CURRICULUM VITAE

Name: Kenneth Patrick Nephew, PhD

Work Address: Indiana University School of Medicine
IU Simon Cancer Center
Department of Cellular and Integrative Physiology
Medical Sciences Program
302 Jordan Hall
1001 East Third Street
Bloomington, IN 47405-4401
Tel (812) 855-9445
Fax (812) 855-4436
knephew@indiana.edu

EDUCATION

1983, BS	The Ohio State University (Animal Sciences)
1986, MS	The Ohio State University (Dairy Science; Reproductive Physiology) *Effect of Prostaglandin F2 alpha on Lipoprotein Utilization in Cultured Bovine Luteal Cells*
1991, PhD	The Ohio State University (Animal Sciences; Reproductive Physiology) *Role of Embryonic Migration and Trophoblast Interferons on Maternal Recognition of Pregnancy*

POSTDOCTORAL TRAINING

1991-1992	Postdoctoral Fellow, Department of Obstetrics and Gynecology University of Kansas School of Medicine (Center for Reproductive Medicine, Wichita)
1992-1996	NIH Postdoctoral Fellow, Department of Cancer Biology University of Cincinnati, College of Medicine

PROFESSIONAL EMPLOYMENT

Academic Appointments

1996-2002	Assistant Professor of Cellular and Integrative Physiology Indiana University School of Medicine
2002-2006	Associate Professor of Cellular and Integrative Physiology (tenure) Indiana University School of Medicine
2007-Present	Professor of Cellular and Integrative Physiology Adjunct Professor of Molecular and Cellular Biochemistry Adjunct Professor of Obstetrics and Gynecology Indiana University School of Medicine

Other Professional Positions at Indiana University

1997-Present	Member, Experimental and Developmental Therapeutics Program Indiana University Simon Cancer Center (IUSCC)
1997-Present	Fellow, Indiana Molecular Biology Institute
2000-Present	Faculty of the University Graduate School, Associate Status
2002-Present	Member, Breast Cancer Program, IUSCC

2003-Present	Faculty of the University Graduate School, Full Status
2005-Present	Executive Committee, Medical Sciences Program
2008-Present	Executive Committee, Personalized Therapeutics
2010-2014	Advisory Committee, Center for Genomics and Bioinformatics
2010-Present	Member, Tumor Microenvironment and Metastasis, IUSCC
2012-2014	Member, Vice President of Research Advisory Board
2012-Present	Co-Leader, Ovarian Cancer Research Group, IUSCC
2016-present	IU Simon Cancer Center Senior Leadership Council

ADMINISTRATIVE RESPONSIBILITIES

2001-2008	Indiana Molecular Biology Institute Executive Committee
2002-Present	Program Leader Walther Cancer Foundation, Indianapolis, IN
2002-Present	Assistant Director for Basic Science Research Bloomington
2005-Present	Executive Committee, Medical Sciences Program
2005-Present	Group Leader and Contact PI San Antonio-IU Center for Cancer Systems Biology
2007-2010	Epigenetics Steering Group, Executive Committee
2006-07	Chair, Faculty Search Comittee Associate Director of Medical Sciences
2006-07	Search Committee Member Cancer Biology Open-rank Faculty Search
2007-08	Search Committee Member Cancer Biology Senior Faculty Search
2008-Present	Personalized Therapeutics Group Executive Committee
2010-12	Chair, Faculty Search Committee Cancer Informatics
2010-Present	Co-Program Leader Ovarian Working Group, IUSCC
2010	Search Committee Member Director, Center for Computational Biology and Bioinformatics
2011 & 2012	Chair, Search Committee Assistant Professor (Cancer Biology/Epigenetics)
2011	Chair, Search Committee, Assistant Professor (Informatics)
2011- Present	Member, Review Panel, IUSM Collaborative Research Proposals Member, Review Panel, IUSM Core Facilities Research Proposals
2013- Present	Member, Review Panel, IU Clinical Translational Research Institute
2015	Reviewer, Developing Diverse Researchers with Investigative Expertise (DRIVE); Office of the Vice Chancellor for Research
2015-Present	Dept. of Defense, Ovarian Cancer Academy, Mentoring Committee

UNIVERSITY SERVICE

CAMPUS AND SCHOOL COMMITTEES/SERVICE

Medical Sciences Program and Indiana University-Bloomington Campus

1996-present	Member, Graduate Education Committee
2002-2010	Chairman, Graduate Education Committee Restructured/formalized graduate guidelines
1998-2012	Radiation Safety Campus Committee (Interim Chair, 2002-2003); Wrote annual reports (2000, 2002, 2004, 2006)

2003	University Animal Care Facilities Committee
1998, 2001, 2002, 2006. 2016	Faculty Search Committees (Med Sci Prog)
2003	Orientation Program for New Faculty, Indiana University
2003-2006	Milton Taylor Fellowship Committee
2007-present	Flow Cytometry Core Facility Oversight Committee
2012-2014	Vice President of Research (VPR) Advisory Board
2013	Inquiry Committee, Office of the VPR
2013	Reviewer, Pew Scholars Program in Biomedical Sciences
2014-2015	Clinical and Laboratory Research Start-Up Funding Indiana Clinical and Translational Sciences Institute Reviewer
2015	ACS Institutional Grants Reviewer Komen Tissue Bank Pilot Project Reviewer
2016	IUSCC Tissue Utilization Committee (Approval committee for gynecologic samples)

EXTERNAL ADVISORY BOARDS

2001-Present	Senior Fellow and Advisory Board Member Indiana Molecular Biology Institute
2004-2008	Advisory Board Indiana Minority Student Development Program (NIH-funded)
2009-present	External Scientific Advisory Committee Stanford University Ovarian SPORE
2010-present	Ovarian Cancer Action Medical Science Review Committee (Permanent Member) London, UK
2010-present	External Scientific Advisory Committee Roswell Park Cancer Institute Ovarian SPORE
2010-present	External Advisory Committee Xavier University of Louisiana Research Centers in Minority Institutions (RCMI)
2011	NIEHS Board of Scientific Counselors (ad hoc)
2011-present	Medical Advisory Board Phi Beta Psi National Sorority
2012-present	External Advisory Board Centers for Health and Health Disparities University of Illinois at Chicago
2014-present	Scientific Advisory Board Ovarian Cancer Research Fund Alliance New York City, New York

MEMBERSHIP IN PROFESSIONAL SOCIETIES

1984-Present	Society for the Study of Reproduction
1994-Present	Endocrine Society
1996-Present	American Association for Cancer Research
1996-Present	American Association for the Advancement of Science
2000-Present	Epigenetics Society
2002-2015	Society for Reproductive Investigation (Formerly Society for Gynecologic Investigation)

EDITORIAL BOARDS

2001-2005 Member, *Biology of Reproduction*
2002 Member, *Reproductive Endocrinology and Biology*
2003-2005 Managing Editor*, Frontiers in Bioscience*,
2009-Present Member, *Journal of Cellular and Molecular Medicine*
2006-2009 Member, *Anti-Cancer Drugs*
2010-Present Associate Editor, *Ovarian Diseases*
2013-2017 Editorial Board, *Cancer Research*

JOURNAL REVIEWER (AD HOC; RECURRENT REVIEWER)

Bioinformatics
Breast Cancer Research
Breast Cancer Research and Treatment
British Journal of Cancer
Cancer
**Cancer Research (current Editorial Board Member)*
Carcinogenesis
Clinical Cancer Research
Endocrinology
Epigenetics
Epigenomics
Future Onocology
Gynecologic Oncology
Human Molecular Genetics
Journal of Clinical Investigation
Journal of the National Cancer Institute
Journal of Ovarian Research
Journal of Visualized Experiments
Molecular Cancer Research
Molecular Cancer Therapeutics
Molecular Endocrinology
Nature Medicine
Nature Communications
Nature Scientific Reports
Oncogene
Oncotarget
PLoS Genetics
Proceedings of the National Academy of Sciences, USA

PROFESSIONAL SERVICE

Study Sections and Review Committees

1998 Israel Science Foundation
1999 Department of Defense, Breast Cancer Research Program
2000 Center for Environmental Rural Health, Texas A&M University
2001 Ohio Cancer Research Associates

2002	Cancer Research, UK
2003	Reviewer, NIH/NCI DNA Methylation and Epigenetics and Cancer
2003	Reviewer, NIH/NCI, Program Project Reviewer, Colorectal Cancer
2003	Reviewer, NIH/NCI, Small Grants Program for Epidemiology Prev
2003	Reviewer, NIH/NCI, Cancer Prevention Small Grants
2003	Member, NIH/NCI, (Clinical Studies), Program Project Reviewer
2004	Member, NIH/NCI (Clinical Studies), Program Reviewer
2004	Reviewer, NIH/NCI, Early Detection Research Network: Biomarker Developmental Laboratories Special Review Panel
2004	Review Committee, NCI Subcommittee D
2004	Reviewer, NIH/NCI Program Project Reviewer
2004	Reviewer, NIH/NCI Cancer Biomarkers Study Section
2004-2005	Reviewer, Cancer Molecular Pathobiology (CAMP) Study Section
2004, 2006	Department of Defense, Ovarian Cancer Research Program
2004-2006	Reviewer, NIH/NCI, Innovative Technologies for Analysis Cancer
2005	Reviewer, American Cancer Society (ACS), Tumor Biochemistry Endocrinology
2005	Reviewer, DOD CDMRP, Breast Cancer Research Program
2005-2007	Chairman, DOD CDMRP, Breast Cancer Research Program
2005-2009	**Study Section Member, NIH/NCI Cancer Biomarkers (CBSS)**
2006	Reviewer, NIEHS, Environmental Influences Epigenetic Regulation
2006	Reviewer, Medical Research Council, London, UK
2007	Reviewer, ACS, Tumor Biochemistry Endocrinology
2007	Reviewer, DOD, CDMRP, Breast Cancer Research Program
2007	Reviewer, DOD, CDMRP, Ovarian Cancer Research Program
2007	Reviewer, Association for International Cancer Research, UK
2008	Reviewer, NIH/NCI, SBIR Initiative, Novel and Improved Methods to Measure Cancer Epigenetics
2008	Reviewer, Biomarkers/Biosensors for Early Cancer Detection
2008-2012	Reviewer, NIH/NCI, Specialize Programs of Research Excellence
2008-2013	**Regular Member, ACS, Tumor Biochemistry & Endocrinology (Vice Chairman, 2011, 2012; Chairman, 2013)**
2009	Reviewer, NIH Epigenomics of Human Health and Disease Reviewer, NIH Challenge Grants (two panels) Reviewer, Marsden Fund, Royal Society of New Zealand Reviewer, Wellcome Trust, London, UK Reviewer, NIEHS Children's Environmental Health Disease Prev. Reviewer, NIH Basic Cancer Research Cancer Health Disparities
2010	Reviewer, NCI, EDRN Biomarker Development Lab Reviewer, NCI, Cancer Etiology Study Section (ad hoc) Reviewer, NCI Cancer Health Disparities, Vice-Chairman Reviewer, National Project, Phi Beta Psi Sorority
2010, 2012	Reviewer, Ovarian Cancer Action Research Centre, London UK
2011	Reviewer, NIH, Enabling Bioanalytical Imaging Technology Reviewer, NIH Support for Conferences and Scientific Reviewer, Association for International Cancer Research, UK Reviewer, NCI, Cancer Genetics Study Section Reviewer, NIEHS, Laboratory of Molecular Carcinogenesis Reviewer, DOD Breast Cancer Research Program Chair, NCI Cancer Health Disparities in Basic Cancer Research

	Reviewer, NIDDK, Special Emphasis Panel, P01 (telephone)
	Reviewer, The Dutch Cancer Society
2011, 2012	Reviewer, NIH Support for Conferences and Scientific Meetings
2012	Reviewer, NCI SPORE in Breast, Endometrial and Skin Cancers
	Reviewer, Research Answers to NCI's Provocative Questions
	Vice Chair, NIH, Cancer Health Disparities/Diversity Cancer Res.
	Reviewer, NCI, Epidemiology and Genetics of Cancer; ad hoc
	Reviewer, NCI, Intercellular Interactions Study Section, ad hoc
2012-present	Reviewer, Target Ovarian Cancer, London, UK (annual reviewer)
2013	Reviewer, NCI, Epidemiology and Genetics of Cancer
	Reviewer, NCI, Transformative Research Awards, Director's Common Fund
	Reviewer, DOD CDMRP Ovarian Cancer Research Program
	Reviewer, NCI, Program Project Meeting (telephone)
	Reviewer, Pew Scholars Program in the Biomedical Sciences
	Reviewer, Target Ovarian Cancer, London UK
	Reviewer, W. M. Keck Foundation's Medical Research Program
	Reviewer, Bioinformatics Core Pilot Proposals, Clinical and Translational Sciences Institute (CTSI), Indiana University
	Reviewer, Research Answers to NCI's Provocative Questions
	Reviewer, CTSI, BioBank Proposals
2014	Reviewer, *ad hoc* chairman, Department of Defense (DOD), CDMRP Breast Cancer Research Program;
	Reviewer, NCI Special Emphasis Panel, Exploratory/Developmental Research Grants (NCI Omnibus R21)
	Reviewer, NCI, Provocative Questions Initiative
	Reviewer, Siteman Cancer Research Fund
	Reviewer, NIH Cancer Diagnostic and Treatments (CDT) SBIR/STTR
	Chairman, DOD, CDMRP Breast Cancer Research Program
	Reviewer, DOD CDMRP Ovarian Cancer Research Program
2015	Reviewer, NIH/NCI CDT SBIR/STTR
	Reviewer, Marsha Rivken Center for Ovarian Cancer Research
	Reviewer, DOD, CDMRP Breast Cancer Research Program
	Wellcome Trust, UK
	Chairman, DOD, CDMRP Breast Cancer Research Program
	Research Ctrs Minority Institutions (RCMI) Pilot Project Program
2016	Reviewer, Marsha Rivken Center for Ovarian Cancer Research
	Reviewer, Science Foundation Ireland Investigators Programme
	Reviewer, DOD, CDMRP Breast Cancer Research Program
	Research Ctrs Minority Institutions (RCMI) Pilot Project Program
	Chairman, DOD, CDMRP Breast Cancer Research Program
	Chairman, DOD, CDMRP Ovarian Cancer Research Program

HONORS AND AWARDS

1991	Young Investigators Award, Watkins Life Science Conference on Biotechnology, Wichita State University
1991	Travel Award to Annual Meeting of the International Society of Interferon Research, Nice, France
1992	Serono New Investigator Award, Society for the Study of Reproduction

1993-94	American Cancer Society Postdoctoral Trainee
1994-96	National Institutes of Health Postdoctoral Trainee
1994	Science feature on tamoxifen's effect on uterine protooncogene expression (Science 264:1525)
1996	Nominee, Burroughs Wellcome Fund Career Award Biomedical Sciences
1999	First Recipient of The Bert Elwert Award in Medicine
2001	Astra-Zeneca Scholar in Training AACR Award to A. Ahluwalia, PhD
2001	Dr. Dr. Karl R. Ruddell Scholarship to P. Abbosh, MD/PhD
2000-2003	Walther Cancer Foundation Postdoctoral Fellowship, M. Fan, PhD
2002	Society Gynecological Investigation, Medical or Graduate Student Stipend for Research in Reproduction Award to J. Bailey, MD
2003	Award for Advancements in Health Care Indianapolis Business Journal Health Care Heroes Program
2004	AACR Scholar in Training awarded to P. Abbosh MD/PhD student
2004	Endocrine Society Travel Award to N. Berry, graduate student
2004	Society Gynecological Investigation, Medical or Graduate Student Stipend for Research in Reproduction Award to N. Berry, PhD
2005	International Society Computational Biology Travel Award to H. Paik MS
2005	Gordon Research Conference Travel Award, Hormone Action in Development and Cancer to M. Fan PhD
2006	AACR Scholar in Training to P. Abbosh MD/PhD
2007	AACR Scholar in Training to N. Berry PhD
2008-2009	Walther Cancer Foundation postdoctoral fellowship to S. Nam PhD (Co-mentor S. Kim, PhD, School of Informatics and Computing)
2009-2015	Walther Cancer Foundation Postdoctoral Fellowship to F. Fang PhD
2013-2015	Indiana Clinical and Translational Sciences Institute (CTSI) Clinical and Translational Predoctoral Fellowship to J. Tang, BS
2014-2016	Doane and Eunice Dahl Wright Predoctoral Fellowship (A. Ozes, BS)
2015	CTSI Clinical and Translational Predoctoral Fellowship (N. Pulliam, BS)
2016	Graduate and Professional Student Government (GPSG) and **University Graduate School Faculty Mentor Award Winner**
2016-2018	Doane and Eunice Dahl Wright Predoctoral Fellowship (J. Tang, BS, MS)

Organization of Scientific Meetings

2002, 2004, 2007	Midwest Regional Molecular Endocrinology Conference (MRMEC) Board Member and Organizer
2003	Walther Cancer Foundation Scientific Retreat, Breast Cancer Panel, Discussion Group Leader
2004	Biomarkers and DNA Methylation in Ovarian Cancer Aberfoyle, Scotland UK Board Member and Co-Organizer
2004-present	International Steering Committee for Ovarian Cancer Biomarkers
2005	Program Committee Society Study of Reproduction, 38th Annual Meeting Québec, Canada
2006	Program Committee Society Study of Reproduction, 39th Annual Meeting Omaha, Nebraska
2009	Chairman, Educational Session Epigenetic Therapies to Overcome Resistance

	American Association for Cancer Research 100th Annual Meeting, Denver, CO
2010	Chairman, Center for Cancer Systems Biology Annual Workshop Columbus, OH
2016	Midwest Ovarian Cancer Coalition (MWOCC) May 21-22, 2016; University of Notre Dame Co-organizer with Sharon Stack and Joanna Burdette

TEACHING ACTIVITIES

Teaching Assignments (Indiana University)*:*

Medical Physiology P532
Spring 2003-present
First year medical students and graduate students
Shared responsibility (reproductive endocrinology lectures)
Contact hours per semester= 6-8 hrs

C580 Problem Based Learning (PBL)
Facilitator
Fall 1997, 1998, 2000, 2001, 2002; Spring 1999, 2001,2003, 2005-2013
First year medical and graduate students (6 students per group)
Contact hours per semester= 4-8 hrs

F606 Pharmacology
Spring Semester 1997
Second year medical students (28 students)
Shared responsibility- Endocrinology, non-steroidal anti-inflammatory drugs
Contact hours per semester= 14 hrs

Mini-University Summer 2013-present
Breast Cancer Current Concepts

P431, Human Physiology
Fall, 1998, Fall & Spring 1999; Fall & Spring 2000; Spring 2001
Class size= 60 students per semester
Shared responsibility; Lectures and laboritory, endocrinology and gastrointestinal physiology
Contact hours per semester= Lecture, 14 contact hrs; Lab, 3.5 contact hrs

P215, Human Physiology
Lectures and Discussion Spring Semester, 2002
Undergraduate (220 students)
Shared responsibility

Z620, Special Topics in Zoology (Gene Therapy of Cancer)
10-15 Graduate Students

Z620, Special Topics in Zoology (Epigenetics)
Graduate Students

C485, Biochemistry
Undergraduate (40-45 students)

Regulation of gene transcription

Precision Medicine

Graduate Students (Spring 2017)

ADVISORY AND SUPERVISORY RESPONSIBILITIES

Total number of students graduating with an advanced degree: 25 students
Chairman for 18 students: 9 PhD students; 9 MS (IU official MS track program)

Current Graduate Students (serving as Primary Mentor for 4 students)

1. Jessica Tang (2012-present)- Medical Sciences, **Chairman**
   Awards:
   CTSI Clinical and Translational Predoctoral Fellowship, 2013-present
   IUSCC Research Day 2013 3rd Place Poster Presentation in Basic Biology
   Medical Sciences Travel Award to attend AACR) Annual Meeting 2013
   Paul M. Harmon Award 2014 – Outstanding student in physiology in IU School of Medicine Medical Sciences
2. Yinu Wang (Jing Jing; 2012-present)- Medical Sciences; **Chairman**
   Awards:
   IUSCC Travel Award to attend AACR Annual Meeting 2014
   Medical Sciences Travel Award 2014
3. Nicholas Pulliam (2013-present)- Molecular and Cellular Biochemistry Dept, **Chairman**
   Awards:
   CTSI Clinical and Translational Predoctoral Fellowship, 2015-present
   IUSCC Travel Award to attend AACR Annual Meeting 2015
4. Xingyue Zong (Agnes; 2015-present)- Medical Sciences, **Chairman**
5. Amber Yount, (2008-present)- Molecular and Cellular Biochemistry Department; **Chairman of Examination Committee; Representative for minor (Physiology)**
6. Joshua Plotnic (2012-present)- PhD student, Molecular, Cellular and Developmental Biology, **Committee Member & Examination Committee Chair**
7. Ning Ding (2013-present)- PhD student, Medical Sciences, **Committee Member**
8. James Haley (2014-present)- PhD student, Medical Sciences, **Committee Member**
9. Shruthi Sriramkumar (2015-present)- PhD student, Medical Sciences, **Committee Member**
10. Brady Strittmatter (2015-present)- PhD student, Medical Sciences, **Committee Member**
11. Lena McLaughlin (2015-present)- PhD student, University of Maryland, **Committee Member**

Former Graduate Students (**BOLD** indicates Chairman/Committee Member)

Myint Hlaing	**Graduated 1999, PhD, Co-chairman with A. Mescher** Currently a scientist at University of Californian at San Francisco
Amrita Ahluwalia	**Graduated 2001, PhD, Medical Sciences, Chairman** Received the Robert W. Bullard Award for the outstanding research student in Medical Sciences, May 2000 Currently an Assistant Professor at University of California, Riverside
Walter Sotero	**Graduated 1999, PhD, Department of Biology**, **Committee Member** Chairman was Dr. Milton Taylor
Kelly Kim	**Graduated 2000, MS, Department of Biology, Committee Member** Chairman was Dr. Milton Taylor Currently a Program Officer at NIH/NCI
Jason Bailey	**Graduated 2001, MS, Medical Sciences, Chairman** Graduated with M.D., IUSM 2005

Kathy Burke	**Graduated 2002, PhD, Department of Psychology, Chairman** Received the "Outstanding Associate Instructor Award", 2000 Currently a senior scientist at UCLA
Nithya Venkatraman	(2001) Rotation Student, Biochemistry Program
Chad Reed	**Graduated 2002, Medical Sciences, Chairman** Graduated with M.D., IUSM 2006
Yong Me Cho	**Graduated 2003, PhD, Medical Sciences; Committee Member**
Phillip Abbosh	**Graduated 2005, PhD, Medical Sciences, combined MD/PhD, Chairman** Robert W. Bullard Award for outstanding research student in 2004. Graduated with the MD, IUSM 2008 Residency in Urology at Washington University, St. Louis, MO Currently a GU Surgical Fellow at Fox Chase Cancer Center
Lei Chen	**Graduated 2005, MS,** Biochemistry Program, **Chairman** PhD student in Hong Kong
Jennifer VanDusen	(2002) Rotation student, Medical Sciences
Qian Niu	(2003) Rotation student, Biochemistry Program
Hua Yuan	(2003)- Rotation student, Biochemistry Program
Brian McArthy	(2003)- Rotation student, Department of Biology
Anuraag Sarangi	**Graduated 2004, MS,** Bioinformatics & Computer Science **Co-Chairman** (with Dr. Sun Kim, Dept. Bionformatics and Genomics).
Jinglian Yan	(2004)- Rotation student, Biochemistry Program
Kate Giesting	(2004)- Rotation student, Department of Biology
Jiang Wu	(2005)- Rotation student, Biochemistry Program
Jennifer Rawlinson	(2005)- Rotation student, Medical Sciences Program
June Javens	(2005)- Rotation student, Department of Biology
Jill Wei	(2005)- Rotation student, Biochemistry Program
Julia Azriel	(2006)- Rotation student, Biochemistry Program
Mary Afrane	(2006)- Rotation student, Biochemistry Program
Zackary Kaur	(2006)- Rotation student, Biochemistry Program
Fan Cheng	(2006)- Rotation student, Biochemistry Program
Brian Finan	(2007)- Rotation student, Biochemistry Program
Shera Lesley	(2007)- Rotation student, Department of Biology
Christina Melke	(2007)- Rotation student, Department of Biology
Kate Brannon	**Graduated 2005, MS, Dept. Biology; Member, Exam Committee** Scientist at Eli Lilly, Indianapolis, IN
John Montgomery	**Graduated 2007, MS, Medical Sciences, Chairman** Scientist at Eli Lilly, Indianapolis, IN
Jonathan Salisbury	**Graduated 2007, MS, Medical Sciences, Chairman** Graduated with M.D. from IUSM 2011
Nicolas Berry	**Graduated 2008, PhD, Medical Sciences, Chairman** Robert W. Bullard Award 2007 for the outstanding research student in Medical Sciences Program DOD Breast Cancer Postdoctoral Fellow (2008-2010) Currently a Senior Medical Science Liaison, Janssen Pharmaceuticals, Inc.
Xinghua Long	**Graduated 2008, PhD, Medical Sciences, Chairman** Professor at Wuhan University, PRC
Meng Li	**Graduated 2008, MS, Combined Program (Biochemistry & Bioinformatics); Chairman** Librarian III;Bioinformatics Specialist, University of Southern California
Christina Million-Passe	Graduated with PhD, 2008 Medical Sciences; **Committee Member** Scientist at Eli Lilly, Indianapolis, IN

Mingjie Wang	(2009) Rotation student, Biology, Biochemistry
Fan Cheng	**Graduated 2011, PhD, Biochemistry; Examination Committee**
Rongye Lai	**Graduated 2010, MS, Microbiology; Chairman** Investment Banker, Equities Trading, UBS Investment Bank, Hong Kong
Youngik Yang	**Graduated 2010, PhD, School of Informatics and Computer Science Member, Research Committee** Postdoc, J. Craig Venture Institute, San Diego, CA
Rohit Jadhav	**Graduated 2011, MS, School of Informatics and Bioinformatics IUPUI Committee Member** PhD student, University of Texas Health Sciences Center, San Antonio, TX
Vivekananda Kedage	(2011) Rotation Student
Xi Rao	**2007-2012; Graduated 2012, PhD, Chairman, Biochemistry Program** Postdoctoral Fellow, Stanford University, Sylvia Plevritis, Cancer Systems Biology Laboratory (2012-2014) Currently a graduate student in Bioinformatics at Indiana University
Nicole Nickerson	**2007-2012; Graduated 2012, PhD, Co-Chairman, Medical Sciences** Product Scientist at Cell Signaling Technology, Danvers, MA.
Wan Hung Lee	(2012) Rotation Student
Jessica Tang	**Graduated 2013, MS, Department of Biology, Committee Member** Graduate student, Medical Sciences Program IU
Jennifer Rawlinson	**Graduated 2014, MS, Medical Sciences Prog (Physiology); Chairman**
Ya-Ting Hsu	Graduated 2015, PhD student, Department of Molecular Medicine, University of Texas Health Sciences Center- San Antonio, TX; **Committee Member**
Vivekananda Kedage	**Graduated 2016** Molecular Cellular Biochemistry Dept. **Committee Member**
Ali Ozes	**Graduated 2016 Molecular Cellular Biochemistry Department; Chairman** *Awards:* Doane and Eunice Dahl Wright Predoctoral Fellowship, 2014-2016 IUSCC Travel Award to attend AACR Annual Meeting 2014 The College of Art and Sciences Travel Award, 2014 The McCormick Science Scholarship, 2014 Peglow Award - Molecular and Cellular Biochemistry Dept, IU 2013 Travel award - Medical Sciences Program, IU 2013 Currently a postdoctoral fellow at Johnson & Johnson, San Francisco, CA

Postdoctoral Fellows

1996-2001	Xinghua Long, MD- Joined Myriad Genetics, Salt Lake City, Utah, as a Research Scientist; posdoc at the Buck Instituted for Aging Research. Currently an Assistant Professor, School of Biotechnology, Jiangnan University, Wuxi; Zhongnan Hospital, Wuhan University, Wuhan, China
1997-1999	Shahla Ray, PhD- Currently a Research Scientist, Kinesiology Department and Lecturer, Applied Health Science Department at Indiana University
1998-99	Horacio Cardenas, PhD- Currently a Research Scientist at IUSM
2002-2003	Amy Berndtson, PhD- Currently a lecturer in Department of Biology
2000-2005	Meiyun Fan, PhD- Walther Cancer Institute Postdoctoral Fellow then promoted to Research Assistant Professor; Currently Assistant Professor (tenure track), University of Tennessee Health Sciences Center
2005-2008	Zhang Shu, MD, PhD Currently an Associate Professor and Director,

Shanghi Department of Obstetrics and Gynecology, Ren Ji Hospital, Shanghai Second Medical University

2007- 2008 Yokesh Balaraman, MD, PhD Now Assistant Research Professor at IUPUI

2008-2010 Seungyoon Nam, PhD- Walther Cancer Foundation Postdoctoral Fellow; Currently a Senior Scientist, Cancer Genomics Branch, National Cancer Center, Goyang-si, Gyeonggi-do, Korea

2003-present Curt Balch, PhD- Postdoctoral Fellow; Now a Research Scholar, Ronin Institute for Independent Scholarship, Indianapolis, IN

2009-present Zhongmin Guo, PhD- Flight Attendant Medical Research Institute Scholar; now director of MolDx & Development, GOPATH Laboratories, Chicago, IL

Current

2007-present Fang Fang PhD, Walther Cancer Foundation, Postdoc Fellow (2009- 2015)
3rd Place Translational/Clinical Research of Post-doc/Medical Fellow
IUSCC Cancer Research Day May 2014, Indianapolis, IN

Mentoring of Junior Faculty (*current*)

Peter Hollenhorst, PhD
Heather O'Hagan, PhD
Anirban Mitra, PhD
Shannon Hawkins, MD, PhD
Andrea Bonetto, PhD
Jaeyeon Kim, PhD
Sumegha Mitra, PhD

Research Assistants/Associates

1996-2002 Betsy Osborne, BS
2002-03 Sherry Wilson, BS
2002-03 Joseph Dosch, BS
2002-2005 Teresa Craft, MS
2003-2005 Annie Park, BS
2003-2005 Min Choi, BS
2005-2006 Michael Mann, BS
2004-2007 Hyun (Henry) Paik MS
2005-2009 Corinna Hartman-Frey, BS
2008-2010 Meng Li, MS
2010-2015 Jay Pilrose, MS

Current

2010-present David Miller, BA, BS

Visiting Scholars

2005-2006 Yoo-Sun Kim, PhD, School of Information & Communication Engineering, Inha University, Korea

2006-2007 Jae Hoon Chung, PhD, Korea Advanced Institute of Science and Technology, Seoul, South Korea

2006-2007 Sharmila Bapat, PhD, Professor, National Centre Cell Science, Maharashtra, India

2007-2008 Sun Kim, PhD, Associate Professor, School of Informatics and Computing, Indiana University

2010-2011 Man-Wook Hur, PhD, Professor, Department of Biochemistry and Molecular Biology, Yonsei Medical School, Seoul, Korea

2012-2013 Qingyao Zuo, MD, PhD; Renmin University of China, Beijing

Training of Medical students: Summer research mentor for first year medical students (*funding provided by NIH 2T35HL07584-16, Students in Academic Medicine*)

1997 Trista Gosh
2000 Adam Spaetti
2001 Phillip Abbosh
2001 Erik Kirk
2001 Cory Showalter
2006 Sam Oyer
2007 Tim Webb
2008 Scott Hittinger
2011 Edra Jani
2012 Robert Avera

Participation in Undergraduates/High School Programs at Indiana University

1. Member, IU STARS Program (**S**cience, **T**echnology and **R**esearch **S**cholars)
Served as the mentor for six STARS student

2. Member, Cox Research Scholars Program
Member of the selection committee
Mentored 8 students and Chairman for 6 students

3. Member, Undergraduates Honors Thesis Committee
Served on the committee for 6 students and Chairman for 5 students

4. Member, Integrative Cancer Biology Program, Summer Research Scholars
Program for undergraduates in cancer biology and bioinformatics
Funded through the National Institutes of Health, National Cancer Institute
Summer mentor for 7 students (three students now in graduate school):
2009 Kaleb Naegeli, 2010 B.S. Indiana University; currently a PhD candidate in Molecular and Cancer Biology, Duke University
2010 Cong "Karl" Gao, 2011 B.S. graduate of the Georgia Institute of Technology; currently a PhD candidate in Molecular and Cancer Biology, Duke University
2010 Phillip Wulfridge, 2011 B.S. UCSD; currently a PhD candidate in Cellular and Molecular Medicine, Johns Hopkins University

5. Member, McNair Scholars Undergraduate Research Program
Program for outstanding undergraduate researchers
Mentor for 2 students

6. The IU-HBUC STEM Initiative Summer Scholars Institute
Undergraduate research program for underrepresented minorities
Mentor for 2 students

7. Member, Indiana Minority Student Development Program (IMSD; was the MEDIC B Scholars Program)
Prepares minority undergraduates for graduate study and careers in biomedicine
Mentored 10 students

8. Member, Independent Undergraduate Research Course number **M450** (laboratory credit).
Since 1996, a total of over 80 undergrads have received research training in my laboratory.

9. High School Senior Internship Program
Bloomington High School North, Bloomington High School South
Mentored 3 students

MAJOR RESEARCH INTERESTS

Women's Cancers & Translational Research

Cancer Epigenetics (DNA methylation, histone modifications, non-coding RNAs)
Cancer Stem Cells
Nuclear receptors/steroid hormone action/hormone-associated cancers
Drug resistance (ovarian and breast cancers)

RESEARCH FUNDING

1. An Epigenetic Strategy for Restoring Carboplatin Sensitivity in Ovarian Cancer
NCI-R01-CA182832 (Nephew, KP, Matei, D (contact)),
1.2 Calendar $250,000
02/1/2014-01/31/2019
The goal of this proposal is to test the effects of a hypomethylating strategy on the ovarian cancer methylome in the setting of an ongoing therapeutic clinical trial with correlative studies by using state-of–the-art massive parallel sequencing and bioinformatics approaches. Our group's long-term goal is to move forward epigenome targeting as a new treatment approach.

2. Interrogating Epigenetic Changes in Cancer Genomes (The Integrative Cancer Biology Program (ICBP): Centers for Cancer Systems Biology (CCSB)
NCI- U54 CA113001-07 (Huang, T) (Nephew, KP, Contact PI for Indiana University)
1.8 Calendar $495,562
9/30/2004-11/30/2015 (NCE)
The major goals of this project are to utilize mathematical models to explore epigenetic changes associated with drug resistant cancer. Genome wide approaches to examine DNA methylation, histone modifications, microRNAs, and gene expression will be investigated.

3. An Epigenetic Strategy for Restoring Carboplatin Sensitivity in Ovarian Cancer
V-Foundation (Nephew, KP, Matei D, Co-Principal Investigators)
1.8 Calendar $200,000
12/01/2013-11/30/2017
This project will identify the critical epigenetic events that govern development of platinum resistance and serve as predictive markers of response to epigenetic-targeting strategies.

4. Targeting Epigenetic Vulnerabilities in Ovarian Cancer Stem Cells
Ovarian Cancer Research Fund Alliance (Nephew, KP)
Collaborative Research Development Grant
1.2 Calendar $900,000
12/01/16-12/31/19
The long-term goal of this project is to target and eradicate ovarian cancer stem cells and develop new therapeutic strategies for ovarian cancer.

5. The Genomic, Epigenomic, and Quality-of-Life Characteristics of Long-Term Survivors of Ovarian Cancer
Department of Defense Ovarian Research Program (Birrer, MJ) $4,862,003
Outcomes Consortium Award
04/01/2016-03/31/2018
The central goal for this project is that long-term survivors of ovarian cancer have distinct features that distinguish them from short-term survivors.
Role on Project: Co-investigator

6. An Integrative Approach to Identify Casual Epigenetic Markers for Breast Cancer
0.6 Calendar
NIH (C. He, PI)
04/01/2015-03/31/2016 $384,664
Goal: The goal of this proposal is to identify causal DNA methylation markers that drive breast cancer development.
Role on Project: Co-investigator

7. Role of Src Kinase in Mechanically-Induced Bone Formation
NIH/NIAMS (MPI: Pavalko, contact PI/Co-PI, Robling)
1R01AR069029-01A1 12/1/16-11/30/21 $1,971,652
Goals: To determine the role of Src kinase in osteocyte mediated mechanotransduction and regulation of skeletal growth.
Role on Project: Co-investigator

8. Hypomethylation Induced Resensitization to Platinum in Refractory Germ Cell Tumors
Conquer Cancer Foundation (C. Albany, PI)
2318 Mill Road, Suite 800, Alexandria, VA 22314
07/01/2014-06/30/2017 $70,000
The objective of this proposal is to determine if DNA methylation inhibitors will be therapeutically active in refractory germ cell tumor.
Role on Project: Co-investigator

9. Breast Cancer Metastasis Systems Biology
Program Project Development Grant
Indiana Clinical and Translational Sciences Institute
NIH/NCRR UL1TR001108 (MPI: Nakshatri, Nephew, Li)
02/01/2016-01/31/2018 $200,000
Goal: The goal of this proposal is investigate how the microenvironment enhances metastatic growth. By taking an integrated approach and examining genomice, epigenomic, and transcriptomic changes, we will identify and validate drug targets and build systems pharmacology models that predict drug respponses.

10. Genes associated with luminal progenitor cell differentiation in breast cancer
(Nakshatri/Nephew) 03/01/2014-02/28/16

Indiana CTSI Core Pilot $100,000
The goal is determine differences in gene expression between normal luminal progenitors of adjacent normal and tumor cells of the same patient
Role on Project: Co-Principal investigator

11. Facing the challenge, a novel approach to combat carboplatin resistance in ovarian cancer
Kay Yow Cancer Fund
PI: Tao Lu
Role on Project: Co-Principal investigator

12. Clinical Translational Research (CTR) Award (Nephew KP, Rochet JC)
Title: Role of DNA Methylation in Lewy Body Disease
Duration: 2013-2016 $75,00
Co-PI: Chris Rochet, PhD, Purdue University, Department of Medicinal Medicine and Molecular Pharmacology, College of Pharmacy

13. Walther Cancer Foundation Postdoctoral Fellowship (Nephew, KP)
Title: Cancer Epigenetics; Duration: 2009-2016
Role: Mentor, Fang Fang, Postdoctoral Fellow

14. Clinical Translational Sciences Institute (CTSI) Award
Title: Predoctoral Fellowship (for J. Tang)
Duration: 2013-2015 $70,00
Role on Project: Mentor (D. Matei is Clinical Mentor)

15. Clinical Translational Research (CTR) Award (Nephew KP, Tepper R, Ivan M)
Title: Developmental Adaptation to Chronic Hypoxia
Duration: 2015-2016 $75,00
Co-PIs: Robert Tepper, Department of Pediatrics, IU School of Medicine; Mircea Ivan, Department of Microbiology and Immunology, IU School of Medicine

16. Clinical Translational Sciences Institute (CTSI) Award
Title: Predoctoral Fellowship (for N. Pulliam)
Duration: 2015-2017 $70,00
Role on Project: Mentor (D. Matei is Clinical Mentor)

PENDING

1. (Nephew, KP) 12/01/16-12/31/19 1.2 Calendar
Department of Defense Ovarian Cancer Research Program
Investigator Initiated Research Award $530,929
Therapeutic Targeting using Tumor Specific Peptides inhibits Non-coding RNA HOTAIR Oncogenic Activity in High Grade Serous Ovarian Cancer and Ovarian Cancer Stem Cells
The long term goal of this project is to target and eradicate drug resistant, recurrent ovarian cancer and develop new therapeutic strategies for ovarian cancer.

2. NIH/NCI U54 (Nephew/Nakshatri/Li (Contact)) 5/1/17-4/30/22 1.2 Caledar
Systems Biology of Metastasis to the Liver (SMILE) $12,000,000
In this U54 grant application, we propose to conduct genomic/transcriptomic/ epiegnomic/metabolomics profiling of both primary breast and colon tumors and metastasis to the liver. The three projects will utilize distinct but complementary systems biology models to investigate multiple molecular mechanisms in cancer liver metastasis.

3. (Wang, Q) 7/1/17-6/30/22 .60 Calendar
NIH/NCI $25,000 (to Dr. Nephew)
Novel Genomics Mechanisms for Ligand-Dependent Transcription by Nuclear Receptors
Kay Thomspon, CRA, Grants and Contracts Administrator, The Ohio State University Comprehensive Cancer Center, kay.thompson@osumc.edu 614-293-6682
The proposed studies will: 1) solidify motif switching as a key genomic mechanism underlying ligand-dependent transcription by NRs; 2) identify TFs and epigenetic factors that facilitate DNA motif switching and regulate ligand-dependent transcription; and 3) lay the foundation to future development of improved NR targeted therapy.
Role: Co-Investigator

4. (Matei) 5/1/16-4/30/20 .60 Calendar
NIH/NCI $100,000 (to Dr. Nephew)
Epigenomic Editing to Enhance Immunotherapy in Ovarian Cancer
Erin N. Simpson, MPH-Senior Research Administrator, Department of OB/GYN, Northwestern University, erin.simpson1@northwestern.edu 312-503-0515.
The proposed translational project brings forward the concept of epigenomic editing in

combination with immunotherapy as a new treatment strategy for ovarian cancer. Both preclinical and clinical analyses will test the hypothesis that agents inducing DNA hypomethylation reverse silencing of tumor antigens; restore their expression, and potentiate the effects of immune checkpoint inhibitors. At the moving front of translational research, this project has the potential to advance a highly innovative concept in immunotherapy for ovarian cancer.
Role: Co-Investigator

5. (Nakshatri/Nephew) 4/1/17-03/31/22 1.8 Calendar
NIH/NCI R01 R01 $1,965,000
Contact: Crystal Wolfrey, National Cancer Institute (NCI), Telephone: 240-276-6277, wolfreyc@mail.nih.gov
Project Title: Impact of ethnicity-dependent differences in normal and tumor epigenome on breast cancer progression
The goal of this proposal is to test the hypothesis that ethnicity-dependent differences in epigenetically-controlled transcriptional programs influence normal breast epithelial hierarchy, pathways of differentiation/dedifferentiation and consequently impact cell type origin of tumors and contribute to cancer disparities.

6. V Foundation for Cancer Research (Nakshatri/Nephew) 12/12/16-11/30/19
1.20 Calendar $600,000
Ethnicity-dependent differences as key determinants of breast cancer susceptibility and clinical course in African American, Hispanic and Caucasian women
Program official: Carole C. Wegner, PhD, HCLD, Vice President, Research and Grants Administration
The V Foundation for Cancer Research, 106 Towerview Court, Cary, NC 27513 p: 919-380-9505 / 1-800-4-Jimmy-V f: 919-380-0025 e: cwegner@jimmyv.org
The main goal of this proposal is to investigate the impact ethnicity dependent differences in DNA methylome on breast cancer susceptibility.

7. DOD BC160572 (Nakshatri/Nephew) 2/1/17-1/31/20
.60 Cal $588,750
Contact: CDMRP Help Desk, help@eBRAP.org or 301-682-5507
Project Title: Individualizing gene-environment interaction and breast cancer susceptibility using 3D-printed normal breast
Toward the overall goal of preventing breast cancer, we propose to identify determinants of breast cancer initiation, risk, and susceptibility. Many chemicals in consumer products are broadly classified as non-carcinogenic. Our study using normal breast organs will address whether individual variations in chemical-genome interactions represent previously unrecognized breast cancer risk determinants.

COMPLETED RESEARCH SUPPORT

1. Antitumor Activity Of SGI-110 In Combination With Platinum in Preclinical Models of Treatment Naïve And Resistant, Recurrent Epithelial Ovarian Cancer
Astex Pharmaceuticals (Nephew, KP) $320,000
10/4/2010-11/30/2015
The central goal for this project is that SGI-110 in combination with platinum exerts potent antitumor activity in preclinical models of treatment naïve and resistant, recurrent epithelial ovarian cancer.

2. IUSCC Breast Cancer Program Award (Nephew KP, Radovich M, Miller KD, Matei D)
Title: Comparing the Genomic and Epigenomic Landscapes of Treatment Resistant Basal-like Breast Cancers and High-Grade Serous Ovarian Cancers
Duration: 2013-2014 $75,000

3. DNA Methylation and Ovarian Cancer
NCI R01-CA85289-08 (Nephew, KP)
5/01/2000-02/28/2014
The major goal of this competitive renewal project is to isolate and fully characterize ovarian cancer stem cells (OCSC) from tumor samples. The OCSC and response to epigenetic therapies will be examined both in vivo and in vitro using xenograft models.

4. Epigenetic Modulation of Platinum Anti-Tumor Activity in Ovarian Cancer
Ovarian Cancer Research Fund (Nephew, KP) 1/1/11-01/31/14
Program Project Planning Grant
The long term goal of this project is to establish interventions targeting the epigenome as a new therapeutic strategy for ovarian cancer.

5. MEK5-Erk5 Pathways in Survival Signaling and Tumor Progression to Drug Resistance
1.2 Calendar
NCI R01 CA125806-02 (Burow, M)
07/01/2010-04/30/2015 $24,183
The long-term goal of this research is to understand the role of the MEK5-Erk5 signaling pathway in the tumorigenesis and resistance of breast carcinoma with the goal of developing targeting strategies for therapeutic intervention.
Role: Co-investigator

6. Testing Genotype-Hormone Associations in Circumpolar Ancestral and Descendant Populations
1.2 Calendar
NSF ARC-1142201 (Vitzthum,V) 7/1/11-6/30/13
Goals (1) understand women's reproductive functioning is affected by and has potentially adapted to circumpolar physical environments, and (2) consequences of biology-environment interactions for human demographic patterns and individual well-being in arctic populations.
Role: Co-investigator

7. Novel Bioconjugates as Probes of Estrogen Receptors
0.24 Calendar
NIDKK R01 DK075376-04 (Weatherman, R.) 05/01/07 – 04/30/12
The long-term goal of this proposed research is to elucidate the molecular details of estrogen signaling in the context of other signaling pathways in the cell and how crosstalk with these signaling pathways dictate the response profiles of estrogen-mimicking drugs.
Role: Co-investigator

8. CA133877 (Matei D, PI) 07/01/08-06/30/11
Agency: National Institutes of Health/National Cancer Institute
Title: A Low Dose Decitabine Strategy for Restoring Carboplatin Sensitivity
Objectives:Evaluate the role of decitabine in platinum resensitization, phase I/II clinical trial
Direct costs: $500,000
Role: Co-Investigator

9. R01CA85289 (Nephew, KP) **02/01/02-01/31/06**
Agency: National Institutes of Health/National Cancer Institute
Title: DNA Methylation and Ovarian Cancer
Co-Investigator: Tim H.-M. Huang, PhD

10. DOD, CDMRP, Breast Cancer Research Program Predoctoral Award (Nephew, KP) **07/01/09-06/30/12**
Agency: Department of Defense
Title of the Project: Transforming Growth Factor Beta Signaling in Growth of Estrogen Insensitive, Metastatic Bone Lesions
Role: MENTOR; Nicole Nickerson, graduate student)

11. RSG TBE-104125 (Nephew, KP) **10/01/02-9/30/06**
Agency: American Cancer Society
Title: Regulation of Estrogen Receptor Function by the Ubiquitin-Like NEDD8 Pathway

12. BC10839 (Nephew, KP) **05/01/02 – 04/30/05**
Agency: United States Army, Department of Defense, IDEA Award
Title: Role of the Neddylation Enzyme Uba3, a New Estrogen Receptor Corepressor, in Breast Cancer

13. BC010402 (Nephew, KP) **05/01/02-04/30/06**
Agency: United States Army, Department of Defense
Title: Role of the Neddylation Enzyme Uba3, a New Estrogen Receptor Co-repressor, in Breast Cancer
Career Development Award

14. R29CA74748 (Nephew, KP) **08/01/96-08/31/01**
Agency: National Institutes of Health/National Cancer Institute
Title: Tamoxifen and Retinoic Acid Effects on the Uterus

15. Interrogating Epigenetic Changes in Cancer Genomes (Integrative Cancer Biology Program (ICBP): Centers for Cancer Systems Biology (CCSB) **05/01/05-4/30/10**
NCI- U54 CA113001 (Huang, T.)
Role on Project: Co-investigator/Contact PI for IU

16. R01 AA016698-04 (Zhou, F.C.) **09/30/06-08/31/10**
Agency: National Institutes of Health/National Institute on Alcohol Abuse and Alcoholism
Title: Epigenetics of Fetal Alcohol Syndrome
Role on Project: Co-investigator

17. Nephew, KP **08/01/07 – 12/31/09**
Agency: Phi Beta Psi National Sorority
Title: Epigenetic Targeting of Ovarian Tumor Stem Cells

18. Nephew, KP **09/01/08 – 08/31/10**
Agency: IUSCC Translational Research Acceleration Collaboration **(**I*TRAC*)
Title: WNT Modulation of Breast Cancer Stem Cell Phenotype in Bone Metastasis

19. Biomedical Research Fund (**Nephew, KP**) **9/01/03-8/31/05**
Agency: Indiana University School of Medicine Pilot Project Award

20. Hahn , N **02/01/08 – 01/31/09**
Agency: Indiana University Simon Cancer Center
Title: In Vivo study of Intravesical 5-azacitidine for the Treatment of Urinary Bladder Cancer
Total Costs: $15,000 (Drug provided by Celgene Corporation)
Role on Project: Co-investigator

21. Nephew, KP **06/01/07 – 05/30/08**
Agency: IUSCC Translational Research Acceleration Collaboration (I*TRAC*)
Title: Biomarkers for Assessing Decitabine Re-sensitization to Platinum in Recurrent Ovarian Cancer

22. CA 27469-18 (Nephew, KP) **7/1/99-6/30/2001**
Agency: NIH/NCI/Gynecologic Oncology Group
Title: Profiles of methylated genes in ovarian cancer

23. SYN-1201-07 (Nephew, KP) **8/01/02-7/31/04**
Agency: Thyroid Research and Advisory Council (TRAC)/Abbott Laboratories
Title: Development of a Novel, Thyroid Cancer-Specific Gene Therapy Delivery System

24. Pilot Project Grant (Nephew KP; Weatherman R) **7/01/04-6/30/05**
Agency: IU Simon Cancer Center, Walther Cancer Institute
Title: Chemical Probes of the Mechanism Action of Antiestrogen Action and Structure-Activity Relationships of NEDD8-Induced ERα Degradation

25. OC000113 (PI: Stephen Williams MD) **09/30/02 – 09/29/05**
Agency: United States Army, Department of Defense Program Project
Title: DNA Repair and Cell Cycle Therapeutic Targets for Ovarian Cancer
Title of Project 4: Identification of Ovarian Tumor-Specific Promoters
Role on Project: Project 4 Leader

26. NIH 3R01 HD37025 (Bigsby, R) **12/99-11/04**
Title: Stromal-Epithelial Interactions in the Uterus
Role on Project: Co-investigator

27. The Catherine Peachey Fund, Amelia Project for Breast Cancer Research (Lee, SH)
Title: Targeted Inhibition of Key DNA Repair Factor for Breast Cancer Co-Therapy
Duration: 6/01/00-5/31/01
Role on Project: Co-investigator

28. National Institutes of Health/NCI, National Research Service Award (Nephew, KP)
Title: "Tamoxifen Activation of Protooncogenes in the Uterus
Mentor: Sohaib Khan, PhD
Duration: 1994-96

29. American Cancer Society Postdoctoral Fellowship (Nephew, KP)
Title: "Tamoxifen Activation of Protooncogenes in the Uterus
Mentor: Sohaib Khan, PhD
Duration: 1993-1994

REGIONAL, NATIONAL AND INTERNATIONAL CONTRIBUTIONS

Invited Presentations (Chairman of Scientific Sessions; Invited Speaker, Program Participant)

1. Gordon Research Conference on Reproductive Tract, Presenter 1992
2. Chairman, Uterine Biology Session, The Society for the Study of Reproduction, 25th Annual Meeting, Raleigh, North Carolina, 1992
3. Chairman, Preimplantation/Uterine Development Session, Society for the Study of Reproduction, 27th Annual Meeting, Ann Arbor, Michigan, 1993
4. Histopathobiology of Neoplasia, AACR Workshop, 1994
5. Gordon Research Conference on Reproductive Tract, 1994
6. Gordon Research Conference on Hormonal Carcinogenesis, 1997
7. Gordon Research Conference on Reproductive Tract, 1998
8. Gordon Research Conference on Hormonal Carcinogenesis, Presenter (abstract) 1999
9. Keystone Symposium on Nuclear Receptors, Lake Tahoe,1998
10. Gynecologic Oncology Group Translational Research Retreat for GYN Cancer, 2000
11. Keystone Symposium on Nuclear Receptors, 2002
12. Gynecologic Oncology Group, NCI Endometrial Cancer Biology Workshop, 2002
13. Session Moderator, Regul. Steroid Hormone Action, Endocrine Society Natl Mting, 2003
14. Biomarkers and DNA Methylation in Ovarian Cancer, October 5-8, 2004, Aberfoyle, Scotland, UK, “Methylation screening for predictive outcome in ovarian cancer.”
15. E.hormone International Meeting, October 27-30, 2004, Center for Bioenvironmental Research, New Orleans, " Aberrant estrogen receptor-alpha signaling has epigenetic consequences on downstream target genes in breast cancer."
16. Gordon Research Conference, Hormone Action In Development & Cancer, July 10-15, 2005, Mount Holyoke College, South Hadley, "Epigenetic consequences of loss of estrogen receptor-alpha signaling on downstream target genes in breast cancer."
17. Endocrine Society, Nuclear Receptors Steroid Hormone Action, 2005, Moderator
18. Gordon Research Conference, Hormone Action Development and Cancer 2005; Invited Speaker; Chairs: Maarten Bosland, Darcy Kelley & Cheryl Walker; Mount Holyoke College, South Hadley, MA July 10-15
19. Society for the Study of Reproduction, Quebec City, Canada, July 24-27, 2005, “Regulation of transcription in ovarian cancer: epigenetic regulation.”
20. Serono International Symposium on “Endometrial Biology: Transdisciplinary Science Meets Clinical Practice, San Francisco, CA November 15 –17, 2006, “The action of estrogen and progesterone on the epigenetic modulation of the uterus: transformation to malignancy.”
21. Simmons Cooper Cancer Institute, Research Symposium September 292006, Invited Speaker; Chairs: Subhas Chakrabarty & Sophia Ran, Springfield, IL
22. International Symposium on Biomarker Discovery in Human Cancers, National Cheng Kung University, Tainan, Taiwan, May 7, 2007, “Cancer DNA Methylation Biomarkers.”
23. Outstanding Life Science Lecture, Human Epigenomics Center, National Chung Cheng University, Min-Hsiung Chia-Yi, Taiwan, May 8, 2007, “Cancer Epigenetics and Drug Resistance.”
24. National Defense Medical Center Lecture Series, Tri-Service General Hospital, Taipei, Taiwan, May 11, 2007, “Cancer Epigenetics for Biomarker Discovery, Therapeutic Targets, and Understanding Drug Resistance.”
25. 7th International Workshop on Pharmacodynamics of Anticancer Agents, Guanacaste, Costa Rica, September 16-20, 2007, “Epigenetic Therapies to Overcome Resistance.”

26. Workshop on Systems Biology of Environmental Cancer, Bushmills, Ireland, April 27-30, 2008. "Systems Analysis of Whole-Genome and -Epigenome Responses to Endocrine Disruptors"
27. 4th Biennial Workshop on the Clinical Translation of Epigenetics in Cancer Therapy, Coral Gables, Florida, January 16-18, 2009, "A Low-Dose Decitabine (5-aza-2'- deoxycytidine) Strategy for Restoring Ovarian Cancer Sensitivity to Carboplatin."
28. AACR, 100th Annual Meeting, Denver, CO, April 18-22, 2009, "DNA Methylation Inhibitors for Chemotherapy Resensitization of Solid Tumors."
29. AACR, 100th Annual Meeting, Denver, CO, April 18-22, 2009, Chair, Educational Session, "Epigenetic Therapies to Overcome Resistance."
30. Ottawa Hospital Research Institute, ON, Canada, October 26, 2009, "The Epigenome and Tumor Propagating Cells As Novel Therapeutic Targets in Ovarian Cancer."
31. AACR Special Conference on Cancer Epigenetics (Co-Chairs Jean-Pierre Issa, Peter W. Laird, and Kornelia Polyak), San Juan, Puerto Rico, January 20-23, 2010, "DNA Methylation Inhibitors for Chemotherapy Resensitization of Solid Tumors."
32. Gynecological Oncology Group Winter Scientific Session on Cancer Stem Cell Research and applications in Gynecologic Cancer, San Diego, CA, January 27-29, 2010, "The Role of microRNAs and Epigenetics in the Therapeutic Responsiveness of Ovarian Cancer Stem Cells."
33. Second Annual Epigenetics Congress; XGenC Congress, Applying Next Generation Genomic Technologies for Now Generation Discoveries, Cambridge Healthtech Institutes, San Diego, CA, March 15-17, 2010, "Combinatorial Epigenetic Therapy Regiments for Ovarian Cancer."
34. X-Gen Congress, Cambridge Healthtech, San Diego; March 15-19, 2010, Chair, Epigenetics Session
35. Keystone Symposium on New Paradigms in Cancer Therapeutics (Co-Chairs Arul Chinnaiyan and William R. Sellers), Victoria, British Columbia, Canada, March 23-28, 2010, "Epigenetic Approaches for Chemotherapy Resensitization of Solid Tumors."
36. Endocrine Society, 92nd Annual Meeting, Endocrine Epigenetics: Turn-Ons & Turn-Offs, San Diego, CA, June 19- 22, 2010 "The Role of Epigenetics in the Therapeutic Responsiveness of Ovarian Cancer and Tumor Propagating Cells."
37. Helene Harris Memorial Trust Ovarian Cancer Forum, Miami, FL January 16-19, 2011
38. Great Lakes Bioinformatics Conference, Co-organizer, Cancer Systems Biology, "Emerging Topics in Systems Biology: Molecular Networks Cancer: RNA-Seq Whole Transcriptome Analysis" May 2-4, Athens, OH, 2011
39. 6th Canadian Conference on Ovarian Cancer Research, Quebec City, CA May 27-29, 2012, "Epigenetic Therapies to Overcome Ovarian Cancer Drug Resistance."
40. Federation for the American Societies for Experimental Biology (FASEB) Science Research Conference (SRC); Biological Methylation: From DNA & Histones to Disease, August 12-17, 2012, Snowmass Village, CO; Organizers: Brian D. Strahl, Paul A. Wade
41. Indian Association of Cancer Research, 32nd Annual Convention, Dr. B.R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, North Campus, February 13-16, 2013, "Cancer Stem Cells and Epigenetics."
42. AACR, Advances in Ovarian Cancer Research: From Concept to Clinic, Miami, FL September 18-21, 2013, "Targeting the Methylome for Epigenetic Resensitization of Ovarian Cancer."
43. Gordon Research Conference, Cancer Genetics & Epigenetics, 2013; Invited Speaker; Chair: Joseph F. Costello; Vice Chair: Ricky Johnstone; Lucca (Barga), Italy April 21-26, "Novel DNMT inhibitors as Chemosensitizers in Malignancy."
44. AACR, Chairperson, Annual Meeting April 6-10, 2013, Minisymposium entitled, "Therapies Targeting Epigenetic Mechanisms."

45. Keystone Symposium on Cancer Epigenetics; Santa Fe, New Mexico February 4-9, 2014, Scientific Organizers: Sharon Y.R. Dent, Jean-Pierre Issa and Peter A. Jones, "Epigenetic Therapies that Overcome Cancer Drug Resistance."
46. Helene Harris Memorial Trust Ovarian Cancer Forum, 13th International Forum on Ovarian Cancer, Toledo, Spain, January 17-2, 2015, "Epigenetic Targeting of Ovarian Cancer Stem Cells."
47. Cancer Research Day, IU Simon Cancer Center, May 21, 2015, "Epigenetic Alterations in Breast Cancer and Targets for Overcoming Hormonal Therapy Resistance." Keynote Speaker: Nancy Davidson, MD.
48. Nature Conference, Epigenetics of Cancer and Aging, Beijing, China, October 15-17, 2015. Speaker

National Lectures (Invited)

1. Mayo Foundation, Dept of Biochemistry and Molecular Biology, Rochester, MN, 1991
2. Kansas State University, Animal Sciences Industry Physiology, Manhattan, KS, 1992
3. University of Cincinnati, College of Medicine, Dept of Anatomy and Cell Biology, 1992
4. National Cancer Institute, Division of Cancer Prevention and Control, Bethesda, MD, 1993
5. University of Cincinnati, College Medicine, Dept Molecular Cellular Physiology, 1994
6. Indiana University, Department of Chemistry, Bloomington, IN, 1996
7. IUSM, Endocrine Research Conference, 1996
8. IUSM Biomedical Colloquium, Bloomington, IN, 1996
9. IUPUI, Department of Biology, 1996
10. IUPUI, Department of Physiology and Biophysics, 1997
11. IU Pro & Con Program, " New Frontiers in the Fight Against Cancer, " 1998
12. IUSM, Amelia Project, Collaborative Initiative for Breast Cancer Research, 1998
13. IUSM, Intercampus Research Day, 1999
14. IUSCC, Combined Seminar Series, 1999
15. University of Missouri, Ellis Fischel Cancer Center, 2000
16. Bloomington Hospital Found, "Conquering Cancer Through Research", 2000
17. Indianapolis Breast Health Awareness League, 2000
18. IUSCC, Grand Rounds, Department of OB/GYN, 2000
19. University Cincinnati, Department of Cell Biology, Neurobiology, Anatomy 2001
20. Indiana University, Simon Cancer Center Grand Rounds, 2001
21. Amelia Project Breast Cancer Retreat, Indianapolis, IN, 2001
22. University of Cincinnati, Department of Molecular and Cellular Physiology, 2002, "Relationship Between ER-alpha Degradation and Receptor Activity in Breast Cancer."
23. The Ohio State University, Department of Physiology and Cell Biology, 2002, "Role of the Nedd8 Pathway in Estrogen Receptor-alpha Activity in Breast Cancer."
24. Indiana University, School of Medicine, 2003, Departments of Medicine & Pediatrics, Section of Hematology/Oncology
25. University of Cincinnati, College of Medicine, Elwood Jensen Symposium, Nuclear Receptors & Endocrine Disorders, 2003, "Proteasome-mediated Estrogen Receptor Degradation in Breast Cancer."
26. Bloomington Hospital Foundation, Managing Menopause, Panel Discussion, 2004
27. University Cincinnati College of Medicine, Department of Pharmacology, 2004, "Proteasome-mediated Estrogen Receptor Degradation and Receptor Activity."
28. Indiana University, School of Medicine Division of Clinical Pharmacology, 2004, "Proteasome-mediated Estrogen Receptor Degradation and Receptor Activity."
29. The Ohio State University, Department of Molecular Virology, Immunology, and Medical Genetics, Human Cancer Genetics Program, Comprehensive Cancer Center, 2005, "Up- and Downregulation of Estrogen Receptor Activity."

30. 1st Integrative Cancer Biology Symposium, Berkeley, CA; May 15-18, 2005, "Building Discriminative Models to Classify Methylation-Prone Sequences in Cancer."
31. University of Cincinnati, College of Medicine, Department of Obstetrics and Gynecology, 2005, "Ovarian Cancer Epigenetics."
32. Purdue University, Department of Medicinal Chemistry & Molecular Pharmacology, 2005, "Up- and Downregulation of Estrogen Receptor Activity.
33. University of Notre Dame, Biological Sciences, April 4, 2005, "Epigenetics and Epigenetic Therapies for Ovarian Cancer."
34. Indiana University, Center for Genomics and Bioinformatics, 2005, "Building Discriminative Models to Classify Methylation-Prone Sequences in Cancer."
35. University of Nebraska Medical Center, September 14, 2005, "Loss of ER-alpha signaling in Breast Cancer: Epigenetic Consequences on Downstream Receptor Target Genes."
36. Clark Atlanta University, Center for Cancer Research and Therapeutic Development, Atlanta, GA, November 11, 2005, "Estrogen Receptor-alpha Signaling in Breast Cancer: Epigenetic Consequences of Loss of Estrogen Signaling on ER-alpha Target Genes."
37. 14th ACS Great Lakes Cancer Symposium, "Cellular and Molecular Mechanisms of Cancer" University of Notre Dame, Friday, October 7, 2005, "Role of the Proteasome in Regulating Estrogen Receptor-alpha and Estrogen Action in Breast Cancer."
38. University of Illinois at Urbana-Champaign, Department of Veterinary Biosciences, December 9, 2005, "Epigenetic Consequences of Loss of Estrogen Receptor."
39. University of California San Diego, Department of Reproductive Medicine, March 7, 2006, "Epigenetic Gene Silencing in Ovarian Cancer: A Therapeutic Target."
40. IUSCC, Experimental and Developmental Therapeutics Program, February 20, 2006, "Epigenetic Modifications as Therapeutic Targets in Cancer."
41. Vanderbilt University, 3rd Integrative Cancer Biological Symposium, Nashville, TN April 30 - May 2, 2006, "Iterations in DNA Methylation Patterns and Chemotherapy Resistance in Cancer."
42. Southern Illinois University, Simmons Cooper Cancer Institute Research Symposium, School of Medicine, Springfield, Illinois September 29, 2006, "Epigenetic Remodeling of Estrogen Signaling in Antiestrogen-Resistant Breast Cancer."
43. VanAndel Research Institute, 15th ACS Great Lakes Cancer Symposium, "Cellular and Molecular Mechanisms of Cancer" Grand Rapids, MI, October 16, 2006, "Epigenetic Remodeling of Estrogen Signaling in Antiestrogen-Resistant Breast Cancer."
44. Celgene Biopharmaceutical Company, San Diego, CA, November 29-30, 2006, "New Anti-cancer Strategies: Epigenetic Therapies and DNA Methylation Biomarkers."
45. Indiana University, School of Medicine, Endocrine Research Conference, Department of Medicine, December 18, 2006, "Molecular Changes Associated with the Acquisition of Breast Cancer Antiestrogen Resistance."
46. University of Pittsburgh Cancer Institute, Basic Research Seminar Series, March 7, 2007, "Cancer Epigenetics and Drug Resistance."
47. Cambridge Healthtech Institute, Epigenomics, Applying DNA Methylation and Histone Acetylation to Diagnostic and Drug Development, San Diego, CA, March 19-20, 2007, "DNA Methylation Biomarkers and Ovarian Cancer."
48. Indiana University, School of Medicine, Anatomy and Cell Biology Basic Seminar Series, Department of Anatomy and Cell Biology, April 17, 2007, "Cancer Epigenetics, Methylation Biomarkers, and Drug Resistance."
49. Medical College of Georgia Cancer Center, Augusta, GA June 7, 2007, "Cancer Epigenetics for Biomarker Discovery, Therapeutic Targets, and Understanding Drug Resistance."

50. Purdue Cancer Center, Department of Comparative Pathobiology, October 25, 2007, "Epigenetic Approaches for Understanding the Pathobiology of Cancer."
51. Evanston Northwestern Health Research Institute, Department Ob & Gyn, November 7, 2007, "Translating Epigenomic Approaches and Epigenetic Drugs to the Cancer Clinic."
52. Cedars-Sinai Medical Center, Women's Cancer Research Institute and Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, Geffen School of Medicine, University of California, Los Angeles, December 5, 2007, "Ovarian Cancer Epigenetics: From Laboratory Studies to Clinical Application."
53. University of Missouri, Biomedical Sciences Seminar Series, Columbia, MO, March 6, 2008, "Epigenetic Changes Underlying the Acquisition of Antiestrogen Resistance in Breast Cancer."
54. Indy '08, 5th Annual Bioinformatics Conference, Indianapolis, IN, July 11, 2008, "Cancer Epigenetic and Bioinformatic Studies From the Laboratory to the Clinic."
55. Cedars-Sinai Medical Center, Samuel Oschin Comprehensive Cancer Institute, Beverly Hills, CA, July 29, 2008 , "Translating Cancer Epigenetic Studies From the Laboratory to the Clinic."
56. Indy Regional Bioinformatics Conference, Indianapolis, IN, July 11, 2008, "Cancer Epigenetic and Bioinformatic Studies from the Laboratory to the Clinic."
57. Eli Lilly Incorporated, Indianapolis, IN, September 10, 2008, "Targeting the Pathway Critical to Ovarian tumor Initiating Cells."
58. Tulane University, University Biomedical Sciences Seminar Series, New Orleans, LA, October 30, 2008, "Aberrant Estrogen Receptor Signaling and Epigenomic Alterations in Antiestrogen Resistant Breast Cancer."
59. Indiana University Simon Cancer Center, Grand Rounds, May 8, 2009, "DNA Methylation Inhibitors for Chemotherapy Resensitization of Solid Tumors."
60. Medical University of South Carolina, 3rd Annual Symposium, Ovarian Cancer Research, Hollings Cancer Center, Charleston, SC, May 15, 2009, "Ovarian Cancer Epigenetics and Ovarian Tumor Propagating Cells*",*
61. University of Illinois, Chicago, September 23, 2009, "Epigenetics and Chemotherapy Resensitization of Ovarian Cancer."
62. Indy MicroRNA Symposium, Center for Computational Biology and Bioinformatics, Indianapolis, IN, November 6, 2009, "A microRNA Regulatory Feedback Loop Involved in the Development of ERα-Negative Breast Cancers."
63. Midwest Meeting on the Role of Epigenetics in Cancer: Mechanisms and Therapy, Columbus, OH, November 9, 2009, "DNA Methylation Inhibitors for Chemotherapy Resensitization of Solid Tumors."
64. Brown University, Ovarian Cancer Research Symposium at Brown University, The Warren Alpert Medical School of Providence, RI, February 5, 2010, "Targeting the Ovarian Cancer Epigenome and Tumor Propagating Cells."
65. National Institute of Environmental Health Sciences (NIEHS), Laboratory of Molecular Carcinogenesis (LMC), Research Triangle Park, NC; February 18, 2010, "The Role of Epigenetics in the Therapeutic Responsiveness of Ovarian Cancer and Stem/Tumor Propagating Cells".
66. IUSM, Department of Biochemistry and Molecular Biology, Indianapolis, IN, October 11, 2010, "Epigenetic Resensitization of Solid Tumors."
67. University of Texas M.D. Anderson Cancer Center, Science Park-Research Division, Smithville, Texas, November 30, 2010, "Role of microRNA-221/222 in Estrogen Receptor Negative, Antiestrogen Resistant Breast Cancer."
68. Wichita State University, Molecular Bioscience Lecture, Departments of Biological Science and Chemistry, March 28, 2011, Wichita, KS , "Cancer Epigenetics from the Laboratory to the Clinic."

69. Ohio University, Great Lakes Bioinformatics Conference, Athens, OH, May 2-4, 2011, "Whole Transcriptome RNA-seq Analysis of Ovarian Cancer."
70. Roswell Park Cancer Institute, Faculty Forum, Gynecologic Oncology Disease Site Research Group, Buffalo, NY, May 11, 2011, "DNA Methylation Inhibitors for Chemotherapy Resensitization of Ovarian Cancer."
71. Roswell Park Cancer Institute, Faculty Forum, Gynecologic Oncology Disease Site Research Group, Buffalo, NY; May 11, 2011, "Epigenetic Resensitization of Ovarian Cancer."
72. University of Pittsburgh Cancer Institute, Department of Pharmacology and Chemical Biology, Women's Cancer Research Center, Magee Women's Research Institute, Pittsburgh, PA, May 31, 2011,"Targeting the Ovarian Cancer Epigenome and Ovarian Tumor Propagating Cells."
73. IUPUI, Department of Biology, School of Science, September 9, 2011, "The Role of Chromatin, MicroRNAs, and Tumor Stem Cells in Ovarian Cancer."
74. University of Southern California, Norris Cancer Center, Stand Up to Cancer SU2C Retreat, September 20, 2011, "Indiana Ovarian Cancer Epigenetic Therapy Trial."
75. Purdue University, Walther Cancer Foundation Symposium, West Lafayette, IN, November 13-14, 2011, "Epigenetic Resensitization of Solid Tumors."
76. Epigenetics Symposium, Indiana University School of Medicine, Indianapolis, IN, December 9, 2011, "Translational Epigenetics."
77. Medical College of Wisconsin, Women's Health Research Program, March 21, 2012, "Targeting Ovarian Tumor/Progenitor Cells and the Ovarian Cancer Epigenome."
78. University of Texas Health Science Center at San Antonio, Department of Molecular Medicine, March 30, 2012, "Characterization and Targeting of Human Ovarian Cancer Stem Cells."
79. Northwestern University, Robert H. Lurie Comprehensive Cancer Center, Tumor Cell Biology Seminar Series, Chicago, IL September 20, 2012, "Targeting the Cancer Methylome and Tumor Initiating/Progenitor Cells."
80. University of Cincinnati, Graduate Program in Cancer Cell Biology, Cincinnati, OH, October 18, 2012, "Targeting the Cancer Methylome and Tumor Initiating/Progenitor Cells."
81. Southern Illinois University, School of Medicine, Department of Physiology, Carbondale, IL, November 9, 2012, "Targeting the Ovarian Cancer Methylome and Ovarian Tumor Initiating/Progenitor Cells."
82. Rush University Medical Center, Departments of Pharmacology, Obstetrics & Gynecology and Pathology, Chicago, IL March 13, 2013, "Epigenetic Therapies that Overcome Ovarian Cancer Drug Resistance."
83. Georgetown University, Lombardi Comprehensive Cancer Center, Visiting Professorship Seminar Series, Washington, D.C. March 22, 2013, "Epigenetic Alterations in Breast Cancer and Targets for Overcoming Hormonal Therapy Resistance."
84. University of Louisville, Department of Biochemistry and Molecular Biology, May 13, 2013, "Epigenetic Alterations in Breast Cancer and Targets for Overcoming Hormonal Therapy Resistance."
85. Tulane University, Tulane Cancer Center Seminar Series, May 16, 2013, "Epigenetic Alterations in Breast Cancer and Targets for Overcoming Hormonal Therapy Resistance."
86. The Wistar Institute, Molecular & Cellular Oncogenesis Program, Philadelphia, PA, May 20, 2013, "Targeting the Methylome for Epigenetic Resensitization of Ovarian Cancer."
87. University of Notre Dame, Walther Cancer Foundation Symposium, South Bend IN, October 4-5, 2013, "The Epigenome as a Therapeutic Target in Cancer."

88. Vermont Cancer Center Fall Symposium, University of Vermont, Burlington VT, November 8, 2013. "Targeting the Methylome for Epigenetic Resensitization in Cancer."
89. Mayo Clinic College of Medicine, Oncology Society Meeting, Rochester, MN, December 5, 2013, "Epigenetic Therapy for Overcoming Cancer Drug Resistance."
90. University of New Mexico, Department of Pharmaceutical Sciences, College of Pharmacy, February 3, 2014, "Epigenetic Therapies that Overcome Cancer Drug Resistance."
91. Northern Ontario School of Medicine, Division of Medical Sciences, Cancer Seminar Series, March 8, 2014. "Epigenetic Therapies that Overcome Cancer Drug Resistance."
92. Harper Cancer Center, University of Notre Dame, Indiana Illinois End Epithelial Ovarian Cancer Consortium (IIEEOCC), South Bend IN, June 8,9, 2014, "Targeting the Ovarian Cancer Epigenome and Ovarian Cancer Stem Cells."
93. IUSCC, Tissue Microenvironment and Metastasis Program, May 9, 2014, "Epigenetic Targeting of Cancer Stem Cells," Indianapolis, IN
94. Case Western Reserve University National Center for Regenerative Medicine (NCRM) and the Case Comprehensive Cancer Center, Cancer Stem Cell Conference, August 17-20, 2014, "Epigenetic Targeting of Cancer Stem Cells," Cleveland, OH
95. University of Texas M.D. Anderson Cancer Center, Center for Cancer Epigenetics Distinguished Lecture Series Houston, TX, September 4, 2014, "Epigenetic Targeting of Ovarian Cancer Stem Cells."
96. Tulane University School of Medicine, Department of Pharmacology, October 3 2014, "Pharmacodynamically optimized epigenetic treatment to target cancer stem cells," New Orleans, LA
97. University of Nebraska Medical Center, Genetics, Cell Biology, and Anatomy, December 3, 2014, Omaha, NE, "Targeting the Ovarian Cancer Epigenome and Ovarian Cancer Stem Cells."
98. IUSCC, Grand Rounds, December 19, 2014, "Epigenetic Therapies for Solid Tumors," Indianapolis, IN
99. Northwestern University, Feinberg School of Medicine, Department of Obstetrics and Gynecology, February 17, 2015, Chicago, IL, "Epigenetic Resensitization Strategies in Cancer."
100. University of Georgia, Department of Pharmaceutical and Biomedical Sciences, August 26, 2015, Athens, GA, "Targeting the Cancer Epigenome and Cancer Stem Cells."
101. University of Virginia Cancer Center, November 13, 2015, Charlottesville, VA, "Targeting the Ovarian Cancer Methylome and Ovarian Cancer Stem Cells."
102. Eppley Institute for Research in Cancer and Allied Disease, The Fred and Pamela Buffet Cancer Center, University of Nebraska Medical Center, March 3 2016, Omaha, NE, "Hypomethylating Agents and Episensitization in Cancer."
103. Temple University, Cancer Biology Genetics and Epigenetics, Fels Institute, Lewis Katz School of Medicine, April 5, 2016, Philadelphia, PA, "Hypomethylating Agents and Episensitization in Cancer."
104. 11th Biennial Ovarian Cancer Research Symposium, The Rivkin Center for Ovarian Cancer and the American Association for Cancer Research (AACR), oral presentation in scientific session entitled "Mechanisms of Initiation and Progression of Ovarian Cancer", September 12-13 2016, University of Washington in Seattle, WA, "Therapeutic Targeting using Tumor Specific Peptides Inhibits Long Non-coding RNA HOTAIR Oncogenic Activity in Ovarian Cancer."
105. University of Missouri-Columbia, Department of Biomedical Sciences, October 27, 2016, Columbia, MO, "Targeting the Cancer Epigenome and Cancer Stem Cells."

106. Jensen Symposium on Breast Cancer, University of Cincinnati Cancer Seminar Series, Cincinnati, OH, "Impact of Ethnicity-dependent Differences in Normal and Tumor Epigenome on Breast Cancer Progression." November 3-4, 2016
107. Cleveland Clinic, Genomic Medicine Institute November 14, 2016, Cleveland, OH, "Targeting the Cancer Epigenome and Episensitizing Cancer Stem Cells."
108. Perelman School of Medicine, University of Pennsylvania, Center for Research on Reproduction and Women's Health, Philadelphia, PA, "Targeting the Cancer Epigenome and Episensitizing Cancer Stem Cells." November 30, 2016
109. Department of Biochemistry & Molecular Biology, University of Florida, College of Medicine. Title: "Targeting the Cancer Epigenome and Cancer Stem Cells." December 12, 2016
110. Translational Research Program, Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA. Title: "Taking the Ovarian Cancer Epigenome from bench to bedside and back to the bench." December 15, 2016

PATENTS/INVENTIONS

1. "Transcriptional Targeting of Ovarian Cancer with HE4 Promoter", **K. P. Nephew,** N. Berry; *U.S. Patent Application # 05007* (disclosure August 2004): InVivoGen (pDRIVE-HE4; Marketed December 2004) Gold Biotechnology (St. Louis, MO), License executed June, 2006.

2. " Stranded Whole Transcriptome Sequencing", **K. P. Nephew,** D. F. Miller; *US Patent Application No. 61/789,597*

3. "An innovative molecular tool targeting lncRNAs," **K.P. Nephew**, A. Ozes; provisional patent number 62/164,296

4. "Inhibition of lncRNA HOTAIR and Related Materials and Methods," **K.P. Nephew**, A. Ozes; Indiana University International patent application PCT/US2016/33611

OTHER PROFESSIONAL ACTIVITIES

2001 Wrote outside letter for promotion of candidate to Associate Professor & award of tenure

2003 Wrote outside letter for promotion of candidate to full Professor

2006 Wrote outside letters for promotion of two candidates to Associate Professor & award of tenure

2007 Wrote internal letters for promotion of two IU candidates to Associate Professor & award of tenure
Wrote two outside letters for promotion (Associate Professor & award of tenure)

2008 Evaluated an outside dossier for appointment to rank of Professor

2009 Evaluated two outside dossiers for appointment to rank of Associate Professor & award of tenure
Evaluated an outside dossier for appointment to rank of Professor
Evaluated an outside dossier for appointment to rank of Research Associate Professor

2010 Evaluated an internal IU dossier for appointment to rank of Associate Professor & award of tenure
Evaluated an outside dossier for appointment to rank of Associate Professor & award of tenure
Evaluated an outside dossier for appointment to rank of Research Associate Professor

2011 Evaluated two internal IU dossiers for appoint to rank of Associate Professor & award of tenure
Evaluated four outside dossiers for appointment to rank of Associate Professor & award of tenure

2012 Evaluated a dossier for appointment to rank of Associate Staff and Associate Professor
Evaluated two outside dossiers for appointment to rank of Associate Professor & award of tenure
Evaluated two outside dossiers for appointment to rank of Professor & award of tenure
Provided a letter for a Rising Star Researcher of the Year

2013 Evaluated an internal IU dossier, appointment to rank of Associate Professor & award of tenure
Evaluated an internal IU dossier for appointment to rank of Professor
Evaluated four outside dossiers for appointment to rank of Associate Professor & award of tenure
Evaluated two outside dossiers for rank of Professor & award of tenure
Evaluated a dossier from the National Institutes of Health for promotion
Performed a mid-tenure review of an outside dossier
Provided a letter for a Rising Star Researcher of the Year

2014 Wrote letters for promotion of two IU candidates to rank of Associate Professor & award of tenure
Evaluated three outside dossiers for appointment to rank of Associate Professor & award of tenure
Evaluated an outside dossier for promotion to rank of Professor
Evaluated an outside (international) dossier for promotion to Professor
Evaluated an outside dossier for appoint to a Distinguished University Scholar

2015 Evaluated three outside dossiers for promotion to rank of Professor
Evaluated an outside dossier for appointment to rank of Consultant
Evaluated two outside dossiers for promotion to rank of Associate Professor & award of tenure

2016 Evaluated four outside dossiers for promotion to rank of Professor
Evaluated four outside dossiers for promotion/tenure to rank of Associate Professor
Evaluated an internal dossier for promotion to rank of Professor
Provided a letter for a Showalter Scholar Award

BIBLIOGRAPHY/PUBLICATIONS

Citations: 10,000
h-index: 56
i10-index: 147

Refereed Work
Years: 1980-1989

1. Pate JL, **Nephew KP,** Zarle GS. 1987 Cell density influences hormonal responsiveness but not lipoprotein utilization in cultured bovine luteal cells. *Mol Cell Endocrinol* 53:187-194
2. Pate, JL, **Nephew KP**. 1988 Effects of in vivo and in vitro administration of prostaglandin F_2a on lipoprotein utilization in cultured bovine luteal cells. *Biol Reprod* 38:568-576
3. **Nephew KP**, McClure KE, Pope WF. 1989. Embryonic migration relative to maternal recognition of pregnancy in sheep. *J Anim Sci* 67:999-1003
4. **Nephew KP,** Ford SP, Day ML, Pope WF. 1989 Extension of short cycles in postpartum beef cows by intrauterine treatment with catecholestradiol. *Dom Anim Endocrinol* 6:363-370

Years 1990-1999

5. Broermann DM, Xie S, **Nephew KP,** Pope WF. 1989 Effects of the oviduct and wheat germ agglutinin on enzymatic digestion of the porcine zona pellucida. *J Animal Sci* 67:1324-1329
6. Pope WF, Xie S, Broermann DM, **Nephew KP**. 1990 Causes and consequences of early embryonic diversity. *J Reprod Fertil* 40:251-254
7. **Nephew KP**, McClure KE, Day ML, Xie S, Roberts RM, Pope WF. 1990 Effects of intramuscular administration of recombinant bovine interferon alpha1 during the period of maternal recognition of pregnancy in ewes. *J Anim Sci* 68:2766-2770
8. **Nephew KP,** Clay JC, Thayer SL, Baertsche SR, Parker CF, Pope WF. 1990 Intrauterine insemination of merino ewes with frozen semen from Australian merino rams. *Sheep Industry Devel J* 6:5-8
9. Xie S, Broermann DM, **Nephew KP**, Geisert RD, Pope WF. 1990 Ovulation and embryogenesis in swine. *Biol Reprod* 43:236-240
10. Xie S, Broermann DM, **Nephew KP**, Pope WF. 1990 Relationship between oocyte maturation and fertilization on zygotic diversity in swine. *J Anim Sci* 68:2027-2033
11. Xie S, Broermann DM, **Nephew KP**, Ottobre JS, Day ML, Pope WF. 1990 Changes in follicular endocrinology during oocyte maturation in swine. *Dom. Anim.Endocrinol.*, 7:75-82
12. Broermann DM, Xie S, **Nephew KP**, Pope WF. 1990 Limitations of oviductal transfers in swine. *Theriogenology* 33:709-721
13. Hu Y, Wright MD, Dyer RM, **Nephew KP**, Bolze RP, Pope WF, Day ML. 1990 Effects of prostaglandin F_2a analogue during postpartum anestrus and reinitiation ovarian function in cows. *Theriogenology* 34:127-132
14. **Nephew KP**, McClure KE, Ott TL, Bazer FW, Pope WF. 1991 Relationship between variation in conceptus development and differences in estrous cycle duration in ewes. *Biol Reprod* 44:536-539
15. **Nephew KP**, Xie S, Broermann-Ridder DM, McClure KE, Pope WF. 1991 Influence of the embryo on intrauterine migration in sheep. *J Anim Sci* 70:1911-1915
16. Hu Y, **Nephew KP**, Pope WF, Day ML. 1991 Uterine influences on the formation of subnormal corpora lutea in seasonally anestrous ewes. *J Anim Sci* 69:2532-2536
17. Day ML, Kurz SG, **Nephew KP**, Wright MD, Ford SP, Pope WF. 1993 Influence of catecholestradiol on short-lived corpora lutea. *Dom Anim Endocrinol* 10:95-102

18. **Nephew KP**, Whaley AE, Christenson RK, Imakawa K. 1993 Differential expression of distinct mRNAs for ovine trophoblast protein-1 and related sheep type-1 interferons. *Biol Reprod* 48:768-778
19. Imakawa K, Helmer SD, **Nephew KP**, Christenson RK. 1993 A novel role for GM-CSF: enhancement of pregnancy specific interferon production, ovine trophoblast protein-1. *Endocrinology* 132:1869-1871
20. **Nephew KP**, Akcali KC, Moulton BC, Khan SA. 1993 Hormonal regulation and expression of the jun-D protooncogene specific cell types of the rat uterus. *J Steroid Biochem Mole Biol* 46:281-287
21. **Nephew KP**, Polek TC, Akcali KC, Khan SA. 1993 The antiestrogen tamoxifen induces c-fos and jun-B but not c-jun or jun-D protooncogenes in rat uterus. *Endocrinology* 133:419-422
22. **Nephew KP**, Cardenas H, Pope WF. 1994 Effect of prior progesterone treatment on pubertal fertility in swine. *Theriogenology* 42:99-106
23. **Nephew KP**, McClure KE, Ott TL, Bazer FW, Pope WF. 1994 Effects of administration of hCG or progesterone before maternal recognition of pregnancy on blastocyst development and pregnancy rates in sheep. *J Anim Sci* 72:453-458
24. **Nephew KP**, Tang M, Khan SA. 1994 Estrogen differentially affects c-jun expression in uterine tissue compartments. *Endocrinology* 134:1827-1834
25. **Nephew KP**, Peters GA, Khan SA. 1996 Cellular localization of estradiol-induced c-fos mRNA in the rat uterus: c-*fos* expression and uterine cell proliferation do not correlate strictly. *Endocrinology* 136:3007-3015
26. **Nephew KP**, Polek TC, Khan SA. 1996 Tamoxifen-induced proto-oncogene expression persists in uterine endometrial. *Endocrinology* 137:219-224
27. Allen D, Mitchner N, **Nephew K,** Khan S, Ben-Jonathan N. 1997 Induction of c-fos mRNA in the rat pituitary gland by estrogen. *Endocrinology* 138:2128-2135
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Years 2000-2005

29. **Nephew KP**, Choi C, Polek T, McBride R, Bigsby RM, Khan S, Husseinzadeh N. 2000 Expression of c-fos, jun proto-oncogenes in benign versus malignant endometrial tissue. *Gynecol Oncology* 76:388-396
30. **Nephew KP**, Long X, Osborne E, Burke KA, Ahluwalia A, Bigsby RM. 2000 Effect of estradiol on cell type-specific expression of estrogen receptor alpha in the rat uterus. *Biol Reprod* 62:168-177
31. **Nephew KP**, Osborne E, Lubet RA, Grubbs CJ, Khan SA. 2000 Effects of tamoxifen, toremifene, dehydroepiandrosterone, and vorozole on uterine histomorphology in the rat. *Exp Biol Med* 223:288-294
32. **Nephew KP,** Ray S, Hlaing M, Ahluwalia A, Wu SD, Long X, Hyder SM, Bigsby RM. 2000 Expression of estrogen receptor coactivators in the rat uterus. *Biol Reprod* 63:361-367
33. Long X, Steinmetz R, Ben-Jonathan N, Caperell-Grant A, Young PC, **Nephew KP**, Bigsby RM. 2000 Differential sensitivity of uterine epithelium to the xeno- estrogen bisphenol in Fisher 344 versus Sprague-Dawley rats. *Environ Health Persp* 108:243-247
34. Burke KA, Schroeder DM, Abel RA, Bigsby RM**, Nephew KP.** 2000 Immunohistochemical detection estrogen receptor in male rat spinal cord during development. *J Neurosci Res* 61:329-337 (cover article)
35. Puga A, Barnes SJ, Chang C, Zhu H, **Nephew KP,** Khan SA, Shertzer HG. 2000 Activation of redox-regulated transcription factors by 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Biochem Pharmacol* 59:997-1005.

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38. Cardenas H, Burke KA, Pope WF, Bigsby RM, **Nephew KP**. 2001 Estrogen receptor b in the sheep ovary during the estrous cycle and early pregnancy. Biol Reprod 65:128-34
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Years 2006-2010

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