better understanding of the biology of Craniopharyngioma tumours. This study aims to look for molecular clues to improve the treatment of this disease.

#### **Publications:**

<b>Date</b>	<b>Publication title</b>
<b>2017</b>	<a href="#"><u>MAPK Pathway Control of Stem Cell Proliferation and Differentiation in the Embryonic Pituitary Provides Insights Into the Pathogenesis of Papillary Craniopharyngioma</u></a>
<b>2018</b>	<a href="#"><u>Tumour Compartment Transcriptomics Demonstrates the Activation of Inflammatory and Odontogenic Programmes in Human Adamantinomatous Craniopharyngioma and Identifies the MAPK/ERK Pathway as a Novel Therapeutic Target</u></a>
<b>2019</b>	<a href="#"><u>Non-secreting Pituitary Tumours Characterised by Enhanced Expression of YAP/TAZ</u></a>
<b>2020</b>	<a href="#"><u>CTNNB1 mutations are clonal in adamantinomatous craniopharyngioma</u></a>