
BIOGRAPHICAL SKETCH

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NAME Kathleen Louise Gabrielson	POSITION TITLE Associate Professor of Molecular and Comparative Pathology		
eRA COMMONS USER NAME (credential, e.g., agency login) Kgabrie2			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
North Carolina State University	DVM	1989	Veterinary Medicine
Johns Hopkins Univ., School of Medicine	Postdoc	1992	Veterinary Pathology
Johns Hopkins Univ., School of Public Health	Ph.D.	2001	Env. Health Sci./Toxicol.

A. Personal Statement

Dr. Gabrielson is Associate Professor in the Department of Molecular and Comparative Pathobiology and the Department of Environmental Health Sciences at the Johns Hopkins University School of Medicine. Dr. Gabrielson graduated from North Carolina State University Veterinary College of Medicine in 1989 and completed a postdoctoral fellowship in veterinary pathology at Johns Hopkins University School of Medicine. She is board certified by the American College of Veterinary Pathologists.

B. Positions and Honors

1993-96 Veterinary Pathologist, Maryland Medical Laboratory, Baltimore, Maryland
2000-02 Instructor, Division of Comparative Medicine, Johns Hopkins University, School of Medicine
2002-10 Assistant Professor, Department of Molecular and Comparative Pathobiology, Johns Hopkins University, School of Medicine
2001 Joint appointment, Bloomberg School of Public Health, Environmental Health Sciences
2001 Center for Alternatives to Animal Testing faculty
2008 Pathobiology program faculty
2010 Associate Professor Department of Molecular and Comparative Pathobiology, Johns Hopkins University, School of Medicine

Other experiences and professional memberships

Editorial board of Toxicological Pathology
Editorial board of Cardiovascular Toxicology
American College of Veterinary Pathologists – 2010- examiner -Board Certification exam - Ames Iowa
Society of Toxicology Comparative Veterinary Sub-Specialty group, President

C. Selected Peer-reviewed Publications

Most relevant to this publication

1. Feldmann G, Dhara S, Fendrich V, Bedja D, Beaty R, Mullendore M, Karikari C, Alvarez H, Iacobuzio-Donahue C, Jimeno A, Gabrielson KL, Matsui W, Maitra A. Blockade of hedgehog signaling inhibits pancreatic cancer invasion and metastases: a new paradigm for combination therapy in solid cancers. *Cancer Res.* 2007 Mar 1;67 (5):2187-96.
2. Lee JS, Orita H, Gabrielson K, Alvey S, Hagemann RL, Kuhajda FP, Gabrielson E, Pomper MG. FDG-PET for Pharmacodynamic Assessment of the Fatty Acid Synthase Inhibitor C75 in an Experimental Model of Lung Cancer. *Pharm Res.* 2007 Jun; 24(6):1202-7.

Additional recent publications of importance to the field (in chronological order)

1. Gabrielson KL, Remillard RL, Huso DL: Zinc toxicity with pancreatic acinar necrosis piglets receiving total parental nutrition. *Vet.Pathol.* 1996; 33:692-696.
2. Nakajima W, Lange MS, Ishida A, Gabrielson KL, Blue M, Martin L, Johnston MV. Distribution of apoptotic cells in a neonatal rat model of cerebral hypoxia-ischemia. *Journal of Neuroscience:* 2000; 20:7994-8004.

3. Gabrielson KL, Hogue BA, Bohr VA, Cardounel AJ, Zweier JL, Nakajima W, Kofler J, Rodriguez ER, Martin LJ, de Souza-Pinto NC and Bressler J. Mitochondrial toxin 3-nitropropionic acid induced striatal and cardiac toxicity in multiple mouse strains. *American Journal of Pathology* 2001; 159:1507-1520.
4. Watanabe H, Mamelak AJ, Weiss E, Brice AK, Wachtman L, Yokota N, Wang B, Freed I, Hicklin DJ, Kerbel RS, Haas M, Gabrielson KL and Sauder DN. VEGFR-2 antibody accelerates renal disease progression in the NZB/W F1 murine SLE model. *Clinical Cancer Research* 2005;11:407-9.
5. Pointek KB, Huso D, Grinberg A, Westphal H, Gabrielson KL, Bedja D, Germino GG. A functional floxed Pkd1 allele. *Am Soc Nephrol* 2004; 15 :3035-3043.
6. Liddell RP, Patel TH, Weiss CR, Lee DS, Matsushashi T, Brown PR, Gabrielson KL, Rodriguez ER, Eng J, Kimura H, Hofmann LV. Endovascular Model of Rabbit Hindlimb Ischemia: A Platform to Evaluate Therapeutic Angiogenesis. *J Vasc Interv Radiol* 2005; 16:991-998.
7. Cooper TK, Shih IM, Gabrielson KL. Uterine Epithelioid Trophoblastic Tumour in a Red-Tailed Guenon. *J Comp Pathol.* 2005; 133:218-222.
8. Wachtman LM, Browning MD, Bedja D, Pin S, Gabrielson KL. Validation of the use of long-term indwelling jugular catheters in a rat model of cardiotoxicity. *J Am Assoc Lab Anim Sci.* 2006 Sep; 45(5):55-64.
9. Lee J, Jallo GI, Penno MB, Gabrielson KL, Young GD, Johnson RM, Gillis EM, Rampersaud C, Carson BS, Guarnieri M. Intracranial drug-delivery scaffolds: biocompatibility evaluation of sucrose acetate isobutyrate gels. *Toxicol Appl Pharmacol.* 2006 Aug 15; 215(1):64-70.
10. Gabrielson KL, Bedja D, Pin S, Tsao A, Gama L, Yuan B, Muratore N. Heat shock protein 90 and ErbB2 in the cardiac response to doxorubicin injury. *Cancer Res.* 2007 Feb 15; 67(4):1436-41.
11. Cooper TK, Gabrielson KL. Spontaneous lesions in the reproductive tract and mammary gland of female non-human primates. *Birth Defects Res B Dev Reprod Toxicol.* 2007 Apr; 80 (2):149-70.
12. Afanasyeva M, Georgakopoulos D, Belardi DF, Bedja D, Fairweather D, Wang Y, Kaya Z, Gabrielson KL, Rodriguez ER, Caturegli P, Kass DA, Rose NR. Impaired upregulation of CD25 on CD4+ T cells in IFN- γ knockout mice is associated with progression of myocarditis to heart failure. *PNAS* 2005; 102 (1): 180-5.
13. Magno P, Giday SA, Gabrielson KL, Shin EJ, Buscaglia JM, Clarke JO, Ko CW, Jagannath SB, Canto MI, Sedrakyan G, Kantsevov SV. EUS-guided implantation of radiopaque marker into mediastinal and celiac lymph nodes is safe and effective. *Gastrointest Endosc.* 2007 Aug; 66(2):387-92.

D. Research Support

Ongoing Research Projects

2P50CA103175-06A2 (Bhujwalla)

09/22/11-07/31/16

NCI JHU ICMIC Program

This center grant funds an *in vivo* Cellular and Molecular Imaging Center at Johns Hopkins. The program consists of four research components, four developmental projects, one career development award and four resources.

P30 ES003819 (Groopman)

04/1/08-03/31/13

NIH

Johns Hopkins University Center in Urban and Environmental Health

Dr. Gabrielson is co-directing the imaging and pathology core for this center.

RO1 HL088649 (Gabrielson)

08/01/08-05/31/13

NIH

Signal Transduction in the Heart after Cancer Therapy

The major goal of this grant is to test the role of erbB2 in protecting the heart from cancer therapy and developing a strategy that can effectively treat cancer while protecting the heart.

R01 CA113669 (Maitra)

04/01/05-02/28/15

NIH

Developmental Signaling Pathways in Pancreatic Cancer

The goal of this grant is to develop a high resolution micro SPECT/CT system for molecular imaging of small animals.

U54 CA151838 (Searson) 09/01/10-08/31/15
NIH
Center of Cancer Nanotechnology Excellence at Johns Hopkins
The objective of the center is to integrate nanotechnology-based diagnostic and therapeutic tools for comprehensive cancer care. Through the four inter-related projects described in this proposal we envision a cancer nanomedicine clinic incorporating nano-technology-based solutions for diagnosis, therapy and post-therapy monitoring.

W81XWH-10-1-0603 (Raman) 08/01/10-07/31/12
DOD
A Novel RNA Helicase Inhibitor to Treat Breast Cancer
This application examines the therapeutic impact of a novel RNA Helicase inhibitor to treat breast cancer.

P01 HL010342 (Mitzner) 06/01/11-02/28/16
NIH
Mechanisms Underlying Chronic Lung Pathology
The work in this PPG will investigate novel immunologic and phenotypic mechanisms that are common to different chronic lung diseases, particularly emphysema, interstitial fibrosis, and ischemic lung injury.

MD-SCRFIII-0043-00 (Kraitchman) 07/01/11-06/30/14
MD Stem Cell Fund
Single Stem Cell Micro-encapsulation for Treatment of Ischemic Heart Disease
The proposed project has been designed to provide preclinical data for the Food and Drug Administration (FDA) for direct translation of this research to future clinical cellular therapy trials in ischemic heart disease.

P50 CA1031775 (Bhujwala) 09/22/11-07/31/16
NIH
JHU ICMIC Program
The goal of this grant is to use molecular imaging technologies to treat cancer.

Completed Projects Within Last Three Years

R21 HL089029 (Kraitchman) 07/23/07-06/30/12
NIH
X-Ray and MR Visible Microencapsulation of Allogenic Arteriogenic Cell Therapeutics
The major goal of this project is to develop a novel microencapsulation technique formulated with perfluorocarbons to enhance the viability and enable the use of allogeneic mesenchymal stem cell arteriogenic therapy using x-ray visualization.

2008-MSCRFII-0399-00 (Kraitchman) 07/01/08-06/30/11
MD Stem Cell Fund
MR-visible MSCs in Peripheral Arterial Disease
The major goal of this research is to develop an MR-visible method to encapsulate adult human bone marrow- and adipose-derived stem cells for the treatment of cardiovascular disease.

NIH R01 CA113669 (Maitra) 03/01/10-02/28/11
Developmental Signaling Pathways in Pancreatic Cancer
The goal of this grant is to develop a high resolution micro SPECT/CT system for molecular imaging of small animals.

FAMRI (Gabrielson) 07/01/08-06/30/11
The Role of Heat Shock Protein 90 in Tobacco-induced Heart Disease
The goal of this research is to better understand how tobacco smoke impacts cardiac signaling pathways, thus predispose to cardiovascular disease, in order to develop strategies that can protect the heart from current or past exposure to tobacco smoke.

NIH R21 HL089029 (Kraitchman)

07/23/07-06/30/12

X-Ray and MR Visible Microencapsulation of Allogenic Arteriogenic Cell Therapeutics

The major goal of this project is to develop a novel microencapsulation technique formulated with perfluorocarbons to enhance the viability and enable the use of allogeneic mesenchymal stem cell arteriogenic therapy using x-ray visualization.

U24 CA092871 (Pomper)

03/01/07-02/29/12

Small Animal Imaging Resources

The major goal of this project is to support the SAIRP group with veterinary, pathology and rodent model expertise.

NIH RO1 HL078479 (Mankowski, JL)

09/18/04-07/31/09

Host Viral Interactions in SIV Cardiac Dysfunction

The proposed studies will both define the temporal course of decline in cardiac function and its relationship to macrophage activation, SIV replication, and MMP activity and to determine the primary signaling cascades activating the MMPs that play a role in development of cardiomyopathy.

NIH RO1 HL067290 (Rose, N)

04/01/01-03/31/10

Pathogenesis of Autoimmune Myocarditis

The major goal of this project is to study the antigenic effect of cardiac proteins on the development of autoimmune myocarditis by echocardiography and histopathology.