



c/o Scientific Generics Limited

Harston Mill

Harston

Cambridge CB2 5NH

Telephone: +44 (0) 1223 875200

Facsimile: +44 (0) 1223 875201

(Organising Secretary's Home Number: 01799 525 948)

email: rfreeman@scigen.co.uk

CAMBRIDGE SOCIETY FOR THE APPLICATION OF
RESEARCH

“Genetic pre-disposition to Cancer”

Professor Bruce Ponder, FRS

Head of the Department of Oncology, University of Cambridge

Monday 22nd April, 2002: **7.30 p.m. - 9.00 p.m.**¹

The Wolfson Lecture Theatre, Churchill College, Cambridge

Inherited predisposition to cancer

All types of common cancers tend to cluster in families. Some of this family clustering is the result of inheritance of rare, faulty copies of critical genes. Identification of the genes is possible through the study of families. Once the genes are found they can be used to predict risk for other family members; uncovering their mechanisms tells us about the types of cellular control which are disrupted in cancer.

Although interesting, these rare genes account for only a small fraction of cancer. A more significant contribution comes from the range of normal genetic variation in the population. For example: identical twins have very similar faces; people in general have recognisably different faces. These differences are the result of the combined action of many normal genes. In the same way, it is likely that individual differences in cancer are due to the combinations of variations in normal genes which each of us has inherited. The task for the next decade and more is to track down these genes, and ultimately to use the information to guide screening and prevention.

About the Speaker

Bruce Ponder is the CRC Professor of Clinical Oncology and Head of the Department of Oncology at the University of Cambridge. He was made a Fellow of the Royal Society last year.

A Cambridge graduate, Professor Ponder practised in NHS hospitals until 1973, when he moved to the ICRF. The remainder of his professional life has been spent in the study of cancer. He was the Chair of the Family Cancer Study Group for eight years until 1996. Recent publications include Genetic Testing for Cancer Risk (Science, 278 1050-1054; (1997) and Cancer Genetics (Nature (Insight)) 411, 336-341 (2001)

About the Subject (Organising Secretary's notes)

We always knew that cancer has a significant genetic component; as a former geneticist, this both worries and intrigues me; the disease killed both my father and my grandfather. Nowadays, of course, one is in a much better position to detect a tumour in its early stages – if one bothers to look for it.

A slightly morbid subject for the first talk of our Easter Term; but doubtless one which will be well worth attending.

Richard Freeman
Organising Secretary

¹**Note:** We have now decided to **KEEP** the **earlier** start time of **7.30 p.m.**; Thanks to all who voted, and sorry to those who wanted to revert to the later time – we hope you will continue to support us, nevertheless

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