

Curriculum Vitae for: Patricia A. Kruk, Ph.D.**October 2014****Office Address:**

Department of Pathology & Cell Biology, MDC 11
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Education:

1977-1980: B.Sc. Honor's in Biological Sciences, Concordia University, Montreal, CAN.
 1980-1983: M.Sc. Zoology, University of Alberta, Edmonton, CAN.
 1985-1992: Ph.D. Medical Sciences, University of British Columbia, CAN.

Academic Positions:

Aug 1996- July 2003: Assistant Professor: Department of Pathology, College of Medicine, USF, Tampa, FL.
 Aug 2003-July 2008: Associate Professor with Tenure: Department of Pathology, College of Medicine, USF, Tampa, FL.
 Aug 2008-present: Professor with Tenure: Department of Pathology & Cell Biology, College of Medicine, USF, Tampa, FL.
 Feb 2012-present: Professor, Obstetric and Gynecology, USF Morsani College of Medicine, Tampa, FL
 Jan 2014-present: Vice-Chair, Department of Pathology & Cell Biology, Morsani College of Medicine, USF, Tampa, FL.

Research Experience:

Jun 1980-Aug 1980: Research Assistant: Dept. of Biology, Concordia University, Montreal.
 Sep 1980-Aug 1983: Graduate Student: Dept. of Zoology, University of Alberta, Edmonton, CAN.
 Sept 1983-Aug 1985: Biochemistry Technologist: McEachern Cancer Research Group, Dept. of Biochemistry, University of Alberta, Edmonton, Alberta, CAN.
 Sep 1985-March 1992: Graduate Student: Dept. of Anatomy, University of British Columbia, Vancouver, CAN.
 July 1987-Aug 1987: Visiting Researcher: Dept. of Obstetrics and Gynecology, University of California, San Francisco, CA.
 Mar 1990- Apr 1990: Visiting Researcher: Dept. of Pharmacology & Therapeutics, University of Calgary, CAN.

- April 1992-Aug 1996: Postdoctoral Fellow: National Institute on Aging, National Institutes of Health.
- Aug 1996-July 2003: Assistant Professor: Department of Pathology, College of Medicine, USF, Tampa, FL.
- Aug 2003- present: Associate Professor with Tenure: Department of Pathology, College of Medicine, USF, Tampa, FL
- Aug 2008-present: Professor with Tenure: Department of Pathology & Cell Biology, College of Medicine, USF, Tampa, FL.
- Feb 2012-present: Professor, Obstetrics and Gynecology, USF Morsani College of Medicine, Tampa, FL

Teaching Experience:

- Sep 1979-Dec 1979: Teaching Assistant: Vertebrate Embryology (Z00 361), Concordia University, Montreal, CAN.
- Sep 1980-Dec 1982: Teaching Assistant: Cell Biology (Biol 301), University of Alberta, Edmonton, CAN.
- Sep 1981-Dec 1981: Teaching Assistant: Introductory Biology (Biol 296), University of Alberta, Edmonton, CAN.
- Jan 1981-May 1983: Teaching Assistant: Developmental Biology (Biol 302), University of Alberta, Edmonton, CAN.
- Jan 1982-May 1982: Teaching Assistant: Experimental Biology (Zoo 411), University of Alberta, Edmonton, CAN.
- Sep 1986-May 1987: Teaching Assistant: Medical Histology (Anat 401), University of British Columbia, Vancouver, CAN.
- Jan 1987-May 1987: Teaching Assistant: Biology Elective (Biol 101/102), University of British Columbia, Vancouver, CAN.
- July 1990-Aug 1990: Guest lecturer: Department of Nursing, Langara College, Vancouver, CAN.

Teaching Experience at USF:

1. Courses taught at USF:

- Sep 1997-present: **Course Instructor:** Directed research (GMS 7910) Pathology & Cell Biology
- Sep 1998-2007: **Course Director:** Pathology Graduate Seminar (GMS 7939).
- Sep 2000-2004: **Course Director and Instructor:** Pathology Resident Rotation in Molecular Biology, Department of Pathology, USF.
- Sep 2000-present: **Course Instructor:** Dissertation research (GMS 7980)
- Aug 2001-present: **Course Instructor:** OBGYN Oncology Fellow Research Rotation in Molecular Biology, Department of Pathology, USF.
- Sep 1-30, 2001: **Course Instructor:** Research in Pathology (BMS 7761) for Post-Sophomore Pathology Fellowship, Rotation Fellowship in Molecular Biology, Department of Pathology, USF.
- Nov 1-30, 2001: **Course Instructor:** Research in Pathology (BMS 7761).
- Dec 1-31, 2001: **Course Instructor:** Independent Study in Pathology (MEL 9999P).
- Sep -Dec 2001: **Course Co-Instructor:** Cellular and Molecular Biology, (GMS 6501).
- Jan 2003-present: **Course Co-Instructor:** Pathobiology of Human Cancer (GMS 6334).
- Sep 2003-present: **Course Co-Instructor:** Foundations in Biomedical Sciences (GMS 6001).

- Sep 2003-2007: **Course Director and Instructor:** Current Topics in Pathology (GMS 7930).
- Aug 2004-2011: **Course Co-Instructor:** Responsible Conduct and Successful Skills for Emerging Biomedical Researchers, (GMS 6091).
- Sep 2007-present: **Course Director and Co-Instructor:** Directed research (GMS 7910)
- Aug 2007-2011: **Course Co-Director and Co-Instructor:** Responsible Conduct and Successful Skills for Emerging Biomedical Researchers, (GMS 6091).
- Sep 2008-present: **Course Director and Co-Instructor:** Dissertation research (GMS 7980)
- May 2009-present: **Course Co-Director and Co-Instructor:** A Brief History of Anatomy and Pathology (GMS 6671)
- Aug 2009-present **Course Director and Instructor:** Basic Medical Pathology (GMS 6111)
- May 2010-July 2010/
May 2014-July 2014: **Course Director and Instructor:** Ovarian Cancer (GMS 7930)
- May 2012-present: **Course Director and Co-Instructor:** A Brief History of Medical Sciences (GMS 6671)
- Sept 2012-present: **Course Co-Instructor:** Lab Rotations in Biomedical Sciences (GMS 6942)
- Sept 2013-present: **Course Co-Instructor:** Cancer Biology (BMS 6816)

2. Training Experience at USF:

Undergraduate training:

- June 1998 - July 1999: **Research Training Faculty Mentor:** NIH Minority High School Research Apprentice Program for Ms. Imee Omensetter (1998, 1999) and Ms. Helen Moses-Soto (1999).
- June 2000-2003: **Research Training Faculty Mentor:** Hillsborough AHEC Minority High School Student Research Program for Ms. Megan Salazar (2000), Ms. Christienn Blanco (2001), Ms. Jamia Washington (2002), Ms. Julia Gainey (2003).
- April 2002 – May 2003: **Research Training Faculty Mentor:** USF Ronald E. McNair Scholars Program for Ms. Takesha Roland.
- Jan 2002 - 2011: **Research Training Faculty Mentor:** USF Undergraduate Honor's Research (BSC 4910) for Ms. Martha Aquino (2002, 2003), Ms. Christina Johnson (2002-2004), Ms. Diana Erraso (2004), Ms. Shirrin Ahmad (2005), Ms. Brigitte Thomas (2010), Mr. Rojan Varghese (2011), Ms. Saffiya Baksh (2011).
- Jan 2006-May 2007: **Research Training Faculty Mentor:** USF Undergraduate MARC Research Program for Mr. David Alvarado (2006).
Awards: USF Anne and Werner von Rosenstiel Undergraduate Research Symposium Award, USF, 2007.

Masters training:

- Jan 2003 - 2005: **Research Training Faculty Mentor:** USF Directed Graduate Research (GMS 7418) for Ms. Yira Bermudez (2003), Patricia Ervin (2005).
- Sept 2008- April 2008: **Committee member** for Ms. Courtney Hunt, Medical Sciences MS student
- Sept 2008-Dec 2009: **Research mentor** for Ms. Aisha Shaheed, Medical Sciences MS student

Jan 2009-Dec 2009: **Thesis advisor** for Ms. Christina Chan, Medical Sciences MS student
 Jan 2012-Aug 2012: **Research mentor** for Ms. Tulin Bilgin, Medical Sciences MS student
 Jan 2012-Aug 2012: **Research mentor** for Ms. Aiman Rahim, Non-degree seeking graduate student
 Sep 2013-Aug 2014: **Research mentor** for Ms. Mona Chehab, Medical Sciences MS student
 Jan 2014-Aug 2014: **Research mentor** for Ms. Stephanie Larochelle-Buttermore, Medical Sciences MS student.

Doctoral training:

Sep 1997-April 2002: **Major Professor**, Ph.D. Graduate Student Supervisory Committee for Ms. Michelle Y. Alfonso-De Matte, Department of Pathology, USF.
Awards: Academic Excellence Award, USF, 2000.
 Outstanding Graduate Student Award, USF, 2000.
 2002 AACR Minority Scholar Award in Cancer Research.
Employment upon graduation: Postdoctoral fellow, USF (Kruk lab).
Current employment: FBI

Sep 2000-Aug 2004: **Major Professor**, Ph.D. Graduate Student Supervisory Committee for Ms. Nicole C. Johnson-Ackerson, Department of Pathology, USF.
Awards: Edith Wright-Hartley Medical Research Scholarship,
 Daughters of the American Revolution, 2001, 2002, 2003.
Employment upon graduation: Postdoctoral fellow, St Jude Children's Hospital and Research Institute, Memphis, TN
Current employment: Chair, Science Department, Berkeley Prep, Tampa, FL.

July 2003-Aug 2004: **Co-Major Professor**, Ph.D. Graduate Student Supervisory Committee for Dr. Martina Vendrame, Departments of Neurosurgery and Pathology, USF.
Employment upon graduation: Neurology resident, Temple University, Philadelphia, PA.

*Jan 2003-Mar 2007: **Major Professor**, Ph.D. Graduate Student Supervisory Committee for Ms. Yira Bermudez, Department of Pathology & Cell Biology, USF.
Awards: Women's in Health Science Research Award, USF, 2005.
 2006 AACR Minority Scholar Award in Cancer Research.
Employment upon graduation: Postdoctoral fellow, Arizona Cancer Center, Tucson, AZ
 * The Arizona Cancer Center accepts a single medical research postdoctoral fellow into their Cancer Control and Cancer Prevention Postdoctoral Program annually. Dr. Yira Bermudez was selected as the 2007 postdoctoral fellow admitted into this program.
Current employment: Assistant Professor, University of Arizona.

Jan 2003-April 2008: **Major Professor**, Ph.D. Graduate Student Supervisory Committee for Mr. Joshua O'Donnell, Department of Pathology & Cell Biology, USF.
Employment upon graduation/current employment: Application Specialist, Fisher Scientific, Rockville, MD.

Jan 2007-Dec 2010: **Major Professor** PhD. Graduate Student Supervisory Committee for Ms. Nicole Anderson, Department of Pathology & Cell Biology, USF
Awards: USF Graduate Diversity & Access Fellowship, 2007-2010 (declined), McKnight Predoctoral Fellowship, 2007-2010.

- Jan 2007-Dec 2010: **Co-Major Professor**, PhD. Graduate Student Supervisory Committee for Ms. Christina Drenberg, Department of Pathology & Cell Biology, USF.
Awards: DOD nested Teal Predoctoral Fellowship, 2009-2012.
Employment upon graduation: Postdoctoral fellow, St Jude Children's Hospital and Research Institute, Memphis, TN
- Sep 2007-Dec 2010: **Major Professor**, PhD. Graduate Student Supervisory Committee for Ms. Rebecca Davis, Department of Pathology & Cell Biology, USF.
- Jan 2010-July 2014: **Major Professor**, PhD. Graduate Student Supervisory Committee for Ms. Kamisha Woolery, Department of Pathology & Cell Biology, USF.
Awards: NSF Bridge to Doctorate Fellowship, 2010-2012.
- Jan 2012-March 2014: **Co-Major Professor**, PhD. Graduate Student Supervisory Committee for Dr. Joseph Pidala, Department of Pathology & Cell Biology, USF.
Current employment: H. Lee Moffitt Cancer Center and Courtesy Assistant Professor, Departments of Internal Medicine and Oncologic Sciences, USF
- Jan 2012-May 2014: **Major Professor**, PhD. Graduate Student Supervisory Committee for Mr. Jeffrey Edelman, Department of Pathology & Cell Biology, USF. Completed MS in Medical Sciences, May 2014.
Current employment: Laboratory Manager, USF College of Pharmacy.
- Jan 2013-present: **Major Professor**, PhD. Graduate Student Supervisory Committee for Ms. Mai Mohamed, Department of Pathology & Cell Biology, USF.
- Sep 2002-May 2004: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Mr. Daniel Fernandez, Department of Pathology, USF.
- Sep 2004-Feb 2007: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Mr. Sungman Park, Department of Pathology & Cell Biology, USF.
- Sep 2005-July 2008: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Ms. Lili He, Department of Pathology & Cell Biology, USF.
- April 2006-Feb 2008: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Mr. Stefan Cular, College of Engineering, USF.
- April 2007-Dec 2007: **Committee member**, M.S. Graduate Student Supervisory Committee for Ms Jennifer Matteo, College of Engineering, USF.
- Sep 2007 – Oct 2009: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Ms. LaTia Etheredge, Department of Pathology & Cell Biology, USF.
- Sep 2007 – July 2010: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Mr. William Kong, Department of Pathology & Cell Biology, USF.
- Sep 2007-July 2008: **Committee member**, M.S. Graduate Student Supervisory Committee for Ms. Courtney Hunt, Department of Pathology & Cell Biology, USF.
- Jan 2008 – 2012: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Mr. Michael Sweet, Department of Pathology & Cell Biology, USF.
- Jan 2008 – 2013: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Mr. Shaokun Shu, Department of Pathology & Cell Biology, USF.
- May 2008 – Oct 2009: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Ms. Reetu Singh, College of Engineering, USF.
- Jan 2008 – 2013: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Mr. Kenrick Semple, Department of Pathology & Cell Biology, USF.
- July 2008 – present: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Mr. Mandek Richardson, College of Engineering, USF.

- Sep 2009- Aug 2010: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Ms. Keri Kalmbach, Department of Pathology & Cell Biology, USF.
- Sep 2011-Dec 2013: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Ms. Kendra Williams, Department of Pathology & Cell Biology, USF.
- Sep 2011-2013: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Mr. Onursal Onen, College of Engineering, USF.
- Jan 2012-July 2104: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Ms. Angela Bennett-Poff, Department of Molecular Physiology & Pharmacology, USF.
- Jan 2012-present: **Committee member**, Ph.D. Graduate Student Supervisory Committee for Ms. Jessica Heinrichs, Department of Molecular Physiology & Pharmacology, USF.
- April 11, 2007: **External Examiner**, PhD Oral Defense Committee for Ms. Katherine Clark-Knowles, Department of Cellular & Molecular Biology, University of Ottawa, Ottawa, Canada
- January 2012: **External Examiner**, PhD Oral Defense Committee for Ms. Ip ka Man, University of Hong Kong, Hong Kong

Post-Doctoral training:

- Aug 2001-May 2002: Richard Cardosi, M.D., Department of Pathology and OBGYN, USF.
Employment following training: Private practice, Pensacola, FL.
- May 2002-July 2003: Michelle Y. Alfonso-De Matte, Ph.D., Department of Pathology, USF.
Employment following training: FBI.
- July 2002-June 2003: Brenda Shoup, M.D., Department of Pathology and OBGYN, USF.
Employment following training: Private practice, Kansas City, MI.
- July 2004- June 2005: Steve Tebes, M.D., Department of Pathology and OBGYN, USF.
Employment following training: OBGYN oncology fellow, USF, (Deceased, 2006).
- August 2012-present: Kimberly Dobrinski, Ph.D. Department of Pathology and Cell Biology, USF

Honors and Awards:

- 1985-1987: University of British Columbia MacMillan Family Fellowship awarded by the Faculty of Graduate Studies at the University of British Columbia.
- 1987-1988: University of British Columbia Graduate Fellowship awarded by the Faculty of Graduate Studies at the University of British Columbia.
- 1987-1991: Evelyn Martin Memorial Fellowship awarded by the British Columbia Foundation for Non-Animal Research.
- 1990: Student Travel Award awarded by the American Society of Cell Biology.
- 1990: Student Travel Award awarded by the University of British Columbia.
- 1990: Student Travel Bursary awarded by the American Association of Anatomists.
- 1992: Outstanding Dissertation Award awarded by the American Association of Anatomists.
- 1993: Upjohn Travel Award awarded by the Upjohn Company.
- 1996: National Institutes of Health Visiting Fellow Research Certificate.

Honors and Awards while at USF:

- 1997-present: H. Lee Moffitt Cancer Center & Research Institute, Membership in Residence, Molecular Biology.
- 1997, 1998: National Institutes of Health K-12 Teachers and High School Students Program Certificate.
- 1999-present: University of South Florida Institute of Aging, Membership.
- 1999-2002: University of South Florida Institute for Biomolecular Science, Membership.
- 1999-2000: University of South Florida, College of Medicine, Robert J. Grasso Award for outstanding dedication to graduate education.
- 2001: Regulation of Telomerase Activity in Ovarian Cancer (Patricia A. Kruk, Ph.D.) featured in US Department of Defense Congressionally Directed Medical Research Programs, Annual Report, 2001: VI-7.
- 2002: Regulation of Telomerase Activity in Ovarian Cancer (Patricia A. Kruk, Ph.D.) featured in US Department of Defense Congressionally Directed Medical Research Programs - Research Highlights (<http://cdmrp.army.mil/highlights/2002.htm#11>).
- 2003: Silencing Telomerase Activity in Ovarian Cancer (Patricia A. Kruk, Ph.D.) featured in US Department of Defense Congressionally Directed Medical Research Programs, Annual Report, 2003: VI-4-5.
- 2007: Ovarian Cancer Detection by Elevated Urinary Levels of Bcl-2 (Patricia A. Kruk, Ph.D.) featured in US Department of Defense Congressionally Directed Medical Research Programs – Research Highlights (<http://cdmrp.army.mil/highlights/default.htm#8>)
- 2007: Ovarian Cancer Detection by Elevated Urinary Levels of Bcl-2 cited for funding and innovative research by Dr. Beth Karlan on behalf of the Society of Gynecologic Oncologists before the US House Defense Appropriations Subcommittee. P. 7. (<http://www.sgo.org/policy/SGOMay2007Testimony.pdf>)
- 2007-2013: Member, Florida Center of Excellence for Biomolecular Identification and Targeted Therapeutics (FCoE-BITT)
- 2008: University of South Florida Women in Leadership and Philanthropy Faculty Research Award
- 2010: Innovator Award, National Academy of Inventors, Florida Chapter
- 2010-2011: Robert J. Grasso Award, University of South Florida.
- 2012-2013: Robert J. Grasso Award, University of South Florida.

Research Support:**1. Current Research Support:****Peer-reviewed external grants:**

Title: Urinary Angiostatin as Ovarian Cancer Biomarker

DOD OCRMP #W81XWH-09-3171

Ovarian Cancer New Idea Award

Nicosia SV – PI, **Kruk PA** – **Co-PI** (25% effort)

Objective: This project seeks to determine whether elevated levels of urinary angiostatin can serve as a biomarker for ovarian cancer.

Dates: 03/15/2010 – 03/14/2015 Amount: \$682,550

Title: Ovarian Cancer: A Team Approach Toward Identification of Novel Diagnostic and Therapeutic Targets

Ovarian Cancer Research Foundation Program Development Award

Nicosia, SV – PI, **Kruk PA**, W Bai – Co-PIs

Project 1. BRCA1 185del AG-Mediated Pre-Malignant Molecular Signature for Ovarian Cancer (PA Kruk, PI)

Objective: This interactive program project grant will explore molecular signatures conferred by a BRCA1 mutation that may identify early changes of malignant transformation (PA Kruk), the role of vitamin D in suppression of cancer invasiveness (W Bai) and that urinary excretion of a high-motility group protein may provide an economical means to detect this malignancy.

Dates: 01/01/2011-12/31/2014 Amount: \$900,000

2. Completed Research Projects:

Peer-reviewed external grants:

DNA Damage-Induced Telomerase Activity in Ovarian Cancer Cells

American Cancer Society Florida Division

Investigator Initiated Research Grant # F99USF-1

(Kruk: PI)

06/01/1999- 05/31/2000. Amount: \$25,000

Telomerase Regulation In Ovarian Cancer

US Department of Defense Ovarian Cancer Research Program

New Investigator Award #DAMD17-00-1-0565

(Kruk: PI)

07/01/2000-06/30/2003. Amount \$398,545

Role of PI3K/Akt in Ovarian Cancer

US Department of Defense Ovarian Cancer Research Program

New Investigator Award #DAMD17-00-0559

(Cheng PI/Kruk: Co-PI);

07/01/2000-06/30/2003. Amount: \$434,000.

The Anti-Apoptotic Role of Telomerase in Ovarian Cancer US Department of Defense Ovarian Cancer Research Program

Investigator Initiated Award Research Project #2: DAMD17-02-1-0670

(Kruk - PI)

07/01/02-06/30/07 Amount: \$456,900

Cell Growth and Survival in Ovarian Epithelial Cancer

US Department of Defense Ovarian Cancer Research Program

Ovarian Cancer Research Program Project Grant DAMD17-02-1-0670

(SV Nicosia – PI/ JQ Cheng, D Coppola, **PA Kruk - Co -PIs)**

07/01/02-06/30/07 Amount: \$1,789,800

Elevated Urinary Bcl-2 in Ovarian Cancer

Marsha Rivkin Center for Ovarian Cancer Research

Marsha Rivkin Center Pilot Study – USF acct no. 6145100200

Kruk – PI (5% effort)

Dates: 05/01/07-04/30/08. Amount: \$38,000

Title: *Detection of Ovarian Cancer by Urinary Levels of Bcl-2
 US Department of Defense Ovarian Cancer Research Program
 Investigator Initiated New Idea Award – USF acct no. 6145100100

Kruk - PI (50% effort)

Dates: 03/15/07-03/14/11. Amount: \$498,090

*5% program funding rate

Title: Multiple Biomarker Sensor for Early detection of Ovarian Cancer
 NSF

ECCS - Elect, photonics & device technology

USF account 2107103600/ Kruk subaccount USF 2107103601

Bhethanabotia, V – PI, Kruk PA – Co-PI (5% effort)

Dates: 10/20/2008-10/19/2010

Amount: Total grant amount to VB \$373,668/annual subaccount to PK \$15,460

Title: A novel, low cost, ultra-sensitive nanosensor for early detection of ovarian cancer

Florida Department of Health

Bankhead-Coley Research Program

Rasim Guldiken, PhD PI/ **Patricia Kruk, PhD, Co-PI**

Dates: 07/01/2010-06/30/2013 Amount: \$399,946

Peer-reviewed internal grants:

Telomeric Instability in Human Ovarian Surface Epithelial Cells

H. Lee Moffitt Cancer Center

New Investigator Award

(Kruk: PI).

08/01/1996-07/31/1999. Amount \$75,000

Nucleotide Excision repair in Human Ovarian Surface Epithelial Cells

University of South Florida

USF Research and Creative Scholarship

(Kruk – PI)

05/01/1998-04/30/1999. Amount: \$10,000.

Telomeric Instability in Hereditary Ovarian Cancer

American Cancer Society Institutional Program Grant at H. Lee Moffitt Cancer Center IRG #202

Investigator Initiated Award

(Kruk: PI)

07/01/1999- 06/30/2000. Amount \$15,000

Telomerase-Independent Mechanisms of Accelerated Telomeric Loss

NIH Institutional Program Grant through USF Institute on Aging Pilot Grant

New Investigator Award

(Kruk: PI)

07/01/1999-06/30/2000. Amount: \$7000.

Other:

DNA Repair in Human Ovarian Surface Epithelial Cells
 University of South Florida Research Support
 Department of Pathology Start-up Funds
(Kruk - PI)
 8/1/1996-7/31/2001. Amount: \$105,000

Peer-Reviewed Publications:

1. Enesco, H.E. and **P.A. Kruk**. Dietary Restriction Reduces Fluorescent Age Pigment Accumulation in Mice. *Exp. Gerontol.* 16:357-361, 1981.
2. **Kruk, P.A.** and H.E. Enesco. α -Tocopherol Reduces Age Pigment Levels in Heart and Brain of Young Mice. *Experientia* 37:1301-1302, 1981.
3. Auersperg, N., **P.A. Kruk**, I.A. MacLaren, F.M. Watt, and S.E. Mydral. Heterogeneous Expression of Keratin, Involucrin, and Extracellular Matrix Among Subpopulations of a Poorly Differentiated Human Cervical Carcinoma: Possible Relationships to Patterns of Invasion. *Cancer Res.* 49:3007-3014, 1989.
4. Reid, P.E., D.A. Owen, D.C. Walker, **P.A. Kruk**, and M.E. Maitland. Histochemical Classification Based Upon Reaction Types: Applications to Carbohydrate Histochemistry. *Histochem. J.* 22:299-308, 1990.
5. **Kruk, P.A.**, S.L. Maines-Bandiera, and N. Auersperg. A Simplified Method to Culture Human Ovarian Surface Epithelium. *Lab. Invest.* 63:132-136, 1990.
6. Auersperg, N., I.A. MacLaren, and **P.A. Kruk**. Ovarian Surface Epithelium: Autonomous Production of Connective Tissue-Type Extracellular Matrix. *Biol. Reprod.* 44:717-724, 1991.
7. **Kruk, P.A.** and N. Auersperg. Use of Percoll to Eliminate Mold Contaminants From Cell Cultures. *In Vitro Cell Dev. Biol.* 27A:273-276, 1991.
8. Maines-Bandiera, S.L., **P.A. Kruk**, and N. Auersperg. Simian Virus 40-Transformed Human Ovarian Surface Epithelial Cells Escape Normal Growth Controls but Retain Morphogenetic Responses to Extracellular Matrix. *Am. J. Obstet. Gynecol.* 167:729-735, 1992.
9. **Kruk, P.A.** and N. Auersperg. Human Ovarian Surface Epithelial Cells are Capable of Physically Restructuring Extracellular Matrix. *Am. J. Obstet. Gynecol.* 167:1437-1443, 1992.
10. **Kruk, P.A.** and N. Auersperg. A Line of Rat Ovarian Surface Epithelium (ROSE) Provides a Continuous Source of Complex Extracellular Matrix. *In Vitro Cell Dev. Biol.* 30A:217-225, 1994.
11. **Kruk, P.A.**, V.-J. Uitto, J.D. Firth, S. Dedhar, and N. Auersperg. Reciprocal Interactions Between Human Ovarian Surface Epithelial Cells and Adjacent Extracellular Matrix. *Exp. Cell Res.* 215:97-108, 1994.
12. Auersperg, N., S.L. Maines-Bandiera, H. Dyck, and **P.A. Kruk**. Characterization of Cultured Human Ovarian Surface Epithelial Cells: Epithelio-Mesenchymal Conversion and Neoplastic Transformation. *Lab. Invest.* 71:510-518, 1994.
13. Bohr, V.A., **P.A. Kruk**, D. Webb, J. Ji, and M.K. Evans. DNA Repair and Genomic Instability in Cancer and Aging. *Biomed. Gerontol.* 18:20-14, 1994.
14. **Kruk, P.A.**, N.J. Rampino, and V.A. Bohr. DNA Damage and Repair in Telomeres: Relation to Aging. *Proc. Natl. Acad. Sci. USA* 92:258-262, 1995.
15. **Kruk, P.A.**, A.S. Balajee, K.S. Rao, and V.A. Bohr. Telomere Reduction and Telomerase Inactivation during Neuronal Cell Differentiation. *Biochem. Biophys. Res. Comm.* 224:487-492, 1996.
16. **Kruk, P.A.**, D.K. Orren and V.A. Bohr. Telomerase Activity is Elevated in Early S Phase in Hamster Cells. *Biochem. Biophys. Res. Comm.* 233:717-722, 1997.
17. **Kruk P.A.** and V.A. Bohr. Telomeric Length in Individuals and Cell Lines with Altered p53 Status. *Radiat. Oncol. Invest.* 7:13-21, 1999.

18. **Kruk, P.A***, A.K. Godwin, T.C. Hamilton, and N. Auersperg. Telomeric Instability and Reduced Proliferative Potential in Ovarian Surface Epithelial Cells from Women with a Family History of Cancer. *Gynecol. Oncol.* 73:229-236, 1999.
19. Alfonso-De Matte M.Y., J.Q. Cheng, and **P.A. Kruk***. Ultraviolet Irradiation- and Dimethyl Sulfoxide-Induced Telomerase Activity in Ovarian Epithelial Cell Lines. *Exp. Cell Res.* 267:13-27, 2001.
20. Alfonso-De Matte M.Y., H. Moses-Soto and **P.A. Kruk***. Calcium Induces Telomerase Activity in Ovarian Epithelial Cell Lines. *Arch. Biochem. Biophys.* 399:239-244, 2002.
21. Johnson N.C. and **P.A. Kruk***. BRCA1 Zinc RING Finger Domain Disruption Alters Caspase Response in Ovarian Surface Epithelial Cells. *Cancer Cell Intl.* 2 (7):1-16, 2002.
22. Alfonso-De Matte M.Y., H. Yang, J.Q. Cheng, M.S. Evans and **P.A. Kruk***. C-Jun Kinase-Mediated Regulation of Telomerase in Ovarian Surface Epithelial Cells. *Cancer Res.* 62:4575-4578, 2002.
23. Nicosia S.V., G.W. Wilbanks, B. Saunders, J. Mayer, R. Cardosi, **P.A. Kruk**, J.Q. Cheng, W. Bai, D. Coppola, J.V. Fiorica. Cytology of human ovarian surface epithelial brushings. *Cancer Cytopathol.* 102:1-10, 2004.
24. Alfonso-De Matte M.A., **P.A. Kruk***. Phosphatidylinositol-triphosphate kinase- and c-jun N-terminal kinase-dependent induction of telomerase by calcium requires pyk2. *Cancer Research* 64:23-26, 2004.
25. Yang H., C.C. Ou, R.I. Feldman, S.V. Nicosia, **P.A. Kruk**, J.Q. Cheng. Aurora-A kinase regulates telomerase activity through c-Myc in human ovarian and breast epithelial cells. *Cancer Res.* 64:463-467, 2004.
26. Johnson N.C., H.C. Dan, J.Q. Cheng, **P.A. Kruk***. Loss of XIAP in BRCA1 185delAG human ovarian surface epithelial cells results in aberrant active caspase 3 ubiquitination. *Exp. Cell Res.* 298:9-16, 2004.
27. Shoup B.L., N.E. Lowell, **P.A. Kruk***. Inhibition of telomerase improves chemosensitivity in cisplatin resistant ovarian cancer cells. *Cancer Therapy* 2: 501-510, 2004.
28. Tebes S, **Kruk PA***. The Genesis of RNA Interference, Its Potential Clinical Applications, and Implications in Gynecologic Cancer. *Gynecol. Oncol.* 99:736-741, 2005.
29. Bermudez Y, Erasso D, Johnson NC, Alfonso MY, Lowell NE, **Kruk PA***. Telomerase Confers Resistance to Caspase-Mediated Apoptosis. *Clin. Intervent. Aging.* 1:155-167, 2006.
30. Yang H., He L., **Kruk P.**, Nicosia S.V., Cheng J.Q. Aurora-A induces cell survival and chemoresistance by activation of Akt through a p53-dependent manner in ovarian cancer cells. *Intl. J. Cancer.* 119:2304-2312, 2006.
31. Bermudez Y, Ahmadi S, Lowell NE, **Kruk PA***. Vitamin E suppresses telomerase activity in ovarian cancer cells. *Cancer Detect. Prevent.* 31:119-128, 2007.
32. Bermudez Y, Yang H, Saunders BO, Cheng JQ, Nicosia SV, **Kruk PA***. VEGF- and LPA-induced telomerase activity in human ovarian cancer cells is Sp1-dependent. *Gynecol. Oncol.* 106:526-537, 2007.
33. Yang H, Kong W, He L, Zhao J-J, O'Donnell JD, Wang J, Wenham RM, Coppola D, **Kruk PA**, Nicosia SV, Cheng JQ. MicroRNA expression profiling in human ovarian cancer: *miRNA-214* induces cell survival and cisplatin resistance by targeting PTEN. *Cancer Res.* 68:424-433, 2008.
34. Bermudez Y, Yang H, Cheng JQ, **Kruk PA***. Pyk2/ERK1/2 mediate Sp1- and c-Myc-dependent induction of telomerase activity by epidermal growth factor. *Growth Factors* 26:1-11, 2008.
35. O'Donnell JD, Johnson NC, Turbeville TD, Alfonso MY, **Kruk PA***. BRCA1 185delAG truncation protein, BRAt, amplifies caspase-mediated apoptosis in ovarian cancer cells. *In Vitro Cell Dev. Biol.* 44:357-67, 2008.
36. Anderson NC, Bermudez Y, Badgwell D, Chen R, Nicosia SV, Bast RC, **Kruk PA***. Urinary levels of Bcl-2 are elevated in ovarian cancer patients. *Gynecol Oncol* 11:60-7, 2009.

37. Zhang Y, Zhang M, Dong H, Yong S, Li X, Olashaw N, **Kruk PA**, Cheng JQ, Bai W, Chen J, Nicosia SV, Zhang X. Deacetylation of cortactin by Sirt1 promotes cell migration. *Oncogene* 28:445-69, 2009.
38. Walker RF, Pakula LC, Sutcliffe MJ, **Kruk PA**, Graakjaer J, Shay JW. A case study of disorganized development and its possible relevance to genetic determinants of aging. *Mech. Ageing Develop.* 130:350-356, 2009.
39. Guo J, Shu S-K, He L, Lee Y-C, **Kruk PA**, Grenman S, Nicosia SV, Coppola D, Cheng JQ. Deregulation of the IKBK oncogene is associated with tumor progression, poor prognosis and cisplatin resistance in ovarian cancer. *Amer. J. Pathol.* 175:324-33, 2009.
40. Drenberg C, Livingston S, Chen R, **Kruk PA**, Nicosia SV. Expression of Semaphorin 3F and its receptors in epithelial ovarian cancer, fallopian tubes, and secondary Mullerian tissues. *Obstet. Gynecol. Intl.* doi:10.1155/2009/730739, 2009.
41. Anderson NS, Turner L, Livingston S, Chen R, Nicosia SV, **Kruk PA***. Bcl-2 expression is altered with ovarian tumor progression: an immunohistochemical evaluation. *J. Ovarian Research.* 2:16 (1-11), 2009.
42. O'Donnell JD, Linger RJ, **Kruk PA***. BRCA1 del185AG mutant protein, BRAt, up-regulates maspin expression in ovarian epithelial cells. *Gynecol. Oncol.* 116:262-268, 2010.
43. Drenberg CD, Saunders BO, Wilbanks GD, Chen R, Nicosia RF, **Kruk PA**, Nicosia SV. Urinary angiostatin levels are elevated in patients with epithelial ovarian cancer. *Gynecol. Oncol. Gynecol Oncol.* 117:117-24, 2010.
44. Linger RJ, **Kruk PA***. BRCA1 16 years later: Risk-associated BRCA1 mutations and their functional implications. *FEBS J. (Invited Peer-reviewed Review)* 227:3086-3096, 2010.
45. Woolery KT, **Kruk PA**. Ovarian Epithelial-Stromal Interactions: Role of Interleukins 1 and 6. *Obstet. Gynecol. Intl.* doi:10.1155/2011/358493, 2011.
46. Onursal O, Sisman A, Gilbert N, **Kruk P**, Guldiken R. Urinary Bcl-2 surface acoustic wave biosensor for early ovarian cancer detection. *Sensors.* 12: 2012. Doi:10.3390/s120x0000x.
47. Xu C-X, Tan L, Yang H, Permut-Wey J, **Kruk PA**, Wenham RM, Nicosia SV, Lancaster JM, Sellers TA, Cheng JQ. Mir-214 regulates ovarian cancer cell stemness by targeting p53/Nanog. 2012. *JBC.* 287:34970-8, 2012. doi: 10.1074/jbc.M112.374611. Epub 2012 Aug 27.
48. Shen Z, Ravi K, Jinwal U, Nicosia SV, **Kruk P**, Xiaohang Z, Bai W. 1,25-dihydroxyvitamin D3 suppresses telomerase expression and human cancer cell survival through miR-498. 2012 *JBC.* 287:41297-309, 2012. Doi: 10.1074/jbc.M112.407189. Epub 2012 Oct 10.
49. Dobrinski K, Esposito NN, **Kruk, PA**, Wenham R, Hoffman M, Coppola D, Bai W, Zhang X, Siddique N, Nicosia SV. Procurement and cytological feature of human fallopian tube fimbrial cells by ex vivo imprinting and washing. *J. Am. Soc. Cytopathol.* 3:309-318, 2014.
50. Woolery KT, Hoffman MS, Kraft J, Nicosia SV, Kumar A, **Kruk PA***. Urinary Interleukin-1 β Levels Among Gynecological Patients. *J. Ovarian Res.* In press 2014.

*denotes corresponding author

Manuscripts in preparation/submitted:

51. Woolery KT, Linger RJ, Roman J, **Kruk PA**. BRCA1 185delAG mutation enhances Interleukin-1 β expression in ovarian surface epithelial cells. *Cytokine.* (under review)
52. Linger RJ, Johnson NC, Brinckerhoff CE, Sutphen R, Woolery KT, Li X, Monteiro AN, Nicosia SV, **Kruk PA**. The 186delAG BRCA1 mutation enhances MMP1 expression in ovarian surface epithelial cells. (under review).

53. Johnson NC, Anderson N, Johnson CL, Melendez ND, Bermudez Y, Saunders BO, Nicosia SV, **Kruk PA**. Detection of Bcl-2 in Urine and Imidazole-Treated Plasma for Ovarian Cancer. In preparation.
54. Richardson M, Bhethanabotla V, **Kruk PA**. Nanosensors in ovarian cancer. In preparation.
55. Drenberg CD, Clarhaut J, Roche J, Dobrinski KP, Klagsbrun M, Bermudez Y, Nicosia SV, **Kruk PA**. Semaphorin 3F Dysfunction Induces Telomerase Activity in Epithelial Ovarian Cancer Cells. In preparation.

Book Chapters:

1. Auersperg, N., S.L. Maines-Bandiera, and **P.A. Kruk**. Human Ovarian Surface Epithelium: Growth Patterns and Differentiation *In: F. Sharp, P. Manson, T. Blackett, and J. Berek (eds.), Ovarian Cancer (Vol 3), pp157-169, Chapman and Hall, London, 1995.*
2. Nicosia SV, W Bai, JQ Cheng, D Coppola, **PA Kruk**. Oncogenic Pathways Implicated in Ovarian Epithelial Cancer. *Hematol. Oncol. Clinics North Amer.* 17:927-943 2003.
3. **Kruk P.A.** Oogenesis and Its Regulation. *In: L. Wecker (ed.), Xpharm.com, Elsevier Science Inc. 2004.*
4. **Kruk P.A.** Structure and Function of the Female Reproductive System. *In: L. Wecker (ed.), Xpharm.com, Elsevier Science Inc. 2004.*

Patents:

1. Detection of Ovarian Cancer by Elevated Urinary Levels of Bcl-2
Patent serial number 60/771,677 filed February 9, 2007-2008, **patent granted** October 2011 US patent #: 8,034,549.
Status: Currently under licensing negotiations with Impact Medical Strategies
USF Ref. No. 05B108PR (Kruk, PA: PI)
2. Urinary Bcl-2 Surface Acoustic Wave Detection Sensor
Status: Provisional patent filed May 29, 2012
USF Docket No: 292103-8680 (Guldiken, R: PI; Kruk, PA: Co-PI; Onursal Onen: Co-PI)
3. Systems and Methods for Detecting Biological Molecules
Status: Provisional patent filed May 30, 2012 Serial No. 61/653,217.
USF Docket No: 292103-8681 (Guldiken, R: PI; Kruk, PA: Co-PI; Onursal Onen: Co-PI)

Scientific Abstracts/Poster Presentations:

1. Auersperg, N., **P.A. Kruk** and I.A. MacLaren. Keratin and Involucrin in Human Cervical Carcinoma Cell Lines: Possible Relationships to Patterns of Invasion. *In Vitro Cell Dev. Biol.* 24:21A, 1988.
2. **Kruk, P.A.** and N. Auersperg. Rat Ovarian Surface Epithelium (ROSE)-Derived Extracellular Matrix: Characterization and Biological Activity. *J. Cell Biol.* 109:15A, 1989.
3. **Kruk, P.A.**, N. Auersperg and S.L. Maines-Bandiera. Human Ovarian Surface Epithelium in Tissue Culture. *Anat. Rec.* 226:54A, 1990.
4. **Kruk, P.A.** and N. Auersperg. Human Ovarian Surface Epithelium on Various Culture Substrata. *Proc. 6th Intl. Conf. Different. Normal Neopl. Cells.* 1990.
5. **Kruk, P.A.** and V.A. Bohr. DNA Damage and Repair in Telomeres. *Proc. Am. Assoc. Cancer Res.* 34:3, 1993.

6. **Kruk, P.A.**, N.J. Rampino and V.A. Bohr. DNA Damage and Repair in Human Telomeres. *Mol. Biol. Cell* 4:190a, 1994 (suppl).
7. **Kruk, P.A.** and V.A. Bohr. DNA Damage and Repair in Human Telomeres. *Cancer Res.* 36:533, 1995.
8. N. Lowell, A.K. Powers and **P.A. Kruk**. DNA Repair in Ovarian Surface Epithelial Cells. *Proc. Am. Assoc. Cancer Res.* 39:56, 1998.
9. Alfonso-De Matte M.Y. and **P.A. Kruk**. Ultraviolet Irradiation Induces Telomerase Activity in an Ovarian Carcinoma Cell Line. *USF Health Sciences Research Days*, 1999.
10. Alfonso-De Matte M.Y. and **P.A. Kruk**. Ultraviolet Irradiation Induces Telomerase Activity in an Ovarian Cancer Cell Line and in Normal Ovarian Surface Epithelial Cell Lines. *Ovarian Cancer Forum*, 1999.
11. Alfonso-De Matte M.Y. and **P.A. Kruk**. A Novel Model for Telomerase Regulation. *Third Annual Aging Research Day, USF*, 1999.
12. Alfonso-De Matte M.Y. and **P.A. Kruk**. A Novel Model for Telomerase Regulation in an Ovarian Cancer Cell Line. *USF Health Sciences Research Days*, 2000.
13. Alfonso-De Matte M.Y. and **P.A. Kruk**. Regulation of Telomerase Activity in Ovarian Cancer. *Proc. Am. Assoc. Cancer Res.* 41:534, 2000.
14. Alfonso-De Matte M.Y. and **P.A. Kruk**. Calcium Induces Telomerase Activity. *USF Health Research Days*, 2001.
15. Johnson N.C. and **P.A. Kruk**. Caspase-Induced Apoptosis of BRCA1 Mutated Human Immortalized Ovarian Surface Epithelial Cell Lines. *USF Health Sciences Research Days*, 2001.
16. Johnson N.C. and **P.A. Kruk**. BRCA1 Zinc RING Finger Domain Disruption Alters Caspase Response in Ovarian Surface Epithelial Cells. *USF Health Sciences Research Days*, 2002.
17. H. Yang, X.M. Sui, L. Yang, **P.A. Kruk**, S.V. Nicosia and J.Q. Cheng. Serine/Threonine Kinase BTAK Induces Telomerase Activity through Upregulation of hTERT Transcription in Human Epithelial Cells. *USF Health Sciences Research Days*, 2002.
18. Alfonso-DeMatte M.Y. and **P.A. Kruk**. Calcium Induces Telomerase Activity. *Proc. Am. Assoc. Cancer Res.*, 43:303, 2002.
19. Wilbanks G.W., B. Saunders, **P.A. Kruk**, A. Kantor, J. Fiorica, E. Grendys, M. Hoffman, S. Antoneck, J. Cheng, W. Bai, R.F. Nicosia, and S.V. Nicosia. Plasma and urinary levels of angioregulators in ovarian epithelial cancer. *4th Biennial Ovarian Cancer Research Symposium*. 2002.
20. Evans M.S. and **P.A. Kruk**. Regulation of survivin in ovarian epithelial cells via mitogen-activated protein kinase signaling cascade. *USF Health Sciences Research Days*, 2003.
21. Yang H., C.O. Chen, **P.A. Kruk**, S.V. Nicosia, J.Q. Cheng. Aurora-A/BTAK activates telomerase by regulation of hTERT transcription through c-Myc binding sites in ovarian and breast epithelial cells. *USF Health Sciences Research Days*, 2003.
22. Johnson N.C. and **P.A. Kruk**. BRCA1 185del AG mutation in ovarian surface epithelium results in aberrant caspase 3 regulation. *USF Health Sciences Research Days*, 2003.
23. Wilbanks G.D., B. Saunders, **P. Kruk**, A. Kantor, J. Fiorica, E. Grendys, M. Hoffman, S. Antonek, J. Cheng, W. Bai, D. Coppola, R.F. Nicosia, S.V. Nicosia. Angioregulators as markers in ovarian epithelial cancer. *USF Health Sciences Research Days*, 2003.
24. Johnson NC and **PA Kruk**. Loss of caspase 3 inhibition in BRCA1 185delAG human ovarian surface epithelial cells. *Proc. Am. Assoc. Cancer Res.* 44:415, 2003.
25. Bermudez Y., M.M. Aquino, B.O. Saunders, D. Coppola, S.V. Nicosia, **P.A. Kruk**. Growth factors enhance telomerase activity in human ovarian cancer cell lines. *USF Health Sciences Research Days*, 2004.
26. Johnson, N.C., T.D. Turbeville, **P.A. Kruk**. BRCA1 185delAG truncation protein, BRAt, amplifies caspase 3-mediated apoptosis. *USF Health Sciences Research Days*, 2004.

27. Johnson C., N.C. Johnson, N.E. Lowell, N.D. Melendez, B.O. Saunders, G.D. Wilbanks, S.V. Nicosia, **P.A. Kruk**. Detection of Bcl-2 and survivin in Urine and Imidazole-treated plasma for ovarian disease. USF Health Sciences Research Days, 2004.
28. O'Donnell J., M.Y. Alfonso-De Matte, **P.A. Kruk**. Acetylsalicylic acid treatment leads to JNK and MAPK dependent apoptosis in ovarian cancer cell lines. USF Health Sciences Research Days, 2004.
29. Bermudez Y., M.M. Aquino, B.O. Saunders, D. Coppola, S.V. Nicosia, **P.A. Kruk**. Cytokines modulated telomerase activity in human ovarian cancer cell lines. Proc. Am. Assoc. Cancer Res. 45:983, 2004.
30. Johnson N.C., C.L. Johnson, N.D. Melendez, B.O. Saunders, G.D. Wilbanks, S.V. Nicosia, **P.A. Kruk**. Screening plasma and urine from women with ovarian disease for Bcl-2, survivin and telomerase. Proc. Am. Assoc. Cancer Res. 45:1339, 2004.
31. Johnson N.C., H.C. Dan, J.Q. Cheng, **P.A. Kruk**. BRCA1 185delAG mutation inhibits caspase 3 activation via IAP family of proteins in human ovarian surface epithelial cells. Proc. Am. Assoc. Cancer Res. 45:4122, 2004.
32. O'Donnell J.D., M.Y. Alfonso-De Matte, **P.A. Kruk**. Aspirin-induced apoptosis is dependent on JNK and MAPK activation in ovarian cancer cell lines. Proc. Am. Assoc. Cancer Res. 45:4357, 2004.
33. Wilbanks, G.D., B.O. Saunders, **P.A. Kruk**, A. Cantor, J. Fiorica, M. Hoffman, S. Antonek, J. Cheng, W. Bai, D. Coppola, R.F. Nicosia, S.V. Nicosia. Angiostatin and other angioregulators as markers of ovarian epithelial cancer. Proc. Am. Assoc. Cancer Res. 45:4456, 2004.
34. O'Donnell, J.D., N.C. Johnson, T. D. Turbeville, **P.A. Kruk**. BRCA1 185delAG truncation protein (BRAt) sensitizes drug-resistant ovarian cancer cells to chemotherapeutic treatment. USF Health Sciences Research Days, 2005.
35. Bermudez, Y, H. Yang, B.O. Saunders, J.Q. Cheng, S.V. Nicosia, **P.A. Kruk**. EGF-mediated telomerase activity in human ovarian cancer cell lines. USF Health Sciences Research Days, 2005.
36. He, L, Y. Hua, **P. Kruk**, S.V. Nicosia, J.Q. Cheng. Epigenetic Inactivation of CHFR and its Downregulation of Aurora-A in Ovarian Cancer. USF Health Sciences Research Days, 2005.
37. Yang, H., **P. Kruk**, M. Sun, S.V. Nicosia, J.Q. Cheng. PI3K/AKT2 mediates HER-2/neu-induced telomerase activation through NFκB pathway. USF Health Sciences Research Days, 2005.
38. Tebes SJ and **PA Kruk**. Telomerase silencing in ovarian cancer using siRNA technology. USF Health Sciences Research Days, 2005.
39. Tebes SJ, Johnson NC, Fiorica JV, **Kruk PA**. Inhibition of telomerase in Ovarian Cancer using siRNA Technology. J. Clin. Oncol. 2005 ASCO Annual Proc. 23 (16S):3182, 2005.
40. H. Yang, **P A. Kruk**, M. Sun, S.V. Nicosia, J.Q. Cheng. PI3K/AKT2 mediates HER-2/neu-induced telomerase activity through NFB pathway. Proc. Am. Assoc. Cancer Res. 46:1014, 2005.
41. Erraso D, Bermudez Y, **Kruk PA**. Telomerase Suppresses Caspase-Mediated Apoptosis in Human Ovarian Surface Epithelial Cells. 3rd Annual University of South Florida UR USF Undergraduate Research Symposium and Celebration, 2005.
42. Bermudez Y, Yang H, Rojiani MV, Saunders BO, Cheng JQ, Nicosia SV, **Kruk PA**. LPA-mediated telomerase activity is VEGF-dependent. USF Health Sciences Research Days, 2006.
43. Ahmadi S, Bermudez Y, Lowell NE, **Kruk PA**. Vitamin E suppresses telomerase activity in human ovarian cancer. USF Health Sciences Research Days, 2006.
44. Wang Q, **Kruk PA**, Nicosia SV, Cheng JQ. Prosurvival function and up-regulation of Twist in human ovarian cancer. USF Health Sciences Research Days, 2006.

45. Yang H, He L, Nicosia SV, **Kruk PA**, Cheng JQ. Identification of NALP1 as a tumor suppressor, negatively regulated by Akt. USF Health Sciences Research Days, 2006.
46. **Kruk PA**, Bermudez Y, Saunders BO, Wilbanks GD, Cantor A, Nicosia SV. Detection of ovarian cancer by elevated urinary levels of Bcl-2. Proc. Am. Assoc. Cancer Res. 47: 572-573, 2006.
47. O'Donnell JD, Johnson NC, Turbeville TD, **Kruk PA**. BRCA1 185delAG truncation protein (BRAt) sensitizes chemo-resistant ovarian carcinoma cells to apoptosis using a hTERT promoter-BRAt plasmid construct. Proc. Am. Assoc. Cancer Res. 47:584-585, 2006.
48. Bermudez Y, Yang H, Saunders BO, Cheng JQ, Nicosia SV, **Kruk PA**. Lysophosphatidic acid/vascular endothelial growth factor autocrine loop regulates ovarian cancer telomerase. Proc. Am. Assoc. Cancer Res. 47:1173, 2006.
49. Ahmadi S, Bermudez Y, Lowell NE, **Kruk PA**. Vitamin E suppresses telomerase Activity in Human Ovarian Cancer. 4th Annual University of South Florida UR USF Undergraduate Research Symposium and Celebration, 2006.
50. O'Donnell JD, Alvarado DM, Johnson NC, **Kruk PA** Brat induced maspin expression in human ovarian surface epithelial cells. USF Health Sciences Research Days, 2007.
51. Alvarado D, O'Donnell JD, **Kruk PA**. The BRCA1 186delAG mutation increased maspin expression in human ovarian surface epithelial cells. 5th Annual University of South Florida UR USF Undergraduate Research Symposium and Celebration, 2007.
52. Z Shen, Jinwal U, Nicosia SV, **Kruk P**, Zhang X, Bai W. Regulation of hTERT mRNA expression by 1,25-dihydroxyvitamin D3 through microRNA-498 in ovarian cancer cells. USF Health Sciences Research Days, 2008.
53. Zhang Y, Yong S, Li X, Zhnag M, Chen J, **Kruk P**, Cheng JQ, Bai W, Nicosia S, Zhang Z. Deacetylation of cortactin by SIRT1 promotes ovarian and breast cancer cell migration. USF Health Sciences Research Days, 2008.
54. Drenberg C, Bermudez Y, Livingston S, Nicosia SV, **Kruk PA**. Semaphorin 3F suppresses telomerase activity. USF Health Sciences Research Days, 2008.
55. Anderson N, Bermudez Y, Badgwell D, Chen R, Bast RC, **Kruk PA**. Bcl-2 as a novel marker for ovarian cancer. USF Health Sciences Research Days, 2008.
56. Drenberg C, Livingston S, Chen R, **Kruk PA**, Nicosia SV. Expression of semaphorin 3F and its receptors change with epithelial ovarian cancer progression. USF Health Research Day, 2009.
57. Kong W, He L, Zhao J-J, Coppola D, Yang H, **Kruk P**, Nicosia SV, Cheng JQ. MicroRNA-214, a direct target of TGFb, promotes EMT and Breast Cancer Metastasis by inhibition of E-cadherin. USF Health Research Day, 2009.
58. Anderson N, Turner L, Livingston S, Chen R, Nicosia SV, **Kruk PA**. Immunohistochemical expression of Bcl-2 with ovarian tumor progression. USF Health Research Day, 2009.
59. Linger R, O'Donnell J, **Kruk P**. A novel role for the BRCA1 mutant protein BRAT in ovarian cancer pathology. USF Health Research Day, 2009.
60. Anderson N, **Kruk PA**. Bcl-2 as a potential Modulator of angiogenesis. USF Health Research Day, 2010.
61. Drenberg CD, Saunders B, Wilbanks G, **Kruk P**, Nicosia S. Urinary angiostatin is elevated in patients with epithelial ovarian cancer. USF Health Research Day, 2010.
62. Linger R, **Kruk PA**. The 186delAG mutant protein, BRAT, enhances MMP-1 expression in ovarian surface epithelial cells. USF Health Research Day, 2010.
63. Esposito NN, **Kruk PA**, Shutter J, Nicosia SV. Intraoperative cytology of fallopian tube. Annual proceedings in the United States and Canadian Academy of Pathology, March, 2010.
64. Anderson N, Rojiani M, **Kruk PA**. Lysophosphatidic acid upregulates Bcl-2 production and secretion in ovarian cancer cells. Proc. Am. Assoc. Cancer Res. Abstrat # 1037, 2010.
65. Linger RJ, **Kruk PA**. A novel role for the 185delAG BRCA1 mutant protein, BRAT, in ovarian cancer pathology. Proc. Am. Assoc. Cancer Res. Abst#1852, 2010.

66. Drenberg CD, Bermudez Y, Nicosia SV, **Kruk PA**. Semaphorin 3F suppresses telomerase activity. Proc. Am. Assoc. Cancer Res. Abst #3208, 2010.
67. Woolery K, Linger RJ, **Kruk PA**. The 185delAG BRCA1 mutant protein, BRAT, increases interleukin-1 β expression in ovarian epithelial cells. USF Health Research Day, 2011.
68. Woolery KT, Linger RJ, **Kruk PA**. A novel role for the 185delAG mutant protein, BRAT, in ovarian cancer pathology. Proc. Am. Assoc. Cancer Res. Abstract #2030 AACR, 2011.
69. Esposito NN, **Kruk, PA**, Hoffman M, Glazerman LR, Nicosia SV. Intraoperative harvesting of human fallopian tubes for cytodiagnostic and pathobiological studies. Proc. Am. Assoc. Cancer Res. Abstract #2224 AACR, 2011.
70. **Kruk PA**, Hoffman M, Glazerman LR, Bast RC, Urban N, Nicosia SV. HMGA2 as urinary biomarker for high grade serous carcinoma. Intl Conference on Ovarian Cancer Screening 2011.
71. Henderson E, **Kruk PA**, Bui M, Nicosia SV. Expression of high motility group A2 protein in malignant ascites from epithelial ovarian cancer. Amer. Soc. Cytopathol. 2012.
72. Wells N, Dobrinski K, Nicosia S, **Kruk P**. Roles of IL-10 and I-309 cytokines in reproductive cancers. USF Health Research Day, 2014.

Invited Seminars/ Plenary Presentations:

- March 10, 1999: Department of Biochemistry, University of South Florida, Tampa, FL. *DNA Damage and Repair in Human Ovarian Cancer*.
- April 6, 2000: Department of Obstetrics and Gynaecology, British Columbia Women's Hospital, Vancouver, British Columbia, Canada. *Telomeric Instability in Ovarian Cancer*.
- April 26, 2001: H. Lee Moffitt Cancer Center, Tampa FL. *Telomeric Instability and Telomerase Activity in Ovarian Cancer*.
- May 17, 2001: Department of Anatomy, University of South Florida, Tampa, FL. *Telomerase Activity in Ovarian Cancer*.
- May 16, 2002: H. Lee Moffitt Cancer Center, Tampa FL. *Telomerase Activity in Ovarian Cancer*.
- May 30, 2003: University of British Columbia, Vancouver, Canada. Keynote speaker for UBC Research Symposium 2003. *Telomerase in Ovarian Cancer: Friend or Foe?*
- June 24, 2003: Fox Chase Cancer Center, Philadelphia, PA. *Telomerase in Ovarian Cancer*.
- Mar 26, 2004: Department of Pathology, University of South Florida, Internal Steering Committee and External Scientific Advisory Board Meeting, DOD Program Project, Tampa, FL. *The Anti-Apoptotic Role of Telomerase in Ovarian Cancer*.
- June 5, 2004: University of South Florida and the Florida Society of Pathologists, 20th Cancer Conference and Slide Seminar, LongBoat Key, FL. *Telomerase in Ovarian Cancer*.
- Feb 17, 2006: Biomedical Engineering Seminar Series, University of South Florida, Tampa, FL. *Analysis of Biomarkers in Ovarian Cancer*.
- Sept 8, 2006: 6th Biennial Ovarian Cancer Research Symposium, Seattle, WA. *Detection of Ovarian Cancer by Elevated Urinary Levels of Bcl-2*.
- April 11, 2007: Department of Cellular and Molecular Medicine, University of Ottawa, Ottawa, Can. *Telomerase Regulation in Ovarian Cancer*.
- Sept 15, 2007: Auersperg Ovarian Cancer Symposium, University of British Columbia, Vancouver, Canada. *Role of Telomerase in Ovarian Cancer*.

- May 2, 2008: Plenary Speaker for 2nd Annual Ovarian Cancer Research Symposium, Medical University of South Carolina Hollings Cancer Center, Charleston, SC. *Telomerase and Ovarian Cancer.*
- Sept 4, 2008: 7th Biennial Ovarian Cancer Research Symposium, Seattle, WA. *Detection of Ovarian Cancer by Elevated Urinary Levels of Bcl-2.*
- Oct 28, 2010: 8th Biennial Ovarian Cancer Research Symposium, Seattle, WA. *Lypophosphatidic Acid-Dependent Bcl-2 Production and Secretion Modulates Angiogenesis.*
- Dec 1, 2010: USF Department of Molecular Medicine, Graduate Student Seminar GMS 7939, Work-in-progress seminar series. *Ovarian Cancer: Early Changes.*
- Jan 19, 2011: Departments of Oncology and Obstetrics/Gynecology, University of Alberta, Edmonton, Canada. *Ovarian Cancer: Identifying early events.*
- Sept 6, 2012: 9th Biennial Ovarian Cancer Research Symposium, Seattle, WA. *Up-regulated Bcl-2 production and secretion by ovarian cancer cells modulates the tumor microenvironment.*

Service Experience:

1. Service on USF and College of Medicine committees:

- Sep 1997-July 2003: **Member**, USF College of Medicine Student Selection Committee.
- Jun 1999-May 2000,
Jun 2012-present: **Faculty Advisor**: Association of Medical Sciences Graduate Students.
- Feb 2000-present: **Judging Committee Member**: USF Health Sciences Research Day.
- Aug 2002-present: **Member**, Committee on Graduate Medical Sciences Education and Graduate Affairs, USF, USF.
- Aug 2003-May 2006: **Secretary**, Committee on Graduate Medical Sciences Education and Graduate Affairs, USF.
- Sep 2003-Aug 2006: **Member**, USF College of Medicine Promotion and Tenure Committee.
- Sep 2004-2006: **Member**, Ad Hoc Research Advisory Committee to the Dean, USF
- Jan 2005-Jun 2005: **Member**, Ad Hoc MD/PhD Program Development, USF
- June 2006-Dec 2009: **Chair**, Committee on Graduate Medical Sciences Education and Graduate Affairs, USF, USF.
- Mar 2006: **Chair**, Internal Search Committee for Interim Dean of Graduate and Postdoctoral Affairs.
- June 2006 –2007: **Member**, Search Committee for the Thelma and Maurice Rothman Chair in Developmental Pediatrics, Department of Pediatrics.
- Sep 2006-May 2010: **Senator**, USF Faculty Senate
- April 2007-Aug 2007: **Member**, National Search Committee for Dean of Graduate and Postdoctoral Affairs.
- April 2007: **Chair**, USF University Discipline Reporting Committee for Distinguished University Professor Award (Santo V. Nicosia, MD, applicant)
- Nov 2007, 2009, 2010: **Scientific Reviewer**, USF Florida Center of Excellence for Biomolecular Identification and Targeted Therapeutics (FCoE-BITT) pilot grants
- May 2008-Sept 2008: **Member**, USF Provost Faculty Roles, Responsibilities and Rewards Taskforce.
- June 2009: **Judge**, 2009 Summer Research Institute Symposium, University of South Florida.
- June 2011 **Chair**, Search committee for faculty position in Pathology & Cell Biology, USF

Jun 2012-May 2014 **Faculty Advisor:** Association of Medical Sciences Graduate Students
 Sep 2012-present: **Member,** USF Morsani College of Medicine Financial Oversight Committee
 Oct 2012-Sept 2015: **Member,** USF College of Medicine Promotion and Tenure Committee.
 Oct 2013-present: **Chair,** USF College of Medicine Promotion and Tenure Committee.

2. Service on Departments of Pathology & Cell Biology/Obstetrics & Gynecology committees:

Sep 1996-present: **Department of Pathology Supervisor,** for IRB programs USF #4739, 5740 and 6391.
 Aug 2002-present: **Graduate Student Director,** Department of Pathology, USF.
 May 2006-present: **Member,** Department of Pathology and Cell Biology Search Committee
 Aug 2006-present: **Member,** Department of Pathology & Cell Biology, APT Committee
 Aug 2006-present: **Member,** Department of Pathology & Cell Biology, Space Committee
 Feb 2008-present: **Member,** Department of Pathology & Cell Biology, Executive Committee
 Sep 2012-present: **Chair,** Department of Pathology & Cell Biology, APT Committee
 Oct 2012-present: **Member,** Department of Obstetrics & Gynecology, SRC Committee

3. External Professional Service:

1997-present: **Journal Reviewer:** Cancer, Cancer Research, Clinical Cancer Research, Experimental Cell Research, Gynecologic Oncology, Gynecologic and Obstetric Investigation, Oncogene, Molecular Cancer Research, Molecular Cancer Therapeutics, Molecular Pharmacology, Reproductive Biology and Endocrinology.
 2004-present: **Scientific Reviewer:** US Army DOD Ovarian Cancer Research Program, New Investigator/New Idea Award Scientific Grant Panel Reviewer
 2009: **Scientific Reviewer:** US Army DOD Ovarian Cancer Research Program, Ovarian Cancer Academy Scientific Grant Panel Reviewer
 2007-present: **Scientific Reviewer:** US Army DOD Ovarian Cancer Research Program, Career Development Program Grant Panel Reviewer
 2009: **Scientific Reviewer:** US Army DOD Ovarian Cancer Research Program, Ovarian Cancer Consortium Development Program Grant Panel Reviewer
 2009: **Scientific Reviewer:** US Army DOD Ovarian Cancer Research Program, Ovarian Cancer Academy Dean Grant Panel Reviewer
 2009: **Collaborator:** USC/Norris Comprehensive Cancer Center: Applying Novel Technologies and Biological Knowledge to the Detection, Diagnosis, and Clinical Management of Early Epithelial Ovarian Cancer. Supported by DOD Ovarian Cancer Consortium Development Grant #W81XWH-09-1-0227.
 2009-present: **Scientific Reviewer:** Marsha Rivkin Pilot grants, Swedish Hospital, Seattle, WA.
 2010-present: **Editorial Board Member:** Food and Nutritional Sciences
 2014: **Scientific Reviewer:** Austrian Science Fund
 Oct 2014: **Chair,** Pathobiology Panel, US Army DOD OCRMP, Pilot awards

4. Community Service:

1997-2002: **Volunteer,** University Community Hospital, Department of Pediatrics Pet

- July 2008: Therapy Program
Honoree Researcher, Marsha Rivkin Swedish Summerun Team 2008 in support of ovarian cancer research
- Feb 1, 2012: **Speaker**, 1st Annual Women's Symposium, Ferrell Girls Preparatory Academy, Tampa, FL

Professional Development:

- Sep 1996-2009: Attendance and participation in Department of Pathology and Laboratory Medicine Grand Rounds.
- Jan 2007-Feb 2008: **Graduate**, 2007 USF Leadership Institute
- Oct 3, 2008: Completed workshop: Blackboard: Adding Content and Effectively Using the Communication Tools, USF Center for 21st Teaching Excellence, USF
- Oct 14, 2008: Completed workshop: Intermediate Powerpoint, USF Center for 21st Teaching Excellence, USF
- Oct 15, 2008: Completed workshop: Conducting Real-Time Online Classrooms using Elluminate Live!, USF Center for 21st Teaching Excellence, USF
- Oct 21, 2008: Completed workshop: Creating Web Pages with Dreamweaver, USF Center for 21st Teaching Excellence, USF
- Jan 30, 2009: Completed workshop: Blackboard: Student Assessment, USF Center for 21st Teaching Excellence, USF
- March 3, 2009: Completed workshop: Academic Honesty, USF Center for 21st Teaching Excellence, USF
- Jan 22, 2010: Completed workshop: Getting Started with Blackboard 9, USF Center for 21st Teaching Excellence, USF
- Sept 1, 2010: Completed workshop: Developing Students' Critical Thinking Skills with Bloom's Taxonomy, USF Center for 21st Teaching Excellence, USF
- Jan 21, 2011: Certificate, Instructional Workshops, USF Center for 21st Teaching Excellence, USF
- Oct 24, 2012: Completed workshop: Teaching online using Canvas LMS, eTeaching & Technology Workshops, USF

Societal Memberships:

- 1991-present: **Member**, American Association for Cancer Research
- 2005-2007: **Member**, American Society for Investigative Pathology
- 2005-present: **Member**, Women in Cancer Research, American Association for Cancer Research
- 2005-present: **Member**, Minorities in Cancer Research, American Association for Cancer Research
- 2007-2009: **Member**, Women in Academic Medicine, USF Health.
- 2012-present: **Member**, National Academy of Inventors

Outreach Activities:

Early screening test for ovarian cancer on the way? By Sherry Baker.
http://www.mamm.com/late_breaking_news.php

Breaking news source www.ivanhoe.com,

<http://www.churchillrha.com/pdfs/update/update0906.pdf>

New Ovarian Cancer Screening.

<http://www.wyff4.com/health/9573916/detail.html>

New Ovarian Cancer Screening by Ivanhoe Broadcast News

<http://www.healthscout.com/template.asp?page=newsdetail&ap=68&id=8014098>

Urine Test for Ovarian Cancer

<http://thewelltimedperiod.blogspot.com/2006/07/urine-test-for-ovarian-cancer.html>

Bcl-2 Urine Test for Ovarian Ca Gets Good Results From Pilot Study by Heidi Splete

http://findarticles.com/p/articles/mi_m0CYD/is_12_41/ai_n26932238

New Ovarian Cancer Screening

<http://abclocal.go.com/kfsn/story?section=news/health&id=4502045>