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The Havas lab investigates metabolic reprogramming during the initiation, progression and response of breast cancer using in vivo animal model systems and ex vivo organotypic cultures. We aim to understand how both genetic context and the local environment, shape metabolic reprogramming in breast cancer. Specifically, we are interested in understanding the extent of metabolic plasticity throughout the evolution of breast cancer, from disease onset up to and including therapeutic response. Through more thorough understanding of this key hallmark of breast cancer we aim to design strategies for more effective patient treatment.

Training and Education

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| 2012-2106 | Jechlinger Lab, EMBL Mouse Biology Unit, EMBL Interdisciplinary Post-Doctoral Program (EIPOD) |
| 2009-2011 | Cancer Immunology Lab, University of Camerino, Post-Doctoral Research Associate |
| 2006-2009 | Cancer Pathology Lab, CeSI Fondazione Universita Gabriele d'Annunzio, Marie Curie Transfer of Knowledge Fellow |
| 1999-2003 | PhD Biochemistry, University of Dundee, Scotland |
| 1994-1999 | BSc (Microbiology) The Pennsylvania State University, USA |

Research Articles

Havas K, Stolte J, Milchevskaya V, Klaus B, Patil KR, Sotillo R, Jechlinger M. "Deregulated Lipid Metabolism in Residual Breast Cancer Cells Promotes ROS and Recurrence" Currently Under Revision **Journal of Clinical Biology**

Guerra E., Trerotola M., Tripaldi R., Sacchetti A., **Havas K.**, Aloisi A.L., Simeone P., Relli V., La Sorda R., Lattanzio R., Piantelli M. and Alberti S. "Trop-2 drives an orthogonal layer of cancer growth that dictates response to targeted therapies" Manuscript in Preparation

Capitani M, Saade F, **Havas KM**, Angeletti M, Concetti F, Agas D, Sabbieti MG, Concetti A, Venanzi FM, Petrovsky N. "Plasmids encoding protein aggregation domains act as molecular adjuvants for DNA vaccines." **Curr Gene Ther.** 2014;14(3):161-9.

Venanzi FM, Barucca A, **Havas K**, Capitani M, Provinciali M, Scotti S, Concetti A. "Co-expression of Flt-3 ligand gene ablates tumor immunity elicited by HER-2/neu DNA vaccine in transgenic mice." 2010 **Vaccine** 28(22):3841-7

Gikiopoulos T, **Havas K**, Dewar H, Owen-Hughes T. "SWI/SNF and Asf1p Co-operate to displace histones during induction of the *Saccharomyces cerevisiae* HO promoter." 2009 **Mol Cell Biol** 29(15):4057-66

Rouleau N., Domans'kyi A., Reeben M., Moilanen A., **Havas K.**, Kang T., Owen-Hughes T., Palvimo JJ. and Jänne OA. "A novel ATPase of the SNF2-like protein family interacts with the androgen receptor and modulates androgen-dependent transcription". 2002 **Molecular Biology of the Cell** 13(6):2106-19

Havas K., Whitehouse I., Owen-Hughes T.(2001), "ATP-dependent chromatin remodelling activities". **Cell Mol Life Sci.** 58(5-6):673-82

Havas K., Flaus A., Phelan M., Kingston R., Wade P., Lilley D., Owen-Hughes T. "Generation of Superhelical Torsion by ATP-Dependent Remodelling Activities". 2000 **Cell** 103 1133-1142

Whitehouse I., Flaus A., **Havas K.**, Owen-Hughes T., "Mechanisms for ATP-dependent chromatin remodelling (2000)".**Biochem Soc Trans.**28(4):376-9

Owen-Hughes T., Steger, D., Utley, R., Cote, J., West, J., **Havas, K.** and Workman J. (1999) "Analysis of nucleosome disruption by ATP-driven chromatin remodeling complexes" **Methods in Molecular Biology.** 119:319-331.

Conference Proceedings

Guerra E., Trerotola M., Tripaldi R., Sacchetti A., **Havas K.**, Aloisi A.L., Simeone P., Relli V., La Sorda R., Lattanzio R., Piantelli M. and Alberti S. (2011) "Trop-2 is a universal cancer growth stimulator through a ubiquitous signaling platform" **Cancer Research** 01/2011; 70(8 Supplement):5042-5042.

Alberti S., Trerotola M., Guerra E., **Havas K.**, Lattanzio R., Tripaldi R., Bonasera V., Vacca G., Aloisi A., Piantelli M. (2010) "Trop-2 is a general cancer growth stimulator through ubiquitous tetraspanin platforms" **EJC Supplements** 8(5):164-165