

BIOGRAPHICAL SKETCH

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NAME Catherine A. Foss		POSITION TITLE Instructor	
eRA COMMONS USER NAME CFOSS1			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Delaware	B.S.	1996	Biochemistry
University of Notre Dame	Ph.D.	2003	Biochemistry

A. Positions and Honors.**Positions and Employment**

- 1991-1992: Research Assistant, Department of Chemistry, Florida Atlantic University, Boca Raton, FL
- 1993: Internship as a Laboratory Technician for Chemical Dosimetry, Advanced Chemical Sensors Inc., Boca Raton, FL
- 1994: Internship as Veterinary Medicine Technician, Arborview Animal Hospital, Boca Raton, FL
- 1996-1998: Research and Teaching Assistant, Department of Chemistry & Biochemistry, University of Notre Dame, Notre Dame, IN
- 1998-2003: Research Assistant, Department of Chemistry & Biochemistry, University of Notre Dame, Notre Dame, IN
- 2003- 6-30-2006 : Postdoctoral Research Fellow, Department of Radiology, Radiochemistry and Molecular Imaging, Johns Hopkins University School of Medicine, Baltimore, MD
- 7-1-2006- present: Instructor, Department of Radiology, Radiochemistry and Molecular Imaging, Johns Hopkins University School of Medicine, Baltimore, MD

Other Experience and Professional Memberships

- 2003- : Society for Molecular Imaging
- 2003- : American Chemical Society

Honors and Awards

- 2002 *Graduate Student Union Travel Award*, University of Notre Dame – RNA Society Meeting 2002
- 2001-2002 *J. Peter Grace Fellowship*, University of Notre Dame, IN
- 2002-2003 *Podrasnik Fellowship*, University of Notre Dame, IN

2004 *Society for Molecular Imaging* Travel Grant
2005 DOD Prostate Cancer Postdoctoral Training Grant FY05

B. Selected peer-reviewed publications.

Peer-reviewed publications (in chronological order)

C.A. Foss, S. Matsunaga, N. Fusetani, R.G. Kerr "Isolation and structure elucidation of epipolasterol and 22,23-dihydroepipolasterol from the marine sponge *Epipolastis sp.*" *Comp. Biochem. And Physiol.* (1997) **177(B)**, 5651-5663.

Chetan Bettegowda, **Catherine A. Foss**, Ian Cheong, Yuchuan Wang, Luis Diaz, Nishant Agrawal, James Fox, James Dick, Long Dang, Shibin Zhou, Kenneth Kinzler, Bert Vogelstein and Martin G. Pomper "Imaging Bacterial Infections with Radiolabeled FIAU" *P.N.A.S. USA* (2005) **102(4)**, 1145-50.

Catherine A. Foss, Ronnie C. Mease, Hong Fan, Yuchuan Wang, Hayden T. Ravert, Robert F. Dannals, Rafal T. Olszewski, Warren D.W. Heston, Alan P. Kozikowski and Martin G. Pomper "Radiolabeled Small Molecule Ligands for Prostate-Specific Membrane Antigen: in vivo Imaging in Experimental Models of Prostate Cancer" *Clinical Cancer Research* (2005) **11 (11)**, 4022-8.

William B. Mathews, **Catherine A. Foss**, Doris Stoermer, Hayden T. Ravert, Paige A. Rausero, Robert F. Dannals, Brad R. Henke, Zaver M. Bhujwalla and Martin G. Pomper "Synthesis and Biodistribution of [¹¹C]GW7845, a Positron-Emitting Agonist for PPAR- α " *J. Nucl. Med.* (2005) **46(10)**; 1719-26.

Kristine Glunde, **Catherine A. Foss**, Tomoyo Takagi, Flonne Wildes and Zaver M. Bhujwalla "Fluorescent Labeling of Lysosomes of Solid Human Breast Cancer Models" *Bioconjugate Chem.* (2005) **16(4)**; 843-51.

T.R. Guilarte, J.L. McGlothlan, **C.A. Foss**, J. Zhou, W.D. Heston, A.P. Kozikowski and M.G. Pomper (2005) "Glutamate Carboxypeptidase II Levels in Rodent Brain using [¹²⁵I]DCIT Quantitative Autoradiography" *Neuroscience Lett* (2005) **387(3)**; 141-4.

Diaz LA, Cheong I, **Foss CA**, Zhang X, Peters B, Agrawal N, Bettegowda C, Karim B, Liu G, Khan K, Huang X, Dang L, Hwang P, Vogelstein A, Koblin B, Pomper M, Zhou S, Kinzler K, Vogelstein B and Huso D. "Pharmacologic and Toxicologic Evaluation of *C. novyi*-NT Spores" *Toxicol Sci.* (2005) 88(2); 562-75 .

Catherine A. Foss, Ph.D.^a, Anirban Maitra, M.B.B.S.^b, Christine Iacobuzio-Donohue, M.D., Ph.D.^b, Scott E. Kern, M.D.^c, Ralph Hruban, M.D.^b and M.G. Pomper, M.D., Ph.D.^a "Novel Radiolabeled Antibodies as Molecular Imaging Agents for Pancreatic Cancer: An In Vivo Study in Xenograft Bearing Mice" *Mol Imaging* (2005) *in press*.

De-Xue Fu, M.D., Ph.D., Yvette C. Tanhehco, Ph.D., Jianmeng Chen, M.D., **Catherine A. Foss, Ph.D.**, James Fox, Victor Lemas, Ph.D., Ja-Mun Chong, M.D., Richard F. Ambinder, M.D., Ph.D., Martin G. Pomper, M.D., Ph.D. "Tumor Imaging by Induction of Endogenous Viral Gene Expression" (2006) *Clin. Cancer Res. In press*.

Peer-reviewed publications in conference proceedings (in chronological order)

C.A. Foss and P.W. Huber (2002) "Synthesis of Lysine-EDTA, Incorporation into HIV-1 TAT Peptides and mapping on TAR RNA", RNA Society Meeting, 2002, Madison, WI

C.A. Foss, J.A. Prescher, D.H. Dube, C.R. Bertozzi and M.G. Pomper (2004) "MicroSPECT Imaging and Biodistribution of Azidosialic Acid in Mice with [¹²⁵I]-FLAG-Phosphine", Society of Nuclear Medicine Meeting, 2004, Philadelphia, PA

Principal Investigator/Program Director (Last, First, Middle):

C.A. Foss, A. Maitra, C. Iacobuzio-Donohue, S.E. Kern, R. Hruban and M.G. Pomper (2004) “[¹²⁵I]anti-Claudin-4 and [¹²⁵I]anti-PSCA Monoclonal Antibodies as Imaging Agents for Human Pancreatic Cancer in Xenograft-Bearing Mice”, Society for Molecular Imaging Meeting, 2004, St. Louis, MO

C.A. Foss, R.C. Mease, H. Fan, H.T. Ravert, R.F. Dannals, A.P. Kozikowski and M.G. Pomper (2004) “Imaging PSMA Expression in Prostate Cancer Xenografts by PET and Gamma Scintigraphy”, Society for Molecular Imaging, 2004, St. Louis, MO

C.A. Foss, J.A. Prescher, D.H. Dube, C.R. Bertozzi and M.G. Pomper (2005) “Synthesis and biodistribution of [¹²⁵I]Phos-BH: a novel probe for sialic acid expression for use with PET and SPECT”, Society for Molecular Imaging, 2005, Cologne, Germany

C.A. Foss, C. Dusich, R.C. Mease, Anirban Maitra and M.G. Pomper (2005) “Synthesis and Validation of a Novel Small-Molecule Fluorescent Probe for PSMA Expression in Human Tumor Neovasculature”, Society for Molecular Imaging, 2005, Cologne, Germany

C.A. Foss, B. Lal, J. Fox, J. Laterra and M. Pomper “Antibody-Based PET and SPECT Imaging of Pancreatic Cancer and Glioma in Mouse Xenograft Models and Tumor Neovasculature in a Rabbit VX2 Tumor Model” *In Vivo Cellular Molecular Imaging Center*, Johns Hopkins University School of Medicine, The Russell H. Morgan Department of Radiology, July 2006

Catherine Foss, Daniel Holt, Natalia Zarzhevsky, James Fox, Anirban Maitra, Antonio Jimeno, Manuel Hidalgo, Robert Dannals and Martin Pomper “*In vivo* Determination of Gefitinib Sensitivity in Tumors Using [¹¹C]gefitinib PET” *Society for Molecular Imaging* Conference, Waikoloa Village, Big Island, Hawaii, September 2006.

Catherine Foss, Ron Mease, Hayden Ravert, Chris Endres, John Hilton, AZ Wilmington, Robert Dannals and Martin Pomper “[¹⁸F]M665017 PET of the $\alpha 7nAChR$ in Rodent and Primate Brain” Johns Hopkins University Department of Pharmacology, September 2006

C. Ongoing Research Support.

R 24 CA092871 Pomper (PI)

8/27/01-12/31/06

NIH

PET and SPECT imaging of prostate cancer xenografts in mice.

The goal is to develop novel PET and SPECT tracers for imaging prostate tumors in mice and humans.

Role: radiochemist

PET imaging of breast cancer xenografts in mice

The goal is to evaluate radiolabeled ligands for breast cancer receptors in breast cancer imaging

Role: radiochemist

Principal Investigator/Program Director (Last, First, Middle):

P50 CA Bhujwalla (PI)

x/xx/04- x/xx/08

NIH

Visualization of lysosome trafficking in breast cancer cells.

The aim of this project is to understand the role of lysosomes in cancer cell invasion and metastasis.

Role: synthetic chemist

Completed Research Support

P20 CA086346 Bhujwalla (PI)

7/01/00-8/31/03

NIH

Visualization of lysosome trafficking in breast cancer cells.

The aim of this project is to understand the role of lysosomes in cancer cell invasion and metastasis.

Role: synthetic chemist

PC050999 Foss (PI)

10/15/2005-11/14/2006

DoD

SPECT and fluorescence imaging of prostate cancer in mice

The goal is to develop a fluorescent PSMA ligand and a commercially viable SPECT ligand for human use.

Role: PI and biochemist