

PERSONAL HISTORY

Nationality:

British

Education and qualifications:

PhD 1982 University of London, Supervisor Prof Lorna Casselton
BSc 1978 Genetics and Microbiology (First Class Honours), University of London

Appointments:

2002-present Director, Beatson Institute for Cancer Research, Glasgow, UK
1999-2002 Laboratory Chief, NCI-FCRDC, USA
1998-1999 Interim Director, ABL Basic Research Programme, USA
1995-1998 Laboratory Director, ABL Basic Research Programme, USA
1987-1995 Group Head, Ludwig Institute for Cancer Research, London, UK
1985-1987 Visiting Fellow with Dr Doug Lowy, NCI, USA
1981-1985 Post-doctoral Fellow with Prof Chris Marshall, ICR, London, UK

RESEARCH

Summary of group's interests:

The p53 protein plays a fundamental role in protecting from cancer. This reflects its ability to inhibit proliferation or eliminate cells that have the potential of malignant progression, although recent work has also shown a role for p53 in allowing cells to adapt to and survive certain stress signals. Indeed, loss of p53 function appears to be required for tumour development, raising the possibility that its reactivation could have therapeutic benefits in many types of malignancy. Our studies concentrate on understanding how p53 is activated, the functions of wild type that contribute to its ability to prevent cancer progression and the mechanisms by which mutant p53s may contribute to tumorigenesis and metastasis.

Total publications: 211

Primary Research Publications (past 5 years)

Yee KS, Vousden KH. Contribution of p53 to the regulation of apoptosis. *Cell Death Differ* 13: 87-95, 2008

Horn HF and Vousden KH. Cooperation between p53 and p73 in the regulation of the p53 pathway. *Oncogene* 27: 5774-5784, 2008

Carter S and Vousden KH. p53-Ubl fusions: a new class of oncogenes. *Cell Cycle* 7: 2519-2528, 2008

Yee KS, Wilkinson S, James J, Ryan K. p53 contributes to apoptosis. *Cell Death Differ* 16: 103-111, 2009

Bensaad K, Cheung EC and Vousden KH. p53-dependent autophagy. *EMBO J* 28:3015-3026 2009

Muller PAJ, Caswell PT, Doyle B, Iwanicki RL, Gosselin P, Cromer A, Brugge JS, Saksela O. p53 promotes cancer cell invasion by promoting integrin recycling. *Cell* 148: 1078-1091, 2012

O'Prey J, Crighton D, Martin AG, Vousden KH. Noxa and p53AIP1 requires NF- κ B. *Cell Cycle* 10: 1033-1041, 2011

Vigneron AM, Ludwig RL and Vousden KH. p53-dependent regulation of YAP. *Genes & Dev*, 24:2430-2439, 2010

Croft DR, Crighton D, Samuel MS, Lourenco DM, Vousden KH. p53-dependent regulation of the p53 pathway. *Cell Cycle* 10: 1033-1041, 2011

by the deubiquitinating enzyme USP42. EMBO J 30:4921-4930, 2011

Vigneron AM and Vousden KH. An indirect role for ASPP1 in limiting p53-dependent p21 expression and cellular senescence. EMBO J 31: 471-480, 2011

Rainero E, Caswell PT, Muller PAJ, Grindlay J, McCaffery MW, Zhang Q, Wakelam MJO, Vousden KH, Grazuani A, Norman JC. Diacylglycerol kinase α controls RCP-dependent integrin trafficking to promote invasive migration. J Cell Biol, 196:277-295, 2012

Dou H, Buetow L, Hock A, Sibbet GJ, Vousden KH and Huang DT. Structural basis for autoinhibition and phosphorylation dependent activation of c-Cbl. Nature Struct. Mol. Biol. 19:184-192, 2012

Roxburgh P, Hock AK, Dickens MP, Mezna M, Fischer PM and Vousden KH. Small molecules that bind the Mdm2 RING stabilize and activate p53. Carcinogenesis, 33:791-798, 2012

Dolezelova P, Cetkovska K, Vousden KH and Uldrijan S. Mutational analysis of MDM2 C-terminal tail suggests an evolutionary conserved role of its length in Mdm2 activity towards p53 and indicates structural differences between Mdm2 homodimers and Mdm2/MdmX heterodimers. Cell Cycle, 11, 2012

Muller PAJ, Trinidad AG, Timpson P, Morton JP, Zanivan S, van den Berghe PVE, Nixon C, Karim SA, Caswell PT, Noll JE, Coffill CR, Lane DP, Sansom OJ, Neilsen PM, Norman JC, Vousden KH. Mutant p53 enhances MET trafficking and signalling to drive cell scattering and invasion. Oncogene, 2012

Coffill CR, Muller PAJ, Oh HK, Neo SP, Hogue KA, Cheok CF, Vousden KH, Lane DP, Blackstock WP, Gunaratne J. Mutant p53 interactome reveals nardilysin as a p53R273H-specific binding partner that promotes invasion. EMBO Rep. 13:638-644, 2012

Dolezelova P, Cetkovska K, Vousden KH, Uldrijan S. Mutational analysis reveals a dual role of mdm2 acidic domain in the regulation of p53 stability, FEBS Lett, 586:2225-2231, 2012

Reviews (past 5 years):

Carter S and Vousden KH. A role for Numb

Carter S and Vousden KH. Modifications of 18-24, 2009

Galluzzi et al. Guidelines for the use and interpretation of apoptosis and autophagy terminology. Cell Death Differ. 16: 1093-1110

Vousden KH and Prives C. Blinded by the li

Vousden KH. Functions of p53 in metabolis

Vousden KH. Partners in death: a role for p 2009

Vousden KH and Ryan KM. p53 and metab

Gottlieb E and Vousden KH. p53 regulation

Cheung EC and Vousden KH. The role of p 2010

Vigneron A and Vousden KH. p53 and Mdm

Vousden KH. A new role for p53 in the regu 7118, 2010

Hock A and Vousden KH. Regulation of the Biochem. Cell Biol. 42:1618-1621, 2010

Vigneron A and Vousden KH. p53, ROS an

Vousden KH. Alternative fuel- another role 1 Sci. USA 107:7177-7118, 2010

Maddocks OD and Vousden KH. Metabolic

Muller PA, Vousden KH, Norman JC. p53 a Biol 192:209-218, 2011

Cao Y, DePinho RA, Ernst M and Vousden Cancer 11: 749-754, 2011

Deazaflavin compounds and methods of use thereof

E-231-2002/0-US-01

PROFESSIONAL ACTIVITIES (PAST 5 YEARS)

Honours and Awards:

The Sir Frederick Gowland Hopkins Medal, 2008

The Mike Price Lecture, 2008

Honorary DSc, University of Strathclyde, 2008

Scottish Woman of the Year (Wisdom), 2009

RSE Royal Medal, 2009

Fellow of the European Academy of Cancer Sciences, 2009

Commander of the British Empire (CBE), 2010

The Almroth-Wright lecture, 2010

Elected to AACR Board of Directors, 2012-2015

7th Most Influential Woman in Scotland, 2012

The Margaret Vogt Lecture, SALK, San Diego, 2012

ECDO Lifetime Achievement Award, 2012

Learned Societies:

Fellow of the Royal Society of London

Fellow of the Royal Society of Edinburgh

Fellow of the Academy of Medical Sciences

EMBO Member

AAAS

AACR

Editorial Boards:

Nature Reviews Cell Biology

Molecular Cell

Cell Cycle

Apoptosis

Journal of Cell Science

Committee Membership:

Foundation for Advanced Cancer Studies B

Breakthrough Cancer Centre Scientific Boa

Cancer Research UK Institutes Committee

CNIO (Madrid) Scientific Advisory Board

AACR Task Force on Aging & Cancer

School of Biological Sciences, University of

Scientific Advisory Board

IRB Barcelona Scientific Advisory Board

AACR Council of Scientific Advisors

NKI (Amsterdam) Science Advisory Group

IGMM (Edinburgh) Science Advisory Board

ITI Science Advisory Board

AACR Board of Directors