

Skin Club & Stem Cell Club Joint Meeting

Date: September 28th 2006 (Thursday)

Time: 6:00 pm

Venue: Aspiration, Matrix building, level 2

Host: Birgit Lane, *CMM*

Time	Title	Speaker
6:00-7:00	Stem Cell Survival: Epithelial Regeneration and Cancer	Ian Mackenzie <i>University of London</i>
7:00 –	Networking Session	

ABSTRACT:

Professor Mackenzie's current work examines the relationship between the small subpopulation of normal "somatic stem cells" and the sub-populations of altered "cancer stem cells" that drive the growth of tumours. Epithelial malignancies are a major cause of cancer deaths but the nature of the alterations that occur in stem cell patterns in carcinoma remains uncertain. However, it can be shown that cell lines generated from carcinomas (oral, breast and prostate) retain a stem cell pattern in which a small population of self-renewing cells continuously regenerates the majority population of transit amplifying and differentiated cells. The stem cell component expresses markers associated both with normal stem cells and with "tumour initiating cells". Of particular interest, the stem cell subpopulation is selectively resistant to apoptotic induction. This may provide a mechanism for therapeutic evasion and malignant recurrence. We hope that an understanding of this behaviour will facilitate studies directed towards the molecular or pharmacological manipulation of malignant stem cell survival.

ABOUT THE SPEAKER:

Professor Ian Mackenzie is one of the pioneers of epithelial stem cell biology. He trained in Oral and Maxillofacial Surgery, and subsequently in Pathology, at The Royal London Hospital. He then moved to the USA where he directed research institutes at the University of Iowa in Iowa City and the University of Texas in Houston. Returning to the UK, he was Vice Dean at the University of Wales College of Medicine before taking up his present post as Professor of Stem Cell Science, leading the Stem Cell Initiative at the Institute of Cell and Molecular Science, Queen Mary, University of London. Throughout the years he has worked mainly on epithelial differentiation, wound healing and malignancy, primarily with a focus on the identification and underlying behaviour of epithelial stem cells.