

## Publications from the CoE in 2012:



CENTRE OF EXCELLENCE  
IN CELL-EXTRACELLULAR  
MATRIX RESEARCH

### **Peer-reviewed journals:**

Aikio, M; Alahuhta, I; Nurmenniemi, S; Suojanen, J; Palovuori, R; Teppo, S; Sorsa, Timo; López- Otín, C; Pihlajaniemi, T; Salo, T; Heljasvaara, R; Nyberg, P (2012) Arresten, a collagen-derived angiogenesis inhibitor, suppresses invasion of squamous cell carcinoma. - PLoS One 7 (12): e51044.

<http://www.ncbi.nlm.nih.gov/pubmed/23227231>

Aro, E; Khatri, R; Gerard-O'Riley, R; Mangiavini, L; Myllyharju, J; Schipani, E (2012) Hypoxia-inducible factor-1 (HIF-1) but not HIF-2 is essential for hypoxic induction of collagen prolyl 4-hydroxylases in primary newborn mouse epiphyseal growth plate chondrocytes. - Journal of Biological Chemistry 287 (44), 37134-37144. <http://www.ncbi.nlm.nih.gov/pubmed/22930750>

Buler, M; Aatsinki, SM; Izzi, V; Hakkola, J (2012) Metformin reduces hepatic expression of SIRT3, the mitochondrial deacetylase controlling energy metabolism. - PLoS One 7 (11).

<http://www.ncbi.nlm.nih.gov/pubmed/23166782>

Fasching PA; Pharoah PD; Cox A; Nevanlinna H; Bojesen SE; Karn T; Broeks A; van Leeuwen FE; van 't Veer LJ; Udo R; Dunning AM; Greco D; Aittomäki K; Blomqvist C; Shah M; Nordestgaard BG; Flyger H; Hopper JL; Southey MC; Apicella C *et al* (incl. Winqvist)(2012) The role of genetic breast cancer susceptibility variants as prognostic factors. - Human Molecular Genetics 21 (17), 3926-3939.

<http://www.ncbi.nlm.nih.gov/pubmed/22532573>

Ghousaini M; Fletcher O; Michailidou K; Turnbull C; Schmidt MK; Dicks E; Dennis J; Wang Q; Humphreys MK; Luccarini C; Baynes C; Conroy D; Maranian M; Ahmed S; Driver K; Johnson N; Orr N; dos Santos Silva I; Waisfisz Q; Meijers-Heijboer H *et al* (incl. Winqvist) (2012) Genome-wide association analysis identifies three new breast cancer susceptibility loci. - Nature Genetics 44 (3), 312-318.

<http://www.ncbi.nlm.nih.gov/pubmed/22267197>

Greciano PG; Moyano JV; Buschmann MM; Tang J; Lu Y; Rudnicki J; Manninen A; Matlin KS (2012) Laminin 511 partners with laminin 332 to mediate directional migration of Madin-Darby canine kidney epithelial cells. - Molecular biology of the cell 23 (1), 121-136.

<http://www.ncbi.nlm.nih.gov/pubmed/22031290>

Haghighi Poodeh S; Salonurmi T; Nagy I; Koivunen P; Vuoristo J; Räsänen J; Sormunen R; Vainio S; Savolainen MJ (2012) Alcohol-induced premature permeability in mouse placenta-yolk sac barriers in vivo. - Placenta 33 (10), 866-873. <http://www.ncbi.nlm.nih.gov/pubmed/22884851>

Heikkinen A; Tu H; Pihlajaniemi T (2012) Collagen XIII: a type II transmembrane protein with relevance to musculoskeletal tissues, microvessels and inflammation. - International journal of biochemistry & cell biology 44 (5), 714-717. <http://www.ncbi.nlm.nih.gov/pubmed/22342189>

Hein R; Maranian M; Hopper JL; Kapuscinski MK; Southey MC; Park DJ; Schmidt MK; Broeks A; Hogervorst FB; Bueno-de- Mesquit HB; Muir KR; Lophatananon A *et al* (incl. Winqvist) (2012) Comparison of 6q25 Breast Cancer Hits from Asian and European Genome Wide Association Studies in the Breast Cancer Association Consortium (BCAC). - PLoS One 7, e42380.

<http://www.ncbi.nlm.nih.gov/pubmed/22879957>

Holopainen T; Alpuche VL; Zheng W; Heljasvaara R; Jones D; He Y; Tvorogov D; D'Amico G; Wiener Z; Andersson LC; Pihlajaniemi T; Min W; Alitalo K (2012) Deletion of the Endothelial Bmx Tyrosine Kinase Decreases Tumor Angiogenesis and Growth. - *Cancer Research* 72 (14), 3512-3521.

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Holopainen T; Saharinen P; D'Amico G; Lampinen A; Eklund L; Sormunen R; Anisimov A; Zarkata G; Lohela M; Heloterä H; Tammela T; Benjamin LE; Ylä-Herttuala S; Leow CC; Koh GY; Alitalo K (2012) Effects of angiopoietin-2-blocking antibody on endothelial cell-cell junctions and lung metastasis. - *Journal of the National Cancer Institute* 104 (6), 461-475.

<http://www.ncbi.nlm.nih.gov/pubmed/22343031>

Hurskainen T; Moilanen J; Sormunen R; Franzke C-W; Soininen R; Loeffek S; Huilaja L; Nuutinen M; Bruckner-Tuderman L; Autio-Harmainen H; Tasanen K (2012) Transmembrane collagen XVII is a novel component of the glomerular filtration barrier. - *Cell and Tissue Research* 348 (3), 579-588.

<http://www.ncbi.nlm.nih.gov/pubmed/22457199>

Laitala, A; Aro, E; Walkinshaw, G; Mäki, JM; Rossi, M; Heikkilä, M; Savolainen, ER; Arend, M; Kivirikko, KI; Koivunen, P; Myllyharju, J (2012) Transmembrane prolyl 4-hydroxylase is a fourth prolyl 4-hydroxylase regulating EPO production and erythropoiesis. - *Blood* 120, 3336-3344.

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Moncada-Pazos, A; Obaya, AJ; Llamazares, M; Heljasvaara, R; Suárez, MF; Colado, E; Noël, A; Cal, S; López-Otín, C (2012) ADAMTS-12 metalloprotease is necessary for normal inflammatory response. - *Journal of Biological Chemistry* 287(47), 39554-39563.

<http://www.ncbi.nlm.nih.gov/pubmed/23019333>

Murugan S; Shan J; Kühl SJ; Tata A; Pietilä I; Kühl M; Vainio SJ (2012) WT1 and Sox11 regulate synergistically the promoter of the Wnt4 gene that encodes a critical signal for nephrogenesis. - *Experimental Cell Research* 318 (10), 1134-1145. <http://www.ncbi.nlm.nih.gov/pubmed/22465478>

Murugan, S; Saarela, U; Airene, K; Shan, J; Skovorodkin, I; Ylä-Herttuala, S; Vainio SJ. (2012) Conditional expression of Lodavin, an avidin-tagged LDL receptor, for biotin-mediated applications in vivo. - *Genesis* 50, 693-699. <http://www.ncbi.nlm.nih.gov/pubmed/22467513>

Pietilä, R; Nätyнки, M; Tammela, T; Kangas, J; Pulkki, KH; Limaye, N; Vikkula, M; Koh, GY; Saharinen, P; Alitalo, K; Eklund, L (2012) Ligand oligomerization state controls Tie2 receptor trafficking and angiopoietin-2-specific responses. - *Journal of Cell Science* 125, 2212-2223.

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Solyom S, Aressy B, Pylkäs K, Patterson-Fortin J, Hartikainen JM, Kallioniemi A, Kauppila S, Nikkilä J, Kosma VM, Mannermaa A, Greenberg RA, Winqvist R (2012) Breast cancer-associated Abraxas mutation disrupts nuclear localization and DNA damage response functions. - Science Translational Medicine 4, 122ra23. <http://www.ncbi.nlm.nih.gov/pubmed/22357538>

Stevens KN; Fredericksen Z; Vachon CM; Wang X; Margolin S; Lindblom A; Nevanlinna H; Greco D; Aittomäki K; Blomqvist C; Chang-Claude J; Vrieling A; Flesch-Janys D; Sinn HP; Wang-Gohrke S *al* (incl. Winqvist) (2012) 19p13.1 is a triple-negative-specific breast cancer susceptibility locus. - The Journal of Cancer Research 72, 1795-1803. <http://www.ncbi.nlm.nih.gov/pubmed/22331459>

Su JM; Stenbjorn RS; Gorse K; Su K; Hauser KF; Ricard-Blum S; Pihlajaniemi T; Fox MA (2012) Target-Derived Matricryptins Organize Cerebellar Synapse Formation through alpha 3 beta 1 Integrins. - Cell Reports 2 (2), 223-230. <http://www.ncbi.nlm.nih.gov/pubmed/22884367>

Vainio, S (2012) How the developing mammalian kidney assembles its thousands of nephrons : Fgfs as stemness signals. - Developmental cell 22 (6), 1125-1126. <http://www.ncbi.nlm.nih.gov/pubmed/22698278>

Veikkolainen V; Naillat F; Railo A; Chi L; Manninen A; Hohenstein P; Hastie N; Vainio S; Elenius K (2012) ErbB4 modulates tubular cell polarity and lumen diameter during kidney development. - Journal of the American society of nephrology 23 (1), 112-122. <http://www.ncbi.nlm.nih.gov/pubmed/22076439>

Warren H; Dudbridge F; Fletcher O; Orr N; Johnson N; Hopper JL; Apicella C; Southey MC; Mahmoodi M; Schmidt MK; Broeks A; Cornelissen S; Braaf LM; Muir KR; Lophatananon A *al* (incl. Winqvist) (2012) 9q31.2-rs865686 as a susceptibility locus for estrogen receptor-positive breast cancer: evidence from the Breast Cancer Association Consortium. - Cancer Epidemiology, Biomarkers & Prevention 21, 1783-1791. <http://www.ncbi.nlm.nih.gov/pubmed/22859399>

### **Books chapters:**

Halt K; Vainio S (2012) In vitro induction of nephrogenesis in mouse metanephric mesenchyme with lithium introduction and ureteric bud recombination. Kidney Development: Methods and Protocols. Odysseé Michos. - Methods Mol Biol. 2012; 886:23-30. <http://www.ncbi.nlm.nih.gov/pubmed/22639248>