
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Stephan D. Voss, M.D., Ph.D.	POSITION TITLE Assistant Professor of Radiology		
eRA COMMONS USER NAME STEPHAN.VOSS			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Princeton University	A.B.	1984	Biochemistry
University of Wisconsin - Madison	Ph.D.	1992	Human Cancer Biology
University of Wisconsin – Madison	M.D.	1994	Medicine

A. Positions and Honors

Positions and Employment

1994-1995	Surgical Intern, New England Deaconess Hospital, Boston, MA.
1995-1996	National Cancer Institute Radiologic Oncology Research Fellow New England Deaconess Hospital Department of Radiology
1996-2000	Resident, Diagnostic Radiology, Beth Israel Deaconess Medical Center, Boston, MA.
1999-2000	Chief Resident, Department of Radiology, Beth Israel Deaconess Medical Center, Boston, MA
2000-2001	Fellow, Department of Radiology, Children's Hospital, Boston, MA
2000-2001	Chief Fellow, Department of Radiology, Children's Hospital, Boston, MA
2001-	Staff Radiologist, Children's Hospital, Boston, MA
2001-	Consulting Staff, Department of Radiology, Brigham and Women's Hospital
2001-	Consulting Staff, Department of Radiology, Beth Israel Deaconess Medical Center
2001-2002	Instructor in Radiology, Harvard Medical School
2002-	Assistant Professor in Radiology, Harvard Medical School

Other Experience and Professional Memberships

1993	Sigma Xi
1995	Massachusetts Medical Society
1996	Member, Radiologic Society of North America
1996	Member, American Roentgen Ray Society
1998-2000	Resident representative, Committee on Graduate Medical Education, BIDMC
2000	American Association of Cancer Research
2001	Committee on Clinical Investigation - Institutional Review Board
2001	Chairman, Research Committee, Society for Pediatric Radiology Research and Education Foundation
2001	Children's Oncology Group: Institutional Diagnostic Imaging Committee
2002	Member, Society for Pediatric Radiology
2003-2006	Board Member, Research and Education Foundation, Society for Pediatric Radiology
2006-2008	Chair, Children's Oncology Group, Diagnostic Imaging Committee
2006-	Steering Committee, Hodgkin's Disease Committee, Children's Oncology Group
2007-	Chair, Radiology Department QI Committee Children's Hospital Boston
2008-	Clinical Imaging Director, Phase I Consortium, Children's Oncology Group
2008-	Harvard Medical School CTSC Translational Technologies Imaging Consortium
2008-	Committee Member, Children's Hospital Program in Patient Safety and Quality

Honors

1984	Graduate cum Laude, Princeton University
1984	E.R. Squibb and Sons Senior Thesis Prize "for the Senior in the Department of Biochemistry submitting the most outstanding thesis", Princeton University
1984-1986	Fulbright Scholarship, University of Heidelberg, Center for Molecular Biology
1986	"Fonds der Chemischen Industrie," research fellowship for foreign exchange scientists
1987	Ewing Foundation Summer Fellowship in Surgical Oncology.
1987-1994	Lutheran Brotherhood/Health & Life Insurance Medical Research Fund M.D./Ph.D. Scholarship
1993	Full Membership in Sigma Xi, The Scientific Research Society
1993	The Dorothy and Charles Inbusch Award for Meritorious work in Medical Research
1993	American Federation for Clinical Research - Award for Excellence in Research
1994	Dr. James M. Price Award for Meritorious Research in the Field of Cancer
1995-1996	National Cancer Institute Radiologic Oncology Training Fellowship
1997	Magnum cum Laude Radiological Society of North America Annual Meeting Exhibit Award
1998	Radiological Society of North America - Roentgen Resident/Fellow Research Award
2001	American Association of Cancer Research/Amgen, Inc. Research Fellowship in Clinical or Translational Research
2006	International Society for Pediatric Radiology: John Caffey Award for Best Basic Science Paper

B. Selected peer-reviewed publications (in chronological order).

Articles:

1. Colberg-Poley AM, Voss SD, Chowdhury K, Gruss, P. Structural analysis of murine genes containing homeo box sequences and their expression in embryonal carcinoma cells. *Nature* 1985; 314:713-718
2. Colberg-Poley AM, Voss SD, Chowdhury K, Stewart CL, Wagner EF, Gruss P. Clustered homeo boxes are differentially expressed during murine development. *Cell* 1985; 43:39-45.
3. Voss SD, Schlokot U, Gruss P. The role of enhancers in the regulation of cell-type-specific transcriptional control *Trends Biochem Sci* 1987;11(7):287-289.
4. Voss SD, Colberg-Poley AM, Gruss P. Analysis of murine homeo box genes and their expression during development. In: "Proceedings UCLA Symposia: Growth Factors, Tumor Promoters, and Cancer Genes", 1988; pp203-213
5. Voss SD, Hank JA, Nobis CA, Fisch P, Sosman JA, Sondel PM. Serum Interleukin-2 (IL-2) receptor levels during IL-2 therapy reflect systemic lymphoid mass activation *Cancer Immunol Immunother* 1989; 29:261-269
6. Voss SD, Weil-Hillman G, Hank JA, Sosman JA, Sondel PM. The clinical immunobiology of Interleukin 2 (IL-2): Potential modified uses for improved cancer treatment In: *Bull N Y Acad Med* 1989; 65(1):93-110
7. Voss SD, Robb RJ, Weil-Hillman G, Hank JA, Sugamura K, Tsudo M, Sondel PM. Increased expression of the IL-2 receptor β chain (p70) on CD56⁺ NK cells after in vivo IL-2 therapy: p70 expression does not alone predict the level of intermediate affinity IL-2 binding *J Exp Med* 1990; 172:1101-1114
8. Weil-Hillman, G, Voss SD, Fisch P, Schell K, Hank JA, Sosman JA, Sugamura K, Sondel PM. NK cells activated by IL-2 treatment in vivo respond to IL-2 primarily through the p75 receptor and maintain the p55 (TAC) negative phenotype *Cancer Res* 1990; 50:2683-2691.
9. Bogner MP, Voss SD, Bechhofer R, Hank JA, Roper M, Poplack D, Hammond D, Sondel PM. Serum CD25 levels during interleukin-2 therapy: Dose dependence and correlations with clinical toxicity and lymphocyte surface CD25 expression *J Immunother* 1992; 11:111-118.
10. Schiller JH, Storer BE, Witt PL, Alberti D, Tombes MB, Arzooonian R, Proctor RA, McCarthy D, Brown RR, Voss SD, Remick SC, Grem JL, Borden EC, Trump DL. Biological and clinical effects of intravenous TNF-alpha administered three times weekly. *Cancer Res* 1991; 51:1651-1658
11. Schiller JH, Witt PL, Storer BE, Alberti D, Tombes MB, Arzooonian R, Brown RR, Proctor RA, Voss SD, Spriggs DR, Trump DL, Borden EC. Clinical and biological effects of combination gamma interferon and tumor necrosis factor. *Cancer* 1992; 69(2): 562-571.
12. Voss SD, Sondel PM, Robb RJ. Characterization of the IL-2 receptors (IL-2R) expressed on human NK cells activated in vivo by IL-2: Association of the p64 IL-2R γ chain with the IL-2R β chain in functional intermediate-affinity IL-2 receptors *J Exp Med* 1992; 76: 531-543.
13. Voss SD, Leary TP, Sondel PM, Robb RJ. Identification of a direct interaction between interleukin 2 and the p64 interleukin 2 receptor γ chain *PNAS (USA)* 1993; 90: 2428-2432.
14. Voss SD, Sondel PM. The clinical biology and mechanisms of action of systemically administered IL-2 In: *The Biological Approach to Cancer: Biomodulation* 1993; Mitchell, ed, McGraw Hill, NY, 411-439.
15. Voss SD, Robb RJ. Receptors for interleukin 2 (IL-2) In: *Guidebook to Cytokines...* N Nicola, ed, 1994

16. Kaur I, Voss SD, Gupta RS, Fisch P, Schell K, Sondel PM. Human peripheral $\gamma\delta$ T cells recognize HSP60 molecules on Daudi Burkitt's lymphoma cells *J Immunol* 1993; 150 (5):2046-2055.
17. Voss SD, Hong R, Sondel PM. Severe combined immunodeficiency, interleukin-2 (IL-2), and the IL-2 receptor: Experiments of nature continue to point the way *Blood* 1994; 83(3): 626-635.
18. Farner NF, Voss SD, Leary TP, Gan J, Hakimi J, Evans G, Ju G, Sondel PM. Distinction between γ_C detection and function in YT cells and in the GM-CSF responsive myeloid cell line, Tf-1 *Blood* 1995; 86 (12) 4568-4578.
19. Robertson MJ, Cameron C, Lazo S, Cochran KJ, Voss SD, Ritz J. Costimulation of human NK cell proliferation: role of accessory cytokines and cell-contact dependent signals. *Nat Immunol* 1997, 15: 213.
20. Ida H, Robertson MJ, Voss SD, Ritz J, Anderson PJ. CD94 ligation induces apoptosis in a subset of IL-2-stimulated NK cells *J Immunol* 1997; 159:2154-2160.
21. Voss SD, Daly J, Ritz J, Robertson MJ. Participation of the CD94 receptor complex in costimulation of human natural killer cells. *J Immunol* 1998; 160:1618-1626.
22. Voss SD, Kruskal JB. Gene therapy - A primer for radiologists *Radiographics* 1998; 18:1343-1372.
23. Anumanthan A, Bensussan A, Boumsell L, Christ A, Blumberg RS, Voss SD, Patel AT, Robertson MJ, Nadler LM, Freeman GJ. Cloning of BY55: A novel Ig superfamily member expressed on NK cells, CTL and intestinal intraepithelial lymphocytes. *J Immunol* 1998; 161 (6):2780-2790.
24. Kruskal JB, Voss SD. Molecular strategies for targeting of tumors *Biotech Internat* 1999; 2:105-115.
25. Voss SD, Kruskal JB, Kane RA. Chronic inflammatory pseudotumor arising in the hepatobiliary-pancreatic system: Progressive multisystem organ involvement in four patients *AJR* 1999; 173 (4):1049-1054.
26. Voss SD, Murphey MD, Hall FM. Solitary osteosclerotic plasmacytoma: association with amyloid deposition and demyelinating polyneuropathy *Skeletal Radiol* 2001; 30:527-529.
27. Voss SD, DeGrand AM, Romeo GR, Cantley LC, Frangioni JV. An integrated vector system for cellular studies of phage display-derived peptides. *Anal Biochem* 2002; 308:364-372.
27. Javid PJ, Greene AK, Garza J, Gura K, Voss SD, Nose V, Satchi-Fainaro R, Zauscher B, Mulkern RV, Jaksic T, Bistran B, Folkman J, Puder M. The route of lipid supplementation affects parenteral nutrition-associated hepatic steatosis in a mouse model. *J Pediatr Surg* 2005, 40:1446-1453.
28. Alwayn IPJ, Gura K, Nosé V, Zausche B, Javid P, Verbese J, Voss S, Ollero M, Andersson C, Bistran B, Folkman J, Puder M. Omega-3 fatty acid supplementation prevents hepatic steatosis in a murine model of non-alcoholic fatty liver disease. *Pediatr Res* 2005; 57:445-452.
29. Mulkern RV, Hung Y, Ababneh Z, Maier SE, Packard AB, Uluer M, Katcher D, Gambarot G, Voss SD. On the strong field dependence and nonlinear response to gadolinium contrast agent of proton transverse relaxation rates in dairy cream. *Magn Reson Imag*; 2005; 23:757-764.
30. Rothstein DH, Voss SD, Isakoff M, Puder M. Thymoma in a child: Case report and review of the literature. *Pediatr Surg Internat* 2005; 21: 548-551.
31. Lee EY, Dillon JE, MD, Callahan MJ, Voss SD. 3D multidetector CT angiographic evaluation of extralobar pulmonary sequestration with anomalous venous drainage into the left internal mammary vein in a paediatric patient. *Brit J Radiol* 2006 79: e99-e102
32. Drubach, LA, Voss, SD, Kourmouzi, V, Connolly, LP (2006) The ischiopubic synchondrosis: changing appearance on PET/CT as a mimic of disease. *Clin Nucl Med* 31(7): 414-417.
33. Voss SD, Smith SV, DiBartolo N, Dearling J, McIntosh LJ, Cyr EM, Bonab AA, Carter EA, Fischman AJ, Treves ST, Gillies SD, Sargeson AM, Huston JS, Packard AB. ^{64}Cu -SarAr Immunoconjugates for PET Imaging of Neuroblastoma and Melanoma, *Proc Natl Acad Sci USA* 2007; 104(44): 17489-17493.
35. Lee EY, Vargas SO, Sawicki GS, Boyer D, Grant FD, Voss SD. Mucoepidermoid carcinoma of bronchus in a pediatric patient: 18F-FDG PET findings. *Pediatric Radiology* 2007, 37:1278-1282.
36. Blackman SC, Evenson AR, Voss SD, Barnewolt CE, Puder M. Prenatal diagnosis and subsequent treatment of an intermediate-risk paraspinal neuroblastoma: Case report and review of the literature. *Fetal Diagnosis and Therapy* 2008; 24: 119-125.
37. Mulkern RV, Salsberg SL, Krauel MR, Ludwig DS, Voss SD. A paradoxical signal intensity increase in fatty livers using opposed-phase GRE imaging with fat-suppression pulses. *Ped Radiol* 2008; 38: 1099-1104.
38. Jakacki RI, Hamilton M, Gilbertson RJ, Blaney SM, Tersak J, Krailo MD, Ingle AM, Voss SD, Dancey JE, Adamson PC. Pediatric Phase I and pharmacokinetic study of Erlotinib followed by the combination of Erlotinib and Temozolomide: A COG Phase I Consortium Study. *J Clin Oncology* 2008; in press.

C. Research Support

Active:

- 2006- **U10 CA098543** (P.I. Reaman) NIH
Children's Oncology Group Cooperative Group Grant
Hodgkins Disease Committee
Vice Chair – Radiology
5% effort
- 2006- **U10 CA098543** (P.I. Reaman) NIH
Children's Oncology Group Cooperative Group Grant
COG Low Risk Hodgkin's Disease Protocol AHOD0431
4% effort
- 2008- **UL1 RR025758-01** (P.I. Nadler) NIH/NCRR
Harvard Clinical and Translational Science Center
Role: Site Director, Harvard Clinical Translational Sciences Center Translational Technologies
Imaging Consortium
Children's Hospital Site Core Leader
10% Effort
- 2008- **5U01CA097452-05** (P.I. Adamson) NIH/NCI
Children's Oncology Group Phase I/Pilot Consortium
Imaging Center Clinical Director
20% effort

Completed:

2001-02 American Association of Cancer Research - Amgen, Inc.
Research Fellowship in Clinical or Translational Research
"Development of neuroblastoma-specific MION-based MRI contrast
agents"
7/1/01- 6/30/02 \$30,000 80% effort

2002-07 NIH/NCI K08 Mentored Career Development Award
"Neuroblastoma-Specific MRI Contrast Agents"
12/1/01-9/30/07 \$656,1000 75% effort

2001-2004 Private Philanthropy
Ralf and Andrea Faber Fund for Radiological Research

\$500,000 pledge over three years ...for developing a research program that investigates "... new methods for imaging cellular function, specific markers of gene expression, and drug response in childhood diseases using molecular imaging techniques."