

【お知らせ】

第3回“脳と末梢”セミナー/第32回脳科学セミナー

【日時】 平成24年2月6日(月) 16:00~17:30

【場所】 理工学研究科大学院 国際セミナー室
(理工学研究科棟7階)

講師) **Prof. David J. Price**

Centre for Integrative Physiology
The University of Edinburgh

演題) **"The function of the Pax6 gene
in early forebrain development"**

<要旨>

Early brain development depends critically on the high-level actions of a relatively small group of transcription factors, any one of whose deletion from developing embryos causes major defects. Our research is aimed at deepening understanding of the molecular actions of one such transcription factor, Pax6. Sustained interest in the analysis of this particular transcription factor over many years by our group and others is predicated on several important features. (i) Pax6 is a high-level regulator of neurogenesis in many contexts, allowing us to tap into the molecular programmes that drive neuronal development. (ii) Knowledge of its actions has strong medical relevance since its disruption is well-known to cause human disease. (iii) It has the potential to programme stem cell development for therapeutic benefit. In humans, mutations with a pathological effect are found in all parts of the PAX6 open reading frame and in the gene's extensive regulatory elements. Mice with loss-of-function mutations in Pax6 are excellent models of these human conditions in which to explore their cellular and molecular causes. Pax6 is multifunctional, regulating: (i) the specification of progenitors through cell autonomous actions, thereby contributing to early patterning; (ii) the proliferation of neural progenitors; (iii) the migration and differentiation of neural cells through cell autonomous and cell non-autonomous actions, thereby contributing to the specification of cell types, tissue organization and axonal connections. I shall discuss our work that is starting to increase understanding of the molecular mechanisms by which Pax6 regulates these processes."

本セミナーは脳科学融合研究センター・脳科学セミナーを兼ねており、理工学研究科(博士前期課程)の「脳科学特別教育プログラム」の単位認定の対象となります。

問合せ: 理工学研究科生体制御学コース 弥益恭 内線4349