Distinguished Visitor Programme

Prof Andrew H. Wyllie
Head of Department and Professor of Pathology, University of Cambridge

Biography

Prof. Andrew Wyllie is Head of the Department of Pathology, Cambridge University, United Kingdom and an Honorary Consultant, Addenbrooke's Hospital in Cambridge. Prof. Wyllie trained at the University of Aberdeen where he received his B.Sc., MB, ChB and PhD.

He has been an Editorial Board Member of the Journal of Pathology, Member of the Advisory Editorial Board for the International Review of Experimental Pathology, Editor (Pathology Section) British Journal of Cancer and has been a Member of the Editorial Academy of the International Journal of Oncology since 1992. Among Prof. Wyllie’s honours are the Bertner Award, MD Anderson Cancer Centre, University of Texas (1994), Fellow of the Royal Society (1995), Hans Bloemendal Award, University of Nijmegen (1998) and Founder Member, British Academy of Medical Science.

In the 1970’s and 1980’s, Dr. Wyllie coined the term "apoptosis", outlined the cardinal characteristics of this program of cell death and articulated the significance of apoptosis in human disease. The conceptual breakthrough provided by Dr. Wyllie and his subsequent championing of this field have led to numerous presentations at prestigious international symposia.

Prof. Wyllie's (together with Dr. H R Horvitz) work focuses on the crucial balance between cell growth and death, and the disruption of that balance through the dysregulation of apoptosis. Failure to engage programmed cell death contributes to diseases such as cancer, autoimmune disorders and systemic viral infection, while excessive apoptosis can contribute to neurodegenerative diseases and other problems.

Lecture Abstract

10 Jul 2002

"Apoptosis/Programmed Cell Death and Cancer"

The apoptosis story began in 1972, when Prof Wyllie and his colleagues at the University of Aberdeen were puzzling over a mechanism to which most scientists paid little attention. Looking at tissues under an electron microscope, they noticed ordinary cell deaths look quite different from cell deaths caused by acute injuries. Injured cells tend to swell up and burst, spilling their contents and causing neighbouring cells to swell. This is called necrosis, a process that triggers an immune reaction and inflammation. But when cells died "normal" deaths, they shrivelled up and were consumed by nearby cells so fast they never got a chance to spill their contents. They named their discovery apoptosis, a word used in a Homeric poem that means falling off, as in leaves from a tree.

Prof. Wyllie's work focuses on the crucial balance between cell growth and death, and the disruption of that balance through aberrant regulation of apoptosis. Failure to engage programmed cell death contributes to diseases such as cancer, autoimmune disorders and systemic viral infection, while excessive apoptosis can contribute to neurodegenerative diseases and other problems.

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