

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. Myyntiulallisten rokotteiden sisältämän alumiiniin ei liity turvallisuusriskiä. 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_Herttuala 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, Airenne KJ, Marjomäki V, Ylä_Herttuala 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, Närvenen 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, Airenne KJ, Ylä_Herttuala 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, Laukkonen MO, Ylä_Herttuala S (2007): Gene therapy. Encyclopedia of Life Support Systems, Eols Publishers Co. Ltd., Oxford, UK. 9. Kankkonen HM, Turunen MP, Hiltunen MO, Lehtolainen P, Koponen J, Leppanen P, Turunen AM, Ylä_Herttuala 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, Airenne KJ, Marttila AT, Marjomäki V, Hytonen VP, Lehtolainen P, Laitinen OH, Mahonen AJ, Kulomaa MS, Ylä_Herttuala 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, Airenne KJ, Horton M, Kulomaa MS, Ylä_Herttuala 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., Airenne,K.J., Marjomäki,V., Laitinen,O.H., Lehtolainen,P., Kankaanpaa,P., Mahonen,A.J., Raty,J.K., Nordlund,H.R., Oker_Bloom,C., Kulomaa,M.S., and Ylä_Herttuala,S (2003): Baculovirus capsid display: a novel tool for transduction imaging. Mol Ther 8:853_862 14. Laurema A, Heikkila A, Keski_Nisula L, Heikura T, Lehtolainen P, Manninen H, Tuomisto TT, Heinonen S, Ylä_Herttuala 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. Institute for Molecular Sciences 5. 72p. 16. Lehtolainen P, Tyynela K, Kannasto J, Airenne K_J, Ylä_Herttuala 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, Laukkonen MO, Lehtolainen P, Jaaskelainen M, Turunen P, Loimas S, Wahlfors J, Ylä_Herttuala 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, Laukkonen J, Airenne KJ, Heino S, Lappalainen M, Ojala K, Marjomäki V, Martin JF, Kulomaa MS, Ylä_Herttuala S (2002): Cloning and characterization of Scavividin, 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, Lotzter K, Bol G, Kallionpää H, Lehtolainen P, Viita H and Ylä_Herttuala S (2000): Overexpression of PHGPx inhibits hydroperoxide-induced oxidation, NfkB activation and apoptosis and affects oxLDL-mediated proliferation of rabbit aortic smooth muscle cells. Atherosclerosis. 152(2):307_317 20. Sandmaier AM, Loimas S, Puranen P, Immonen A, Kossila M, Puranen M, Hurskainen H, Tyynela K, Turunen M, Vanninen R, Lehtolainen P, Paljarvi L, Johansson R, Vapalahti M, Ylä_Herttuala S (2000): Thymidine kinase gene therapy for human malignant glioma, using replication_deficient retroviruses or adenoviruses. Hum Gene Ther, 11:2197_2205. 21. Laukkonen MO, Lehtolainen P, Turunen P, Aittomaki S, Oikari P, Marklund SL, Ylä_Herttuala 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_Herttuala 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. Laukkonen J, Lehtolainen P, Gough PJ, Greaves DR, Gordon S, Ylä_Herttuala 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_Herttuala 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_Herttuala 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_Herttuala 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. Puimalainen AM, Vapalahti M, Agrawal RS, Kossila M, Laukkonen J, Lehtolainen P, Viita H, Paljärvi L, Vanninen R, Ylä_Herttuala 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_Herttuala 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_Herttuala 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, Miyahara A, Friedmann T, Risau W, Martin JF, Soma M, Ylä_Herttuala 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 Airenne, P Lehtolainen, S Ylä_Herttuala
09/23/04 | #20040185059 : Biotin_binding receptor molecules. K Airenne, Kulomaa, P Lehtolainen, V Marjomaki, S Ylä_Herttuala

Memberships

NcWG 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 Price 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-Herttuala, M Hedman, P Lehtolainen, K Airenne 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