

# Aki Manninen – CV

## Education and positions

- 1996 M.Sc. degree, Biochemistry, University of Oulu
- 2001 Ph.D degree in Molecular and Cellular Biology, Institute of Medical Technology, University of Tampere
- 2010 Docent in Cell Biology, University of Oulu
- 2001-2002 Post-doctoral Research Fellow, Institute of Medical Technology, University of Tampere
- 2002-2004 Post-doctoral EMBO Research Fellow, Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany
- 2004-2005 Post-doctoral Research Fellow, Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany
- 2007-2009 Post-doctoral Research Fellow, Academy of Finland
- 2006- Coordinator of Cell Biology, Head of the Biocenter Oulu Virus Core Laboratory
- 2010-(2015) Academy Research Fellow, Academy of Finland

## Selected scientific advisory functions

- 2006- Coordinator of the Biocenter Oulu Virus Core Laboratory and Biocenter Oulu representative in national level Biocenter Finland infrastructure networks Gene Transfer and Cell Therapy Network
- 2008-2009 Vice-representative in national level Biocenter Finland infrastructure networks Genome-Wide High-Throughput methods network
- 2006- A member and a chair (since 2007 onwards) in the PhD student follow-up groups of the BCO doctoral program
- 2006- A member of the Biocenter Oulu Steering Committee
- 2008- A member of the Council of studies (Oppiaineneuvosto) at the Department of Medical Biochemistry and Molecular Biology
- 2008- A board member of the Oulu Center for Cell-Matrix Research consortium

## Selected publications

Teräväinen TP, Myllymäki SM, Friedrichs J, Strohmeyer N, Moyano JV, Wu C, Matlin KS, Muller DJ, Manninen A.  $\alpha$ V-integrins are required for mechanotransduction in MDCK epithelial cells. *PLoS ONE*, 8(8):e71485, 2013.

Rilla K, Pasonen-Seppänen S, Kärnä R, Karjalainen H, Törrönen K, Koistinen V, Tammi MI, Tammi RH, Teräväinen T, Manninen A. HAS3-induced accumulation of hyaluronan in 3D MDCK cultures results in mitotic spindle misorientation and disturbed organization of epithelium. *Histochem Cell Biol*. 137(2):153-64, 2012.

Greciano PG, Moyano JV, Buschmann MM, Tang J, Lu Y, Rudnicki J, Manninen A, Matlin KS. Laminin 511 Partners with Laminin 332 to Mediate Directional Migration of Madin-Darby Canine Kidney (MDCK) Epithelial Cells. *Mol Biol Cell*. 23(1):121-36, 2012.

Veikkolainen V, Naillat F, Railo A, Chi L, Manninen A, Hohenstein P, Hastie N, Vainio S, Elenius K. ErbB4 signaling regulates cell division and polarization during kidney epithelial development. *JASN* 23(1):112-22, 2012.

Myllymäki SM, Teräväinen TP, Manninen A. Two Distinct Integrin-Mediated Mechanisms Contribute to Apical Lumen Formation in Epithelial Cells. *PLoS ONE* 6(5): e19453, 2011.

Friedrichs J, Manninen A, Muller DJ, Helenius J. Galectin-3 regulates integrin  $\alpha 2\beta 1$ -mediated adhesion to collagen-I and IV. *J. Biol. Chem.* 283: 32264-72, 2008.

Torkko JM, Manninen A, Schuck S, Simons K. Depletion of apical transport proteins perturbs epithelial cyst formation and ciliogenesis. *J. Cell Sci.* 121:1193-203, 2008.

Friedrichs J, Torkko JM, Helenius J, Teräväinen TP, Fullekrug J, Muller DJ, Simons K, Manninen A. Contributions of galectin-3 and -9 to epithelial cell adhesion analysed by single cell force spectroscopy. *J. Biol. Chem.* 282: 29375-83, 2007.

Delacour D, Gouyer V, Zanetta J-P, Drobecq H, Leteurtre E, Grard G, Moreau-Hannedouche O, Maes E, Pons A, Andre S, Le Bivic A, Gabius HJ, Manninen A, Simons K, Huet G. Galectin-4 and sulfatides in apical membrane trafficking in enterocyte-like cells. *J. Cell. Biol.* 169:491-501, 2005.

Schuck S\*, Manninen A\*, Honsho M, Fullekrug J, Simons K. Generation of single and double knockdowns in polarized epithelial cells by retrovirus-mediated RNA interference. *Proc. Natl. Acad. Sci. USA* 101:4912-4917.\*equal contribution, 2004.