

2009 Georgia Cancer Research Symposium Oral Presentations

Speaker Bios

Friday, November 6, 2009, 8:00-11:30 am

Basic Science

Madhav Sharma is a Research Scientist in Pediatrics & Cancer Immunotherapy Program of Medical College Georgia (MCG), Augusta. In 1991, he was awarded a Doctoral degree (Ph.D) from National Institute of Immunology, (Jawaharlal Nehru University) New Delhi, India, and an MBA in 2007. Present research focus at MCG includes T cell activation by antigen-presenting cells (dendritic cells) and regulatory T cells (Tregs). Research projects include the immunoregulatory role of tryptophan metabolism via the enzyme indoleamine 2,3-dioxygenase (IDO) expressed by antigen-presenting cells. The therapeutic value of Pharmacologic IDO inhibitor 1-methyl-D-tryptophan (1MT) is under Phase I clinical trials. In 2007, he was the recipient of Georgia Cancer Coalition (GCC) Research Award to work on “Role of IDO in Ovarian Carcinoma”.

Kavita Purnanda Bhat Ph.D. candidate, Division of Cellular Molecular Biology and Physiology Georgia State University

My research focuses on the role of Ubiquitin proteasome system (UPS) on the transcriptional regulation of Major Histocompatibility Complex class II genes. We have shown previously that ATPase subunits of the 26S proteasome, the master regulator of protein degradation, associate with MHC II promoter and are absolutely required for MHC II gene expression. Class II transactivator (CIITA) associates with these proteasomal ATPases and this interaction is essential for its stability and transactivity. Further more we have identified phosphorylation and ubiquitination sites in CIITA that are crucial for its transactivity and MHC II expression.

Huidong Shi, PhD

Associate Professor, Biochemistry and Molecular Biology
Medical College of Georgia
GCC Distinguished Cancer Scholar

Dr. Shi is an associate professor of Biochemistry and Molecular Biology at Medical College of Georgia. He is a member of the Molecular Oncology Program at MCG Cancer Center. Dr. Shi obtained his PhD in 1999 from Kyushu Institute of Technology, Japan and completed his post-doctoral training at University of Missouri-Columbia with Dr. Tim Huang in 2003. Prior to moving to the Medical College of Georgia in 2009, he was a tenure-track Assistant Professor at University of Missouri-Columbia, Missouri.

Dr. Shi's research interests are in the area of epigenomics, and most of his work focuses on developing high-throughput technologies for dissecting the complex epigenetic regulation in normal and cancer cells. Specifically, Dr. Shi's laboratory is currently interested in developing genome-wide bisulfite sequencing methods based on the next-generation sequencing platform. Dr. Shi's research is supported by grants from NCI, DOD, and NIH epigenomics Roadmap Program.

Agnieszka Truax Ph.D. candidate, Division of Cellular Molecular Biology and Physiology Georgia State University Agnieszka received a Master of Science in Biology from the University of Lodz, Department of Infectious Disease, in Lodz, Poland in June of 2001. Upon completion of her initial Masters degree, Agnieszka was offered a fellowship in the Department of Biology at Georgia State University in Atlanta, Ga where she received a second Master of Science degree in Molecular Genetics and Biochemistry in 2005. Agnieszka is currently working towards a Ph.D. in the Department of Biology, Division of Cellular Molecular Biology and Physiology, at Georgia State University under the supervision of Dr. Susanna Greer. Agnieszka has been a Teaching Assistant in the Department of Biology since January 2004 and she was awarded the Graduate Award for Outstanding Instructor in 2006. In 2008 Agnieszka was awarded a Molecular Basis of Disease (MBD) Graduate Fellowship and she won first award for her poster presentation at the 2009 MBD Research Day. To date, Agnieszka's research in the Greer lab has resulted in one co-authored manuscript and one first authored manuscript. Agnieszka's research focuses on transcriptional regulation of the immune response to cancer. Her current study of epigenetics is focused on the mechanisms by which post-translational modifications of histones determine the accessibility of chromatin to transcription factors in various cancer types. Aga has presented her data at multiple national meetings, including the Annual Meeting for the American Association of Immunologist in Miami, Fl in 2007, the Annual Meeting for the American Society for Cell biology in San Francisco, Ca in 2008 and the 2009 Annual Meeting of the Atlantic Coast Chromatin Conference in Chapel Hill, North Carolina. Agnieszka plans to defend her Ph.D. in the fall of 2010.

Daqing Wu, Ph.D.

Assistant Professor, Department of Urology and Winship Cancer Institute
Emory University School of Medicine
Recipient of GCC Cancer Research Fund Award

My research focuses on elucidating and targeting the aberrant signal transduction pathways implicated in human prostate cancer bone metastasis. We have identified several important mechanisms involved in epithelial-to-mesenchymal transition, tumor-microenvironment interaction and prostate cancer organ-specific tropism. Therapeutic targeting of these pathways to retard prostate cancer bone metastasis, particularly with small-molecular drugs and monoclonal antibodies, is emphasized. I also devote efforts to the development of non-invasive imaging techniques for the detection of tumor growth and metastasis.

Han-Fei Ding, B.M. (MD equivalent), Ph.D. Associate Professor, Department of Pathology
Medical College of Georgia
GCC Distinguished Cancer Scholar

Educational Background:

- Anhui Medical College; Hefei, China - B.M. (M.D. equivalent)- 1982
- Sun Yet-Sen University of Medical Sciences; Guangzhou, China- M.S., Microbiology and Immunology- 1985
- University of South Alabama; Mobile, Alabama- Ph.D., 1993
- Harvard Medical School, Dana-Farber Cancer Institute; Boston, Massachusetts- Postdoctoral Fellow, 1995

Research Interests:

- NF- κ B signaling in the pathogenesis of lymphoid tumors
- Developmental biology of neuroblastoma

Lianchun Wang, MD Assistant Professor of Biochemistry and Molecular Biology University of Georgia
GCC Distinguished Cancer Scholar

Short Biography: Dr. Wang has extensive training and experience in vascular biology and tumor biology, specifically in blood coagulation, inflammation, angiogenesis and tumorigenesis. He received his Bachelors of Medicine (Experimental Medicine) and Masters of Science degrees from Hunan Medical University, China. In 1999, he obtained his medical degree from Heidelberg University, Germany. After receiving his MD degree, Dr. Wang became a postdoctoral researcher in Jeffrey Esko's group in the Department of Cellular and Molecular Medicine, University of California San Diego. Dr. Wang was appointed Assistant Professor at the University of Georgia in August 2006.

Research Interests:

Research in the Wang laboratory focuses on the structure and function of heparan sulfate in vasculature and cancer cells. Heparan sulfate is an abundant glycan found on the cell surface and in the extracellular matrix. *In vitro* studies have observed that heparan sulfate can interact with growth factors, growth factor binding proteins, extracellular proteases, protease inhibitors, chemokines, morphogens, and cell adhesive proteins to mediate cell differentiation, proliferation, migration, blood coagulation, lipid metabolism, and leukocyte trafficking. However, the relationship between heparan sulfate's structure and function, and the underlying cellular and molecular mechanism of the actions *in vivo*, are largely unknown. By using techniques, including conditional mouse gene targeting, embryonic stem (ES) cell differentiation, primary cell culture, and animal models, the Wang lab is aiming to understand the roles and underlying molecular mechanisms of heparan sulfate in vascular development, blood coagulation and tumorigenesis, and to develop novel approaches to cure the related pathological conditions.

Ruben Rene Gonzalez-Perez, Ph.D.

Associate Professor, Department of Microbiology, Biochemistry & Immunology Morehouse School of Medicine
GCC Distinguished Cancer Scholar

Research Interests:

The protein leptin, although mainly secreted by the fat tissue and primarily known for its roles in obesity and reproduction, is considered to be responsible for the long recognized causal link between obesity and the increased risk of cancer. Leptin, an essential upstream factor for endometrial receptivity/implantation, induces the expression of angiogenic, proliferative and anti-apoptotic factors. Leptin-induced effects could be linked to Akt1/NFkB and bcl-2 protein and regulated in part by IL-1 signaling. Our laboratory has designed, produced and tested some novel inhibitors (leptin peptide receptor antagonists, LPrA, and LPrA-like peptides and their pegylated derivatives, PEG-LPrAs) of leptin signaling. PEG-LPrAs (half-lives >65 hours) abrogate the leptin-induced signaling pathways (JAK2/STAT3, MEK-1/MAPK/ERK 1/2 and PI-3K/AKT1/mTOR) involved in the increased levels of VEGF/VEGFR2; LIF/LIFR; IL- 1/IL-1R tI, β 3 integrin, PCNA and cyclin D1. Using mouse models for breast cancer our laboratory has demonstrated that PEG-LPrA's blockade of leptin receptor, OB-R, could provide a new strategy for the treatment of cancer. Disruption of leptin signaling by LPrAs significantly prevents the establishment and reduces the growth of mammary tumors and metastasis in mice. The angiogenic, proliferative and inflammatory actions of leptin are likely involved in physiological and pathological events in cancer. We also have found that specific pathways are activated by leptin in breast and endometrial cancer cells in order to regulate the levels of molecules important for development and confer proliferative advantage. Our findings could be important for designing new therapies for breast cancer and other cancer types (i.e., endometrial, colon, prostate, etc) where obesity and leptin signaling have also been related to their incidence and growth. Our investigations are equally important for many processes where leptin plays a role, i.e., fertility regulation, endometriosis, arthritis, diabetes, etc. ("Leptin Peptide Antagonists". US Patent 7407929). **FUNDING:** Our research is funded by NIH/NCI 1SC1CA138658-01; NIH/UAB Breast SPORE Career Development Award; BC 504370 Susan G. Komen Foundation for the Cure; the Cancer Research and Prevention Foundation; the Georgia Cancer Coalition Distinguished Cancer Scholar Award; CIG-07-114 Consortium for Industrial Collaboration in Contraceptive Research (CICCR), a program of Contraceptive Research and Development Program (CONRAD), Eastern Virginia Medical School.

Veena Rao, Ph.D. Professor and Co-Director of the Cancer Biology Program, Department of OB/GYN Morehouse School of Medicine GCC Distinguished Cancer Scholar

Dr. Rao received her Ph.D. from Osmania University, Hyderabad, India. Some of her Ph.D. work was done at Max Planck Institute in Germany, University of Edinburgh, Scotland and MIT, Boston. Her postdoctoral work was completed at the University of California, Berkeley and Yale University School of Medicine. She was a Forgarty International fellow at the Molecular Oncology lab at the National Cancer Institute. She served as Assistant Professor at the Fels Institute, Temple University where she and her colleague Dr. Reddy discovered the ELK1 and ERG genes and Associate Professor at Jefferson Medical College where she identified and cloned the BRCA1 isoforms and then became Professor and Co-Director of the Division of Cancer Genetics at Drexel University. This led to her recruitment as Georgia Cancer Coalition Distinguished Cancer Scholar at Morehouse School of Medicine.

Brief summary of research:

One of the ongoing projects in Dr Rao's lab is centered on **ELK-1** which is a member of the ETS super family of genes which she has identified, cloned, characterized its functions. ELK-1 forms a central integration point for both growth as well as stress signals and plays a major role in cell proliferation, apoptosis, tumorigenesis, as well as differentiation. The second project in her lab is focused on the Breast and Ovarian cancer susceptibility gene **BRCA1** whose mutations predispose women to breast and ovarian cancers and men to increased risks for prostate cancers. Majority of Women with BRCA1 dysfunction are estrogen receptor –negative, progesterone receptor-negative and HER-2 receptor –negative (TNBC). TNBC are more common in young AA and Hispanic women and currently there are no targeted therapies for these cancers. She has discovered two short forms of BRCA1 proteins named BRCA1a and BRCA1b which are expressed at reduced levels in breast and ovarian cancers and are also localized in the mitochondria. Her group was the first to show that inhibition of expression of these proteins in normal cells results in cancer and high level of expression of which results in cell death and growth inhibition of TNBC, ovarian and prostate cancers. She has recently found SUMO-E2-conjugating enzyme Ubc9 to be a new binding partner for BRCA1 proteins. Mutation in the Ubc9 binding site as well as BRCA1 RING domain cancer-predisposing mutation disrupted the ability to both bind as well as modulate estrogen-induced ER• transcriptional activity and degradation in breast cancer cells. These results suggest a novel mechanism by which BRCA1 regulates the dynamic cycles of Sumo and Ubiquitin modifications required for ER• turn over and deregulation of this molecular switch due to lack of BRCA1 results in breast cancers. This study will lead to the development of functional cell based assays that can be used to design targeted drugs that can mimic the function of BRCA1 to treat these aggressive TNBC.

Michelle R. Dawson, PhD Assistant Professor, School of Chemical & Biomolecular Engineering Georgia Institute of Technology Recipient of GCC Cancer Research Fund Award Michelle Dawson received her B.S. in Biomedical Engineering from the Louisiana Tech University in 1999 and her Ph.D. from the Johns Hopkins University in Chemical and Biomolecular Engineering in 2005. Michelle's predoctoral research focused on the development of gene delivery systems that could overcome transport barriers in the lung and gastrointestinal tract. Her thesis research resulted in 4 publications, a book chapter, two patents, 9 podium presentations, 6 poster presentations, and 7 awards, including NSF and Ford fellowships and prestigious drug delivery awards from the International Society of Aerosols in Medicine and Capsugel/Pfizer. After graduation, Michelle joined Rakesh Jain's lab at Massachusetts General Hospital where she worked as a postdoctoral research fellow for 3.5 years. Michelle's research was focused on understanding the role of bone marrow derived cells in tumor growth and metastasis. Specifically, she was investigating the role of VEGFR1 signaling in bone marrow cell recruitment to primary and metastatic tumors (Nature 461, E4). Michelle was awarded a postdoctoral research fellowship from the Ford Foundation. Currently, Michelle is an assistant professor in the Chemical and Biomolecular Engineering Department at Georgia Institute of Technology. She holds appointments in the Bioengineering Program, the Institute for Bioengineering and Bioscience, and the Biomedical Engineering Department. Her research is focused on genetically engineering and optimizing bone marrow derived mesenchymal stem cells as gene delivery systems for use in the treatment of cancer. New methods for treating cancer are urgently needed. The development of mesenchymal stem cell (MSC) vectors for gene delivery may offer a method of achieving prolonged levels of therapeutic proteins in the local region of the cancer cells.

Nathan J. Bowen, Ph.D.

Director, Genomics Unit, Integrated Cancer Research Center
Research Coordinator, Ovarian Cancer Institute Laboratory
Senior Research Scientist, School of Biology
Georgia Institute of Technology
GCC Distinguished Cancer Scholar

Education:

Postdoctoral Fellow, National Institutes of Health, Section on Eukaryotic Transposable Elements in Laboratory of Gene Regulation and Development in National Institute of Child Health and Human Development. 2000-2002.

Ph.D., Genetics, University of Georgia, Athens, 2000.

B.S., Biology, Georgia Institute of Technology, Atlanta, 1992.

A.S., Chemistry, Gordon College, Barnesville, GA, 1990.

Research:

My research is directed toward understanding the cellular origin of ovarian cancer in order to identify the genomic alterations and aberrantly regulated embryological signaling pathways that lead to ovarian cancer development and dissemination.

Jun Kong, Ph.D.

Research Scientist, Center for Comprehensive Informatics Emory University

Dr. Kong received his Ph.D. degree in the Dept. of Electrical and Computer Engineering at Ohio State University in 2008 prior to working in Emory. He received his B.S. and M.S. from Shanghai Jiao Tong University, China, in 2001 and 2004. His research interests include computer vision, statistical machine learning, and medical/microscopy image analysis. In the past research, he developed Computer-aided Diagnosis (CAD) systems for analyzing a large volume of microscopy images of histological specimens with intensive use of computer vision and pattern recognition techniques.

Manu Platt, Ph.D.

Assistant Professor, Department of Biomedical Engineering
Georgia Institute of Technology
GCC Distinguished Cancer Scholar

Dr. Platt received his BS in Biology from Morehouse College (BS) and his doctorate from the Georgia Tech and Emory joint program in biomedical engineering (PhD). He finished his postdoctoral training at the MIT prior to returning to GT as the newest faculty member in the joint department of Biomedical Engineering starting January 1, 2009. Dr. Platt's research bridges tissue remodeling and systems biology. Tissue remodeling involves the activation of proteases, enzymes capable of degrading the structural proteins of tissue and organs. The implications of the activation of these enzymes are applicable to all organ systems and therefore, many different disease pathologies including cancer metastasis. This occurs when local proteolysis of the structural extracellular matrix allows for malignant cells to break free from the primary tumor and spread to other tissues. Mathematical models add value to this experimental system by explaining phenomena difficult to test at the wet lab bench and to make sense of complex interactions among the proteases or the intracellular signaling changes leading to their expression. Sickle cell disease is another focus of the Platt Lab as there is significant vascular remodeling that occurs under the chronic inflammation found in the vasculature of these patients.

Francesca Storici, Ph.D.

Assistant Professor, School of Biology
Georgia Institute of Technology
GCC Distinguished Cancer Scholar

Dr. Storici received her PhD in Molecular Genetics at the International School of Advanced Studies, Trieste, Italy, working at the International Center for Genetic Engineering and Biotechnology (ICGEB). Her postdoctoral fellowship was at the National Institute of Environmental and Health Sciences (NIEHS, NIH) RTB, NC. Previously, she was a Research Assistant Professor at the Gene Therapy Center of the University of North Carolina at Chapel Hill, Chapel Hill, NC. Dr. Storici's lab studies the mechanisms by which broken DNA is repaired and translates these findings into applications for gene targeting and gene therapy.

Clinical/Translational Research**Ann C. Mertens, Ph.D.**

Professor, Department of Pediatrics
Emory University/Children's Healthcare of Atlanta
GCC Distinguished Cancer Scholar

I received a Masters in Biostatistics in 1987, and a Ph.D. in Epidemiology in 1994 from the University of Minnesota. In 2007, I took a position as Director of the Clinical Research Office within the Aflac Cancer Center & Blood Disorders Program at Children's Healthcare of Atlanta, and am a Professor of Pediatrics at Emory University. My major area of research is in the investigation of late effects of therapy in survivors of childhood and adolescent cancer. My current research activities are in the study of effective communication and intervention strategies to reduce morbidity and mortality in childhood and adolescent cancer survivors and to increase quality of life.

Dr. Sheryl Gabram

Professor of Surgery at Emory University School of Medicine, Breast Surgical Oncologist at Emory University's Winship Cancer Institute, Director of the AVON Comprehensive Breast Center in the Georgia Cancer Center for Excellence at Grady
GCC Distinguished Cancer Scholar

Dr. Gabram completed medical school at Georgetown University, surgical residency at the Washington Hospital Center, and a fellowship at the University of Connecticut, Hartford Hospital. In 1996, she graduated from the executive M.B.A. program at the University of Connecticut School of Business. Dr. Gabram's current research focuses on disparities of care for breast cancer patients. She serves as PI on Emory University Winship Cancer Center's AVON Foundation grant that encompasses three areas: clinical education outreach initiative, access to quality care for breast cancer patients in the Grady Health System, and research to decrease disparities for patients in the Center. She has an interest in patients at risk for breast cancer and as a PI is interested in randomizing clinic sites to receiving in-depth information on the breast cancer risk status of patients versus standard of care and then measuring the effects on the number of appropriate referrals for genetic evaluation, use of breast MRI screening, and chemoprevention. This research builds on pilot data that she collected at Loyola from a study funded by the Illinois Department of Public Health, Penny Severns Research Fund. From a predictive health perspective, she has formed a collaboration with Dr. Charlene Bayer at the Georgia Technology Research Institute and is involved as a Co-PI on a study that is examining breath biomarkers in exhaled specimens as a potential tool for breast cancer disease detection and monitoring.

Jose Thaiparambil, Ph.D.

Postdoctoral fellow
Emory University (Supervisor: Adam Marcus)

I am focusing on cancer chemoprevention in general with emphasis on lung and breast cancer metastasis. Currently, there is no medicine available in the market to stop cancer metastasis even though it is the leading cause of death in cancer patients. The major question is: Is it possible to inhibit cancer cell motility from one place to a distant site? We have generated preliminary data that *Withania somnifera* root extracts (WRE) and also its primary constituent withaferin (WFA) inhibit cancer cell migration by targeting vimentin, while having negligible effects on cell viability. The science has been advanced like developing several drugs to prevent or reduce the size of primary tumor while there is no single drug or combination therapy for cancer metastasis. I am trying to develop a novel approach to cancer chemoprevention in inhibiting cancer metastasis rather than reducing the primary tumor. In addition to this I am also interested in dissecting the molecular mechanism of cancer metastasis. I hope this is the time to start thinking

about a new approach in chemoprevention to stop cancer metastasis.

Kenneth Scarberry, Ph.D.

Postdoctoral Fellow, Laboratory of John McDonald
Georgia Institute of Technology

Dr. Scarberry is a nanobiotechnologist who obtained a Ph.D. in Biochemistry at the Georgia Institute of Technology. He is currently a postdoctoral fellow in the laboratory of Dr. John McDonald of the Georgia Institute of Technology where he is researching methods for using magnetic nanoparticles in oncology therapeutics. Prior to joining the McDonald lab, Dr. Scarberry worked as a guest researcher at the Center for Disease Control in Atlanta, GA to demonstrate the efficacy of using magnetic nanoparticles to capture and reduce HIV-1 titer. Dr. Scarberry is also the President and founder of Sub-Micro, Inc. an emerging biotechnology company developing therapeutic measures to treat oncological and infectious disease.

John McDonald, Ph.D.

Professor and Associate Dean for Biology Program Development
Georgia Institute of Technology
Recipient of GCC Cancer Research Fund Award

In the McDonald lab, we are taking an integrated systems approach to the study of cancer. This means that we view cancer not as a defect in any particular gene or protein, but as a de-regulated cellular/inter-cellular process. An understanding of such complex processes requires the implementation of an experimental approach that can provide an integrative holistic or "systems" view of intra- and inter-cellular process. We employ a number high-throughput genomic (e.g., microarray) and proteomic (e.g., MASS SPEC) technologies to gather systems data on the status of cancer cells. We strive to integrate into our research program, the exceptional strengths that exist at Georgia Tech in the fields of engineering and the computational sciences. The primary focus of our current research is ovarian cancer and our overall goals are: 1) the development of a reliable and accurate diagnostic test for ovarian cancer, 2) the development of a molecular-based objective and precise classification system for ovarian cancers, and 3) the development of new and effective treatments for ovarian cancer.

Lawrence H. Boise, PhD Professor, Hematology and Medical Oncology Emory School of Medicine GCC Distinguished Cancer Scholar

Educational Background:

- University of Chicago, Howard Hughes Medical Institute and Gwen Knapp Center for Lupus and Immunology, Chicago, IL • Postgraduate Training,(Leukemia Society of America Fellowship) 1993-96
- University of Michigan, Howard Hughes Medical Institute, Department of Internal Medicine, Ann Arbor, Michigan • Postgraduate Training, 1991-1993
- Commonwealth University, Medical College of Virginia, Richmond, VA- PhD, Pharmacology • 1991
- NIEHS Graduate Fellowship, 1987-1990
- Philadelphia College of Pharmacy and Science, Philadelphia, PA • BS, Toxicology • 1986

Research Interests:

- Basic mechanisms of apoptosis
- Therapeutic agents in myeloma
- The mechanism by which proteasome inhibitors kill cells
- How stress signals from the endoplasmic reticulum initiate an apoptotic response
- The role of oxidative phosphorylation in cell growth and death
- Arsenic trioxide and ascorbic acid for multiple myeloma
- CD28-mediated regulation of multiple myeloma cell proliferation and survival
- Proteasome inhibitor sensitivity in multiple myeloma

Tahsin Kurc, PhD

Associate Professor, Research Track, Department of Biomedical Engineering Chief Software Architect, Center for Comprehensive Informatics Emory University

Tahsin Kurc received his PhD degree in computer science from Bilkent University, Turkey, in 1997. From 1997 to 2000, he was a postdoctoral researcher in the Department of Computer Science at University of Maryland at College Park. Prior to joining Emory University, Dr. Kurc was a research assistant professor in the Department of Biomedical Informatics at the Ohio State University. Dr. Kurc conducts research on techniques and software systems for efficient management, integration, and processing of biomedical and scientific datasets in basic and translational research.

May Wang, Ph.D.

The Wallace H. Coulter Department of Biomedical Engineering, Electrical and Computer Engineering, Hematology and Oncology, Winship Cancer Institute, Georgia Institute of Technology and Emory University, Atlanta, Georgia, USA

Director of Biocomputing and Bioinformatics Core in Emory-Georgia Tech NCI Center for Cancer Nanotechnology Excellence (CCNE)
GCC Distinguished Cancer Scholar

Dr. Wang's primary research interest is translational biomedical and health informatics. To assist in systems medicine and health monitoring, her research team performs clinical biomarker quality control and analysis; molecular and cellular imaging quantification; and bio-molecular pathway modeling and visualization. As corresponding author, Prof. Wang has published in journals such as *Annals of Biomedical Eng*, *BMC Bioinformatics*, *Trends in Biotechnology*, *Nature Protocols*, *PNAS*, and *Annual Review of Medicine*. With Microsoft Research and Hewlett Packard Corp as industrial partners, Dr. Wang has played an essential role in Emory-Georgia Tech NCI Center for Cancer Nanotechnology Excellence (CCNE), and is the Director for Bioinformatics and Biocomputing Core. Her team has developed multiple cancer bioinformatics software systems. Two tools, caCORRECT and omniBiomarker have been certified by National Cancer Institute (NCI/NIH) cancer Biomedical Informatics Grid (caBIG) as silver-level compatible (<http://www.gatech.edu/newsroom/release.html?id=3266>). In addition, she has played an active role in two consortiums led by US-FDA: MAQC-II (Microarray Quality Control Consortium) and SEQC (Next Generation Sequencing Consortium).

Dr. Wang received Distinguished Cancer Scholar Award from Georgia Cancer Coalition in 2004, an Outstanding Undergraduate Research Faculty Mentor Award from Georgia Tech in 2005, and an Outstanding Service Award from IEEE BIBE in 2007. Dr. Wang received Ph.D.EE, and multidisciplinary Master of Science in EE, Math, and CS from Georgia Tech in USA, and BEng from Tsinghua University in China. In addition, Dr. Wang has ~4 years of industrial R&D experience at the former AT&T Bell Labs, Intel Architecture Labs, Hughes Research Labs, Lucent Technologies Bell Labs, and Agere Systems.

Kevin Dobbin, Ph.D.

Assistant Professor, University of Georgia
GCC Distinguished Cancer Scholar

Dr. Dobbin obtained a Ph.D. in Statistics from the University of Minnesota in 2001. He worked at the National Cancer Institute for 7 years and is currently an Assistant Professor of Biostatistics in the College of Public Health at the University of Georgia, and Distinguished Cancer Scholar of the Georgia Cancer Coalition. His post-graduate work has been primarily in the areas of cancer biomarkers and design of high dimensional studies. He has co-authored over 20 papers in these areas.

Baowei Fei, PhD, EngD

Assistant Professor of Radiology and Biomedical Engineering
Emory School of Medicine
Georgia Cancer Coalition Distinguished Cancer Scholar

While focused on multimodality imaging and quantitative image analysis, Dr. Fei has been involved in medical imaging research since he graduated from college with a B.S. degree at 18 years old, back in the 1990s. Dr. Fei received extensive education and training in the Departments of Biomedical Engineering, Electrical Engineering and Computer Science, and Radiology at Case Western Reserve University in Cleveland, Ohio. He received the post-doctoral traineeship award from the U.S. Department of Defense Congressionally Directed Medical Research Programs. Through his extensive research involvement, his work on prostate cancer imaging and image-guided therapy was highlighted by the Department of Defense in 2006. Dr. Fei's NIH-supported research has emphasized applying multimodality molecular imaging (PET/MRI) to study early tumor response to therapy. In his Quantitative BioImaging Laboratory (QBIL: www.feilab.org) at the Emory Center for Systems Imaging, his current research projects include: multimodality molecular imaging for cancer detection and therapy, advanced computer algorithms for medical image processing and analysis, technology development and applications of combined PET/MRI, and image-guided minimally invasive therapy.

Mohamed Shoreibah, Ph.D.

Director, Research and Development, Abeome Corp.

Dr. Shoreibah received his Ph.D. in Cell and Molecular Biology in 1991 from the University of Miami School of Medicine. In 1994, he cofounded Glycobotics, Inc. in Athens, GA, serving as its Research Director from 1996-2000. Currently, he is the Director of Research and Development at Abeome Corp. in Athens. His research interests include drug discovery in the areas of cancer, vaccine development, and infectious diseases.

Epidemiology/Public Health Research

Carla J. Berg, Ph.D.

Assistant Professor
Rollins School of Public Health, Emory University
GCC Distinguished Cancer Scholar

Dr. Berg received her Ph.D. in clinical health psychology from the University of Kansas, completed her residency training at Massachusetts General Hospital/Harvard Medical School in behavioral medicine, and then completed her postdoctoral training at the University of Minnesota in the Department of Medicine. She is currently an Assistant Professor in the Department of Behavioral Sciences and Health Education at Emory University Rollins School of Public Health. Her research focuses on health among adolescents and young adults, specifically focusing on smoking, alcohol consumption, and physical activity, and using novel approaches to promote public health.

Claire Robb, Ph.D., MPH

Assistant Professor, College of Public Health
University of Georgia
GCC Distinguished Cancer Scholar

Dr. Robb received her PhD in Aging Studies and her MPH in Epidemiology from the University of South Florida in Tampa, where she also completed an NCI-sponsored fellowship in Behavioral Oncology at the H. Lee Moffitt Cancer Center and Research Institute. She was Project Manager of an NCI/RO3 looking at quality of life in older breast cancer survivors and is PI for Award # NIH 1 R03 CA126376-01, *Health and personal resources in older cancer patients undergoing chemotherapy*. She was named as a Georgia Cancer Coalition Distinguished Scholar in 2008. Her work with older cancer populations has led to an interest in inter-generational relationships and how they affect health behaviors and cancer risk. She is an Assistant Professor of Epidemiology in the Department of Epidemiology and Biostatistics, the College of Public Health, The University of Georgia, and is a member of the Georgia Cancer Center's Cancer Epidemiology, Prevention and Control Program.

John E. Vena, Ph.D.

Head of the Department of Epidemiology and Biostatistics
University of Georgia Foundation Professor in Public Health
College of Public Health, University of Georgia
Georgia Cancer Coalition Distinguished Cancer Scholar

Dr. Vena received his B.S. in Biology from St. Bonaventure University and his M.S. and Ph.D. degrees in Epidemiology from the State University of New York at Buffalo. He has published extensively in the field of environmental and occupational epidemiology and in cancer epidemiology especially on breast, lung and bladder cancer including case-control studies of occupational and environmental risk factors.

Tamara A. Mason, MPH, CHES

Project Director of the Avon Foundation Community Education and Outreach Initiative

In this capacity, Mrs. Mason is responsible for the daily management and supervision of the initiative, which is a community based breast cancer education and outreach program. Mrs. Mason has an MPH (Master of Public Health) degree from the Rollins School of Public Health of Emory University; this degree was obtained in August 2003 with a focus in Behavioral Sciences and Health Education. Mrs. Mason's research interests include evaluation of community based programs, comprehensive sexuality education for adolescents, and the general improvement of health outcomes for underserved families.

Lucy Peipins, PhD

Senior Epidemiologist

Epidemiology and Applied Research Branch, Division of Cancer Prevention and Control Centers for Disease Control and Prevention.

Lucy A. Peipins, PhD received her PhD in epidemiology in 1993 from the University of North Carolina at Chapel Hill and has worked as an environmental, occupational and cancer epidemiologist in a variety of settings. Her research interests include psychological and social determinants of breast and ovarian cancer screening, environmental epidemiology, and epidemiologic research methods.

Sara Wagner, MSPH, Ph.D. Postdoctoral Research Associate, Department of Epidemiology & Biostatistics
College of Public Health at the University of Georgia.

She received both her MSPH and PhD in epidemiology from the University of South Carolina, where this research project was conducted. Her research interests focus on environmental, spatial, and cancer epidemiology.

Dr. Howard Zaren Medical Director of the Nancy N. and J. C. Lewis Cancer & Research Pavilion Principal Investigator for the National Cancer Institute's National Community Cancer Center's Pilot Program (NCCCCP) Georgia Cancer Coalition Distinguished Cancer Scholar
Dr. Zaren received a bachelor's degree from Long Island University and a doctor of medicine degree from the University of Manitoba Medical School. His post graduate training and medical research was done at Pennsylvania Hospital. He received several fellowships including a fellowship in surgical oncology and gastrointestinal endoscopy at the University of Texas System Cancer Center, M.D. Anderson Hospital & Tumor Institute. After completing his fellowship training he then became a Clinical Assistant Professor of Surgery at the University School of Medicine in Philadelphia and was a private practicing surgical oncologist at Pennsylvania Hospital. He then went on to the Medical College of Pennsylvania where he was granted full tenure as Professor of Surgery and also acted as the Interim Chair of Surgery.

In 1999, he was recruited to be the Chair of the Department of Surgery at the John H. Stroger Hospital of Cook County, Chicago, IL. Soon after being recruited he was appointed Professor of Surgical Oncology at the University of Illinois and the Principal Investigator of the MBCCOP of Cook County. Since 1988, he has published 57 refereed articles, 89 abstracts and 11 book chapters, and has presented at regional, national and international venues.

Dr. Howard Zaren became Medical Director of the Nancy N. and J. C. Lewis Cancer & Research Pavilion in Savannah, Georgia in October 2008. He also serves as the Principal Investigator for the National Cancer Institute's National Community Cancer Center's Pilot Program (NCCCP) and is a Georgia Cancer Coalition Distinguished Cancer Scholar.

A. Rana Bayakly, BA, MPH Director, Epidemiologist Georgia Comprehensive Cancer Registry Cancer and chronic disease epidemiologist and manager with extensive experience in developing Cancer, Lupus and Spinal cord and Head injury registries, developing guiding policies and procedures for data collection, reporting and dissemination, supervision and management of financial and other resources essential to surveillance operations. Areas of expertise are grant writing, planning, organizing, financing and executing workshops and conferences, training epidemiologist and public health personnel in cancer and chronic disease surveillance principles, development of policies and procedures for cancer coding and reporting, public health management, cancer epidemiology and statistics, data quality assurance protocols, development and compliance of cancer reporting standards, program development, implementation and management.

Joseph Lipscomb, Ph.D.

Professor of Health Policy and Management
Rollins School of Public Health, Emory University
Georgia Cancer Coalition Distinguished Cancer Scholar

Dr. Lipscomb is also a co-leader of the Cancer Control and Population Sciences Program at Emory's Winship Cancer Institute. From 1999 until arriving at Emory in 2004, he was Chief of the Outcomes Research Branch at the National Cancer Institute. At NCI, he co-chaired the Cancer Outcomes Measurement Working Group, chaired the trans-agency Quality of Cancer Care Committee, and was NCI lead for a collaborative Federal effort to establish a project at the National Quality Forum to develop consensus measures of cancer care quality. He has published widely on a variety of topics in health economics and outcomes research, including on patient-reported outcomes assessment, quality-of-care evaluation and improvement, and the theory and practice of cost-effectiveness analysis. He was lead editor for the volume, *Outcomes Assessment in Cancer: Measures, Methods, and Applications* (Cambridge University Press, 2005); lead editor of a *Journal of the National Cancer Institute Monograph* (2004) on cancer outcomes research; co-editor for a special issue of *Value in Health* on, "Moving the QALY Forward: Building a Pragmatic Road" (2009); and co-editor of a *Medical Care* supplement on, "Health Care Costing: Data, Methods, and Future Directions" (2009).

Dr. Lipscomb has been principal investigator on two research grants from the Centers for Disease Control and Prevention examining patterns and quality of cancer care in Georgia, and also PI for a grant from the National Institutes of Health on reducing health care disparities in urban areas. He serves on national committees to improve cancer outcomes and quality at both the American College of Surgeons' Commission on Cancer (CoC) and the American Cancer Society (ACS).

He received his PhD in economics from the University of North Carolina at Chapel Hill in 1975, and a BA in mathematics from Vanderbilt University in 1970. From 1975 until joining the National Cancer Institute, he was on the faculty at Duke University with primary appointments in the Sanford Institute of Public Policy and the Department of Community and Family Medicine.

Kevin C. Ward, PhD, MPH, CTR

Director, Georgia Center for Cancer Statistics, Atlanta, Georgia

Dr. Ward has worked in cancer surveillance, registration and control for the past 12 years. He has a Bachelor of Industrial Engineering degree from the Georgia Institute of Technology and possesses both a Master's degree and Doctorate in Epidemiology from the Rollins School of Public Health of Emory University. His specific areas of interest are cancer epidemiology and surveillance. Dr. Ward joined the Georgia Center for Cancer Statistics in 1997 as a data analyst and managed the Registry database for over eight years. He currently serves as the PI for the NCI Metropolitan Atlanta and Rural GA SEER Registry and the Director for the Georgia Center for Cancer Statistics. Dr. Ward is a Research Assistant Professor in the Department of Epidemiology at the Rollins School of Public Health where his research interests include socioeconomic disparities in cancer survival, cancer survival methodology, and the utilization of administrative claims data to enhance population-based cancer registry data. He is also a Certified Tumor Registrar and the Immediate Past-President of the Georgia Tumor Registrars Association.

Michael Goodman, MD MPH Assistant Professor Department of Epidemiology, Emory University Rollins School of Public Health Medical Director of the Metropolitan Atlanta and Rural GA SEER Registry

Dr. Goodman is an epidemiologist and a licensed physician with board-certification in Pediatrics and in Preventive Medicine. Originally from Lithuania, Dr. Goodman received his MD degree from the Kaunas Medical Academy in 1984. He received his MPH degree from the Johns Hopkins University School of Public Health in 1995. In addition to his work as an epidemiologist, Dr. Goodman has nearly 20 years of experience as a practicing physician both in his native Lithuania and in the United States.

Dr. Goodman has been involved in all aspects of epidemiologic research including design, implementation, and data analysis of both observational and experimental studies. He is the principal investigator of ongoing studies that evaluate survival of prostate cancer patients, accuracy of prostate cancer diagnosis, and the roles of oxidative stress calcium and vitamin D in colorectal tumor development. In addition to his research activities, Dr. Goodman teaches introductory epidemiology for Masters and PhD level students.