BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Soheil (Sam) Dadras, MD-PhD	Assistant Professor of Pathology and Dermatology
eRA COMMONS USER NAME Dadras.soheil	

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
University of California, Santa Cruz, CA	B.A.	1991	Biochemistry and Molecular Biology
Northwestern University, Medical Scientist Training Program, Chicago, IL	M.D./Ph.D.	2000	Medicine
Northwestern University, Integrated Graduate Program, Chicago, IL	Ph.D.	2000	Tumor Cell Biology and Carcinogenesis
Massachusetts General Hospital, Boston, MA		2002	Anatomic Pathology
Cutaneous Biology Research Center/Harvard Medical School, Boston, MA		2004	Lymphatic Vascular Biology
Harvard Dermatopathology Training Program, Boston, MA		2005	Dermatopathology

A. Positions and Honors.

Employment/Experience

1989-1991 Undergraduate Research, University of California, Santa Cruz, CA; Thesis Advisor: Robert Ludwig, Ph.D. Professor of Biochemistry; Thesis Title: Cloning and characterization of *fix* K in *Azorhizobium caulinodans*.

1991-2000 Graduate Research, Northwestern University, Chicago, IL; Thesis Advisor: Jan K Reddy, M.D., Professor and Chairman of Pathology; Thesis: Peroxisome proliferator-induced hepatocarcinogenesis: changes in gene expression.

1994-1995 Guest Researcher, Laboratory of Experimental Carcinogenesis National Cancer Institute, National Institutes of Health; Project Advisor Snorri Thorgeirsson, M.D.-Ph.D.; Project: Targeted peroxisomal fatty acyl Co-A oxidase in mouse liver.

2000-2002 Resident in Anatomic Pathology, Massachusetts General Hospital, Harvard Medical School, Boston, MA.

2002-2004 Fellowship Research Training in Dermatology, Massachusetts General Hospital, Cutaneous Biology Research Center, Charlestown, MA; Mentor: Michael Detmar, M.D., Associate Professor of Dermatology, Harvard Medical School; Research subject: The role tumor lymphangiogenesis in metastasis.

2002-2004 Clinical Fellow in General Surgical Pathology, Massachusetts General Hospital, Harvard Medical School, Boston, MA.

2004-2005 Benjamin Castleman Fellow in Harvard Dermatopathology Training Program Boston, MA.

2005 Assistant Professor, Departments of Pathology and Dermatology, Stanford University Medical Center

Reviewer (2002-current):

American Journal of Dermatopathology
Cancer Research
Journal of Investigative Dermatology
Journal of Tumor Biology

Certification and Licensure

2000 Limited Registration, Massachusetts Board of Medicine
2003 Pathology of Mouse Models for Human Disease
2004 Commonwealth of Massachusetts, full license in Medicine
2005 Diplomat of the American Board of Pathology in Anatomic Pathology
2005 Medical Board of California, physician and surgeon

Honors and Awards

1988 Alpha Gamma Sigma, Honor Society Outstanding Achievement Award
1991 Dominican Hospital Scholarship for Outstanding Undergraduate Performance
1995 Sigma Xi, National Graduate School Honor Society Research Presentation Award
2002 College of American Pathologists Foundation Informatics Award
2004 Massachusetts General Hospital Clinical Research Day Pathology Award
2005 American Association for Cancer Research-William S. Graham Foundation Fellows Grant for Melanoma Research
2007 Dermatology Foundation Research Award
2007 Stanford Dermatology Resident Award for excellence in Dermatopathology education
2008 Melanoma Research Foundation Career Development Award

B. Selected peer-reviewed publications:

1. Alvares, K, Fan, CY, **Dadras, SS**, Yeldandi, AV, Rachubinski, RA, Carone, JP, Subramani, S, Iannaccone, PM, Rao, MS, Reddy, JK. An upstream region of the enoyl-Coenzyme A hydratase/3-hydroyacyl-Coenzyme A gene directs luciferase expression in liver in response to peroxisome proliferators in transgenic mice. **Cancer Res**. 1994 May 1; 54(9): 2303-6.
2. **Dadras, SS**, Thorgeirsson, SS, Rao, MS, Reddy, JK. Stable expression of peroxisomal fatty acyl-CoA oxidase *in vitro*. In: Peroxisomes: biology and role in toxicology and disease. Reddy, JK, Suga, T, Mannaerts, GP, Lazarow, PB, and Subramani, S. (eds.) **Ann N Y Acad Sci**. 1996 Dec 27; 804: 787-91.
3. **Dadras, SS**, Hayashi, S, Usuda, N, Rao, MS, Reddy, JK, and Yeldandi, AV. Amphibian catalase: cloning, tissue distribution, and peroxisomal localization. In: Peroxisomes: biology and role in toxicology and disease. Reddy, JK, Suga, T, Mannaerts, GP, Lazarow, PB, and Subramani, S. (eds.) **Ann N Y Acad Sci**. 1996 Dec 27; 804: 792-5.
4. **Dadras, SS**, Thorgeirsson, SS, Rao, MS, Reddy, JK. Implication of hydrogen peroxide generation and apoptosis in the neoplastic transformation of mouse fibroblasts overexpressing peroxisomal fatty acyl-CoA oxidase. **Int J Oncol**. 1998 Jan; 12(1): 37-44.
5. Hockberger, PE, Skimina, TA, Centonze, VE, Lavin, C, Chu, S, **Dadras, SS**, Reddy, JK, and White, JG. Activation of flavin-containing oxidases underlies light-induced production of H_2O_2 in mammalian cells. **Proc Natl Acad Sci USA**. 1999 May 25; 96(11): 6255-60.
6. **Dadras, SS**, Xiaoyan, C, Wang, Z. Inhibition of 5- alpha-reductase in rat prostate reveals differential regulation of androgen response gene expression by testosterone and dihydrotestosterone. **Gene Expr**. 2001; 9(4-5): 183-94.
7. **Dadras, SS**, Cook, WS, Yeldandi, AV, Cao, W-Q, Rao, MS, Wang, Z, Reddy, and JK. Peroxisome proliferator-activated receptor alpha dependent induction of cell surface antigen Ly-6D gene in the mouse liver. **Gene Expr**. 2001; 9(4-5): 173-81.
8. Noh, Y-H, Matsuda, K, Hong, Y-K, Kunstfeld, R, Riccardi, L, Koch, M, Oura, H, **Dadras, SS**, Streit, M, and Detmar, M. An N-terminal 80-kDa recombinant fragment of human thrombospondin-2 inhibits

VEGF-induced endothelial cell migration *in vitro* and tumor growth and angiogenesis *in vivo*. **J Invest Dermatol**. 2003 Dec; 121(6): 1536-43.

9. **Dadras, SS**, Paul, T, Bertoncini, J, Muzikansky, A, Brown, LF, Jackson DG, Ellwanger, U, Garbe, C, Mihm, MC, and Detmar, M. Tumor lymphangiogenesis: a novel prognostic indicator for cutaneous melanoma metastasis and survival. **Am J Pathol**. 2003 June; 162(6): 1951-60.
10. Mandeville, JTH, Grove, AS, **Dadras, SS** and Zembowicz A. Primary orbital melanoma associated with an occult episcleral nevus. **Arch Ophthalmol**. 2004 Feb; 122(2): 287-90.
11. North, PE, Kahn, T, Cordisco, MR, **Dadras, SS**, Detmar, M, and Frieden, IJ. Multifocal lymphangiomatosis with thrombocytopenia: a newly recognized clinicopathological entity. **Arch. of Dermatol**. 2004 May; 140(5): 599-606.
12. **Dadras, SS**, North, PE, Bertoncini, J, Mihm, MC, Detmar, M. Infantile hemangiomas are arrested in an early developmental vascular differentiation state. **Mod Pathol**. 2004 Sep 17 (9): 1068-79.
13. **Dadras, SS** and Detmar, M. Angiogenesis and lymphangiogenesis of skin cancers. Hem/Onc. Clinics of North America. **Hematol Oncol Clin North Am**. 2004 Oct; 18(5): 1059-1070.
14. Schacht, V, **Dadras, SS**, Johnson, L, Jackson, DG, Hong, Y-K, Detmar, M. Upregulation of the lymphatic marker podoplanin, a mucin-type transmembrane glycoprotein, in human squamous cell carcinomas and germ cell tumors. **Am J Pathol**. 2005 Mar;166 (3):913-21.
15. **Dadras, SS**, Aschenfeldt-Lange, B, Velasco, P, Nguyen, L, Vora, A, Muzikansky, A, Mihm MC, Detmar, M. Tumor lymphangiogenesis predicts melanoma metastasis to sentinel lymph nodes. **Mod Pathol**. 2005 Sep;18(9):1232-42.
16. Tabibiazar R, Cheung L, Han J, Swanson J, Beilhack A, An A, **Dadras SS**, Rockson N, Joshi S, Wagner R, and Rockson SG. Inflammatory Manifestations of Experimental Lymphatic Insufficiency. **PLoS Med.** 2006 Jul 18;3(7):e254
17. Niederkohr RD, **Dadras SS**, Leavitt M, McDougall IR. F-18 FDG PET/CT imaging of a subcutaneous scalp metastasis from primary carcinoma of the thyroid. **Clin Nucl Med**. 2007 Feb;32(2):162-4.
18. Sangoi AR, McKenney JK, **Dadras SS**, Longacre TA. Lymphatic vascular invasion in ovarian serous tumors of low malignant potential with stromal microinvasion: a case control study. **Am J Surg Pathol**. 2008 Feb;32(2):261-8.
19. Yang, H-M, Cabral, E, **Dadras, SS** and Cassarino, DS. Immunohistochemical expression of D2-40 in sebaceous tumors. **J Cutaneous Path**. 2008 accepted for publication.
20. Jokinen, CH, **Dadras, SS**, Goldblum, JR, van de Rijn, M, West, RB, Rubin, BP. Podoplanin expression in S-100 positive neoplasms of neural crest lineage. **Am J Clin Path**. 2008 accepted for publication.

C. Research Support

5T32CA09216 (David Louis) 7/1/02 – 7/1/04
National Institute of Health Pathology Training Grant

AACR (Dadras) 7/1/04 – 7/1/06
American Association for Cancer Research
Cutaneous melanoma lymphangiogenesis and LYVE-1 expression: a novel interaction between tumor cells and lymphatic endothelium
Specific aims:
1. Determine the importance of transfected LYVE-1 gene constructs for tumor growth, lymphangiogenesis and lymphatic versus organ metastasis of genetically fluorescent mouse melanoma xenotransplants.
2. Characterize the function of LYVE-1 protein in melanoma cell adhesion to lymphatic endothelium in lymph node versus lung or kidney sections.

Dermatology Foundation (Dadras) 7/1/07-7/1/08
Dermatopathology Research Grant
Multi-gene approach to improve the diagnosis and prognosis of cutaneous melanoma
Specific aims:
1. Define a molecular relationship between a nevus and a melanoma for early diagnosis.

2. Assess the molecular signature of cutaneous melanoma using quantitative real time polymerase chain reaction (qRT) and melanoma tissue microarrays for expression analysis.

Melanoma Research Foundation Career Development Award (Dadras) 7/1/08-7/1/2010
Investigating the Role of Small Ribonucleic Acids (RNAs) in the Progression of Cutaneous Melanoma
Specific aims:

1. Classify melanoma patients into two distinct groups: high and low risk for metastasis to sentinel lymph node (SLN), according to the degree of tumor lymphangiogenesis.
2. Define the patterns of known and novel small RNAs in patients with cutaneous melanoma according to their risk for metastasis.
3. Investigate the correlation between the patterns of small RNAs in patient's primary melanoma and clinical outcome.