



Curriculum Vitae

Personal information **Pauliina Lehtolainen-Dalkilic**

Work experience

1. Employer: FIMEA, Finnish Medicines Agency
 - Start date: 102011
 - End date:
 - Position: Senior Researcher
 - Activities: Nonclinical Assessor, toxico_pharmacological assessment of medicinal products including ATMPs and biologicals.
 - Country: Finland
2. Employer: The board for Gene Technology, Ministry of Social Affairs and Health
 - Start date: 062020
 - End date:
 - Position: Consultant
 - Activities: The environmental risk assessment of human drug products containing genetically modified organisms (GMO).
 - Country: Finland
3. Employer: ArkTherapeutics Oy
 - Start date: 032011
 - End date: 092011
 - Position: Senior Manufacturing Development Scientist
 - Activities: Company expertise on the early generation phase of the biological medicinal products; involvement in the design of manufacturing and analysis of the adenovirus_based large scale production of the candidate biological product.
 - Country: Finland
4. Employer: ArkTherapeutics Oy
 - Start date: 092008
 - End date: 032011
 - Position: Senior Research Scientist
 - Activities: Company expertise on the early generation phase of the biological medicinal products.
 - Country: Finland
5. Employer: Institute of Child Health, University College London (UCL)
 - Start date: 012007
 - End date: 092008
 - Position: Senior Research Scientist
 - Activities: Post doctoral fellow in research in endothelial progenitor cells, cardiovascular regeneration, MRI imaging, targeted therapies utilising paramagnetic nanoparticles
 - Country: United Kingdom
6. Employer: University College London (UCL, Center for Cardiovascular Biology and Medicine, British Heart Foundation Laboratories
 - Start date: 072002
 - End date: 122006
 - Position: Research Fellow
 - Activities: Post doctoral fellow in research area of stem cells and cardiovascular regeneration; research focusing on the programming, characterisation of human bone marrow stem cells, endothelial progenitor cells, CD133+ and CD34+ cells and their therapeutic use in the development of stem cell therapies to myocardial ischaemia, research requiring broad spectrum of in vitro and in vivo methodologies.
 - Country: United Kingdom
7. Employer: A.I.Virtanen Institute, University of Kuopio
 - Start date: 011995
 - End date: 062002
 - Position: Researcher
 - Activities:
 - Country: Finland

Education and training

1. Subject: University of Kuopio, Faculty of Medicine
 - Start date: 011995
 - End date: 112002
 - Qualification: PhD
 - Organisation:
 - Country: Finland
2. Subject: University of Jyväskylä
 - Start date: 091989
 - End date: 121994
 - Qualification: MSc
 - Organisation:
 - Country: Finland

Additional information

Publications

(h_index 18, total citations 1837, by Google Scholar, cut of date 26.1.2021) 1. Martikainen M, Lehtolainen Dalkilic P, Ruokoniemi P. Myyntiluvallisten rokotteiden sisältämään alumiiniin ei liity turvallisuusrisiä. Sic! verkkoversio Julkaistu numerossa 3_4/2017 / Biologiset lääkkeet. 2. Soininen SK, Lehtolainen Dalkilic P, Karppinen T, Puustinen T, Dragneva G, Kaikkonen MU, Jauhainen M, Allart B, Selwood DL, Wirth T, Lesch HP, Määttä AM, Mönkkönen J, Ylä_Herttua S, Ruponen M (2012) Targeted delivery via avidin fusion protein: intracellular fate of biotinylated doxorubicin derivative and cellular uptake kinetics and biodistribution of biotinylated liposomes. Eur J Pharm Sci. Dec 18;47(5):848_56. 3. Wirth T, Pikkarainen JT, Samaranayake HD, Lehtolainen Dalkilic P, Lesch HP, Airene KJ, Marjomäki V, Ylä_Herttua SP (2012). Efficient gene therapy based targeting system for the treatment of inoperable tumors. J Gene Med. Apr;14(4):221_30. 4. Turhanen PA, Weisell J, Lehtolainen Dalkilic P, Määttä AM, Vepsäläinen J, Närvänen A (2011). A novel strategy for the synthesis of enzymatically stable biotin-DOTA conjugates for in vivo use. Med Chem Comm; 2:886_888. 5. Kyrtatos P, Lehtolainen P, Junemann Ramirez M, Garcia Prieto A, Price NA, Martin JF, Gadian DG, Pankhurst QA, Lythgoe MF (2009). Magnetic tagging increases delivery of circulating progenitors in vascular injury. JACC Cardiovasc Interv. Aug;2(8): 794_802. 6. Lesch HP, Pikkarainen JT, Kaikkonen MU, Taavitsainen M, Samaranayake H, Lehtolainen Dalkilic P, Vuorio T, Määttä AM, Wirth T, Airene KJ, Ylä_Herttua S (2009). Avidin fusion protein-expressing lentiviral vector for targeted drug delivery. Hum Gene Ther. Aug 20(8): 871_82. 7. Frankel P, Pellet Many C, Lehtolainen P, D'Abaco GM, Tickner ML, Cheng L, Zachary IC (2008). Chondroitin sulphate-modified neuropilin 1 is expressed in human tumour cells and modulates 3D invasion in the U87MG human glioblastoma cell line through a p130Cas-mediated pathway. EMBO Rep. Aug 15. 8. Lehtolainen P, Laukkanen MO, Ylä_Herttua S (2007): Gene therapy. Encyclopedia of Life Support Systems, Eolss Publishers Co. Ltd., Oxford, UK. 9. Kankkonen HM, Turunen MP, Hiltunen MO, Lehtolainen P, Koponen J, Leppanen P, Turunen AM, Ylä_Herttua S (2004). Feline immunodeficiency virus and retrovirus-mediated adventitial ex vivo gene transfer to rabbit carotid artery using autologous vascular smooth muscle cells. J Mol Cell Cardiol. 36(3):333_41. 10. Raty JK, Airene KJ, Marttila AT, Marjomäki V, Hytonen VP, Lehtolainen P, Laitinen OH, Mahonen AJ, Kulomaa MS, Ylä_Herttua S. (2004). Enhanced gene delivery by avidin-displaying baculovirus. Mol Ther 9(2):282_91. 11. Lehtolainen P, Wirth T, Taskinen AK et al (2003). Targeting of biotinylated compounds to its target tissue using a low-density lipoprotein receptor-avidin fusion protein. Gene Ther. 10: 2090_2097. 12. Lehtolainen P, Wirth T, Taskinen AK, Lehenkari P, Leppänen O, Lappalainen M, Pulkkanen K, Marttila A, Marjomäki V, Airene KJ, Horton M, Kulomaa MS, Ylä_Herttua S: (2003). Targeting of biotinylated compounds to its target tissue using low-density lipoprotein-avidin fusion protein. Gene Ther. Dec;10(25):2090_7. 13. Kukkonen S.P., Airene K.J., Marjomäki V., Laitinen O.H., Lehtolainen P., Kankaanpää P., Mahonen A.J., Raty J.K., Nordlund H.R., Oker Blom C., Kulomaa M.S., and Ylä_Herttua S (2003): Baculovirus capsid display: a novel tool for transduction imaging. Mol Ther 8:853_862. 14. Laurema A, Heikkilä A, Keski-Nisula L, Heikura T, Lehtolainen P, Manninen H, Tuomisto TT, Heinonen S, Ylä_Herttua S (2003): Transfection of oocytes and other types of ovarian cells in rabbits after direct injection into uterine arteries of adenoviruses and plasmid/liposomes. Gene Ther. Apr;10(7):580_4. 15. Lehtolainen P (2002): Lipoprotein Receptor-Avidin Fusion Proteins: A new concept for drug targeting. Doctoral dissertation, Kuopio University Publications G_A.I.V. Insitute for Molecular Sciences 5. 72p. 16. Lehtolainen P, Tynnelä K, Kannasto J, Airene K, Ylä_Herttua S (2002): Baculoviruses exhibit restricted cell type specificity in rat brain: a comparison of baculovirus- and adenovirus-mediated intracerebral gene transfer in vivo. Gene Ther. Dec;9(24):1693_9. 17. Kossila M, Jauhainen S, Laukkanen MO, Lehtolainen P, Jaaskelainen M, Turunen P, Loimas S, Wahlfors J, Ylä_Herttua S (2002): Improvement in adenoviral gene transfer efficiency after preincubation at +37 degrees C in vitro and in vivo. Mol Ther. Jan;5(1):87_93. 18. Lehtolainen P, Taskinen A, Laukkanen J, Airene KJ, Heino S, Lappalainen M, Ojala K, Marjomäki V, Martin JF, Kulomaa MS, Ylä_Herttua S (2002): Cloning and characterization of Scavidin, a fusion protein for the targeted delivery of biotinylated molecules. J Biol Chem. Mar 8;277(10):8545_50. 19. Brigelius-Flohe R, Maurer S, Lotzer K, Bol G, Kallionpää H, Lehtolainen P, Viita H and Ylä_Herttua S (2000): Overexpression of PHGPx inhibits hydroperoxide-induced oxidation, NfκB activation and apoptosis and affects oxLDL-mediated proliferation of rabbit aortic smooth muscle cells. Atherosclerosis. 152(2):307_317. 20. Sandmair AM, Loimas S, Puranen P, Immonen A, Kossila M, Puranen M, Hurskainen H, Tynnelä K, Turunen M, Vanninen R, Lehtolainen P, Paljarvi L, Johansson R, Vapalahti M, Ylä_Herttua S (2000): Thymidine kinase gene therapy for human malignant glioma, using replication-deficient retroviruses or adenoviruses. Hum Gene Ther. 11:2197_2205. 21. Laukkanen MO, Lehtolainen P, Turunen P, Aittomäki S, Oikari P, Marklund SL, Ylä_Herttua S (2000): Rabbit extracellular superoxide dismutase: expression and effect on LDL oxidation. Gene. 22;254(1_2):173_9. 22. Lehtolainen P, Takeya M, Ylä_Herttua S (2000): Retrovirus-mediated, stable scavenger receptor gene transfer leads to functional endocytotic receptor expression, foam cell formation, and increased susceptibility to apoptosis in rabbit aortic smooth muscle cells. Arterioscler Thromb Vasc Biol. 20:52_60. 23. Laukkanen J, Lehtolainen P, Gough PJ, Greaves DR, Gordon S, Ylä_Herttua S (2000): Adenovirus-mediated gene transfer of a secreted form of human macrophage scavenger receptor inhibits modified low-density lipoprotein degradation and foam cell formation in macrophages. Circulation, 101:1091_1096. 24. Ylitalo R, Jaakkola O, Lehtolainen P, Ylä_Herttua S (1999): Metabolism of modified LDL and foam cell formation in murine macrophage-like RAW 264 cells. Life Sci. 64:1955_1965. 25. Pakkanen TM, Laitinen M, Hippeläinen M, Kallionpää H, Lehtolainen P, Leppänen P, Luoma JS, Tarvainen R, Alhava E, Ylä_Herttua S (1999): Enhanced plasma cholesterol lowering effect of retrovirus-mediated LDL receptor gene transfer to WHHL rabbit liver after improved surgical technique and stimulation of hepatocyte proliferation by combined partial liver resection and thymidine kinase ganciclovir treatment. Gene Ther. 6:34_41. 26. Pakkanen TM, Laitinen M, Hippeläinen M, Hiltunen MO, Lehtolainen P, Leppänen P, Luoma JS, Alhava E, Ylä_Herttua S (1999): Improved gene transfer efficiency in liver with vesicular stomatitis virus G-protein pseudotyped retrovirus after partial liver resection and thymidine kinase ganciclovir pre-treatment. Pharmacol Res. 40:451_457. 27. Puumalainen AM, Vapalahti M, Agrawal RS, Kossila M, Laukkanen J, Lehtolainen P, Viita H, Paljarvi L, Vanninen R, Ylä_Herttua S (1998): beta-galactosidase gene transfer to human malignant glioma in vivo using replication-deficient retroviruses and adenoviruses. Hum Gene Ther. 9:1769_1774. 28. Thorsen F, Visted T, Lehtolainen P, Ylä_Herttua S, Bjerkvig R (1997): Release of replication-deficient retroviruses from a packaging cell line: interaction with glioma tumor spheroids in vitro. Int. J Cancer. 71:874_880. 29. Pakkanen T, Hippeläinen M, Laitinen M, Kallionpää H, Lehtolainen P, Viita H, Ylä_Herttua S (1997): In vivo transfer of LDL receptor gene for the treatment of familial hypercholesterolemia. Atherosclerosis. 134:42_42. 30. Laitinen M, Pakkanen T, Donetti E, Baetta R, Luoma J, Lehtolainen P, Viita H, Agrawal R, Miyanojara A, Friedmann T, Risau W, Martin JF, Soma M, Ylä_Herttua S (1997): Gene transfer into the carotid artery using an adventitial collar: comparison of the effectiveness of the plasmid-liposome complexes, retroviruses, pseudotyped retroviruses, and adenoviruses. Hum Gene Ther. 8:1645_1650.

Projects

Named researcher in BBRSC grant on 2006 on the topic of MR imaging and targeting of progenitor cells using externally applied magnetic field on vascular injury model, PI Dr. Mark Lythgoe, director of Centre of Advanced Imaging in UCL, Institute of Child Health, University College London, Centre for Biophysics, Guildford Street, London, UK.

Investigator in Patents (Right to patents owned by ArkTherapeutics Ltd/Oy) :
10/21/04 | #2004020890 : Gene delivery of a viral vector. K Airene, P Lehtolainen, S Ylä_Herttua
09/23/04 | #20040185059 : Biotin-binding receptor molecules. K Airene, Kulomaa, P Lehtolainen, V Marjomäki, S Ylä_Herttua

Memberships

NcWP member from May 2022 onwards, PDCO member from April 2021 onwards, NcWG member from 2019 to 2022. Award: Nomination as a finalist for the EU Descartes Research Prize 2004 (excellence in scientific research). 'Local delivery of novel therapeutics for cardiovascular disease and cancer'. Prof. J Martin, I Zachary, J Erusalimsky, N Parker from UCL. Prof S Ylä-Herttua, M Hedman, P Lehtolainen, K Airene from University of Kuopio. Prof. G Breier, W Risau from University of Dresden. Prof R Paoletti, M Soma, R Baetti, E Donetti from University of Milan.

Other Relevant Information