

Kyoko Kojima, Ph.D.

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EDUCATION

2004-2009 Ph.D. Microbiology University of Alabama at Birmingham, Birmingham, Alabama

Dissertation Title: Mouse modeling of pancreatic ductal adenocarcinoma (PDAC); Search for early diagnostic markers and therapeutic targets. Mentor, Dr. Christopher A. Klug.

2000-2004 B.S. Biology (Magna cum Laude) University of Alabama at Birmingham, Birmingham, Alabama

Honors Project Title: Determination of memory CD8 T cells recruitment following secondary LCMV infection. Mentor, Dr. Allan J. Zajac.

EMPLOYMENT

2016-Present **Scientist III**, University of Alabama at Birmingham, Comprehensive Cancer Center MS and Proteomics Shared Facility, Birmingham, Alabama

2012-2016 **Research Associate**, University of Alabama at Birmingham, Comprehensive Cancer Center MS and Proteomics Shared Facility, Birmingham, Alabama

2010-2012 **Postdoctoral Fellow (T32 Awardee)**, University of Alabama at Birmingham, Surgery Department (Mentors, Dr. Irshad H. Chaudry and Dr. William E. Grizzle), Birmingham, Alabama

2009-2010 **Postdoctoral Fellow (T32 Awardee)**, University of Alabama at Birmingham, Pathology Department (Mentor, Dr. William E. Grizzle), Birmingham, Alabama

2004-2009 **Graduate Research Fellow**, University of Alabama at Birmingham, Microbiology Department (Mentor, Dr. Christopher A. Klug), Birmingham, Alabama

2002-2004 **Laboratory Technician**, University of Alabama at Birmingham, Microbiology Department (PI, Dr. Allan J. Zajac), Birmingham, Alabama

2001-2002 **Laboratory Technician**, University of Alabama at Birmingham, HSF-Infectious Diseases Department (PI, Dr. Earl R. Kern), Birmingham, Alabama

AWARDS and FELLOWSHIPS

2011 **SHOCK Society Travel Grant Award**

2011 **MSACL Travel Grant Award**

2010-2012 **UAB NRSA Postdoctoral Fellowship in Trauma and Inflammation Research (T32 Training Program)**

2009-2010 **UAB Cancer Prevention and Control Training Program Postdoctoral Fellowship (T32 Training Program)**

2004-2009 **Shiota Japanese Scholarship Award**

MEMBERSHIPS (Past)

Associate member of American Association for Cancer Research
Member of American Society for Mass Spectrometry
Member of Human Proteome Organization

TEACHING EXPERIENCE

- 2018-Present** **University of Alabama at Birmingham:** Supervising; research assistant, Ms. E. Baylee Edwards (Comprehensive Cancer Center); with a focus on research laboratory skills including but not limited to cell culture, 1D-PAGE, in-gel trypsin digestion, Western blotting, PCR.
- 2012-Present** **University of Alabama at Birmingham:** Supervising; laboratory manager, Mr. Brandon Young (Comprehensive Cancer Center); with a focus on basic laboratory management skills including but not limited to sample storage, ordering, and LIMS inputs.
- 2011-2013** **University of Alabama at Birmingham:** Supervised; graduate student, Mr. Michael Ludwig (Microbiology Department); with a focus on proteomic analyses of serum obtained from PDAC mouse models.
- 2010** **University of Alabama at Birmingham:** Supervised; Surgery Resident, Dr. Michael Knox (Urology Resident, Surgery Department); with a focus on proteomic analyses of prostasomes.
- 2009** **University of Alabama at Birmingham:** Supervised; Surgery Resident, Dr. Sergey Ananyev (Urology Resident, Surgery Department); with focus on proteomic analyses of prostasomes.
- 2008** **University of Alabama at Birmingham:** Supervised; Surgery Resident, Dr. Benjamin G. Martin (Urology Resident, Surgery Department); with emphasis on immunoprecipitation driven MALDI analyses of PSA.
- 2008** **University of Alabama at Birmingham:** Supervised; Graduate Student, Ms. Angelina I. Orozco (Graduate Research Fellow, Pathology Department); with emphasis in generation of PDAC mouse models for targeted therapy.

MEETINGS

- 2013** HUPO Annual Conference
Poster Title: Improving the Efficiency in Obtaining True Protein IDs with Biological Significance in Protein Biomarker Discovery Platforms (Kyoko Kojima, Gregory J. Bowersock, James A. Mobley)
- 2012** AACR Special Conference: Pancreatic Cancer: Progress and Challenges
Poster Title: Surveying the Serum Proteome for Early-stage Pancreatic Neoplasia Biomarkers Using Genetically Engineered Mouse Models (Michael R. Ludwig, Kyoko Kojima, Nirag C. Jhala, William E. Grizzle, John D. Christein, Christopher A. Klug, James A. Mobley)
- 2012** SHOCK Society Annual Meeting
Poster Title: Restoration of Essential Cellular Functions by 17 β -estradiol in Rat Hypothalamus Following Trauma-hemorrhagic Shock (T-H); Global and Acetylation Proteomics (Kyoko Kojima, Hiroya Akabori, Chinatsu Kojima, James A. Mobley, William E. Grizzle, Irshad H. Chaudry)
- 2012** AACR Annual Meeting
Poster Title: Identification of Pre-invasive Pancreatic Cancer Serum Biomarkers Using Genetically Engineered Mouse Models and Mass Spectrometry Techniques (Michael R. Ludwig, Kyoko Kojima, William E. Grizzle, James A. Mobley, Christopher A. Klug)
- 2011** NCI Translational Science Meeting
Poster Title: Pre-Pancreatic Cancer Biomarkers Identified from a Translational Study using Genetically Engineered Mice and Human Biospecimens (Senait Asmellash, Kyoko Kojima, Chinatsu Kojima,

- Christopher Shubert, Liuyan Yang, Denise Oelschlager, Mike Ludwig, John Christein, Christopher Klug, James Mobley, William Grizzle, Donald Buchsbaum)
- 2011** SHOCK Society Annual Meeting; **Travel Award**
Poster Title: Global Proteomic Study of the Brain Reveals a Potential Mechanism for the Tissue Protective Effects of 17 β -Estradiol Treatment Following Trauma-Hemorrhagic Shock (Kyoko Kojima, Hiroya Akabori, Chinatsu Kojima, William E. Grizzle, James A. Mobley, Irshad H. Chaudry)
- 2011** MSACL Annual Meeting; **Travel Award**
Poster Title: Assessment of Proteomic Changes in the Rat Brain following 17 β -estradiol Treatment of Hemorrhagic Shock (Kyoko Kojima, Hiroya Akabori, Chinatsu Kojima, William E. Grizzle, James A. Mobley, Irshad H. Chaudry)
- 2010** RECOMB Satellite Conference on Computational Proteomics
Poster Title: Global proteomics approaches to identify urinary proteins that distinguish pancreatic cancer from chronic pancreatitis (Senait Asmellash, Kyoko Kojima, Chinatsu Kojima, Christopher R. Shubert, Liuyan Young, Christopher A. Klug, James A. Mobley, John D. Christein)
- 2009** UAB Comprehensive Cancer Center Annual Retreat
Poster Title: Serum protein markers in mouse models of pancreatic cancer; Implications for early disease diagnosis. (Kyoko Kojima, Gregory J. Bowersock, Nirag C. Jhala, John D. Christein, Christopher A. Klug, James A. Mobley)
- 2008** ASMS Annual Meeting
Poster Title: Serum protein biomarker discovery in genetically engineered mouse models of pancreatic cancer with MD fractionation and tandem mass spectrometry (Kyoko Kojima, John D. Christein, Christopher A. Klug and James A. Mobley)
- 2006** Mouse Models of Cancer, AACR special conference (Poster presented)
Poster Title: Inactivation of Smad4 accelerates KrasG12D-mediated pancreatic neoplasia. (Kyoko Kojima, Selwyn M. Vickers, Trenton R. Schoeb, William E. Grizzle, and Christopher A. Klug)

PUBLICATIONS

1. Yeh HY, **Kojima K**, Mobley JA. Epitope mapping of Salmonella flagellar hook-associated protein, FlgK, with mass spectrometry-based immuno-capture proteomics using chicken (*Gallus gallus domesticus*) sera. *Vet Immunol Immunopathol*. 2018 Jul;201:20-25. doi: 10.1016/j.vetimm.2018.05.006. Epub 2018 May 14.
2. Shah S, Gibson AW, Ji C, Darrington E, Mobley J, **Kojima K**, Edberg JC, and Kimberly RP. Regulation of FcR γ function by site-specific serine phosphorylation. *J Leukoc Biol*. 2017 Feb;101(2):421-428. PMID: 27630214
3. Ludwig MR, **Kojima K**, Bowersock GJ, Chen D, Jhala NC, Buchsbaum DJ, Grizzle WE, Klug CA, and Mobley JA. Surveying the serologic proteome in a tissue specific kras(G12D) knockin mouse model of pancreatic cancer. *Proteomics*. 2016 Feb;16(3):516-31. PMID: 26572242
4. Fang L, **Kojima K**, Zhou L, Crossman DK, Mobley JA, and Grams J. Analysis of the Human Proteome in Subcutaneous and Visceral Fat Depots in Diabetic and Non-diabetic Patients with Morbid Obesity. *J Proteomics Bioinform*. 2015 Jun;8(6):133-141. PMID: 26472921

5. Comeaux EQ, Cuya SM, **Kojima K**, Jafari N, Wanzeck KC, Mobley JA, Bjornsti MA, van Waardenburg RC. Tyrosyl-DNA Phosphodiesterase I Catalytic Mutants Reveal an Alternative Nucleophile that can Catalyze Substrate Cleavage. *Biol Chem*. 2015 Jan 21. pii: jbc.M114.635284. PMID: 25609251
6. Ma C, **Kojima K**, Xu N, Mobley J, Zhou L, Yang ST, Liu XM. Comparative proteomics analysis of high n-butanol producing metabolically engineered *Clostridium tyrobutyricum*. *J Biotechnol*. 2015 Jan 10;193:108-19. PMID: 25449011
7. Betancourt A, Mobley JA, Wang J, Jenkins S, Chen D, **Kojima K**, Russo J, Lamartiniere CA. Alterations in the rat serum proteome induced by prepubertal exposure to bisphenol a and genistein. *J Proteome Res*. 2014 Mar 7;13(3):1502-14. PMID: 24552547.
8. Pridgeon JW, Yildirim-Aksoy M, Klesius PH, **Kojima K**, Mobley JA, Srivastava KK, Reddy PG. Identification of *gyrB* and *rpoB* gene mutations and differentially expressed proteins between a novobiocin-resistant *Aeromonas hydrophila* catfish vaccine strain and its virulent parent strain. *Vet Microbiol*. 2013 Oct 25;166(3-4):624-30. PMID: 23968889.
9. Fraser KB, Moehle MS, Daher JP, Webber PJ, Williams JY, Stewart CA, Yacoubian TA, Cowell RM, Dokland T, Ye T, Chen D, Siegal GP, Galembo RA, Tsika E, Moore DJ, Standaert DG, **Kojima K**, Mobley JA, West AB. LRRK2 secretion in exosomes is regulated by 14-3-3. *Hum Mol Genet*. 2013 Dec 15;22(24):4988-5000. PMID: 23886663.
10. Pridgeon JW, Klesius PH, Song L, Zhang D, **Kojima K**, Mobley JA. Identification, virulence, and mass spectrometry of toxic ECP fractions of West Alabama isolates of *Aeromonas hydrophila* obtained from a 2010 disease outbreak. *Vet Microbiol*. 2013 Jun 28;164(3-4):336-43. PMID: 23523171.
11. **Kojima K**, Bowersock GJ., Grizzle WE., Klug CA., Mobley JA. Validation of a robust proteomic analysis carried out on formalin-fixed paraffin-embedded tissues of the pancreas obtained from mouse and human, *Proteomics*. 2012 Nov;12(22): PMID:22997103.
12. Wang L, Clark ME, Crossman DK, **Kojima K**, Messinger JD, Mobley JA, Curcio CA. Abundant lipid and protein components of drusen. *Plos one* 2010 Apr 23;5(4):e10329. PMID: 20428236
13. Kim HG, **Kojima K**, Swindle CS, et al. FLT3-ITD cooperates with *inv(16)* to promote progression to acute myeloid leukemia. *Blood* 2008;111(3):1567-74. PMID: 17967943.
14. **Kojima K**, Asmellash S, Klug CA, et al. Applying proteomic-based biomarker tools for the accurate diagnosis of pancreatic cancer. *J Gastrointest Surg* 2008;12(10):1683-90. PMID: 18709425.
15. **Kojima K**, Vickers SM, Adsay NV, et al. Inactivation of *Smad4* accelerates *Kras(G12D)*-mediated pancreatic neoplasia. *Cancer research* 2007;67(17):8121-30. PMID: 17804724.
16. Tebo AE, Fuller MJ, Gaddis DE, **Kojima K**, et al. Rapid recruitment of virus-specific CD8 T cells restructures immunodominance during protective secondary responses. *Journal of virology* 2005;79(20):12703-13. PMID: 16188973.