Duncan Family Institute for Cancer Prevention and Risk Assessment

Annual Report to Donors – Year 3

THE UNIVERSITY OF TEXAS
MD Anderson Cancer Center
Making Cancer History®

A Message from the Vice President

I am delighted to provide you with our third annual report detailing the progress we've made towards accomplishing the founding goals of the Duncan Family Institute. In the three years since its inception, we have made considerable strides in developing and establishing research programs and resources aimed at gaining a better understanding of cancer in its earliest stages, providing safer and more effective prevention strategies and advancing cancer risk assessment in both the clinic and the population overall. Just as importantly, we've done this together as a leadership team focused on fostering new discoveries and seeing them transformed into tools to benefit everyone at risk for, or living with, a diagnosis of cancer. Therefore, the DFI enjoys widespread support by our faculty who are deeply grateful for the opportunities it provides to transform our research and clinical practice.

To those ends, this past year has seen the Duncan Family Institute establish two new Strategic Research Initiatives. The *Integrative Health Initiative* and the *Center for Translational and Public Health Genomics* enable us to add new clinical prevention services and engage all patients in research, and complement the three previously established initiatives, the *Pre-malignant Genome Atlas, Energy Balance* and the *Tobacco Transdisciplinary Research Program*. Descriptions of the five Duncan Family Institute initiatives and their latest research results can be found in the *Strategic Initiatives* section of this report.

Our Seed-funding Research Program has been expanded to faculty throughout MD Anderson, resulting in awards to eight of 27 investigators who applied for funding. We collaborated with the Survivorship Research Working Group to contribute support to five awards from a pool of 35 proposals, a large number which signals expanding research on issues important to this rapidly growing patient population.

Additionally, the Institute has enhanced its overall research infrastructure with the funding of the *Clinical Cancer Prevention (CCP) Research Core and its High Risk Breast Cancer Cohort*. The CCP will work in conjunction with four other resources—the *Personalized Risk Prediction Program (PRPP),* the *e-Health Technology core,* the *Mexican-American Cohort Study*, and the *Center for Community, Implementation, and Dissemination Research (CCIDR)*—to strengthen the quality and impact of cancer prevention research across the continuum from basic through translational to clinical and population-based science. Details of this new core, as well as the latest findings from research supported by the four initiatives, can be found in the *Research Resources* section.

Finally, we are pleased to report that we have awarded a third Duncan Family Institute Mentored Junior Faculty Fellowship to Jian Wang, Ph.D. in the Department of Epidemiology and that the previous two fellows, Francesco Versace, Ph.D. in the Department of Behavioral Science, and Larkin Strong, Ph.D. in the Department of Health Disparities Research, have successfully competed for tenure-track assistant professor positions. More details regarding all of the Institute's educational and training initiatives can be found in the *Education and Excellence* section of the report.

The coming year promises excitement and continued expansion as the Institute reaches out to form new collaborations, both within MD Anderson and with academic and community partners, through initiatives such as the Center for Health Equity and Evaluation Research which pairs MD Anderson and the University of Houston.

In closing, I sincerely thank all those who are affiliated with the Duncan Family Institute for their hard work and support of this past year's accomplishments. And I extend my deepest appreciation to the Duncan family and to all of our new and sustaining donors, whose generosity and recognition of the importance of cancer prevention made possible this Institute and its many advances in 2011.

Sincerely,

Ernest Hawk, M.D., M.P.H.
Vice President and Division Head, Division of Cancer Prevention & Population Sciences

TABLE OF CONTENTS

OVERVIEW

"Advancing the discovery and translation of new knowledge about cancer risk and prevention in the laboratory, the clinic and the community"

Created to bring together scientists, clinicians and community practitioners committed to advancing the science and practice of cancer prevention, the Duncan Family Institute for Cancer…… is pleased to provide this annual report. Cancer prevention is a broad field and the Institute supports a wide range of research and engages scientists from multiple disciplines as it seeks to:

- **Discover -** the roles biologic, genetic, environmental, behavioral, and social factors play in cancer development; and
- **Translate -** new tools and evidence-based interventions into the clinic and the community.

Figure 1 The Duncan Family Institute is based in MD Anderson's Dan L. Duncan Building but, as with all MD Anderson institutes, it engages faculty from across the campus.

Investing in promising new research directions and in the expansion and integration of MD Anderson's cancer prevention program, the Institute in 2011:

- Awarded 13 seed-funding research grants to help researchers develop or expand their studies;
- Funded several studies on high-priority topics, such as tobacco use, personalized prevention and treatment, and precancerous conditions;
- Invested in infrastructure to help researchers be more successful and compete for outside funding;
- Worked to bring research discoveries into the real world to help people fight cancer;
- Awarded one new junior faculty fellowship;
- Sponsored scientific lectures about topics in cancer prevention and treatment; and
- Engaged in strategic planning to set priorities for research and services.

The Institute will continue to grow and expand in the coming year. We are confident that the investments and collaborations made in Fiscal Year (FY) 2011 strategically position us to implement those plans and reach out to form new partnerships as we work to make the Institute a center for high-impact cancer prevention research.

RESEARCH PROGRAMS – STUDIES TO UNDERSTAND AND REDUCE CANCER RISK

The Duncan Family Institute currently invests 40% of its funding into two research programs, a Seed-funding program and a Strategic Research Initiatives program.

The Seed-funding Program provides financial support to innovative investigators early in the development of their ideas. The awards assist them in gathering the data needed to compete successfully for external funding. In 2011, the Institute began partnering with the Survivorship Research Group and provided seed funds to a number of projects addressing quality-of-life issues in this area. Survivorship Research focuses on the health and life of a person with a history of cancer beyond the acute diagnosis and treatment phase. It seeks both to prevent and control adverse cancer diagnosis and treatment-related outcomes. With improvements in cancer treatment, there will be an increasing need to address the issues survivors face. Currently, there are an estimated 13 million U.S. cancer survivors with long-term needs. The Institute aims to make critical contributions to this developing area of research. In the future, we will continue to form new collaborations that will assist us in advancing and addressing the issues in survivorship research at both the state and national levels.

The second research program funds Strategic Research Initiatives, high-priority research areas determined by the Executive Committee of the Duncan Family Institute. This year our Strategic Research Initiatives were expanded from three to five with the addition of the Integrative Health Initiative and the Center for Translational and Public Health Genomics initiative. Both complement the previously existing initiatives of the Premalignant Genome Atlas, Energy Balance and the Tobacco Transdisciplinary Research Program, all of which continued to mature in FY11.

AN ENGINE FOR DISCOVERY - SEED-FUNDING RESEARCH PROGRAM

The Duncan Family Institute provides individual seed-funding grants to help investigators take the first steps to advance promising research ideas and compete successfully for grants from outside agencies. This helps leverage our resources to have a greater impact on discovery of new ways to prevent and treat cancer.

In FY11, we awarded funds to eight proposed projects through a competitive peer-review process. Also, through a new collaboration with MD Anderson's Survivorship Research Group, the Institute contributed to five projects that will help survivors cope with the many complex issues beyond diagnosis, such as quality-of-life and prevention of secondary cancers.

The six investigators who received awards in prior years are progressing well, and two have been awarded outside funding. Others are preparing submissions or awaiting reviews.

Scientists who receive seed grant awards are working in diverse areas to help fight cancer, including studies to:

- Discover new ways to prevent cancer, including lifestyle changes and personalized medicine;
- Study why some groups get cancer more often than the general public;
- Explore novel ways to treat cancer, including less-toxic chemotherapy and gene-based therapies; and
- Improve quality of life for cancer survivors in areas such as fatigue, loss of sexual desire and changed appearance.

Here are brief descriptions of the projects which received seed funding last year, as well as progress updates for those awarded previously.

Pilot Test of a Lifestyle Intervention Arm in an Endometrial Cancer Prevention Trial: Effects on Endometrial Proliferation and Related Biomarkers
Karen Basen-Engquist, Ph.D., Professor, Department of Behavioral Science

Women who are obese and have low levels of exercise are more likely to develop endometrial cancer (cancer of the lining of the uterus), but it is not clear if weight loss and increased activity lowers this risk. Working with an MD Anderson team that is testing whether the diabetes drug metformincan help reduce endometrial cell growth in obese women, we are providing a diet and exercise program to help participants lose weight. Results will help determine if there is enough evidence that changing diet and exercise behaviors affect endometrial cancer risks to justify a larger study.

Health Status and Health Behaviors Among Cancer Survivors: A Population-based Study
Linda Elting, Dr.P.H., Professor, Department of Biostatistics

Improvements in cancer detection and treatment have led to increased survival and a growing number of cancer survivors. Using data from a telephone survey conducted annually by the Centers for Disease Control and Prevention, we are examining health problems (cardiovascular disease, hypertension, diabetes, arthritis, and obesity) and health behaviors (exercise, diet, smoking, cholesterol and blood sugar level, immunizations and cancer screening) for adult cancer survivors and people without cancer and look at differences among certain groups.

A Feasibility Study for High-Throughput Application of a Novel Early Detection and Risk Assessment Biomarker
Randa El-Zein, Ph.D., Associate Professor, Department of Epidemiology

This study is testing whether automating a sensitive test to predict lung cancer risk will provide a strong, rapid and unbiased tool to determine risk. We envision using this test as a prescreening tool for current and former smokers, as well as a means of identifying people at high risk of developing lung cancer. Given its low cost, accuracy and safety, this test could be valuable for screening large groups of people.

Toward an Understanding of Body Image Adaptation Following Surgical Treatment for Head and Neck Cancer

Michelle Fingeret, Ph.D., Assistant Professor, Department of Behavioral Science

Head and neck cancer and its treatment can change appearance, leaving patients to deal with a stressful psychological issue that may cause problems on several levels. Our goal is to learn how patients process these changes, which may help identify ways to minimize challenges through psychosocial adjustment. This better understanding of body image will guide future studies and the development of ways to help patients cope.

Germline Genetic Variants in the Wnt/beta-catenin Stem Cell Pathway as Predictors of Colorectal Cancer Risk

Michelle Hildebrandt, Ph.D., Instructor, Department of Epidemiology

Colorectal cancer is the third most common cancer in the United States, with nearly 150,000 new cases diagnosed each year. This study is shedding light on the effect of genetic variations on colorectal cancer risk. The results will contribute to the design of a personalized risk prediction model to analyze risk of colorectal cancer development, which can shape recommendations regarding ways to prevent this cancer.

Pilot Biomarker Study of Trace Metals and Prostate Cancer Risk

Ashraful M. Hoque, M.D., Ph.D., Associate Professor, Department of Clinical Cancer Prevention

This study investigates the role of trace metals in prostate cancer in African-American and white men. During the first year of the project, the team analyzed trace metals and dietary factors for 200 men with prostate cancer and 200 men without. Next steps are to analyze the data and extend the study to Hispanic prostate cancer patients. Findings could have significant public health implications through the identification of a population with deficient essential trace metals that could be at high risk for prostate cancer.

Glioma Susceptibility in African-American and Hispanic Populations

Yanhong Liu, Ph.D., Instructor, Department of Epidemiology

Gliomas, the most common type of brain tumors, are dangerous types of cancer that often have poor outcomes. This research focuses on discovering genetic markers for gliomas among African Americans and Hispanic Americans. Results may lead to improved ways to diagnose and treat the disease. Dr. Liu's move to Baylor College of Medicine provides an opportunity to extend Duncan Family Institute collaborations to the Dan L. Duncan Cancer Center at Baylor through continued support of Dr. Liu's seed-funded project.

Cost-effectiveness Studies of Novel Cancer Prevention Strategies

Bo Peng, Ph.D., Instructor, Department of Epidemiology

Many genetic and environmental risk factors have been identified for complex diseases such as lung cancer, but it is often unclear how to use this information to prevent, detect and treat disease. Screening methods often are expensive, with little return on investment. The long-term goal of this study is to explore how to utilize family history and gene information to personalize cancer prevention.

Identifying Neurocognitive Risk Markers that Differentiate Smokers from Never-Smokers and Ex-Smokers
Jason Robinson, Ph.D., Assistant Professor, Department of Behavioral Science

Even though most smokers know smoking is unhealthy and want to quit, few do. Only 6 percent of those who make a serious cessation attempt are not smoking a year later. Like other drugs of abuse, smoking alters the brain after repeated use, making it difficult to quit permanently. The team will examine whether brain markers found in smokers also exist in never-smokers and ex-smokers. This will help identify non-smokers at risk of smoking and ex-smokers who may resume the habit.

Role of PPAR-delta Overexpression in Colonic Tumorgenesis
Imad Shureiqi, M.D., M.S., Associate Professor, Department of Clinical Cancer Prevention

This discovery project will enhance our understanding of the role of a certain nuclear receptor in colon cancer. A seed grant last year helped us discover that too much of the receptor can promote cancer in mice. Now, we will continue our research with a larger study that will lead to preclinical testing of a drug to prevent colon cancer in people at high risk. This seed grant was a contributing factor to securing an NCI-funded R01 grant.

Integrative Genomic Analysis of Actinic Keratoses: Using Inter-lesional and Cross Species Analysis to Predict Progression to Cutaneous Squamous Cell Carcinoma
Kenneth Tsai, M.D., Ph.D., Assistant Professor, Department of Dermatology

Three million people in the United States are diagnosed with skin cancer each year, making it the most common cancer. Cutaneous squamous cell carcinoma, the second most common skin cancer, begins with sun damage that progresses to actinic keratosis (AK, the most common precancerous lesion) and then to cancer. The high incidence of AK presents a vast opportunity for skin cancer prevention, and Dr. Tsai's studies to find genetic alterations that result in its formation will help design better treatment and prevention methods.

High-throughput Search for a Combination Cancer Preventive Treatment
Ivan Uray, M.D., Ph.D., Assistant Professor, Department of Clinical Cancer Prevention

The two most important requirements for acceptable cancer prevention drugs are high effectiveness and low toxicity. This research aims to find drug combinations that achieve both aims. At the same time, we will examine new ways to combine cancer prevention drugs that reduce the effective dose while achieving the same or even better results. Reaching these goals may have a tremendous impact on the acceptance of drugs to prevent cancer.

The Role of Tryptophan Metabolism in the Chronic Fatigue Experienced by Chronic Myelogenous Leukemia (CML) Survivors
Javier Valenzuela, Ph.D., Instructor, Department of Symptom Research

Unlike other cancer survivors recovering from short-term treatments, CML survivors must remain on tyrosine kinase inhibitor (TKI) therapy for years, if not for the rest of their lives. Fatigue is one of the most common problems in long-term TKI therapy, and studies have shown that blocking the breakdown of the enzyme tryptophan can help, making the intervention more acceptable to patients. Research in CML patients will investigate this association to help identify CML survivors most likely to benefit from stopping tryptophan breakdown.

Impact of Past Chemotherapy on Emotional Processing: An fMRI study in Breast Cancer Survivors
Francesco Versace, Ph.D., Instructor, Department of Behavioral Science

Although the five-year survival rate for breast cancer is as high as 90%, more than half of women have problems with sexual function, particularly if they had chemotherapy. We think chemotherapy damages parts of the brain that are necessary for emotion, contributing to loss of desire for sex. We are using functional magnetic resonance imaging (fMRI) to measure brain activity, which we hope will lead to effective remedies.

A Brain Plasticity-based Computerized Intervention to Treat Attention and Memory Problems in Adult Brain Tumor Survivors
Jeffrey Wefel, Ph.D., Assistant Professor, Department of Neuro-Oncology

Although survival rates have improved, most brain tumor survivors suffer from cognitive problems after chemotherapy. This is often called "chemobrain" and results in reduced independence. The only treatment available is rehabilitation training, but it is often not accessible or affordable. Hoping to develop a larger clinical trial, researchers are determining whether survivors will benefit from the Brain Fitness program, an at-home, computerized resource.

Novel Use of the Niclosamide: Targeting mTOR Signaling in Peutz-Jeghers Syndrome
Chongjuan Wei, Ph.D., Assistant Professor, Department of Epidemiology

Peutz–Jeghers Syndrome is a genetic disorder that puts people at high risk for benign polyps in the stomach, small intestine and colon, as well as various types of cancer. We are investigating whether niclosamide, which inhibits the mTOR pathway, prevents polyps in mice. Since this pathway is active in many cancers, the findings could impact prevention and treatment of other diseases. During the first year of this project, Dr. Wei gathered the data needed to earn an NCI grant to support further study.

Chemoprevention of Pancreatic Cancer by Induction of Synthetic Lethality in Mutant K-ras Cells
Xiangwei Wu, Ph.D., Associate Professor, Department of Head and Neck Surgery – Research

Pancreatic cancer is often diagnosed at an advanced stage and has a poor prognosis. Mutations of the K-ras gene are possibly the single most common abnormality in this cancer. In this study, we are developing a method to specifically abolish K-rashyphenexpressing cells, with the goal of devising a personalized approach to pancreatic cancer prevention and treatment.

Preclinical Chemoprevention of Esophageal Adenocarcinoma
Xiaochun Xu, M.D., Ph.D., Associate Professor, Department of Clinical Cancer Prevention

Esophageal cancer is more prevalent in people with frequent gastroesophageal reflux (GERD), which may result in a precancerous condition called Barrett's esophagus. This study will show that a combination of chemopreventive agents can prevent the growth of esophageal cancer cells. Last year, the team's progress enabled development of two larger studies of prevention methods for people with Barrett's esophagus.

Predicting the Risk of Developing Lung Cancer: A Multigenic Statistical Approach to MicroRNA
Yuanqing Ye, Ph.D., Assistant Professor, Department of Epidemiology

There is substantial evidence that lung cancer's development is driven by interactions between carcinogens in tobacco and genetic traits. Through this study we are identifying variants in certain genes associated with lung cancer. Last year, Dr. Ye assessed gene links in 1,135 lung cancer cases, and this year, the team will gather data for a larger multi-year study, which may shed light on the causes and prevention of lung cancer.

INVESTMENT IN NOVEL AND HIGH PRIORITY RESEARCH DIRECTIONS – DUNCAN FAMILY INSTITUTE STRATEGIC RESEARCH INITIATIVES

The Strategic Research Initiative program focuses expertise and resources on promising new and high-priority cancer prevention research areas. In FY11, we:

- Established two new initiatives: **Integrative Health** and the **Center for Translational and Public Health Genomics**;
- Supported the **Premalignant Genome Atlas** program; and
- Continued to develop the **Energy Balance** and **Tobacco Research** programs.

Premalignant Genome Atlas
Co-directors: *Xifeng Wu, M.D., Ph.D., Professor and Chair, Department of Epidemiology*
Ernest Hawk, M.D., M.P.H., Vice President for Cancer Prevention and Division Head, Cancer Prevention and Population Sciences

"Stopping cancer before it starts…."

Cancer often is already in an advanced stage when it is diagnosed, and treatment with chemotherapy and radiotherapy often causes severe side-effects with disappointing results. The best hope of improving this cycle is finding cancer early, or better yet, preventing it from developing in the first place.

Most epithelial cancers, which begin in the cells that line the surfaces and cavities of the body's organs, originate as premalignant lesions. The progression to cancer may take many years, giving us a window for potential intervention. However, we have not yet learned which people with premalignant lesions will go on to develop cancer or exactly how to halt the process.

Through the Premalignant Genome Atlas Program, we are studying premalignant lesions intensely to identify the changes that occur when they become cancer, hopefully leading to development of a tool we can use to predict which patients are most at risk. We can then draw upon our findings to personalize cancer prevention strategies.

Our ongoing goals were set when the program began in 2009. They are to:

- Establish a collection of tissues and data for research purposes;
- Assemble a group of patients with premalignant lesions and follow them over the long term; and
- Perform molecular profiling of normal, premalignant and cancer tissues to identify factors that may predict progression to cancer.

This year, we made great strides toward accomplishing our goals by continuing to recruit study participants and collecting blood and tissue samples. We continue to collaborate with Jaffer Ajani, M.D., on Barrett's esophagus and Scott Lippman, M.D., on oral premalignant lesions. Below are examples of our FY11 research accomplishments.

Colon Polyp Study

This study is the first to show that a certain type of RNA can make a difference in whether a person develops benign polyps and whether those polyps develop into colorectal cancer. These exciting results have potential as the foundation for a non-invasive test to determine risk. Moving forward, the research sets the stage for a larger study to validate the results and, ultimately, possible ways to predict and prevent progression of polyps to cancer.

Barrett's Esophagus and Esophageal Cancer

In the first of two related studies, researchers examined 119 tissue samples to find the role of a certain type of RNA in progression from the precancerous condition Barrett's Esophagus to esophageal cancer. This led to a larger study to test findings and identify biomarkers to predict which people with Barrett's esophagus are likely to develop esophageal cancer. Scientists identified several genes to study further, and they are conducting a larger study to confirm their findings.

Looking Toward the Future

Plans for FY12 include expansion of the leadership team to add Lopa Mishra, M.D., professor and chair of the Department of Gastroenterology, Hepatology and Nutrition. Dr. Mishra will further engage physicians who perform endoscopies in the next phases of the program, which focus on collection and analysis of precancerous colorectal tissues. The program will continue to focus on oral premalignant leukeplasia, Barrett's esophagus and colon polyps, with ongoing emphasis on genetic profiling. The long-term goal is to develop novel tools to better predict which patients are at high risk for progression from normal to premalignancy, and from premalignancy to cancer.

Energy Balance

Working Group Co-leaders: *Powel Brown, M.D., Ph.D., Chair and Professor, Department of Clinical Cancer Prevention*
Karen Basen-Engquist, Ph.D., Professor, Department of Behavioral Science

The American Cancer Society reports that approximately 30 percent of U.S. cancer deaths can be attributed to poor diet and lack of exercise, and obesity is implicated in numerous cancers (Figure 1). Developing a program in **energy balance**, or the relationship between energy intake (calories eaten) and energy expended (calories used) through physical activity, remains a high priority as we aim to:

- Learn more about the role energy balance plays in developing cancer;
- Understand how diet and exercise interact with genetic and environmental influences; and
- Develop studies to find the best ways to reduce cancer risk.

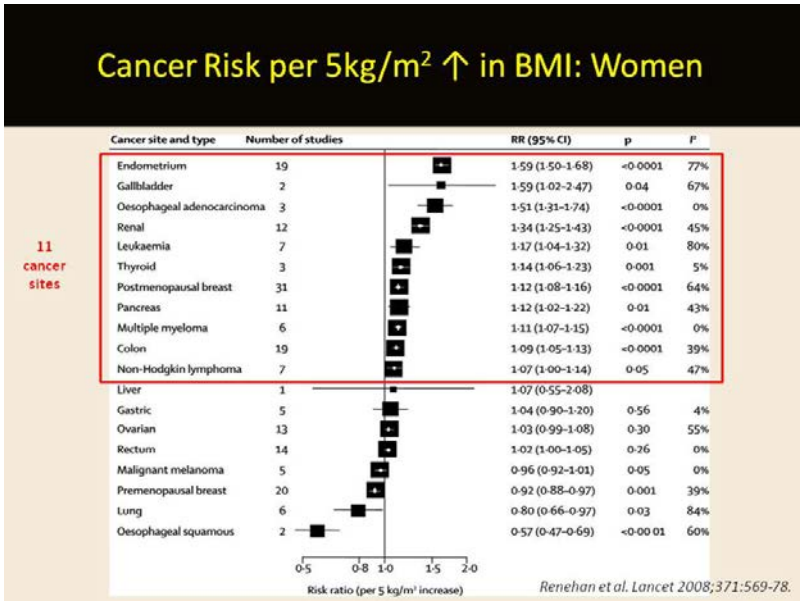


Figure 1 An increase in cancer risk is associated with an increase in Body Mass Index (BMI) for 11 cancer sites.

Our approach unites laboratory, preclinical and clinical investigators in working groups and retreats and provides seed funding for projects that engage investigators from multiple disciplines. Longer term, we anticipate seeking outside grant support for a center or multi-project research program.

Examples of research that can be developed through this program include Dr. Xifeng Wu's study demonstrating the minimum amount of daily exercise required to reduce mortality (Figure 2); Dr. Karen Basen-Engquist's investigation of exercise and endometrial cancer, one of the Institute's seed-funded research projects; and Dr. Lorna McNeill's iMove project, an exercise intervention with women in a community setting that is supported by the Institute's e-Health Technology research resource.

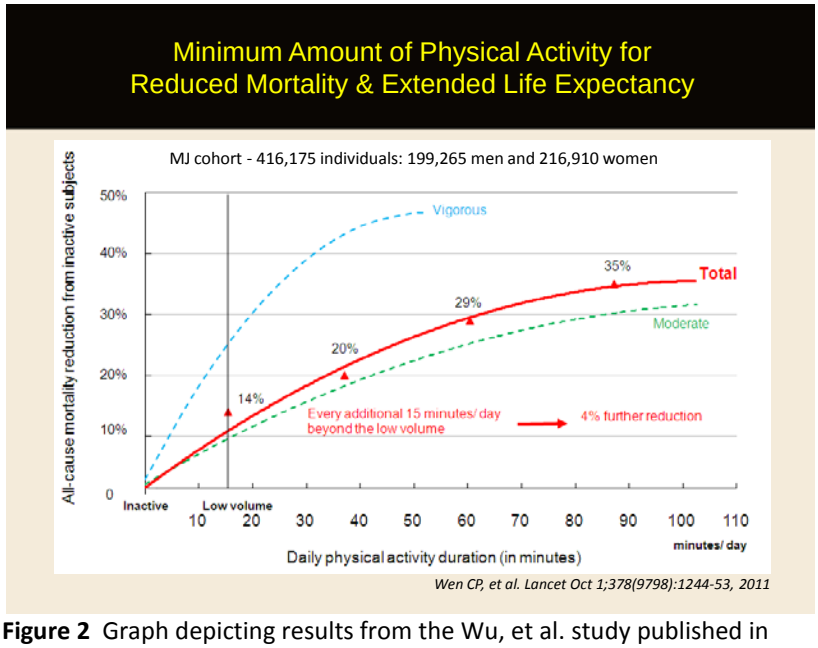


Figure 2 Graph depicting results from the Wu, et al. study published in Oct. 2011 in The Lancet. Graph demonstrates a 4% further reduction in all-cause mortality for every additional 15 minutes of daily physical activity.

Integrative Health

Co-leaders:
Ernest Hawk, M.D., M.P.H., Vice President for Cancer Prevention and Division Head, Cancer Prevention and Population Sciences
Lorenzo Cohen, Ph.D., Professor, General Oncology and Behavioral Science; Director, Integrative Medicine Program
Therese B. Bevers, M.D., Professor, Clinical Cancer Prevention; Medical Director, Cancer Prevention Center
Richard T. Lee, M.D., Assistant Professor, General Oncology; Clinical Director, Integrative Medicine Program

The number of patients seen in the Cancer Prevention Center, MD Anderson's clinic for cancer prevention and survivorship, continues to increase each year as cancer treatment improves and more people survive the disease. However, behavioral and lifestyle factors, such as obesity and tobacco use, can increase survivors' risk for developing secondary cancers.

Figure 3 Integrative Health Working Group members, Fran Zandstra, RN/MBA and Drs. Ernie Hawk, Gabe Lopez and Richard Lee discuss plans for the implementation of new integrative health clinical services for MD Anderson patients.

The Cancer Prevention Center, Division of Cancer Prevention and the Integrative Medicine Program collaborated with colleagues to develop a program to help three groups of MD Anderson patients—those in treatment, cancer survivors, and people at risk for cancer—address the behavior and lifestyle factors that influence health outcomes (Figure 3). Called Integrative Health, the program will provide each participant a personalized prescription to reduce cancer risk. Services will include:

- Comprehensive health education program for cancer prevention and survivorship patients;
- Addition and expansion of nutrition assessment and counseling services;
- Exercise counseling services;
- Psychosocial counseling;
- Complementary therapies;
- Tobacco cessation services; and
- Creation of a new position, Integrative Health Navigator, charged with helping patients access services.

Research in this area is expected to include a comprehensive integrative oncology clinical trial and studies that complement those supported through the Energy Balance program.

Tobacco Transdisciplinary Research Program

Working Group Co-leaders: *Ellen R. Gritz, Ph.D., Professor and Chair, Department of Behavioral Science*
David Wetter, Ph.D., Professor and Chair, Department of Health Disparities Research

We still do not know exactly why some people who use tobacco do not get cancer and others do; nor do we fully understand why some people can easily stop using tobacco and others have great difficulty in doing so. Building on MD Anderson's strength as a leader in tobacco research, this developing program reaches across disciplines to understand the many issues associated with tobacco as a risk factor for cancer.

Scientists from all areas within the Division of Cancer Prevention are developing studies to:

- Understand the basic science, genetic and molecular factors of tobacco use;
- Employ cutting-edge imaging techniques to study what happens in the brains of smokers; and
- Address differences in tobacco use by certain subgroups.

Examples of progress in this area include a collaborative study between Lorraine Reitzel, Ph.D., Department of Health Disparities Research, and Carol Etzel, Ph.D., Department of Epidemiology, to study the impact of menthol cigarettes on both tobacco addiction and ability to quit smoking.

In addition, researchers have developed a major new program, Tobacco TIPS (Translation Into Practice Systems), for which they are submitting an application for funding to the Cancer Prevention and Research Institute of Texas. This proposed $11.5 million collaboration with the University of Texas (UT) School of Public Health aims to increase the reach of tobacco cessation treatments—including one developed by Jenny Irvin-Vidrine, Ph.D., Department of Health Disparities Research—among health care systems, social service agencies and providers who focus on the underserved.

Center for Translational and Public Health Genomics
Director: Xifeng Wu, M.D., Ph.D., Professor and Chair, Department of Epidemiology

With the rapid development of new technologies that generate molecular information at an unprecedented pace, MD Anderson scientists are poised to make major breakthroughs in personalized cancer medicine. Streamlined data and comprehensive biological resources are essential to this progress.

The new Center for Translational and Public Health Genomics (CTPHG) is leveraging MD Anderson's large patient population and well-established foundation of research to provide support for investigators across the institution to accelerate progress in preventing, diagnosing and treating cancer.

A major initiative of the center includes the MD Anderson Cancer Patient Cohort, comprising an institutional Blood Specimen Research Resource and data collection process for newly diagnosed patients. Operating under the direction of Drs. Xifeng Wu and Stanley Hamilton, the cohort is a tremendous resource for investigators. Its potential is indicated by the collection of biosamples from more than 12,000 newly registered patients in just nine months (as of August, 2011), and a recently submitted $10 million National Institutes of Health grant aims to provide outside funding for expansion of this resource. Importantly, the initiative also provides every newly registered patient an opportunity to participate in clinical research aimed at developing better approaches for future generations.

The CTPHG has a state-of-the-art facility dedicated to the analysis of DNA. Instruments within this facility allow us to use cutting-edge approaches to study patients' genomes.

Aside from establishing patient cohorts and providing access to state-of-the-art genome sequencing equipment, the center's success in building collections of patient specimens and data has prompted the establishment of departmental processes for making sure these precious resources are properly used. These new processes are serving as a "Best Practices" guideline for the entire division. The practices will steer

investigators through the complexities of accessing scarce research materials, an increasingly important task as they work to advance prevention research in this genomic era.

The center stimulates the intellectual environment for multidisciplinary interaction through a lectures series which has included noted scientists such as Michele Carbone, M.D., Ph.D., director of the University of Hawai'i Cancer Center; Gordon Mills, M.D., Ph.D., chair of systems biology and co-director of the Sheikh Khalifa Bin Zayed Al Nahyan IPCT at MD Anderson; Ping Yang, M.D., Ph.D., professor of epidemiology at the Mayo Clinic; and Thomas Sellers, Ph.D., director of the Moffitt Research Institute.

RESEARCH RESOURCES - PROVIDING CRITICAL INFRASTRUCTURE TO ADVANCE CANCER PREVENTION SCIENCE

For research to move forward, scientists must have advanced scientific technologies, biological samples, data and expertise. These essential infrastructure components often are not funded through grants and other sources, but they are necessary for researchers to compete successfully for external funding from the National Institutes of Health (NIH), National Cancer Institute (NCI) and other agencies.

After careful consideration, the Duncan Family Institute invested 40 percent of its budget to support five research resources to help scientists be more competitive:

- Personalized Risk Prediction Program;
- e-Health Technologies Core;
- Mexican-American Cohort Study;
- Center for Community, Implementation, and Dissemination Research; and
- Clinical Cancer Prevention Research Core.

During this reporting period, the Institute funded the **Clinical Cancer Prevention Research Core,** which supports cancer prevention research by making it stronger and more efficient.

We are pleased with the return on our investment, as the Institute's research resources contributed to 30 grant proposals totaling more than $50 million. These resources also provided core services essential to conducting 63 actively funded research studies for which total costs exceeded $72 million. Highlights, which are described in more detail in the following pages, include:

- Support for a large study led by a group of scientists at the University of Oxford and Harvard Medical School that resulted in the most detailed genetic map to date in African Americans, published in *Nature;*

- An e-Health study exploring the possibility of collecting behavior-related data through sensors worn by patients or positioned in their homes;

- A novel behavioral intervention for smokers, developed in collaboration with the Harris County Hospital District and Kelsey-Seybold clinics, that significantly helped minority and medically underserved populations reach services designed to help them quit smoking; and

- Two clinical trials for treatment of breast cancer and the High Risk Breast Cancer Cohort and Biorepository are capitalizing upon the Cancer Prevention Research Core. More than 600 women at elevated risk of developing breast cancer have already been identified and will be invited to join the Cohort.

Personalized Risk Prediction Program (PRPP)
Co-directors: *Chris Amos, Ph.D., Professor, Department of Epidemiology (through 8/2011)*
Carol Etzel, Ph.D., Associate Professor, Department of Epidemiology (as of 9/2011)
Marsha Frazier, Ph.D., Professor, Department of Epidemiology (through 8/2011)

"Cancer Prevention – Personalized and Predictive"

Personalized cancer prevention, screening and early diagnosis targeted to each person's unique molecular makeup is the way of the future, and scientists are getting closer to achieving this vision every day.

Researchers working with The Duncan Family Institute Personalized Risk Prediction Program (PRPP) are investigating ways to use our differences to diagnosis cancer earlier, tailor special approaches for people at high risk and advance personalized cancer medicine.

The PRPP supported proposal development for two research projects budgeted at $1.4 million. It provided services to eight funded research projects ($3.4 million in total costs) during the past year and distributed 2,500-plus biospecimen samples to support new and ongoing studies.

Examples of the high-impact activities supported through PRPP include:


nature
ARTICLE
doi:10.1038/nature10336
The landscape of recombination in African Americans
A list of authors and their affiliations appears at the end of the paper
Recombination, together with mutation, gives rise to genetic variation in populations. Here we leverage the recent mixture of people of African and European ancestry in the Americas to build a genetic map measuring the probability of crossing over at each position in the genome, based on about 2.1 million crossovers in 30,000 unrelated African Americans. At intervals of more than three megabases it is nearly identical to a map built in Europeans. At finer scales it differs significantly, and we identify about 2,500 recombination hotspots that are active in people of West African ancestry but nearly inactive in Europeans. The probability of a crossover at these hotspots is almost fully controlled by the alleles an individual carries at *PRDM9* (P value $< 10^{-324}$). We identify a 17-base-pair DNA sequence motif that is enriched in these hotspots, and is an excellent match to the predicted binding target of *PRDM9* alleles common in West Africans and rare in Europeans. Sites of this motif are predicted to be risk loci for disease-causing genomic rearrangements in individuals carrying these alleles. More generally, this map provides a resource for research in human genetic variation and evolution.

Figure 4 Drs. Amos and McNeill are co-authors on a large collaborative study published in Nature to which both the PRPP and CCIDR contributed resources.

- Contribution to landmark study of 30,000 African Americans by a group of scientists at the University of Oxford and Harvard Medical School (Figure 4);
- Partnership with private industry to develop a saliva-based test as a companion to mammography to distinguish benign from malignant breast disease;
- Collaboration with private industry to study autoantibodies in breast disease;
- Relationships between tobacco cessation and cancer treatment;
- Sample collection and processing for the Repository of Tissue, Blood and Saliva in the Cancer Prevention Center;
- Serum collection, processing for DNA extraction and archiving services for breast cancer;
- Collaborations with the departments of Behavioral Science and Health Disparities Research;
- Sample collection and DNA extraction for Project CHURCH, resulting in more than 1,200 saliva samples from this African-American population;

- DNA samples for two research projects led by David Wetter, Ph.D., *Reducing Tobacco Related Health Disparities Study (Project HEALTH)* and *Por Nuestra Salud;* and
- Resources for the Tobacco Treatment Program developed by Paul Cinciripini, Ph.D.

Results of several projects to which the PRPP contributed specimens and data were published, as noted in the publication list at the end of the report.

Our operational achievements included:

- Collecting and banking 18,400 samples and abstracting more than 225,000 patient records to the MD Anderson Patient History Database;
- Instituting a charge structure that helped us receive more than $50,000 in user fees for reinvestment in the resource; and
- Establishing and posting standard operating procedures on the Personalized Risk Prediction Program website.

SampleBank - Centralized Biospecimen and Risk Factor Repository

Building on its progress, the PRPP will continue to enhance the centralized serum plasma and DNA repository, including a project to collect cancer-specific risk factor data for all participants. We will use a uniform system to process samples, state-of-the-art archiving with a well-designed laboratory information management system (LIMS), and a web-based data entry system. This will enhance the value of these materials to investigators and allow us to use new technologies in genomics and proteomics.

Looking Toward the Future

In FY12, the PRPP will transfer some of its sample collection, processing and archiving activities to the new Center for Translational and Public Health Genomics and the Clinical Cancer Prevention Research Core, both supported by the Duncan Family Institute. This will increase efficiency, allowing the PRPP to focus on supporting investigators.

In addition, PRPP resources will:

- Expand our inventory of data and biosample collection information;
- Create a centralized resource of risk prediction tools and methods;
- Facilitate access to our expertise;
- Work closely with groups throughout the institution;
- Build upon collaborations with Baylor College of Medicine and its Dan L. Duncan Cancer Center in the areas of breast, brain and bladder cancer, as well as with the joint Childhood Epidemiology Program with Texas Children's Hospital; and
- Seek collaborative opportunities with other institutions when combined expertise and resources would allow investigators to ask and answer scientific questions beyond the reach of those possible in a single institution.

e-Health Technology
Co-directors: Alex Prokhorov, M.D., Ph.D., Professor, Department of Behavioral Science
Ludmila Cofta-Woerpel, Ph.D., Assistant Professor, Department of Behavioral Science

The tools of the digital age can help us make great strides in preventing cancer. New technology can gather or distribute information to a broad audience – or the most specifically targeted subgroup. We can educate, help change behaviors, evaluate symptoms, and help patients and survivors live healthier lives.

The Duncan Family Institute's e-Health Technology resource serves as a hub for technology-enabled research and draws investigators from across MD Anderson to work together to save lives through prevention, screening, diagnosis and treatment. Last year it developed technology platforms and tools to support 17 projects integral to more than $20 million in research, including those highlighted below.

COMBAT
Alexander Prokhorov, M.D., Ph.D., Professor, Behavioral Science

In this Department of Defense-funded study ($3.7 million) at Fort Hood, Texas, researchers are developing and evaluating a program to help junior enlisted Army members avoid tobacco or quit smoking. Participants watch a movie clip and play an educational video game that communicates facts about smoking and tobacco use. We have produced six 15- to 30-second video segments for the game. Planned and completed work includes filming on and off-site, editing, graphics and formatting (Figure 5).

Figure 5 Drs. Alex Prokhorov and Joel Dunnington discuss the e-Health supported video game with Captain Williams, their collaborator on the Department of Defense-funded COMBAT study to prevent tobacco use initiation and to increase tobacco cessation rates among junior active duty Army personnel.

Comparative Effectiveness Research for Cancer in Texas (CERCIT)
Linda Elting, Ph.D., Professor, Biostatistics

Funded by the Cancer Prevention Research Institute of Texas ($1.3 million), this consortium includes MD Anderson, the University of Texas Medical Branch, Rice University, Baylor College of Medicine and the University of Texas School of Public Health (UTSPH)-Houston. Researchers will study patterns in cancer care across the state, then communicate findings to a broad audience including national researchers and care providers, Texas policy makers, cancer patients, and the public. e-Health Technology helped the researchers develop a strong web presence to report findings along with tools to enhance effectiveness by determining precisely what information these groups want.

***Cyberinfrastructure for Comparative Effective Research** (CYCORE)*
Principal Investigator: Susan Peterson, Ph.D., Associate Professor, Behavioral Science

This two-year project ($3.8 million) creates and tests a comprehensive state-of-the-art web-based tool to gather, process, store and retrieve information. We are exploring the feasibility of collecting behavior-related data through sensors worn by patients or positioned in their homes, then feeding results back to researchers. We are collaborating with Calit2, one of four California Institutes for Science and Innovation, to study real-time assessment of information using mobile devices (Figure 6).

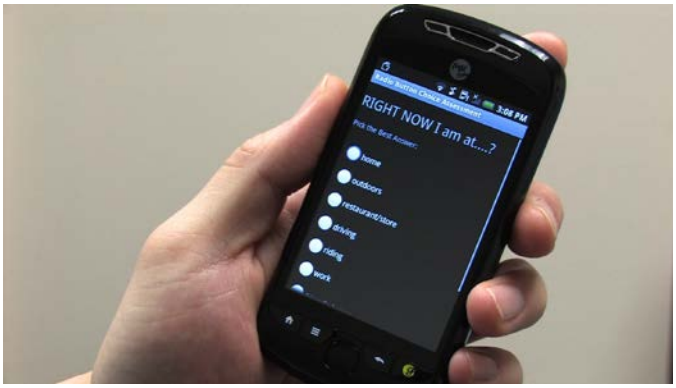


Figure 6 Smart phones are increasingly used in assessment and intervention research studies to capture data from participants or to send messages. The Android platform shown is now supported by e-Health and is being used to advance an NIH-funded study on physical activity.

Prevail: Identifying and Monitoring Barriers to Smoking Cessation in Low Socio-economic Status Populations
Principal Investigators: Michael Businelle, Ph.D. and Darla Kendzor, Ph.D., Assistant Professors at UT Health Science Center School of Public Health in Dallas

This study will identify and monitor psychosocial predictors of smoking relapse in people in low socio-economic groups in Dallas. Participants will carry smart phones for two weeks to capture response patterns in key variables (e.g., recent alcohol use, negative affect, craving, self-efficacy for quitting) that may predict relapse. e-Health helped develop the phone application, built a manager interface for desktop computers, and provided software installation, training and support.

Figure 7 Increasingly, iPads are being evaluated for use in clinical settings to capture patient reported information electronically.

CAMPad – an iPad Application for Complementary and Alternative Studies
Principal Investigator: Michael Fisch, M.D., Chair and Professor, General Oncology

The major goals of this project are to develop and install an iPad application to help cancer patients stick with treatment regimens. e-Health will develop and install the software, secure-data storage and transfer, and provide user training and support (Figure 7).

Other Achievements

e-Health Technology staff contributed their ideas and expertise, as well as project approach and estimates, to seven proposed research projects totaling more than $1.3 million in budgeted costs. We:

- Expanded engagement with researchers to be sure we are meeting their needs;
- Added Apple and Android platform capability;
- Negotiated a cost-effective leasing program with a major cell phone vendor;
- Overhauled our website to better communicate and acquire user feedback; and
- Developed a speaker series that began in Fall of 2011 to enhance understanding of new technologies for our investigators.

Looking Toward the Future

Going into our third year of operation, we plan to:

- Continue to build collaborations and capabilities;
- Develop video presentations for the e-Health website to educate about our capabilities;
- Expand collaborations with internal and external IT groups; and
- Develop the intellectual environment through sponsoring e-Health speakers.

Mexican-American Cohort Study
Co-directors: *Melissa Bondy, Ph.D., Professor, Department of Epidemiology (through 8/2011)*
Michelle Forman, Ph.D., Professor, Department of Epidemiology (through 7/2011)
Sara Strom, Ph.D., Associate Professor, Department of Epidemiology (as of 8/2011)

Mexican Americans are the largest and fastest-growing ethnic minority in the United States and the largest subgroup in Texas – yet they are an understudied group when it comes to cancer. The Mano a Mano (Mexican-American) Cohort Study — one of the first studies of its kind — focuses on Mexican-American households to discover information about environment, family and social support systems, economic and other resources, barriers, family history of disease and residency (Figure 8).

Launched in 2001 by the Department of Epidemiology with resources from Texas Tobacco Settlement and philanthropic funds, the program was designed specifically to:

- Understand cancer-related risk factors in a population undergoing dramatic social change;
- Identify risk factors to prevent cancer and reduce cancer-related disease and deaths; and
- Advance the MD Anderson mission to eliminate cancer through patient care, research, prevention and education.

Figure 8 Mano a Mano team members recruit cohort participants at Santa Maria Virgen Episcopal Church in Southwest Houston.

At the end of FY11, the Cohort included more than 15,000 households and 22,000 participants. We piloted a new recruitment strategy using community enrollment sites to increase the number of interviews we can conduct and to reduce recruitment costs. Also, we continue to follow-up with participant households every six months for the first three years and then annually.

In an attempt to not only study, but improve the health of this community, several research studies targeted to understanding and reducing cancer risk in Mexican Americans were supported by the Cohort.

Latinos Contra El Cancer
David Wetter, Ph.D., Chair and Professor, Department of Health Disparities Research and colleagues from MD Anderson and the UT School of Public Health, NIH U54, $4 million

The Mexican-American Cohort plays a key role in the Community Networks Program Center, Latinos Contra El Cancer, (Latinos Against Cancer), which recently was awarded an NIH peer-reviewed grant. The Center studies innovative ways to address three important risk factors for cancer: smoking, poor diet and physical inactivity. Initially, it will focus on recruiting 400 study participants who are considered high risk.

Biobehavioral-Smoking Profiles of Mexican Origin Youth
Anna Wilkinson, Ph.D., Assistant Professor, UT Health School of Public Health – Austin Campus, Supplement to NCI K07 CA126988, ~$750,000

Last year, we reported on Dr. Wilkinson's studies to advance understanding of the influences that increase Mexican-American youth's susceptibility to tobacco and likelihood of becoming smokers. In this follow-up project, she is re-interviewing the original participants to learn about their smoking behaviors. She will use these findings to build larger, longer-term studies focused on developing more effective, culturally appropriate strategies (both school- and community-based) for promoting healthier lifestyles.

Breast Cancer Risks in Mexican-American Women
Principal Investigator: Melissa Bondy, Ph.D., Professor, Department of Epidemiology

Although research has shown that non-Hispanic white women are at higher risk for cancer if they are postmenopausal and obese, that is not the case for Hispanic women. In fact, this study of more than 400 women found no connection between body mass index and breast cancer in Mexican-American women, regardless of menopausal status. Investigators believe this may be because Mexican-American women go through menopause an average of two years earlier than non-Hispanic white women, meaning they were exposed to less estrogen.

Looking Toward the Future

Our goals for next year, which are aimed at enhancing the value of this resource to researchers, the community and the Cohort participants, are to:

- Continue recruiting participants, targeting people over 40 to reflect the demographics of the Mexican-American population in Houston;
- Contact Cohort participants who have been lost to follow-up to invite them back into the study;
- Develop new research initiatives and expand collaborations within and outside MD Anderson; and

- Work with the Mexican-American community to develop health awareness programs for cancer and other diseases.

Center for Community, Implementation, and Dissemination Research
Co-directors: David Wetter, Ph.D., Professor and Chair, Department of Health Disparities Research
Lorna McNeill, Ph.D., Assistant Professor, Department of Health Disparities Research

"Research with Real World Impact"

The Center for Community, Implementation, and Dissemination Research (CCIDR) supports the investigation of screening and early detection, diagnosis, treatment and quality-of-life improvement services in public health and clinical settings. It also helps MD Anderson researchers and others translate discoveries into real-world solutions (Figure 9).

Figure 9 Harris County Hospital District's Casa de Amigos Health Center is an example of a setting in which investigators conduct implementation and dissemination research.

In the past year, CIDDR investigators and staff have authored and/or provided support for 23 funded grants totaling more than $36 million. Additionally, 11 grants totaling $25 million are pending review.

Highlights of CCIDR-supported research include:

Dissemination of a Smoking Quitline to the Underserved (Project Quitline)
Jennifer Irvin Vidrine, Ph.D., Assistant Professor, Health Disparities Research, NIH – National Center for Chronic Disease Prevention and Health Promotion, ~$1.8 million

Figure 10 Jennifer Irvin Vidrine, Ph.D. (left), assistant professor, and Sheryl Nelson (center), senior research coordinator, both in MD Anderson's Department of Health Disparities Research, discuss the progress of the Ask-Advise-Connect initiative among community patients with Carmen Mitchell-Bibbs, a licensed professional nurse at Harris County Hospital District's Martin Luther King Jr. Health Center.

Smoking quitlines can be valuable resources for people without access to or means to pay for other programs. However, most smokers who are referred to smoking quitlines never call them. With support from the Duncan Family Institute, researchers partnered with the Harris County Hospital District (HCHD) to test a new method to encourage medically underserved smokers to call an available, publicly funded quitline (Figure 10). Results show that smokers from the intervention clinics were 24 times more likely to receive cessation treatment than smokers in a control group. A new project, the Kelsey Quitline Study, replicates Project Quitline for insured patients at 10 Kelsey-Seybold Clinics throughout Houston. Preliminary results showed that 17,495 potential participants were reached in three months.

Reducing Tobacco Related Health Disparities
David Wetter, Ph.D., Chair and Professor, Health Disparities Research, NCI R01 ~$1.5 million

Approximately 90% of smokers—more than 41 million people—are not ready to quit smoking. This study is evaluating nicotine replacement therapy as a way to help low-income smokers who say they are not ready to quit. Investigators will recruit 900 cigarette smokers who attend community health clinics operated by the HCHD.

African-American Cancer Prevention Project and Project CHURCH
Lorna McNeill, Ph.D., Assistant Professor, Health Disparities Research

This ongoing project investigates health and cancer-related disparities among African Americans in Houston. Windsor Village United Methodist Church is a key partner, along with a community advisory board and 1,500 study participants.

The project, now in its third year of follow-ups, launched a new study last year. Called Healthy Habits, the initiative is funded by the Houston Endowment and focuses on obesity prevention. Dr. McNeill, the project leader, was recently awarded the Rogers Award for Excellence in Prevention (Figure 11).

Figure 11 Upon accepting the Rogers Award for Excellence in Prevention from MD Anderson's president, Dr. Ronald DePinho and Ms. Regina Rogers, Dr. Lorna McNeill, co-director of the CCIDR, described her work as both a career and a calling.

"When you look at the high rates of late-stage breast cancer, the high number of black men with prostate cancer, the high rates of diabetes and heart disease, and the list goes on, you realize that there's work to do. I firmly believe that I'm here, working on cancer-related research, as my ministry or calling in life," she says. "I'm motivated every day by God to work harder, do more, experience more and feel more so that I can be of help to others."

Clinical Trial Disparities

Clinical trials help move science forward and often provide the latest prevention and treatment options. However, the number of African Americans who participate in clinical trials lags far behind that of whites, despite the fact that proportionally, African Americans carry a much higher cancer burden.

CCIDR is working closely with researchers inside and outside of MD Anderson to increase awareness of barriers and help create strategies to improve participation and retention (Figure 12). We are building long-term relationships with partners including:

- Harris County Hospital District;
- Windsor Village United Methodist Church;
- Community service organizations and community-based health centers, including many that are Federally Qualified Health Centers; and
- MD Anderson's Comprehensive Cancer Control.

Looking Toward the Future

In FY12, CCDIR will focus on several projects, including a tobacco cessation program that considers genetic, neuroscience and neighborhood factors. Another planned study will partner with Federally Qualified Health Centers (FQHC) to share expertise and build collaborations aimed at helping these facilities serve their lower income and underserved patient populations.

Figure 12 In the field: Dr. Lorna McNeill's research team recruits participants for the "Healthy Habits" study as part of the Project CHURCH partnership with Windsor Village United Methodist Church.

To strengthen our capabilities, we will:

- Promote awareness of the tools we offer;
- Recruit a research scientist;
- Develop a communications and promotions strategy;
- Network with leaders in community dissemination research; and
- Seek extramural funds to further support our vision and goals.

Clinical Cancer Prevention Research Core
Co-directors: *Powel Brown, M.D., Ph.D., Professor and Chair, Department of Clinical Cancer Prevention*
Therese Bevers, M.D., Professor, Department of Clinical Cancer Prevention and Medical Director, Cancer Prevention Center

The Clinical Cancer Prevention Research Core (CCPRC) provides resources to help bring cancer prevention research to patients in real-life, clinical settings (Figure 13). We collaborate with investigators on many levels and help them strengthen the quality of their research, so they can have a more profound impact on saving lives.

We support studies by Clinical Cancer Prevention researchers that are ready for implementation, and we have established the High Risk Breast Cancer Cohort and Biorepository, a shared research resource for MD Anderson investigators.

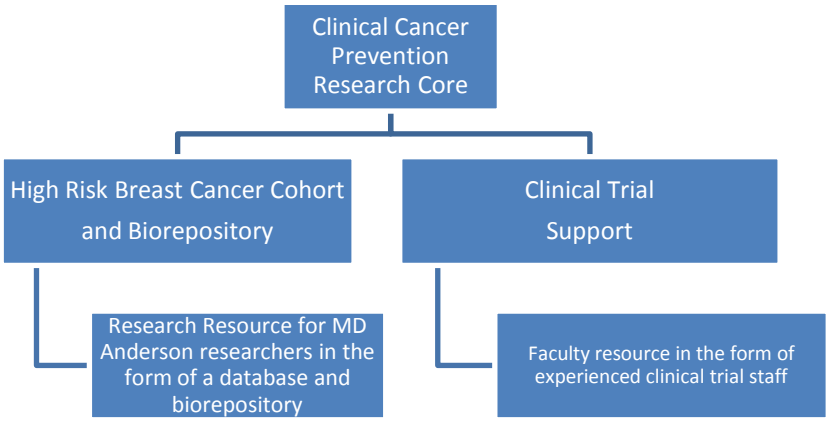


Figure 13 The CCPRC is building resources and sharing expertise to advance studies aimed at delivering preventive therapies to patients at high risk for cancer.

High Risk Breast Cancer Cohort and Biorepository

This project is collecting blood samples and information about breast cancer risk factors and outcomes from cancer-free patients at elevated risk of developing invasive breast cancer. It provides a ready-access resource for researchers interested in developing breast cancer research studies. This cohort is under the leadership of Dr. Therese Bevers and Abenaa Brewster, M.D., (Figure 14).

During this first year of operations, 605 potential participants were identified. The next step is to invite them to take part in this important program, which is providing services to two clinical trials.

Figure 14 Dr. Abenaa Brewster, associate professor of Clinical Cancer Prevention, is co-leading development of the High Risk Breast Cancer Cohort.

Trial of Lapatinib for the Treatment of Women with DCIS Breast Cancer

Powel Brown , M.D., Ph.D., Principal Investigator, Chair and Professor Clinical Cancer Prevention in collaboration with Henry Kuerer, M.D., Ph.D. co-Principal Investigator, Professor, Surgical Oncology

In this multi-institution project funded by the Breast Cancer Research Foundation, women with newly diagnosed ductal carcinoma in situ (DCIS) are treated with lapatinib or placebo for two to six weeks.

Looking Toward the Future

CCPRC's plans for next year include:

- Complete hiring and training of core staff;
- Distribute information about the High Risk Breast Cancer Cohort and Biorepository to support collaborative research;
- Engage with newly hired clinical faculty to support their research programs; and
- Develop new clinical trials with PARP inhibitors in breast cancer survivors.

EDUCATION AND EXCELLENCE

The Duncan Family Institute Executive Committee committed 10% of the Institute's budget to activities to develop future generations, support current generations and assure the quality of Institute programs. Through the joint leadership of Dr. Hawk, department chairs and center directors in the Division of Cancer Prevention and Population Sciences (Figure 15), the Institute plans and evaluates every initiative to ensure that each moves toward our goals of preventing cancer – and that all align with the intentions of those whose gifts make the Institute possible. Members actively promote Institute initiatives to colleagues across the campus, and, through their leadership roles, regionally and nationally to broaden the reach and collaborative opportunities of the Institute.

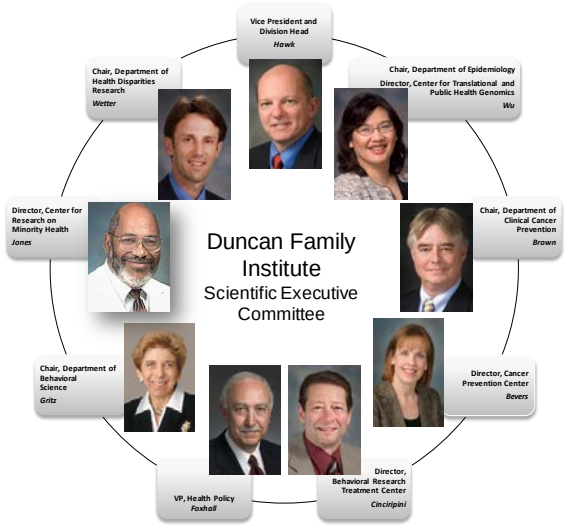


Figure 15 Cancer Prevention research and clinical department chairs and center directors meet regularly to guide Institute investments and evaluate productivity.

DEVELOPING THE NEXT GENERATIONS – DUNCAN FAMILY INSTITUTE MENTORED JUNIOR FACULTY FELLOWSHIP

These competitively awarded fellowships help promising young researchers bridge the gap between postdoctoral training and independent researcher status (Figure 16). They provide mentoring and financial support for instructor-level faculty members to focus on developing their research questions, generating preliminary data and enhancing their publication record to compete successfully for peer-reviewed extramural grants — an early and critical milestone on the path to research independence.

Our first two fellows, Drs. Francesco Versace and Larkin Strong, successfully moved into tenure-track faculty positions at MD Anderson, a testament to the value of this fellowship toward advancing the careers of future cancer prevention researchers. We appointed a third fellow in FY11, Jian Wang, Ph.D., instructor of epidemiology, whose research has the potential to develop personalized smoking cessation programs.

Figure 16 Fellowship recruitment at local and national meetings augments efforts to recruit new junior scientists to MD Anderson's cancer prevention research program.

Francesco Versace, Ph.D., Instructor, Department of Behavioral Science
Putting Smoking Addiction in the Affective Context: Event-related Potentials to Emotional and Neutral Stimuli during a Smoking Cessation Intervention

Dr. Francesco Versace, who recently was appointed to a research tenure track position in MD Anderson's Department of Behavioral Science, is building a promising career as an independent scientist (Figure 17).

Many studies suggest that a smoker's altered emotional process makes it difficult to quit smoking. But theories vary about how and why this occurs . Dr. Versace seeks to understand the role that brain mechanisms and emotional processes play in smoking addiction and relapse in order to help people stop smoking – permanently.

Figure 17 Dr. Franceso Versace is the Institute's first Mentored Junior Faculty Fellow.

The fellowship support allowed Dr. Versace (Figure 17) to further strengthen his neuroimaging expertise, conduct new experiments exploring the role of brain reward sensitivity in smoking relapse and collect preliminary data which led to a funded NIH R01 grant. He is expanding his work to cancer survivorship, with the recent award of a Cancer Survivorship Research Seed Money Grant. The goal of this new project is to use neuroimaging to study reduced sexual desire in breast cancer survivors.

Larkin Strong, Ph.D., Instructor, Department of Health Disparities Research
Opportunities for Cancer Prevention: Identifying Multilevel Influences of Physical Activity and Obesity in Diverse Populations

In just nine months, Dr. Strong (Figure 18) worked closely with her mentor, Dr. Wetter to target her research and move toward research independence. Her efforts focus on how physical, social and cultural factors influence health behaviors and outcomes in diverse populations. For her fellowship, she developed a project to assess multi-level influences of physical activity in Mexican-American adolescents, looking at individual, interpersonal and neighborhood factors.

Figure 18 Dr. Larkin Strong is the Institute's second Mentored Junior Faculty Fellow.

She also is conducting a study to examine the links between physical activity, walking and sedentary behaviors and perceptions of physical and social environments among members of an African-American church-based group. Dr. Strong is a co-investigator on the Community Networks Program "Por Nuestra Salud" and has submitted a proposal to the National Heart Lung and Blood Institute Mentored Research Scientist Development Award (K01) program for a project titled "Pathways Linking Neighborhoods and Activity Behaviors in Diverse Populations."

Jian Wang, Ph.D., Instructor, Department of Epidemiology

Risk Modeling Using Mediation Analysis and Bayesian Network Recovery with Application to Smoking Cessation Study

Dr. Wang, the newest Duncan Family Institute Fellow (Figure 19), is researching new statistical approaches for designing smoking cessation programs that will help identify the complex relationships among genetic variants, environmental risk factors (e.g., number of smokers in family and social context) and smoking.

Figure 19 Dr. Jian Wang is the Institute's third Mentored Junior Faculty Fellow.

Results of her studies have the potential to lead to creation of a risk model for smoking cessation that considers all of these factors. Such a model could provide insights to the development and tailoring of prevention strategies for people at risk for nicotine dependence as well as effective medications for smokers who want to quit.

Dr. Wang's long-term career goal is to become an independent researcher in behavioral and genetic statistics. The Duncan Family Institute fellowship will provide her an opportunity to integrate her knowledge of theoretical statistics, epidemiology, behavioral science and genetics through work with expert mentors on multi-disciplinary projects — an important next step toward career independence.

INVESTING IN THE CURRENT GENERATION

The Institute enhanced the intellectual environment by supporting six speakers in collaboration with the Cancer Prevention Research Training Program Grand Rounds lecture series and Leonard Zwelling, M.D., UT System Health Fellow (Figure 20). Diverse topics addressed a range of real world issues including:

Figure 20 Duncan Family Institute-sponsored lectures are publicized throughout MD Anderson, drawing faculty from diverse fields to learn how people are thinking about cancer prevention and risk reduction.

- Impending Primary Care Physician Shortages and Graduate Medical Education: Implications for Academic Medical Centers and Cancer Prevention (Russ Robertson, M.D., Northwestern University);
- An Ounce of Prevention (Ken Shine, M.D., executive vice chancellor for health affairs, UT System);
- Only 10 Seconds to Care: the Promise of Healthy Survivorship (Wendy Harpham, M.D.);
- After the Election Deluge: Implementing Health Reform in 2011 and 2012" (Norman Ornstein, American Enterprise Institute),
- Battling Cancer ONE Patient at a Time (Marcy Zwelling, M.D.); and
- Uncle Sam MD: Federal Regulation and the Practice of Medicine (Scott Gottlieb, M.D., columnist, Forbes.com and resident fellow at the American Enterprise Institute).

PLANNING FOR EXCELLENCE AND BUILDING FOR THE FUTURE

The Duncan Family Institute worked with its Scientific Executive Committee to set research priorities and guide investments in areas of greatest promise. The Division of Cancer Prevention and Population Sciences established, managed, facilitated and promoted the Institute's initiatives. It measured and reported scientific progress and disseminated information on Institute research resources and funding opportunities.

The Institute's science is disseminated through newsletters, blog posts and via video, posted on the Institute's website and YouTube (Figure 21).

Figure 21 Videos highlighting the work of Duncan Family Institute scientists are featured on MD Anderson's YouTube website.

The Scientific Executive Committee has defined new directions for development next year in these areas:

- Cancer survivorship research;
- Image-based screening and early detection;
- Global cancer prevention programs;
- Energy balance, integrative health services and tobacco research programs; and
- Investment in research resources and cohorts, as well as critical research infrastructure for population- and community-based studies.

The following summaries highlight scientific accomplishments of Duncan Family Institute leadership and awardees— providing a snapshot of the breadth of research interests, national and international engagement, and contributions of those who are joined together to advance the science and practice of cancer prevention.

DUNCAN FAMILY INSTITUTE SCIENTIFIC LEADERS AND RESEARCHERS

Ernest T. Hawk, M.D., M.P.H., is MD Anderson's vice president and head of the Division for Cancer Prevention and Population Sciences. He holds the Boone Pickens Distinguished Chair for Early Prevention of Cancer.

Prior to his appointment at MD Anderson in December 2007, Dr. Hawk held several positions at the National Cancer Institute (NCI) in Bethesda, MD, since 1996. He most recently served as director of the Office of Centers, Training and Resources. His other NCI posts included chief and medical officer in the Gastrointestinal and Other Cancers Research Group, Medical Officer in the Chemoprevention Branch and Chair of the Translational Research Working Group.

Dr. Hawk has been involved in preclinical, translational and clinical prevention research focused on nonsteroidal anti-inflammatory drugs and COX-2 inhibitors. He has earned numerous awards, including the prestigious NCI Research Award for Distinguished Achievement in Cancer Prevention. Dr. Hawk serves as deputy editor for the journal *Cancer Prevention Research* and is a member of the External Advisory Boards of five NCI-designated cancer centers.

Dr. Hawk earned his M.D. from Wayne State University School of Medicine in Detroit, MI and his M.P.H. from Johns Hopkins University, Baltimore, MD. He completed a clinical internship in Internal Medicine from Emory University Affiliated Hospitals, Atlanta, GA; a clinical fellowship in Medical Oncology at the University Of California, San Francisco, San Francisco, CA and a research fellowship in cancer prevention at the National Cancer Institute, Bethesda, MD.

Christopher I. Amos, Ph.D., is a professor in the Department of Genetics. He also directs the Human Pedigree Analysis Resource, which supports research involving patients at increased familial risk for cancer.

Dr. Amos' research has ranged from investigating hereditary factors for prostate, head and neck, lung and colon cancers to the study of Peutz-Jeghers Syndrome, a rare disease that makes people more susceptible to polyps and multiple cancers. He leads a study to identify genetic risk factors for lung cancer using a genome-wide association approach. His team recently completed the nation's first genome-wide scan to identify genetic risk factors for melanoma.

Dr. Amos earned an M.S. and Ph.D. in biometry from LSU Medical Center in New Orleans, LA. He has appointments in the departments of Bioinformatics and Computational Biology at MD Anderson, the Department of Epidemiology at the UT School of Public Health, the Graduate School of Biomedical Science at UT Health Science Center, and Rice University.

Karen Basen-Engquist, Ph.D., M.P.H., is professor of Behavioral Science. Her research focuses on cancer survivors and how healthy lifestyle choices impact long-term side effects. She also studies ways to change behaviors, including innovative real-time methods to assess symptoms and behaviors in cancer patients and survivors.

Her research includes studies to investigate exercise in endometrial cancer survivors, and the benefits of exercise for advanced colon cancer patients and cancer survivors with chemotherapy-induced heart failure. She directs the Patient-Reported Outcomes, Survey, and Population Shared Resource which provides technical assistance and support for investigators. She chairs MD Anderson's working group for cancer survivorship research.

Dr. Basen-Engquist received a Ph.D. in community psychology from the University of Texas at Austin and a master's in public health from The University of Texas Health Science Center at Houston. She served on the faculty of the University of Texas School of Public Health from 1991 to 1996.

Therese B. Bevers, M.D., is professor of Clinical Cancer Prevention and the medical director of the Cancer Prevention Center and prevention outreach programs at MD Anderson. She has overseen the Cancer Prevention Center since its opening in 1996.

Her clinical and research interests are breast cancer prevention, screening and diagnosis. She was the MD Anderson principal investigator (PI) on two national groundbreaking trials: the Breast Cancer Prevention Trial which demonstrated that tamoxifen reduces the risk of developing breast cancer by half; and the STAR trial, which showed that raloxifene has similar benefits but fewer risks. She is the institutional PI of a study of polyphenon E (an active substance of green tea) in women at increased risk for breast cancer.

She is the recipient of many awards, including the 2006 Julie and Ben Rogers Award for Excellence in Prevention. In 2011, she received the Kathryn S. Stream Award for Excellence in Women's Health and the Faculty Achievement Award in Prevention.

Powel H. Brown, M.D., Ph.D., is a professor of medicine, breast medical oncologist and chairman in the Department of Clinical Cancer Prevention at MD Anderson. Prior to coming to MD Anderson in 2009, he was the Associate Director for cancer prevention at the Dan L. Duncan Cancer Center at Baylor College of Medicine.

He has cared for women with breast cancer for more than 25 years and focused his research on signaling pathways for prevention and treatment of breast cancer. He demonstrated that drugs related to vitamin A prevent ER-negative breast cancer, and he uses genomics and proteomics to identify drugs for breast cancer prevention and treatment.

Dr. Brown earned his bachelor's degree at the University of North Carolina and his medical degree and Ph.D. from New York University. He completed an internal medicine internship and residency at Duke University, a medical oncology clinical fellowship at the National Cancer Institute (NCI) and a research fellowship at the Navy Medical Oncology Branch, NCI.

Paul M. Cinciripini, Ph.D., is professor and deputy chair of the Department of Behavioral Science. He received his Ph.D. in clinical psychology at Auburn University. Dr. Cinciripini has more than 25 years experience conducting basic and clinical research in smoking cessation and nicotine psychopharmacology. He is Director of the Tobacco Treatment Program, which offers behavioral counseling and tobacco-cessation pharmacological treatment to MD Anderson patients and employees.

Dr. Cinciripini's research has explored behavioral and pharmacological treatments for nicotine dependence, nicotine titration and compensation, psychophysiological effects of nicotine during stress, individual differences in the effects of nicotine on EEG and cardiovascular activity, genetic factors, treatment outcome, and pharmacogenetic effects of antidepressants during smoking cessation. He also has studied the effects of depression, coping behavior as well as genetic factors related to nicotine dependence.

Dr. Cinciripini received several NIH, extramural and industry-sponsored research grants and is the author of more than 100 articles and book chapters.

Ludmila Cofta-Woerpel, Ph.D., is assistant professor in the Department of Behavioral Science and co-director of the e-Health Technology Program of the Duncan Family Institute.

Prior to her appointment in 2000, Dr. Cofta-Woerpel held post-doctoral fellowship and junior faculty positions at the Group Health Cooperative in Seattle, WA; Duke University Medical Center in Durham, NC; and the Polish Academy of Sciences, Warsaw, Poland. In 2005-2010, she co-directed a nationwide research program of NCI. She earned a master's degree in psychology from the University of Warsaw and a Ph.D. in experimental psychology from the Polish Academy of Sciences in Warsaw.

Dr. Cofta-Woerpel is involved in nicotine and tobacco and health communication research. Her nicotine and tobacco investigations focus on smoking cessation and relapse prevention using electronic devices to assess smoking-related phenomena in real time and real-life settings. She hopes to help bridge the gap between research and public health by developing collaborative communication studies.

Randa El-Zein, M.D., Ph.D., is an associate professor in the Department of Epidemiology. Dr. El-Zein's research is translational in approach bridging both the clinical and research fields. The focus of her research is on understanding the role of gene-environment interactions in the risk for development of adverse health effects.
She has extensive expertise in conducting epidemiological studies to identify susceptibility risk factors associated with the development of cancer as well as risk factors associated with development of secondary cancers after successful treatment of the primary disease.

Dr. El-Zein earned her M.D. at Alexandria University, Alexandria, Egypt, and her Ph.D from The University of Texas Medical Branch, Galveston, TX. She did her postdoctoral fellowship at The University of Texas MD Anderson Cancer Center, Houston, TX.

Linda Elting, Dr.P.H., is a professor of Biostatistics and section chief of Health Services Research at MD Anderson. She received her master's and doctoral degrees from the University of Texas School of Public Health.

Her research centers on clinical and economic outcomes of toxicities of cancer therapy and allocation of supportive cancer care resources. She has extensive experience in designing and conducting outcomes and cost studies as reflected in more than 140 papers in peer-reviewed literature that have been cited more than 5,000 times. Dr. Elting served as a vice chair of the Institutional Review Board (IRB) and the first chair of IRB 4, devoted to behavioral, psychosocial and health services research studies. She served the American Cancer Society (ACS) as chair of its Health Services and Health Policy study section from 2006 to 2009 and represents health services research on the National Research Council for the ACS. Her contributions earned the 2011 Distinguished Achievement Award from the Multinational Association of Supportive Care in Cancer.

Carol J. Etzel, Ph.D., is an associate professor in the Department of Epidemiology at MD Anderson. She is a biostatistician with expertise in risk model development and validation as well as data mining and data-reduction techniques.

Her research is directed at understanding the genetic risks of cancer by building risk models that use epidemiologic and genetic data to characterize risk of disease and identify subgroups at highest risk. Dr. Etzel completed an NCI-funded fellowship in Cancer Prevention and is principal investigator of two NCI-sponsored grants.

Dr. Etzel received the Robert M. Chamberlain Distinguished Mentor Award in 2008 and was named Faculty Educator of the Month in 2008 and 2011. She received a Faculty Scholar Award in 2011 and serves on the Executive Committee of the Faculty Senate and the Institutional Review Board.

She received master's degrees in mathematics and statistical science, as well as a Ph.D in statistical science from Southern Methodist University.

Michelle Cororve Fingeret, Ph.D., is an assistant professor in the Department of Behavioral Science at MD Anderson and holds dual joint appointments in the departments of Head and Neck Surgery and Plastic Surgery. She is a licensed psychologist and has developed an innovative line of research centering on body image issues for oncology patients.

She studies risk factors associated with poor adjustment to alterations in body image and develops interventions to alleviate distress. Her work has received funding from ACS and NCI. She launched the Body Image Therapy Service to provide counseling to patients with head and neck and breast cancer who are having difficulty adjusting to appearance-related changes resulting from their disease and treatment.

Dr. Fingeret completed her doctoral training at Texas A&M University and her clinical psychology internship at the University of Texas Houston Health Science Center. In 2010, she received the New Investigator Award from the American Psychosocial Oncology Society.

Lewis E. Foxhall, M.D., is MD Anderson's vice president for Health Policy and professor in the Department of Clinical Cancer Prevention. His work focuses on community-based cancer prevention and early detection, and access and quality of care for low-income populations. He received his medical degree from Baylor College of Medicine and his clinical background is in family medicine.

Dr. Foxhall coordinates MD Anderson's charity care program through leadership of the Uncompensated Care Advisory Committee as well as administrative coordination of the MD Anderson/Harris County Hospital District oncology program. He is the immediate past chair of the Harris County Healthcare Alliance.

Dr. Foxhall serves as liaison to community physicians and medical director of the Office of Physician Relations. He is past-president of the Harris County Medical Society, member of the Board of Trustees of the Texas Medical Association, officer of the American Cancer Society High Plains Division Board of Directors and officer of the National American Cancer Society Cancer Action Network.

Marsha L. Frazier, Ph.D., is professor in the Department of Epidemiology at and Adjunct Professor at The University of Texas Health Science Center, Graduate School of Biomedical Science.

She has been a faculty member at MD Anderson for more than 25 years and has had continuous federal grant support. Prior to her appointment here, she was a research assistant professor at Baylor College of Medicine. She has mentored more than 100 undergraduate students, graduate students and postdoctoral fellows in her laboratory.

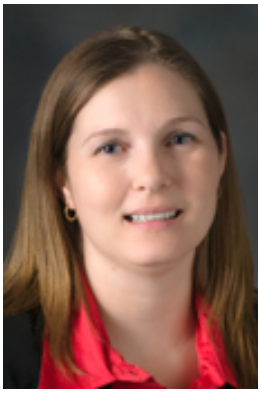
Much of Dr. Frazier's research has focused on cancers of the gastrointestinal tract. She has a particular interest in families with Lynch syndrome, which is a genetic disorder resulting in a predisposition to cancer, particularly colorectal cancer.

Dr. Frazier earned a bachelor's degree at Michigan State University and a Ph.D. at Pennsylvania State University. She did her postdoctoral training at MD Anderson.

Ellen R. Gritz, Ph.D., is professor and chair of the Department of Behavioral Science and holds the Olla S. Stribling Distinguished Chair for Cancer Research. She is a leader in cancer prevention and an internationally known investigator.

Dr. Gritz has published extensively on cigarette smoking behavior and issues of concern to women and high-risk groups, including ethnic minorities, youth, cancer patients and persons living with HIV/AIDS. She is principal investigator of an NCI-funded grant to evaluate a cell phone-based smoking cessation intervention.

Other research includes skin cancer prevention in children and high-risk individuals, and genetic testing and counseling for hereditary cancers and cancer survivorship. Dr. Gritz has served on several advisory boards and received numerous honors, including the American Society of Preventive Oncology's (ASPO) Joseph W. Cullen Memorial Award, ASPO's Distinguished Achievement Award and MD Anderson's Margaret and James A. Elkins Jr. Faculty Achievement Award in Cancer Prevention. Dr. Gritz holds a Ph.D. in psychology from the University of California at San Diego.



Michelle A.T. Hildebrandt, Ph.D., is an instructor in the Department of Epidemiology. She has strong expertise in pharmacology, genetics, functional genomics, molecular biology and epidemiology. Her research identifies genetic factors modulating cancer risk, treatment response and clinical outcomes.

She was awarded a Susan G. Komen for the Cure Scholar-in-Training award and the Bayer HealthCare Pharmaceuticals, Inc. Award for Postgraduate Population/Patient-Oriented Research twice. She was recognized as MD Anderson's Trainee of the Quarter for her achievements in research, leadership and education, and she received the MD Anderson Trainee Excellence Award. She represents the Department of Epidemiology on the Faculty Senate and also serves on the Departmental CARE Team.

She received her Ph.D. in molecular pharmacology and experimental therapeutics from the Mayo Clinic College of Medicine in 2007. She completed her postdoctoral training at MD Anderson in the Cancer Prevention Research Training Program.

Dr. Ashraful Hoque, M.D., Ph.D., is an associate professor in the Departments of Clinical Cancer Prevention and Epidemiology at MD Anderson. His major research focus is molecular epidemiologic and translational biomarker studies in hormonally regulated cancer, particularly of the prostate and breast. His primary aim is to define the molecular risks for prostate and breast cancer in order to discover effective ways of preventing these diseases in high-risk men and women.

Dr. Hoque has major team-science collaborations in prostate and breast cancer prevention research involving investigators of both MD Anderson and the Southwest Oncology Group (SWOG). He is also investigating trace metals and their association with prostate cancer risk among African-American and white men. Additionally, Dr. Hoque is actively involved with MD Anderson's NCI-supported early drug development consortium for chemoprevention trials.

He earned his medical degree from Bangladesh University and his doctoral degree in epidemiology from the School of Public Health at the University of Texas. Dr. Hoque currently serves on the editorial board of *Cancer Epidemiology Biomarkers & Prevention*.

Lovell Jones, Ph.D., is a professor in the Departments of Health Disparities Research, and Biochemistry and Molecular Biology at MD Anderson. Dr. Jones has more than 35 years' experience in addressing the health of minorities and the underserved. He has done extensive research into the relationship between hormones, diet and endocrine-responsive tumors and has presented his work both nationally and internationally. He has edited one of the few comprehensive textbooks on this subject.

His research also involves determining how natural and environmental estrogenic agents may initiate cancers in hormonally responsive tissue. He has served as PI on several NIH grants, including "The Women's Health Eating and Living Study," which explores the role of diet on prevention recurrence of second primaries in breast cancer survivors. In January 2000, Dr. Jones was named the first director of the congressionally mandated Center for Research on Minority Health. Dr. Jones received his Ph.D. from the University of California, Berkeley.

Yanhong Liu, M.S., Ph.D., was an instructor in Cancer Prevention in MD Anderson's Department of Epidemiology until her recent transfer to Baylor College of Medicine.

Dr. Liu's research focuses on genetic and molecular epidemiology to identify genetic biomarkers for cancer risk assessment and for clinical outcome prediction of brain tumors (glioma) and breast cancer. She also investigates glioma susceptibility in minority populations. She built the first genetic variation profile and risk assessment model for long-term or short-term survivorship of glioblastoma.

Dr. Liu is a productive and regarded epidemiologist with nearly 40 peer-reviewed publications (11 as first author). She received a Postdoctoral Outstanding Trainee in Cancer Prevention Award in 2009.

She earned her master degree from Shanghai Fisheries University and her doctorate from Fudan University.

Lorna Haughton McNeill, Ph.D., M.P.H., is assistant professor of the Department of Health Disparities Research and adjunct assistant professor at the University of Texas School of Public Health.

Her research is on the elimination of cancer-related health disparities in minority populations, with emphasis on understanding the influence of social and environmental determinants of cancer in minorities. Her work has a special focus on the role of physical activity as a key preventive behavior.

Dr. McNeill co-directs the Center for Community, Implementation, and Dissemination Research (CCIDR) at MD Anderson. CCIDR strives to change real-world public health and clinical practice through community-based research, implementation research and dissemination research.

She earned a Ph.D. in public health studies from Saint Louis University and a master's in health behavior and health education from the University of North Carolina at Chapel Hill. Prior to her appointment at MD Anderson, she was a postdoctoral fellow at the Harvard School of Public Health.

Bo Peng, Ph.D., is an instructor at the Department of Epidemiology. With a background in applied mathematics, biostatistics and bioinformatics, he is interested in numerical analysis, parallel computation, bioinformatics and population genetics.

During his research on the evolution of genetic diseases, Dr. Peng designed and implemented large-scale individual-based population genetics simulations. He applies these techniques to research in genetic epidemiology and public health genomics.

Dr. Peng was awarded a predoctoral fellowship from the W.M. Keck Center for Interdisciplinary Bioscience Training and joined MD Anderson as a postdoctoral fellow. With support from the Duncan Family Institute, he studies the use of genetic profiles to prevent lung cancer. His awards in this area include the Richard C. Devereaux Outstanding Young Investigator Award in Lung Cancer Prevention and a grant from the Prevent Cancer Foundation.

Dr. Peng earned a master's degree in applied mathematics from the University of Houston and a Ph.D. in biostatistics from Rice University.

Alexander V. Prokhorov, M.D., Ph.D., is a professor in the Department of Behavioral Science, director of the Tobacco Outreach Education Program (TOEP) and co-director of the Duncan Family Institute e-Health Technology Program.

Dr. Prokhorov has a strong record of obtaining state and federally funded research grants and has authored numerous peer-reviewed publications and book chapters. His work focuses on innovative tobacco prevention and cessation programs for high-risk teens and young adults. His interactive website ASPIRE (A Smoking Prevention Interactive Experience) has reached thousands of young users around the world.

He is a sought-after speaker for national and international conferences and seminars. His honors include the World Health Organization (WHO) Medal and Certificate and support from the George and Barbara Bush Endowment for Innovative Cancer Research. He was awarded the 2011 Joseph Cullen Award for Excellence in Tobacco Research from the American Society of Preventive Oncology.

Dr. Prokhorov received his M.D. from the 1st Moscow Sechenov School and his Ph.D. from The USSR Cardiology Research Center.

Jason D. Robinson, Ph.D., is an assistant professor in the Department of Behavioral Science, and a member of the Tobacco Research and Treatment Program. His research interests include identifying the neurobiological mechanisms underlying nicotine dependence and withdrawal and translating this knowledge to assist those wishing to quit smoking, particularly those resistant to treatment and prone to smoking, such as the chronically depressed.

Dr. Robinson is a clinical psychologist with extensive experience as a psychophysiologist, and is proficient in the use of electroencephalography (EEG), event-related potentials (ERP), impedance cardiography, skin conductance, and electromyography (EMG) methodology to study addiction in humans.

Dr. Robinson received his Ph.D. in Clinical Psychology from Purdue University. He did his clinical internship at Indiana University School of Medicine and his postdoctoral fellowship in clinical psychology at The University of Texas MD Anderson Cancer Center.

Imad Shureiqi, M.D., M.S., is an associate professor in the Departments of GI Medical Oncology and Clinical Cancer Prevention at MD Anderson.

His research focuses on identifying cellular events that can be targeted to develop new drugs for prevention and treatment of colon cancer. His research group work has led to the identification of 15-lipoxygenase-1 and peroxisome proliferator–activated receptor-delta—genes involved in lipid metabolism and lost in cancer cells— as potential drug targets to reactivate programmed cell death in tumor cells.

Dr. Shureiqi earned his medical degree at Damascus University and his master's degree in Clinical Trial Design and Statistical Analysis at University of Michigan. He completed an internal medicine internship and residency at New York State University at Buffalo and a medical oncology fellowship at University of Michigan. He joined MD Anderson in 1999 and he has been a recipient of MD Anderson's Physician Scientist Award.

Sara Souto Strom, Ph.D., is an associate professor in the Department of Epidemiology at MD Anderson and Adjunct Professor at the University of Puerto Rico, San Juan. She is the director of the Mexican-American Cohort.

Dr. Strom has a multi-faceted, expansive research program in collaboration with national and international colleagues. Her research explores molecular epidemiology of cancer risk and prognosis, and her studies analyze genetic, epidemiological and clinical factors associated with the risk of developing prostate cancer, leukemia and myelodysplatic syndromes and their role in disease progression. Her perspective as a cancer patient has strengthened her interest in survivorship research to include treatment-related outcomes. Dr. Strom has had a long-term interest in health disparities research reflected in her studies of cancer in Mexican-American and other populations.

She holds a Dr.B.S. in Biology from the University of Buenos Aires, Argentina and a Ph.D. in Public Health from the University of Texas School of Public Health.

Larkin L. Strong, Ph.D., M.P.H., is an instructor in the Department of Health Disparities Research. Her research is investigating and addressing cancer-related health disparities, with an emphasis on understanding how social, cultural and environmental factors influence cancer preventive behaviors such as physical activity in minority populations.

Since joining MD Anderson in 2008, Dr. Strong's research has focused on improving understanding of activity patterns in minority populations, and the ways in which social, cultural, and environmental influences help to shape engagement in physical activity and sedentary behaviors. She was selected as an Environmental Health Promotion Student Fellow by the Society for Public Health Education and received a doctoral dissertation grant through the Fahs-Beck Fund for Research and Experimentation.

Dr. Strong completed her graduate work at the University of Washington School of Public Health and completed a highly competitive postdoctoral fellowship at the University of Michigan with the Kellogg Health Scholars Program.

Kenneth Y. Tsai, M.D. Ph.D., is assistant professor in the Departments of Dermatology and Immunology. His work focuses on skin cancer immunology and mechanisms of targeted therapy. He received his medical degree from Harvard Medical School and Ph.D. from the Massachusetts Institute of Technology working the laboratory of Tyler Jacks, Ph.D. He trained in dermatology and dermatopathology at Harvard Medical School prior to joining the faculty at MD Anderson.

Dr. Tsai is using a combination of mouse models and human tissue to explore the interactions of tumor cells and immune cell subsets relevant for tumor progression and tumor killing in cutaneous squamous cell carcinoma. He is also employing a cross-species genomic approach to identify genetic events that dictate the progression from actinic keratosis to squamous cell carcinoma. Recently his group has identified clinically relevant off-target effects of the BRAF inhibitors used for melanoma and is exploring these pathways in melanoma resistance. Dr. Tsai is also engaged in research exploring the identification and use of skin biomarkers to monitor and predict responses to targeted cancer therapies.

Ivan P. Uray, M.D., Ph.D., is an assistant professor in the Department of Clinical Cancer Prevention. His work focuses on understanding the mechanisms by which chemopreventive agents work and the development of novel pharmacological approaches to prevent cancer. Dr. Uray is currently conducting basic scientific research in the field of cancer prevention. He has also been responsible for the design, installation and operation of the high throughput imaging facility in the Department of Clinical Cancer Prevention.

Dr. Uray received his medical and Ph.D. degrees from The University Medical School of Debrecen in Hungary and continued as a postdoctoral fellow at the University of Texas at Houston in the laboratory of Dr. Peter Davies, where he studied the molecular underpinnings of the recovery of myocardial function by mechanical unloading.

Javier O. Valenzuela, Ph.D., is an instructor in the Department of Symptom Research at MD Anderson. His work focuses on the immunological mechanisms of clinical symptoms and toxicities related to cancer and cancer treatment.

Dr. Valenzuela's projects focus on the translation of basic research knowledge into clinical studies in humans, with an emphasis on the role of inflammation in the generation of clinical symptoms during cancer therapy. His long-term goal is to identify the best treatment strategies that minimize the symptoms and side-effects of cancer treatment while maximizing the effectiveness of anti-tumor immune response.

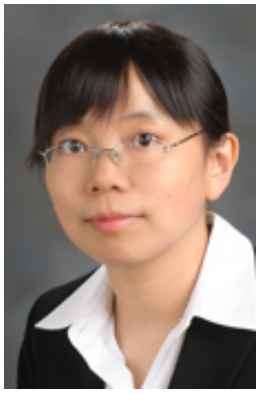
He received his master's degree from the Catholic University of Chile and his Ph.D. from the University of Minnesota. He completed postdoctoral training at the H. Lee Moffitt Cancer Center where he received the best research poster award in 2008. Other honors include the 2009 European Organization for Research and Treatment of Cancer's EORTC/Pfizer travel award and the 2009 Hawn Foundation research fellowship.

Francesco Versace, Ph.D., an experimental psychologist, is an assistant professor in the Department of Behavioral Science.

Before joining MD Anderson, he was a postdoctoral student at the NIMH Center for the Study of Emotion at Attention at the University of Florida, where he studied the interactions between emotional and cognitive processes using functional(f) MRI and high-density event-related potentials (ERPs).

His current focus is on the psychophysiology and psychopharmacology of nicotine addiction. In particular, he uses dense sensor array ERPs and fMRI to study the relationships between emotional processes and the maintenance of smoking behavior, cessation and relapse.

Dr. Versace earned his Ph.D. at Italy's University of Trieste where his interests were cognitive psychophysiology, statistics, and research methods in psychology. In 2010, he received the first faculty fellowship from the Duncan Family Institute for Cancer Prevention and Risk Assessment.



Jian Wang, Ph.D., is an instructor in the Department of Epidemiology. Dr. Wang seeks to develop and implement innovative statistical methods for cancer data analysis to identify risk factors and discover potential interactions among them. She has developed several innovative and powerful statistical methods for detecting risk factors associated with diseases in candidate gene case-control studies and genome-wide association studies since she joined MD Anderson in 2007. She has actively applied these approaches to the studies of different cancers and behavioral traits.

Dr. Wang received a master's degree and Ph.D. from the University of Colorado at Boulder and holds a master's degree from Tianjin University, China. She completed her postdoctoral training in statistical genetics and epidemiology at MD Anderson.
In September 2011, Dr. Wang earned the highly competitive faculty fellowship from the Duncan Family Institute for Cancer Prevention and Risk Assessment.

Jeffrey S. Wefel, Ph.D., is a clinical neuropsychologist in the Department of Neuro-Oncology. Dr. Wefel runs an active-consultation liaison service where he conducts comprehensive neuropsychological assessments, performs presurgical fMRI of higher order cognitive function for neurosurgical planning and offers interventions to cancer patients suffering from central nervous system effects of cancer, cancer treatment, or other illnesses. He provides clinical and research mentoring as a program supervisor within the Neuropsychology Postdoctoral Fellowship program and holds an appointment as an adjunct clinical assistant professor in the Clinical Psychology graduate program at the University of Houston where he is involved in the training of neuropsychology graduate students.

He is a founding and steering committee member of the *International Cognition and Cancer Task Force*, which seeks to advance our understanding of the impact of cancer and cancer treatment on cognitive and behavioral functioning in adults with non-CNS cancers. He is also a member of the *Response Assessment in Neuro-Oncology* task force to define clinical trial endpoints in glioma.

He obtained his doctoral degree from the University of Houston, completed his internship at The University of Chicago Medical Center and his fellowship at MD Anderson Cancer Center.

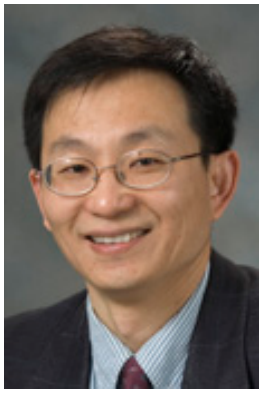
Chongjuan Wei, Ph.D., is an assistant professor in the Department of Epidemiology. Dr. Wei's research involves Peutz-Jeghers Syndrome (PJS), an autosomal dominant disorder characterized by gastrointestinal hamartomatous polyps. People with PJS have dramatically increased risk for several cancers. Hyperactivation of mTOR has been associated with PJS, and Dr. Wei's work for the first time demonstrated that rapamycin, an mTOR inhibitory drug, effectively suppresses PJS polyposis. These preclinical studies on mouse models represent a new targeted therapy for prevention and treatment of PJS and PJS-associated cancer.

She received a Ph.D. in Biochemistry and Molecular Biology at the Institute of Microbiology, Chinese Academy of Science. Since she was promoted to faculty in 2005, Dr. Wei has been awarded three NIH grants, a Lung SPORE New Investigator Award, a Pilot Project from the Center for Research of Environment Diseases (CRED), and support from the Duncan Family Institute Seed-funding Research Program.

David W. Wetter, Ph.D., is a professor and the Cullen Trust for Health Care Chair in the Department of Health Disparities Research at MD Anderson. Dr. Wetter's research centers on high-risk and underserved populations, especially low socioeconomic-status individuals, minorities and women. His focus includes addictive and cancer-risk behaviors, epidemiology and public health impact of those behaviors and development and evaluation of interventions.

He is a passionate advocate for education and has won the Leading Mentor in Cancer Prevention and Robert M. Chamberlain Outstanding Mentor awards. He has a variety of leadership responsibilities at MD Anderson, including membership on the Executive Committee for the Duncan Family Institute, and he has an extensive NIH-funded grant portfolio and more than 100 peer-reviewed publications.

Dr. Wetter earned his Ph.D. and M.S. from the University of Wisconsin – Madison. He has a joint appointment in the Department of Behavioral Science at MD Anderson and an adjunct appointment at The University of Texas School of Public Health.



Xiangwei Wu, Ph.D., is an associate professor in the Department of Clinical Cancer Prevention. Dr. Wu has been studying mechanisms of apoptosis, specifically the death receptor pathways, for many years. He has made numerous important contributions in the area and his accomplishments were highlighted by publications in high profile journals. In the last few years, he started a translational research program to explore the application of death receptor pathways, such as TRAIL signaling, in cancer chemoprevention. In a scientific proof-of-concept study, he demonstrated that a two-drug combination, TRAIL and retinoid, destroys precancerous colon polyps without harming normal tissue, opening a new avenue for chemoprevention of colon cancer.

Dr. Wu has served on various committees and study sections. He has trained graduate students and post-doctoral fellows. He served on editorial board of scientific journals and reviewed papers for various journals.

He received his Ph.D. degree in Biochemistry from Baylor College of Medicine and his post-doctoral training in Molecular Biology at Princeton University.

Xifeng Wu, M.D., Ph.D., is a professor and chair of the Department of Epidemiology and director of the Center of Translational and Public Health Genomics. She holds the endowed Betty B. Marcus Chair in Cancer Prevention.

Dr. Wu has created an integrative research program that is visionary in concept and revolutionary in approach. She is a highly productive cancer epidemiologist with more than 250 publications in highly acclaimed journals, the principal investigator of several NIH-funded epidemiological studies and a major collaborator on many other projects. Dr. Wu supervises a 40-member research team and serves as mentor or advisor for several junior faculty, trainees and fellows, many of whom have won prestigious awards. She herself has received numerous awards from inside and outside the institution. She chairs the International Bladder Cancer Consortium.

She earned her medical degree from Shanghai Medical University and her Ph.D. from the University of Texas Health Sciences Center at Houston School of Public Health.

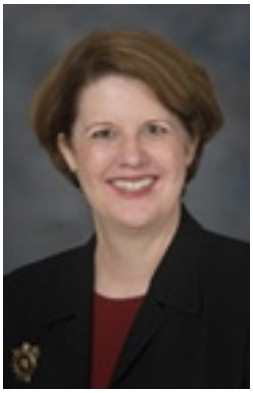
Xiaochun Xu, M.D., Ph.D., is an associate professor in the Department of Clinical Cancer Prevention. His research aims to understand the molecular mechanisms responsible for esophageal cancer and to develop novel strategies to prevent or treat esophageal and breast cancers. His specific focus is on the mechanisms responsible for the role of retinoid receptor-induced gene-1 (RRIG1) in suppressing growth and invasion of esophageal cancer cells. He also studies tobacco carcinogens, expression of microRNAs as biomarkers, and gene expression and discovery of tumor stem cells in esophageal cancer.

Dr. Xu received medical and pathology training at Anhui Medical University in Hefei, China. He received his Ph.D. from The University of Göttingen, Göttingen, Germany. He was a postdoctoral fellow in MD Anderson's Department of Tumor Biology. He later worked in the Department of Clinical Cancer Prevention as an assistant professor and was promoted to associate professor in 2001.

Yuanqing Ye, Ph.D., is an assistant professor in the Department of Epidemiology. Dr. Ye has rich knowledge and experiences in multidisciplinary areas including mathematics, computer science, statistics, genetics and epidemiology. His interests are developing and applying novel statistical methods for medical research, especially genetic association studies and recursive partitioning-based methods to deal with high-dimension data. He is the key statistician for several genome-wide association studies and collaborations.

He has earned numerous awards including the AACR-Aflac Incorporated Scholar-in-Training Award from the American Association for Cancer Research and the Berlex Oncology Award in Patient-Oriented Research Poster. He won the Janice David Gordon Memorial Fellowship through national competition for his proposed study of the association of genetic variations and risk of renal cell carcinoma.

Dr. Ye graduated from North Carolina State University with a Ph.D. in Mathematics. He completed postdoctoral training in biostatistics at Yale University and in genetics and epidemiology at MD Anderson.



Jennifer H. Tektiridis, M.S., C.P.A., is executive director for research planning and development in the Division of Cancer Prevention and Population Sciences. She is responsible for developing and overseeing new divisional initiatives, including the Duncan Family Institute for Cancer Prevention and Risk Assessment.

Ms. Tektiridis previously was administrative leader for the Cancer Center Support Grant, which funds 19 research programs and 24 core laboratory resources. This grant was renewed with a 15 percent increase, for a five-year total of more than $52.7 million, following an "Outstanding" peer review rating. She was recognized as a Rogers Award nominee.

Ms. Tektiridis has a bachelor's degree in Geology and Spanish and a master's degree in Management from Dickinson College in Pennsylvania. She is a certified public accountant and is enrolled in the Ph.D. in Health Management program at the UT School of Public Health. Prior to joining MD Anderson, she held various executive leadership positions.

Publications

Publications – Study Results for Research Supported through the Seed-funding Program

Moussalli MJ, Wu Y, Zuo X, Yang XL, Wistuba II, Raso MG, Morris JS, Bowser JL, Minna JD, Lotan R, Shureiqi I. Mechanistic contribution of ubiquitous 15-lipoxygenase-1 expression loss in cancer cells to terminal cell differentiation evasion. Cancer Prev Res (12):1961-72, 2011.

Ye F, Zhang G, Guan B, Xu, X-C. Suppression of esophageal cancer cell growth using curcumin, (-)-epigallocatechin-3-gallate, and lovastatin. World J Gastroenterol 18(2):126-35, 2012.

Guan B, Xu X-C. Farnesoid X receptor-mediated carcinogenic effects of bile acid in esophageal cancer: A potential chemoprevention target. Proceedings of the Am Assoc for Cancer Res 51: 5676, 2010.

Ye Y, Spitz MR, Yang H, Wu X. Genetic variations in microRNA biogenesis pathway genes as susceptibility loci for lung cancer risk. AACR, Orlando, FL, April 4, 2011.

Publications – Study Results for Research Supported by the Pre-Malignant Genome Atlas Strategic Research Initiative

Kim SM, Park YY, Park ES, Cho JY, Izzo JG, Zhang D, Kim SB, Lee JH, Bhutani MS, Swisher SG, Wu X, Coombes KR, Maru D, Wang KK, Buttar NS, Ajani JA, Lee JS. Prognostic biomarkers for esophageal adenocarcinoma identified by analysis of tumor transcriptome. PLoS One 5(11):e15074, 2010.

Gu J, Ajani JA, Hawk ET, Ye Y, Lee JH, Bhutani MS, Hofstetter WL, Swisher SG, Wang KK, Wu X. Genome-wide catalogue of chromosomal aberrations in Barrett's esophagus and esophageal adenocarcinoma: A high-density single nucleotide polymorphism array analysis. Cancer Prev Res (Phila) 3(9):1176-86, 2010.

Publications – Study Results for Research Associated with the Energy Balance Strategic Research Initiative

Wen CP, Wai JP, Tsai MK, Yang YC, Cheng TY, Lee MC, Chan HT, Tsao CK, Tsai SP, Wu X. Minimum amount of physical activity for reduced mortality and extended life expectancy: a prospective cohort study. Lancet 378(9798):1244-53, 2011.

Publications – Study Results for Research Supported by the Personalized Risk Prediction Program

Balasenthil S, Chen N, Lott ST, Chen J, Carter J, Grizzle WE, Frazier ML, Sen S, Killary AM. A migration signature and plasma biomarker panel for pancreatic adenocarcinoma. Cancer Prev Res (Phila) 4(1):137-49, 2011.

Chang BL, Spangler E, Gallagher S, Haiman CA, Henderson B, Isaacs W, Benford ML, Kidd LR, Cooney K, Strom S, et al. Validation of genome-wide prostate cancer associations in men of African descent. Cancer Epidemiol Biomarkers Prev. 20(1):23-32, 2011.

Chen J, Wu X, Pande M, Amos CI, Killary AM, Sen S, Frazier ML. Susceptibility locus for lung cancer at 15q25.1 is not associated with risk of pancreatic cancer. Pancreas 40(6):872-5, 2011.

Cheng H, Zhang L, Cogdell DE, Zheng H, Schetter AJ, Nykter M, Harris CC, Chen K, Hamilton SR, Zhang W. Circulating plasma MiR-141 is a novel biomarker for metastatic colon cancer and predicts poor prognosis. PLoS One 6(3):e17745, 2011.

Haiman CA, Chen GK, Blot WJ, Strom SS, et al. Characterizing genetic risk at known prostate cancer susceptibility loci in African-Americans. PLoS Genet 7(5):e1001387, 2011.

Haiman CA, Chen GK, Blot WJ, Strom SS, et al. Genome-wide association study of prostate cancer in men of African ancestry identifies a susceptibility locus at 17q21. Nat Genet 43(6):570-3, 2011.

Hinch AG, Tandon A, Patterson N, Song Y, Rohland N, Palmer CD, et al. The landscape of recombination in African-Americans. Nature 476(7359):170-175, 2011.

Pande M, Amos CI, Eng C, Frazier ML. Interactions between cigarette smoking and selected polymorphisms in xenobiotic metabolizing enzymes in risk for colorectal cancer: A case-only analysis. Mol Carcinog 49(11):974-80, 2010.

Purdue MP, Johansson M, Zelenika D, Toro JR, Scelo G, Moore LE, Prokhortchouk E, Wu X, et.al. Genome-wide association study of renal cell carcinoma identifies two susceptibility loci on 2p21 and 11q13.3. Nat Genet 43(1):60-5, 2011.

Rothman N, Garcia-Closas M, Chatterjee N, Malats N, Wu X, et al. A multi-stage genome-wide association study of bladder cancer identifies multiple susceptibility loci. Nat Genet 42(11):978-84, 2010.

Walsh KM, Choi M, Oberg K, Kulke MH, Yao JC, et al. A pilot genome-wide association study shows genomic variants enriched in the non-tumor cells of patients with well-differentiated neuroendocrine tumors of the ileum. Endocr Relat Cancer 18(1):171-80, 2011.

Zhang Y, Bellows CF, Kolonin MG. Adipose tissue-derived progenitor cells and cancer. World J Stem Cells 2(5):103-13, 2010.

Publications – Study Results for Research Supported by the Mexican-American Cohort

Jean RT, Wilkinson AV, Spitz MR, Prokhorov A, Bondy M, Forman MR. Psychosocial risk and correlates of early menarche in Mexican-American girls. Am J Epidemiol e-Pub 3, 2011.

Koehly LM, Ashida S, Geoergen AF, Skapinsky KF, Hadley DW, Wilkinson AV. Willingness of Mexican-American adults to share family health history with healthcare providers. Am J Prev Med 40:633-6, 2011.

Miranda PY, Wilkinson AV, Etzel CJ, Zhou R, Jones LA, Thompson P, Bondy ML. Policy implications of early onset breast cancer among Mexican-origin women. Cancer 117(2):390-7, 2011.

Ryder AB, Wilkinson AV, McHugh MK, Saunders K, Kachroo S, D'Amelio A Jr, Bondy M, Etzel CJ. The advantage of imputation of missing income data to evaluate the association between income and self-reported health status (SRH) in a Mexican-American cohort study. J Immigr Minor Health [Epub ahead of print], 2010.

Sexton KR, Brewster A, Day RS, Vernon SW, Franzini L, Bondy ML. Association between obesity over the lifetime, adult weight gain, and breast cancer risk in Mexican-American women. Am Assoc for Cancer Res Frontiers in Cancer Prevention Research Conference, November 7-10, 2010.

Sexton KR, Franzini L, Day RS, Brewster A, Vernon SW, Bondy ML. A review of body size and breast cancer risk in Hispanic and African-American women. Cancer doi: 10.1002/cncr.26217 [Epub ahead of print], 2011.

Spelman AR, Spitz MR, Kelder SH, Prokorov AV, Bondy ML, Frankowski RF, Wilkinson AV. Cognitive susceptibility to smoking: Two paths to experimenting among Mexican origin youth. Cancer Epidemiol Biomarkers Prev 18:3459-67, 2010.

Strong LL, Anderson CB, Miranda PY, Bondy ML, Zhou R, Etzel CJ, Spitz MR, Wilkinson AV. Gender differences in sociodemographic and behavioral influences of physical activity in Mexican-origin adolescents. J Phys Act Health [Epub ahead of print], 2011.

Wilkinson AV, Shete S, Bondy ML, Prokhorov AV, Spitz, MR, Sargent JD. Exposure to smoking imagery in the movies and experimenting with cigarettes among Mexican origin youth. Cancer Epidemiol Biomarkers Prev 18:3435-43, 2010.

Wilkinson AV, Shete S, Spitz MR, Swann AC. Sensation seeking, risk behaviors, and alcohol consumption among Mexican origin youth. J Adolesc Health 48(1):65-72, 2011.

Doctoral Dissertations and Masters Theses Supported by the Mexican-American Cohort

McQuinn, Lacey. Cross-sectional study examining the role of acculturation in self-reported hypertension among Mexican-Americans in Harris county. Texas Master's Thesis, 2011.

Oluyomi, Abiodun. Objective assessment of the built environment and its relationship to physical activity and obesity. Doctoral Dissertation, 2011.

Sexton, Krystal. Lifetime changes in body mass index and risk of breast cancer in minority women. Doctoral Dissertation, 2011.

Publications – Study Results for Research Supported by the Center for Community, Implementation, and Dissemination Research

Reitzel LR, Chilton J, Elting L, Gibbs HR, Hernandez-Valero MA, Jones LA, Mazas C, Wetter DW, McNeill LH, et al. Recruiting and retaining African-American church-based community participants in longitudinal research: Methodology from a 3-year pilot cohort study. Poster presentation at the American Academy of Health Behavior Meeting in Hilton Head, South Carolina, 2011.

Vidrine, DJ , Vidrine JI. Active versus passive recruitment to quitline studies: public health implications. J Natl Cancer Inst 103(12):909-10, 2011.

Publications for Mentored Junior Faculty Fellowship

Versace F, Bradley MM, Lang PJ. Memory and ERPs for rapidly presented emotional pictures. Experimental Brain Res 205(2):223-233, 2010.

Versace F, Minnix JA, Robinson JD, Lam CY, Brown VL, Cinciripini PM. Brain reactivity to emotional and neutral cues in smokers. Addict Biol 16(2):296-307, 2011.

Robinson JD, Lam CY, Carter BL, Minnix JA, Cui Y, Versace F, Wetter DW, Cinciripini PM. A multimodal approach to assessing the impact of nicotine dependence, nicotine abstinence, and craving on negative effect in smokers. Exp Clin Psychopharmacol 19(1):40-52, 2011.

Strong LL, Anderson CB, Miranda PY, Bondy ML, Zhou R, Etzel CJ, Spitz MR, Wilkinson AV. Gender differences in sociodemographic and behavioral influences of physical activity in Mexican-origin adolescents. J Phys Act Health [Epub ahead of print].

THE UNIVERSITY OF TEXAS

MD Anderson Cancer Center

Making Cancer History®

The Duncan Family Institute for Cancer Prevention and Risk Assessment is located within the Division of Cancer Prevention and Population Sciences in the Dan L. Duncan Building, 1155 Herman P. Pressler, Houston, TX 77030-3721.

If you would like more information on supporting the Duncan Family Institute, please contact Ernest Hawk, M.D., M.P.H., vice president and division head, Cancer Prevention & Population Sciences , 713-792-3900, or visit the Duncan Family Institute website at www.mdanderson.org/duncanfamilyinstitute