Professor Julie Hazel CAMPBELL

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DATE & PLACE OF BIRTH: 2nd November, 1946; Sydney, N.S.W. Australia.

DEGREES: BSc (Hons, 1st class), 1968, University of New South Wales.
PhD, 1973, University of Melbourne.

AWARDS:
The Wellcome Australia Medal and Award for 1995
Fellow of Australian Academy of Science 2000
Centenary Medal 2003
Queensland Greats Award 2004
Order of Australia, Officer (AO) in the General Division 2006
Queensland Businesswoman of the Year 2007 - Public & Not for Profit Section

PRESENT POSITIONS:
- Senior Principal Research Fellow, NHMRC.
- Research Professor, University of Queensland.
- Director, Centre for Research in Vascular Biology, University of Queensland.
- Director, Wesley Research Institute, Wesley Hospital.
- Director, VasCam Pty Ltd.
- Member of Executive Committee (EXCOM) and Council, Australian Academy of Science.
- Secretary of Education and Public Awareness, Australian Academy of Science.

Professor Julie Campbell is a cell biologist specializing in vascular smooth muscle. She was the first to discover (in the early 1970's) that smooth muscle cells can exist in a spectrum of phenotypes that control the cell's biology and response to disease stimuli (eg in heart disease). She further determined how these cells could be maintained in a 'non-disease' phenotype. This knowledge helped our understanding of how atherosclerotic plaques form and provided information on potential strategies for prevention.

She was also the first to discover that cells of bone marrow origin contribute to intimal thickening in arteries subjected to injury, rather than solely from cells of the artery wall. This showed that current strategies to prevent restenosis after angioplasty of blocked arteries may have targeted the incorrect cell type.

Her recent work involves development of autologous vascular grafts from cells of bone marrow (myeloid) origin using the abdominal cavity as a bioreactor. These tissue-engineered 'artificial arteries' have potential use as access fistulae for haemodialysis patients and as coronary artery bypass grafts. Very recently she has used the same technology to grow bladder and uterine grafts with long-term viability. These discoveries have been protected by international patents.

Other research has involved basic cellular interactions in the artery wall, and the definition of signal transduction pathways through which factors act to enhance vascular disease regression and prevent disease development / progression.

PUBLICATIONS:
218 in referred international journals
2 international patents.

November 2007