


BIOSKETCH Ulf Pettersson		POSITION Senior professor in medical genetics Uppsala University, Sweden		
INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY	
Uppsala University, Sweden	M.D.	1971	Virology	
Uppsala University, Sweden	Ph.D	1970		
Uppsala University, Sweden	B.M.	1964		

Research description

1. This project focuses in tyrosine phosphorylation in normal cells and cancer cells. Our plan is to identify all proteins in a human cell that are tyrosine phosphorylated and to apply this knowledge to clarify which signalling pathways that are disturbed in a given tumour. The long-term goal is to use the results to predict tumour malignancy.
2. This project aims at identifying biomarkers that can be used to diagnose bladder cancer. Using masspectrometry we have shown that a small number of proteins are present at higher levels in the urine from bladder cancer patients. We are presently examining whether these proteins can be used to identify patients that have or have had a relapse of bladder cancer.
3. The aim of this project is to study how adenovirus alters gene expression during the course of an infection. Using massive parallel DNA sequencing of cDNA we are able to study changes in both coding and non-coding cellular genes

In another sub project we are characterising all protein modifications in the adenovirus particle. For this analysis we employ mass spectrometry.

My research portfolio is very wide. I am, however, approaching the end of my career and am trying to tie up some loose ends.

Key words: tyrosine phosphorylation, bladder cancer, urinary proteome, adenovirus, host cell gene expression, adenoviral proteome.

Selected peer-reviewed publications (total number >300; number of citations >25,000; h-index: 86)

1. Human QKI, a new candidate gene for schizophrenia involved in myelination. Aberg K, Saetre P, Lindholm E, Ekholm B, **Pettersson U**, Adolfsson R, Jazin E. Am J Med Genet B Neuropsychiatr Genet. 2006 Jan 5;141B(1):84-90.
2. Strategic attack on host cell gene expression during adenovirus infection. Zhao H, Granberg F, Elfineh L, **Pettersson U**, Svensson C. J Virol. 2003 Oct;77(20):11006-15.
3. The genome sequence of Trypanosoma cruzi, etiologic agent of Chagas disease. El-Sayed NM, Myler PJ, Bartholomeu DC, Nilsson D, Aggarwal G, Tran AN, Ghedin E, Worthey EA, Delcher AL, Blandin G, Westenberger SJ, Caler E, Cerqueira GC, Branche C, Haas B, Anupama A, Arner E, Aslund L, Attipoe P, Bontempi E, Bringaud F, Burton P, Cadag E, Campbell DA, Carrington M, Crabtree J, Darban H, da Silveira JF, de Jong P, Edwards K, Englund PT, Fazelina G, Feldblyum T, Ferella M, Frasch AC, Gull K, Horn D, Hou L, Huang Y, Kindlund E, Klingbeil M, Kluge S, Koo H, Lacerda D, Levin MJ, Lorenzi H, Louie T, Machado CR, McCulloch R, McKenna A, Mizuno Y, Mottram JC, Nelson S, Ochaya S, Osoegawa K, Pai G, Parsons M, Pentony M, **Pettersson U**, Pop M, Ramirez JL, Rinta J, Robertson L, Salzberg SL, Sanchez DO, Seyler A, Sharma R, Shetty J, Simpson AJ, Sisk E, Tammi MT, Tarleton R, Teixeira S, Van Aken S, Vogt C, Ward PN, Wickstead B, Wortman J, White O, Fraser CM, Stuart KD, Andersson B. Science. 2005 Jul 15;309(5733):409-15.

4. Modulation of host cell gene expression during onset of the late phase of an adenovirus infection is focused on growth inhibition and cell architecture. Granberg F, Svensson C, **Pettersson U**, Zhao H. *Virology*. 2005 Dec 20;343(2):236-45.
5. Adenovirus-induced alterations in host cell gene expression prior to the onset of viral gene expression. Granberg F, Svensson C, **Pettersson U**, Zhao H. *Virology*. 2006 Sep 15;353(1):1-5. Epub 2006 Jul 24.
6. How adenovirus strives to control cellular gene expression. Zhao H, Granberg F, **Pettersson U**. *Virology*. 2007 Jul 5;363(2):357-75. Epub 2007 Mar 23.
7. Immunoaffinity enrichments followed by mass spectrometric detection for studying global protein tyrosine phosphorylation. Bergström Lind S, Molin M, Savitski MM, Emilsson L, Aström J, Hedberg L, Adams C, Nielsen ML, Engström A, Elfineh L, Andersson E, Zubarev RA, **Pettersson U**. *J Proteome Res*. 2008 Jul;7(7):2897-910
8. Activation of the interferon-induced STAT pathway during an adenovirus type 12 infection. Zhao H, Boije H, Granberg F, **Pettersson U**, Svensson C. *Virology*. 2009 Sep 30;392(2):186-95.
9. Towards a Comprehensive Characterization of the Phosphotyrosine Proteome. Sara Bergström Lind, Konstantin A. Artemenko, Lioudmila Elfineh, Corina Mayrhofer, Roman A. Zubarev, Jonas Bergquist, and **Ulf Pettersson**. Accepted for publication in *Cellular Signalling*.
10. Hongxing Zhao, Martin Dahlö, Anders Isaksson, Ann-Christine Syvänen and **Ulf Pettersson**. The transcriptome of the adenovirus infected cell. Submitted to *J. Virology*

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Positions and Honors

Positions

1986-	Professor in Tumor Biology, Department of Immunology, Genetics and Pathology, Uppsala University
1981-1986	Associate Professor of Pathology, Department of Pathology, Uppsala University
1978-1979	Visiting Professor, Molecular, Cellular and Developmental Biology, University of Colorado, Boulder, CO., USA
1974-1980	Research Fellow of the Swedish Cancer Society

Honors/Commissions of trust

2010	Elected member, European Academy of Cancer Sciences
2008	Rudbeck Gold Medal (Uppsala University)
2007	King Gustaf Adolf Gold Medal (Uppsala University)
2003-2013	Chairman, Research Commission, the Swedish Cancer Society
2002	Björkén Prize (Uppsala University)
2001	The Hyclone Award
1999-2002	Vice-Rector, Medicine and Pharmacy, Uppsala University
1996-2002	Dean, Faculty of Medicine, Uppsala University
1995	Elected member, Royal Academy of Science (Kungl. Vetenskapsakademien)
1993	The Nordic Fernström Prize
1993	Lennox K. Black Prize (Jefferson University, Philadelphia, PA)
1990	Swedish Medical Society Jubilee Award
1990	Acta Endocrinologica Award
1989	Elected member, European Molecular Biology Organisation (EMBO)
1988	Axel Hirsch's Prize (Karolinska Institute)
1988	The Thuréus Prize
1986	The Farber Award for contributions in brain tumor research (American Academy of Neurology)
1984	The Fernström Prize for Young Investigators
1984	The Alvarenga Prize (Swedish Medical Society)
1973	The Hwasser Prize and Silver Medal of Uppsala Medical Society
