

## CURRICULUM VITAE

### Personal information

Born: 1961  
Family: Married, three daughters



### Present positions

Full time: Consultant in Pediatric Hematology (Överläkare)  
Karolinska University Hospital, Stockholm, Sweden from 2014

Part time: Chief Physician and Chair of Board, Finnish  
Vaccination Service Ltd, from 2009  
Chief of Pediatrics, Mehilainen Clinic for Children  
and Adolescents, Helsinki, Finland from 2004

### Education and examinations

Leadership in Health Care, Aalto University, Helsinki 2013  
Docent in Pediatrics, University of Helsinki 2012  
GCP-course, University of Helsinki and Novartis 2009  
Subspecialty in Pediatric Hematology, University of Helsinki 2001  
Licensure to Conduct Research with Research Animals 2001  
Specialty in Pediatrics, University of Helsinki 1996  
Ph.D in Immunology, University of Helsinki 1990  
MD, Faculty of Medicine, University of Helsinki 1988

### Previous Clinical Positions

Consultant in Pediatric Oncology, Pediatric Oncology and Stem Cell  
Transplantation, Ward, Children's Hospital, HUCH 2001-02, 03-04, -12  
Clinical Fellow, Pediatric Oncology and Stem Cell  
Transplantation, Ward, Children's Hospital, HUCH 1998-2001  
Pediatrician, Children's Hospital, HUCH 1996-1998  
Resident in Pediatrics, HUCH 1991-92, 1993-96

### Teaching Experience

Lecturer, Diaconia University and Helsinki Metropolitan  
University of Applied Sciences, Helsinki 2005-08  
Assistant Professor in Pediatrics, University of Helsinki 1996-97  
Teacher, Department of Immunology, University of Helsinki 1988-90

### Research Periods

Prof. K. Porkka's group, University of Helsinki 2008-14  
Prof. MT Lotze's group, University of Pittsburgh, PA 2002-03  
Prof. JN Ihle's group. St. Jude Children's Hospital, TN 1992-93  
Prof. M Hurme's group, University of Helsinki, Helsinki 1985-89  
Prof. G. Myllylä's group, FRC Blood Transfusion Service 1983-84

## Supervised Research Projects

### Ph.D. students:

-Mohamed El Missiry, MD; together with doc. Mustjoki	From 2012
-Mette Ilander, M.Sc; together with doc. Mustjoki	From 2012
-Suvi Savola, M.Sc; together with prof. Knuutila	2008-09

### Graduate students:

-Mervi Ukkola, Medical student	2006
-Saara Äystö, Medical student	1999

## Business experience

Chair of Board, Finnish Vaccination Service Ltd	From 2009
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## Interests

Cancer Immunology, Cellular Therapy of Cancer, Infectious Diseases  
Human Rights, Environmental Issues, Archipelago  
Family Members, Friends, Marathon Running, Cycling

## Affiliations/Memberships

- Finnish Medical Society Duodecim
- Finnish Medical Association
- Finnish Society of Immunology
- Finnish Society of Pediatrics
- Finnish Society of Pediatric Hematology and Oncology
- Finnish Society of Hematology
- Nordic Society of Pediatric Hematology and Oncology (NOPHO)
- American Society of Hematology (ASH)
- Society of Immunotherapy of Cancer
- Amnesty International
- World Wide Fund of Nature (WWF)

## Publications/Presentations

1. Peer reviewed original research reports	31
2. Peer reviewed reviews	8
3. Peer reviewed text book chapters	4
4. Magazine articles for public	3
5. DVD-presentations for public education	2

## LIST OF PUBLICATIONS

### Original Research Reports

1. Vakkila, J., E. Lehtonen, S. Koskimies and M. Hurme (1987). "Dendritic cells in human peripheral blood: effective enrichment from the nonadherent cells." Immunol Lett **15**(3): 229-36. IF 2.511
2. Vakkila, J. and G. Myllyla (1987). "Amount and type of leukocytes in 'leukocyte-free' red cell and platelet concentrates." Vox Sang **53**(2): 76-82. IF 3.292
3. Silvennoinen, O., J. Vakkila and M. Hurme (1988). "Accessory cells, dendritic cells, or monocytes, are required for the lymphokine-activated killer cell induction from resting T cell but not from natural killer cell precursors." J Immunol **141**(4): 1404-9. IF 5.745
4. Vakkila, J. (1989). "Both virgin and memory T cells cluster with dendritic cells during autologous and allogeneic mixed leukocyte reaction." Eur J Immunol **19**(6): 1003-8. IF 4.942
5. Vakkila, J., M. Sihvola and M. Hurme (1990). "Human peripheral blood-derived dendritic cells do not produce interleukin 1 alpha, interleukin 1 beta, or interleukin 6." Scand J Immunol **31**(3): 345-52. IF 1.935
6. Vakkila, J. and M. Hurme (1990). "Both dendritic cells and monocytes induce autologous and allogeneic T cells receptive to interleukin 2." Scand J Immunol **31**(1): 75-83. IF 1.935
7. Vakkila, J., K. Vettenranta, H. Sariola and U. M. Saarinen-Pihkala (2001). "Poor yield of dendritic cell precursors from untreated pediatric cancer." J Hematother Stem Cell Res **10**(6): 787-93. IF 4.791
8. Vakkila, J., S. Aysto, U. M. Saarinen-Pihkala and H. Sariola (2001). "Naive CD4+ T cells can be sensitized with IL-7." Scand J Immunol **54**(5): 501-5. IF 1.935
9. Li, S., J. Xu, V. P. Makarenkova, T. Tjandrawan, J. Vakkila, T. Reichert, W. Gooding, C. F. Lagenaur, C. L. Achim, W. H. Chambers, R. B. Herberman, T. L. Whiteside and N. L. Vujanovic (2004). "A novel epitope of N-CAM defines precursors of human adherent NK cells." J Leukoc Biol **76**(6): 1187-99. IF 4.626
10. Vakkila, J., A. W. Thomson, K. Vettenranta, H. Sariola and U. M. Saarinen-Pihkala (2004). "Dendritic cell subsets in childhood and in children with cancer: relation to age and disease prognosis." Clin Exp Immunol **135**(3): 455-61. IF 3.134
11. Vakkila, J., R. A. DeMarco and M. T. Lotze (2004). "Imaging analysis of STAT1 and NF-kappaB translocation in dendritic cells at the single cell level." J Immunol Methods **294**(1-2): 123-34. IF 2.340
12. Vakkila, J., M. T. Lotze, C. Riga and R. Jaffe (2005). "A basis for distinguishing cultured dendritic cells and macrophages in cytopins and fixed sections." Pediatr Dev Pathol **8**(1): 43-51. IF 1.034

13. Vakkila, J., A. W. Thomson, L. Hovi, K. Vettenranta and U. M. Saarinen-Pihkala (2005). "Circulating dendritic cell subset levels after allogeneic stem cell transplantation in children correlate with time post transplant and severity of acute graft-versus-host disease." *Bone Marrow Transplant* **35**(5): 501-7. IF 3.660
14. Vakkila, J., R. Jaffé, M. Michelow and M. T. Lotze (2006). "Pediatric cancers are infiltrated predominantly by macrophages and contain a paucity of dendritic cells: a major nosologic difference with adult tumors." *Clin Cancer Res* **12**(7): 2049-54. IF 7.338
15. Vakkila, J., U. Nieminen, S. Siitonen, U. Turunen, L. Halme, H. Nuutinen, H. Mustonen, P. Puolakkainen, M. Farkkila and H. Repo (2008). "A novel modification of a flow cytometric assay of phosphorylated STAT1 in whole blood monocytes for immunomonitoring of patients on IFN alpha regimen." *Scand J Immunol* **67**(1): 95-102. IF 1.935
16. Vakkila, J., R. A. Demarco and M. T. Lotze (2008). "Coordinate NF-kappaB and STAT1 activation promotes development of myeloid type 1 dendritic cells." *Scand J Immunol* **67**(3): 260-9. IF 1.935
17. Mansfield, A. S., P. S. Heikkila, A. T. Vaara, K. A. von Smitten, J. M. Vakkila and M. H. Leidenius (2009). "Simultaneous Foxp3 and IDO expression is associated with sentinel lymph node metastases in breast cancer." *BMC Cancer* **9**: 231. IF 3.153
18. Jalkanen, S. E., J. Vakkila, A. Kreutzman, J. K. Nieminen, K. Porkka and S. Mustjoki (2011). "Poor cytokine-induced phosphorylation in chronic myeloid leukemia patients at diagnosis is effectively reversed by tyrosine kinase inhibitor therapy." *Exp Hematol* **39**(1): 102-113 e1. IF 3.198
19. Savola, S., A. Klami, S. Myllykangas, C. Manara, K. Scotlandi, P. Picci, S. Knuutila and J. Vakkila (2011). "High expression of complement component 5 (C5) at tumor site associates with superior survival in Ewing's sarcoma family of tumour patients." *ISRN Oncology* **2011**: e168712
20. Kreutzman, A., P. Rohon, E. Faber, K. Indrak, V. Juvonen, V. Kairisto, J. Voglová, M. Sinisalo, E. Flochová, J. Vakkila, P. Arstila, K. Porkka and S. Mustjoki (2011). "Chronic myeloid leukemia patients in prolonged remission following interferon-alpha monotherapy have distinct cytokine and oligoclonal lymphocyte profile in blood " *PLoS One* **6**(8): e23022. IF 4.411
21. Mansfield, A. S., P. Heikkila, K. von Smitten, J. Vakkila and M. Leidenius (2011). Metastasis to sentinel lymph nodes in breast cancer is associated with maturation arrest of dendritic cells and poor co-localization of dendritic cells and CD8+ T cells. *Virchows Archiv*, **459**(4): 391-398 IF 2.336
22. Lahesmaa-Korpinen, A., S. Jalkanen, P. Chen, E. Valo, J. Nunez-Fontarnau, V. Rantanen, A. Oghabian, J. Vakkila, K. Porkka, K. Mustjoki and S. Hautaniemi (2011). FlowAnd: Comprehensive computational framework for flow cytometry data analysis. *J. Proteomics and Bioinformatics* **4**(11): 245-249 IF 2.22

23. Nieminen JK, Vakkila J, Salo HM, Ekström N, Härkönen T, Ilonen J, Knip M, Vaarala O (2012). Altered Phenotype of Peripheral Blood Dendritic Cells in Pediatric Type 1 Diabetes. Diabetes Care. 35(11): 2303-10. IF 8.1

24. Mansfield AS, Heikkilä P, von Smitten K, Vakkila J, Leidenius M (2012). The presence of sinusoidal CD163(+) macrophages in lymph nodes is associated with favorable nodal status in patients with breast cancer. Virchows Arch. 461(6): 639-46. IF 2.336

25. Mustjoki S, Auvinen K, Kreutzman A, Rousselot P, Hernesniemi S, Melo T, Lahesmaa-Korpinen AM, Hautaniemi S, Bouchet S, Molimard M, Smykla R, Lee FY, Vakkila J, Jalkanen S, Salmi M, Porkka K (2013). Rapid mobilization of cytotoxic lymphocytes induced by dasatinib therapy. Leukemia. 27(4): 914-24 IF 9.6

26. Berghuis D, Schilham MW, Santos SJ, Savola S, Knowles HJ, Dirksen U, Schaefer KL, Vakkila J, Hogendoorn PC, Lankester AC (2012). The CXCR4-CXCL12 axis in Ewing sarcoma: promotion of tumor growth rather than metastatic disease. Clin Sarcoma Res. 2(1):24.

27. Nieminen JK, Niemi M, Sipponen T, Salo HM, Klemetti P, Färkkilä M, Vakkila J, Vaarala O. (2013). Dendritic cells from Crohn's disease patients show aberrant STAT1 and STAT3 signaling. PLoS One 8(8): e70738

28. Koskenvesa P, Kreutzman A, Rohon P, Pihlman M, Vakkila E, Räsänen A, Vapaatalo M, Remes K, Lundán T, Hjort-Hansen H, Vakkila J, Simonsson B, Mustjoki S, Porkka K. (2014) Imatinib and pegylated IFN- $\alpha$ 2b discontinuation in first-line chronic myeloid leukemia patients following a major molecular response. Eur J Haematol. 92 (5):413-20.

29. Ilander M, Kreutzman A, Rohon P, Melo T, Faber E, Porkka K, Vakkila J, Mustjoki S. (2014). Enlarged Memory T-Cell Pool and Enhanced Th1-Type Responses in Chronic Myeloid Leukemia Patients Who Have Successfully Discontinued IFN-alpha Monotherapy. PLoS One. 9(1):e87794.

30. Kreutzman A, Ilander M, Porkka K, Vakkila J, Mustjoki S. (2014). Dasatinib promotes Th1-type responses in granzyme B expressing T-cells. Oncoimmunology 29 (3):e28925

31. Vakkila J, Koskinen JO, Brandt A, et al: Detection of Group A Streptococcus from Pharyngeal Swab Samples by Bacterial Culture Is Challenged by a Novel mariPOC Point-of-Care Test. J Clin Microbiol 53:2079-83, 2015

### Review articles

1. Hurme, M., S. Jalkanen and J. Vakkila (1988). "[Leukocyte adhesion molecules and their clinical significance]." Duodecim 104(19): 1507-14.

2. Vakkila, J. and U. Pihkala (1999). "[Cancer immunotherapy]." Duodecim 115(7): 785-94.

3. Hanninen, A. and J. Vakkila (2003). "[Dendritic cell--the conductor of the orchestra of immunological responses]." Duodecim **119**(8): 763-72.
4. Vakkila, J. and M. T. Lotze (2003). "Cellular Therapy of Cancer." Blood Therapies in Medicine **3**: 84-90.
5. Vakkila, J. and M. T. Lotze (2004). "Inflammation and necrosis promote tumour growth." Nat Rev Immunol **4**(8): 641-8. IF 33.3
6. Vakkila, J. (2009). Syövän immunologista soluterapiaa. Annual Meeting of American Society of Hematology, New Orleans.
7. Kunze U et al (2012); ISW-TBE. Tick-borne encephalitis (TBE): an underestimated risk still: report of the 14th annual meeting of the International Scientific Working Group on Tick Borne Encephalitis (ISW-TBE). Ticks Tick Borne Dis. **3**(3):197-201.
8. Vakkila, J. (2013). Pediatrihematologin muistiinpanoja immunologiasta, Annual Meeting of American Society of Hematology, Atlanta.

### Chapters in text books

1. Vakkila, J. (2007). Lasten terveyteen liittyviä huoleja ja akuutteja sairauksia. Neurolatyon käsikirja. A. Armanto and P. Koistinen. Helsinki, Tammi: 173-179.
2. Vakkila, J. (2007). Lääkärin tekemä lapsen kasvun ja kehityksen seuranta nevolassa. Neurolatyon käsikirja. A. Armanto and P. Koistinen. Helsinki, Tammi: 168-172.
3. Petterson, T., J. Partanen ja J. Vakkila (2007). Veritautien immunologiaa. Veritaudit. T. Ruutu, A. Rajamäki, R. Lassila and K. Porkka. Helsinki, Duodecim: 45-68.
4. Mustjoki, S., T. Petterson, M. Sinisalo, ja J. Vakkila (2015). Veritautien immunologiaa (Immunology of Blood Diseases). Veritaudit. K. Remes, K. Porkka. Helsinki, Duodecim: 43-52

### Magazine articles

1. Vakkila, J. (2000). Syöpä ja immuunijärjestelmä. Säteitä. Helsinki: 4-7.
2. Vakkila, J. (2005). Ravitsemustottumukset vaikuttavat lasten terveyteen vielä aikuisenakin. Yksityisesti: 4-6.
3. Vakkila, J. (2006). Onko lapsellani liikaa infektioita - vai kuitenkin sopivasti? Yksityisesti: 4-6.

### DVD-presentations

1. (2007). Oppaana vanhemmuuden polulla. Finland, Coronaria

2. (2009). Täydentävät rokotteet lapsilla, Finland, Coronaria