BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Katherine L. Schaefer, Ph.D. ERA Commons: KLSchaefer	Lecturer, Specialist in Scientific and Technical Writing

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 Illinois, Urbana-Champaign, IL	BS	1988	Biochemistry
Carnegie-Mellon University, Pittsburgh, PA	Ph.D.	1996	Biological Sciences
Harvard University, Cambridge, MA		1997	Immunology
University of Massachusetts Medical School		1998-2002	Immunology
Boston Medical Center		2002-2005	Inflammation/cancer

A. Positions and Honors.

Positions:

1987 **Research Technician**, University of Illinois, Urbana-Champaign, IL
1987-1988 **Undergraduate Researcher**, University of Illinois, Urbana-Champaign, IL
1988-1996 **Graduate Student**, Carnegie-Mellon University, Pittsburgh, PA *(William R. McClure, Ph.D.)*
1989-1990 **Teaching Assistant**, Carnegie-Mellon University, Pittsburgh, PA
1996-1997 **Postdoctoral Fellow**, Harvard University, Cambridge, MA *(Leslie J. Berg, Ph.D.)*
1998-2002 **Postdoctoral Fellow**, U. of Massachusetts Med. School, Worcester, MA *(Leslie J. Berg, Ph.D.)*
2002-2005 **Postdoctoral Fellow**, Boston Medical Center, Boston, MA (*Lawrence J. Saubermann*, MD)
2005-2007 **Research Assistant Professor**, University of Rochester, Rochester, NY
2007-2010 **Assistant Professor**, University of Rochester, Rochester, NY
2010- **Lecturer, Specialist in Scientific and Technical Writing**

Honors:

1988 Graduation With Distinction: Univ. of Illinois
1988 Thomas O. Sidebottom/ROLM Award for Best Senior Thesis: Univ. of Illinois
1988 American Society for Microbiology Summer Research Grant
1990-1993 NIH Training Grant: Dept. Biological Science, Carnegie-Mellon Univ.
2004-2007 NRSA Postdoctoral Fellowship
2007 Invited review: Expert Opinion in Investigational Drugs

Memberships requiring election and invited grant review committees:

1996 Phi Kappa Phi (honor society)
2005 Society of Mucosal Immunology
2006 American Association of Cancer Researchers
2007 Ad-hoc Reviewer, Health Research Board, Ireland
2009 Research Grants Council (RGC) of HKSAR (Hong Kong) | *2009*
2009 RC1 Challenge Grants (experimental therapeutics) | *2009*

Professional Activities:

2006-2009 Ad-hoc Reviewer, Clinical Cancer Research and Laboratory Investigation
2008-2011 Board Member Crohn's and Colitis Foundation Association (CCFA) Rochester, NY Chapter
2010- Member, Steering Committee, Alternative Dispute Resolution, University of Rochester
2011- Freshman Advisor, University of Rochester

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

1. Takahashi H, Hosono K, Uchiyama T, Sugiyama M, Sakai E, Endo H, Maeda S, Schaefer K, Nakagama H, and Nakajima A (2010). PPARγ ligand as promising candidate for colorectal cancer chemoprevention: A pilot study. PPAR Research vol. 2010, Article ID 257835, 4 pages, 2010. doi:10.1155/2010/257835

2. Zhang L, Sun W, Wang J, Zhang M, Yang S, Tian Y, Vidyasagar S, Pena L, Zhang K, Cao Y, Yin L, Wang W, Zhang L, Schaefer KL, Saubermann LJ, Swarts SG, Fenton BM, Keng PC, and Okunieff P. Mitigation Effect of an FGF-2 Peptide on Acute Gastrointestinal Syndrome after High-Dose Ionizing Radiation (2010). Int J Radiat Oncol Biol Phys 77: 261-8.

3. Harris G, Schaefer KL. The microtubule-targeting agent T0070907 induces proteasomal degradation of tubulin (2009). Biochem Biophys Res Commun 388:345-9.

4. Schaefer KL. PPARγ inhibitors as novel tubulin-targeting agents (2008). PPAR research 2008: 785405 (epub).

5. Schaefer KL, Takahashi H, Morales VM, Harris G, Barton S, Osawa E, Nakajima A, and Saubermann LJ. PPARγ inhibitors reduce tubulin protein levels by a PPARgamma, PPARdelta, and proteasome-independent mechanism, resulting in cell cycle arrest, apoptosis and reduced metastasis of colorectal carcinoma cells (2007). Int. J. Cancer 120:702-13.

6. Takahashi H, Fujita K, Fujisawa T, Yonemitsu K, Tomimoto A, Ikeda I, Yoneda M, Masuda T, Schaefer K, Saubermann LJ*, et al*. Inhibition of peroxisome proliferator-activated receptor gamma activity in esophageal carcinoma cells results in a drastic decrease of invasive properties (2006). Cancer Sci. 979: 854-60.

7. Schaefer KL, Wada K, Takahashi H, Matsuhashi N, Ohnishi S, Wolfe MM, Turner JR, Nakajima A, Borkan SC, and Saubermann LJ. Peroxisome proliferator-activated receptor γ inhibition prevents adhesion to the extracellular matrix and induces anoikis in hepatocellular carcinoma cells (2005). Cancer Res. 65:2251-9.

8. Schaefer KL, Ma C, Denevich S, Cooley SR, Schlezinger J, Sherr D and Saubermann, LJ. Intestinal antiinflammatory effects of thiazolidenedione peroxisome proliferator-activated receptor-gamma ligands on T helper type 1 chemokine regulation include nontranscriptional control mechanisms (2005). Inflamm Bowel Dis. 11(3):244-52.

9. Vergara-Silva A, Schaefer KL, and Berg, LJ. (2002) Eph receptor and ephrin expression in the thymus is compartmentalized. Mech Dev 119 Suppl 1, S225-9.

10. Yelon D, Schaefer KL, and Berg, LJ. (1999) Alterations in CD4-binding regions of the MHC class II molecule I-E^k do not impede CD4 T cell development. J. Immunol. 162: 1348-1358.

11. Schaefer KL, and McClure WR. (1997) Antisense RNA control of gene expression in bacteriophage P22. I. Structures of sar RNA and its target, ant mRNA. RNA 3: 141-156.

12. Schaefer KL, and McClure WR. (1997) Antisense RNA control of gene expression in bacteriophage P22. II. Kinetic mechanism and cation specificity of the pairing reaction. RNA 3: 157-174.

13. Small K, Brennwald P, Skinner H, Schaefer K, and Wise, JA. (1989) Sequence and structure of U5 snRNA from Schizosaccharomyces pombe. Nucl. Acids Res. 17: 9483.

Reviews, Chapters, and Editorials:

1. Schaefer, KL. PPARγ inhibitors as novel tubulin-targeting agents (2007). Expert Opin. Investig. Drugs 16: 923-6.

C. Research Support

Ongoing:

American Cancer Society RSG-09-075-01-MBC 1/1/2009-12/31/2012
The Role of Bacterial Effector Protein AvrA in Colonic Tumorigenesis
The major goal of this project is to determine how AvrA promotes tumorigenesis in colon tissues
Role: collaborator (5%)

CTSI Laboratory Support Funds UL1 RR024160 6/1/07-5/31/08 (currently in no-cost extension)
Testing PPARγ inhibitors in a murine xenograft model
The objective is to determine whether PPARγ inhibitors target tubulin differentially in tumor cells and normal cells in a murine model.
Role: PI

Completed:

NRSA 1F32 DK66928-01 3/1/04-2/28/07
The goals of this postdoctoral training grant are to elucidate how thiazolidinedione PPARγ activating drugs affected inflammatory chemokine production in the intestine.