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

GAP 2017 Conference – May 9-11, 2017
Call for Abstracts

Global Academic Programs (GAP) is pleased to announce the call for abstracts for the GAP 2017 Conference at MD Anderson Cancer Center in Houston, Texas. GAP welcomes abstracts to be considered for oral and/or poster presentation for the selected sessions. Please review the session summaries and choose the most appropriate category for your abstract. All submissions are peer-reviewed by faculty chairs from MD Anderson and co-chairs from the global network. We also ask our Chairs to please submit an abstract if you plan to speak during your session. Consideration is based on scientific merit, originality, and significance to the network.

SUBMIT AN ABSTRACT NOW

CALL FOR ABSTRACTS

GAP has selected the EasyChair platform for abstract submission. Please create an EasyChair account to submit.

SUBMISSION TRACK – CLINICAL/RESEARCH OR NURSING

Please choose the appropriate conference track - clinical/research, or nursing.

SUBMISSION FORMAT – PAPER OR POSTER

- **Paper - Oral Presentations**

A number of meritorious abstracts will be accepted for oral presentation, and as accommodated in a 90-minute session, including time for questions answers. More detailed information will be provided upon acceptance of your abstract.

- **Poster - Poster Presentations**

Similar to GAP 2015, the clinical/research track will utilize ePosters, an electronic poster displayed digitally rather than on printed paper. Clinical/research poster presenters are required to submit an electronic version of their poster prior to the meeting. Attendees will be able to view the electronic posters during the meeting. Kiosks (on-site computer terminals) will

be available in the poster session area, for e-Poster viewing during the poster session and until the final day of the conference. The nursing track will use the standard print/poster format, as used at GAP 2015. Additional information will be provided upon acceptance of your abstract.

SUBMISSION GUIDELINES

- **Title/Text**

Please use the EasyChair template for abstract submission. The title should be sentence case. The abstract text is limited to 500 words, text only, no attachments. Please do not include artwork, images, or tables/graphs.

- **Author/Speaker**

At the end of the submission form, please indicate if you are the author AND the speaker/presenter, or if you are submitting on the author/speaker's behalf. If you are submitting on their behalf, please provide us with the full name and email address of the author/speaker for proper notification.

- **Final Submission**

Please ensure the accuracy of your contact information AND your organization name (Sister Institution name, or the name of your hospital/university/cancer institute). Please save your EasyChair login and password information as you will need this to edit/view submitted abstracts. Incomplete abstracts will not be considered for presentation. Please note, the type of presentation selected (oral or poster) during the submission process is a preference only, and may be changed based the number of abstracts submitted and time allotted per session.

- **Questions**

All questions should be emailed to GAPconference@mdanderson.org.

Thank you for your participation in GAP 2017.

SUBMIT AN ABSTRACT NOW

CLINICAL/RESEARCH TRACK

Advances in the Management of Brain and Spine Tumors - Sujit S. Prabhu

Technologic advances have enabled clinicians to more effectively treat patients with tumors of the brain and spine. Novel surgical techniques such as Laser Interstitial Thermal Therapy (LITT) is an important treatment modality shaping the surgical management of both primary and metastatic brain tumors. Advances in next generation sequencing and methylation profiling allows clinicians to better understand the drivers of tumor progression and make informed treatment decisions using targeted drugs, immunotherapy and gene therapies. Conformal and stereotactic radiation techniques alone and in combination with immunotherapies are also used routinely to enhance the therapeutic impact of these treatments. In this session we will highlight these advances and discuss their impact on improving patient outcomes.

Anesthesiology – Anh Dang, Thomas Rahlfs

The anesthetic management of patients undergoing oncological surgery involves not only care administered within the operating room but also preoperative and postoperative planning. In the current perioperative environment, various strategies are used to optimize patients prior to the operating room and numerous tools are available to help providers assess patients' risks for surgical complications. New strategies for intraoperative management are emerging that center on reducing the risk of tumor recurrence, improving pain control, and/or minimizing the impact of anesthesia. In recent years, new anesthetic and analgesic agents along with a renewed interest in the application of established drugs are allowing anesthesia providers to further tailor care for individual patients. The combined result is improved postoperative outcomes and decreased length of hospital stay.

As we explore new approaches to perioperative care, many research opportunities are present that allow us to not only understand the impact of these changes but also to build a model of evidence-based care in anesthesia for surgical oncology. Many of our anesthesiologists at various institutions are already undertaking these research efforts, and as such, this year's global academic program in anesthesia will be focused on highlighting these studies currently taking place. We hope that a forum discussion that centers on research efforts will create an opportunity for the sharing of ideas to enhance collaboration between anesthesiologists at different institutions and across different medical disciplines.

Big Data - Andrew Futreal

The integration and subsequent deep analyses of clinical, research and other data types is becoming ever more important in generating insights that can improve patient outcomes. This session will provide an overview of efforts underway within the Sister Institution network and MDACC to standardize, integrate and analyze multimodal patient data – both in institutional and broader contexts to bring data to bear on improving patient care.

Biobanking across the Sister Institution Network – Mary Elizabeth Edgerton, Tyron Hoover

We are inviting abstract submissions covering key topics that are critical to successful biobanking:

Legal and Ethical Issues - current law governing human tissue (clinical tissue v. research tissue v. other), consent (prospective v. retrospective) v. presumed consent v. opt-outs, engaging donors (extent, methods, and experiences), consent platforms, protocol & consent document language/content (amount and level of detail provided), ownership/custodianship, managing benefits resulting from donor samples/data (financial v. non-financial).

Governance - models of oversight & experiences, resolving conflicts (donors v. researchers v. institution v. sponsors; managing conflicts of interest), methods and processes for access to banked samples/data, strategic governance (determining what samples to procure, how much, how long to keep it v. cost to bank), funding a biobank (startup, cost recovery, planning for closure), compliance with mandatory and/or voluntary industry best practices.

Biobanking Processes & Novel Platforms - Methods for identifying and collecting tissue, novel fixatives, decisions to store tissue derivatives versus tissue itself, and tissue processing related to novel experimental platforms.

Informatics - Information systems, extent of annotation within the system, incorporation of new experimental platforms, integration with clinical and experimental data to include role in Big Data, security.

Quality Improvement - Methods for monitoring, maintaining and improving quality control parameters.

Breast - Gabriel N. Hortobagyi

Over the past 15 years, it has become widely accepted in the breast cancer community that biology trumps anatomy, and increasingly, we have made efforts to integrate biomarkers into prognostic models. In addition, biomarkers are currently under evaluation as tools to help enrich patient populations for selection of the most effective treatment modalities. This session will focus on the evolving role of biomarkers as prognostic factors and the development of targeted therapies, alone or in combination with standard therapeutics, as we move the field

towards precision medicine. Information about differential expression of biomarkers in various ethnic or cultural groups, issues of access to diagnostics and therapeutics and novel clinical trial models for introduction of targeted therapeutics into the management of all subtypes of breast cancer will provide a snapshot of the state of the art in our Global MD Anderson family of institutions.

Cancer Prevention and Control – Joxel Garcia

The Cancer Prevention and Control Platform leads transformational prevention and early detection initiatives in partnership with the Moon Shots Program. The Platform 1) creates and advances strategies to inform regional, national, and international policies which enhance cancer prevention and control; 2) leads transformational initiatives focused on knowledge transfer from MD Anderson to external partners; and 3) implements scalable, impact-focused dissemination initiatives that will move the field of cancer early detection and control. During this session, leaders will discuss potential collaboration opportunities as part of achieving key, visionary goals and objectives related to HPV-related cancers, melanoma, and tobacco control. Collaboration opportunities could include but are not limited to knowledge transfer initiatives, policy demonstration projects, and strategic partnerships.

***Clinical Trials (Int'l clinical trials, by invitation only, NOT for abstract submission) - George Wilding, Oliver Bogler**

Critical Care – Joseph Nates, Steven Ovu, Kian Azimpoor

In 2014, it was estimated that more than 1.6 million new cases of cancer were diagnosed in the U.S with approximately 4 million Intensive Care Unit (ICU) admissions per year in the U.S. with average mortality rates ranging from 8-19%, which amounts to approximately 500,000 deaths annually. At the same time, the extent to which cancer patients use ICU services—which demands a significant portion of hospital and healthcare costs—is unknown.

It was for this reason, the Oncologic Critical Care Research Network (ONCCC-R-NET) was established in 2014 at the annual Global Academic Program's conference. The 2014 session focused on overall challenges faced in oncologic critical care by patients and specialist providers. This year's session will address challenges faced by a subspecialized patient population: hematologic-oncologic patients. Specifically, we will discuss recent advances in the management of these patients.

In addition to this mini education series, we will also host the 1st Global comprehensive symposium in Oncologic Critical Care, which will feature renowned international speakers on other subspecialty topics in oncologic critical care, diagnostic training sessions and launching of

a global society for oncologic critical care. These collective efforts will demonstrate the relevance and impact of ONCCC-R-NET in making cancer history.

Diagnostic Radiology, Key Priorities in Cancer Screening – Wei Yang

- **Breast Cancer**

  - Personalized screening guidelines: age limits and screening intervals
  - "Risks" of screening mammography: how real are they?
  - Adjunctive screening techniques (ultrasound, MRI, contrast-enhanced mammography, tomosynthesis): what, how, when
  - Analysis of mammographic density patterns in determining breast cancer risk
  - Non-imaging methods to screen for breast cancer
  - Density reporting legislation: policy effects and clinical implementation outcomes
  - Supplemental screening for dense breasts and high-risk women

Novel and developing methods to screen for breast cancer

  - Formulation of screening guidelines (including Institute of Medicine criteria)
  - Audit parameters in breast cancer screening program
  - Implementation of breast cancer screening in developing countries
  - Cost-effectiveness of screening mammography and breast cancer screening
  - Politics and economics of breast cancer screening

- **Prostate cancer**

PSA screening is recommended by some groups, but not others. Whether MR would be of additional benefit is at present not clear. If MR is incorporated in prostate screening, where in the screening algorithm would be optimal.

Prostate cancer is now imaged using multiparametric imaging that initially included five different parameters. In the most recent PI-RADS version 2, two primary parameters were included, with a third sometimes used. Technically, the utility of different sequences in multiparametric imaging for the detection of prostate cancer, including sensitivity and specificity needs further clarification. The unmet need is to understand the best sequence(s) that are most reliable for imaging different parts of the prostate gland.

New approaches are also being evaluated. Technically evaluation of an endorectal coil, particularly at 3T is being explored.

- **Lung cancer**

Lung cancer is the leading cause of cancer-related death in both women and men in the United States. The National Lung Screening Trial demonstrated that low-dose CT screening

reduces lung cancer mortality by 20% compared to screening with chest radiograph. As a result lung cancer screening is now recommended for high risk patients by the USPSTF and Center for Medicare and Medicaid Services.

Key areas of interest for further improvement of lung cancer screening include:

1. Eligibility criteria and risk assessment
2. Lung-RADS™ reporting system
3. Nodule detection, characterization and management
4. Radiation exposure and imaging protocols
5. Shared decision making
6. Smoking cessation
7. Imaging informatics in lung screening
8. Outcomes

Early Phase Clinical Trials - Aung Naing

Early phase clinical trials make it possible for tomorrow's medicine to be available to our patients today. Ever since the 'war on cancer' was declared, the scientific community has made a dedicated effort to find a cure for cancer. MD Anderson leads the way as one of the largest programs in the world dedicated to expediting the development of early phase clinical trials of new cancer therapeutic agents. Many first-in-human trials and trials with novel therapeutic approaches are conducted at MD Anderson that allows us to offer personalized, state-of-the-art research driven patient care. The major breakthroughs and success of targeted/immunotherapeutic agents have helped improve treatment options and outcomes.

Understanding cancer development at the molecular genetic level, identification of targets, rigorous evaluation of the novel molecules in clinical trials to assess efficacy and safety in patients, and integration of bioinformatics are critical to further develop therapeutic agents that would make an impact on cancer treatment. The early phase clinical trial session will provide a platform to disseminate this information in individual areas of expertise, greatly advancing the understanding and treatment of cancer. Presentation will cover important topics in clinical and translational research that includes but not limited to experimental and molecular therapeutics, tumor biology, and biomarker and correlative studies. The 2017 GAP Conference will provide an opportunity to learn, collaborate, and share the latest advances in cancer research to pave the way for a fresh new way of thinking.

Faculty & Academic Development – How Healthy are your Teams? - Robert E. Tillman

While the knowledge, skills, and attitudes of individuals are essential to academic health care, working effectively as a team is essential for the quality of work, morale and retention of

colleagues. When a team is working well, the collective whole is greater than the sum of its parts, and when the team is not working well, it can diminish individual capacity and ultimately affect productivity and outcomes. This session will provide a framework to assess critical elements of high-performing teams; time to explore barriers and opportunities that exist in our team experiences; and tools and approaches that can be used to develop better teams.

Genomic Medicine – Andrew Futreal, Giulio Draetta

The application of genomic and other "omic" data to improve patient care is now a standard concept in cancer medicine. However, there remain many challenges in adequate, quality sample acquisition and ability to obtain informative longitudinal samples from patients as they are being treated. As well, useful clinical interpretation of omics data generate from such samples is a challenge and there remains considerable to be learned and applied.

This session will focus on efforts underway within the Sister Institution network and MDACC in the research context to glean insights from ever-increasing quantities of genomic and other allied data, as well as efforts to move towards standardized approaches for omics drive patient management.

Head and Neck Cancers – William William

The multidisciplinary approach for management of head and neck malignancies serves as a model for cancer care of other tumor sites. We welcome submission of abstracts on topics spanning the broad research spectrum related to head neck cancers including biology, epidemiology, prevention, surgical oncology, radiation oncology, medical oncology, survivorship, and supportive care.

Hematologic Malignancies – Hagop Kantarjian

This session will include updates on novel immunotherapies, targeted therapies and important discoveries in both clinical and translational research. Checkpoint inhibitors (PD1, PDL1), B-cell receptor inhibitors, monoclonal antibodies, and CAR-T cells treatment options will be discussed.

Hepato-Pancreato-Biliary Oncology – Claudius Conrad

The objective of the session is to highlight current topics and controversies in specialties related to hepato-pancreato-biliary oncology. This includes surgical, non-surgical as well as supportive specialties. Not only current innovative medical, surgical and radiation treatment approaches will be discussed, but also prognostication and future trends. The organizing committee hopes that the session will spark further scientific innovation, excellence of care, and optimal

outcomes for patients with hepato-pancreato-biliary cancers treated at MD Anderson and sister institutions affiliated through the GAP program.

HPV-Related Diseases - Kathleen Schmeler

Human papillomavirus (HPV) is the most common sexually transmitted infection worldwide. It affects 80% of individuals, with the initial infection usually occurring between ages 15 and 24. Most infections are cleared, however persistent infection with high-risk oncogenic HPV genotypes, primarily 16 and 18, is the cause of virtually all cervical cancers, as well as 95% of anal cancers, 75% of oropharyngeal cancers, 75% of vaginal cancers, 70% of vulvar cancers and 60% of penile cancers. Prophylactic HPV vaccines have been commercially available since 2006 and are very effective if given prior to initiation of sexual activity and exposure to HPV. However, the existing prophylactic vaccines have no effect on pre-existing HPV infections, related dysplasia and invasive cancer. While cervical cancer incidence has declined significantly in the U.S. due to widely available screening, underserved populations lacking access to medical care continue to have high incidence rates. Furthermore, cervical cancer is a leading cause of cancer incidence and mortality in many low and middle-income countries (LMICs), especially in sub-Saharan Africa. Furthermore, we are currently experiencing an epidemic of oropharyngeal cancers in men, with the annual U.S. incidence now outnumbering that of cervical cancer in women. And unlike cervical cancer, there is no screening test available for oropharyngeal cancer, and the disease is usually detected at an advanced stage. Similarly, anal cancer incidence in the U.S. is significantly increasing in both men and women, but screening is not widely available or practiced due to the rarity of the disease and a lack of evidence based screening guidelines for high-risk groups.

The goal of this session is to discuss HPV-related diseases including cervical, oropharyngeal, anal, vulvar, vaginal, and penile cancer. The topics covered will include prevention, screening and the management of pre-invasive as well as invasive disease.

Immunotherapy - James P. Allison

In recent years there has been major strides in cancer immunotherapy research forging insight into the efficacies for immune-based therapies for the treatment of cancer, especially for patients that do not respond to conventional treatment. This session will highlight advances of several immune based therapeutic approaches such as checkpoint blockade, adoptive T cell therapy, and tumor neoantigen identification by MDACC scientists and our academic partner institutions, and focus on the continued need to expand the field.

Infections in Cancer – Focus on Infection Control and Antimicrobial Stewardship - Javier Adachi

During the last several years, our Department of Infectious Diseases, Infection Control and Employee Health has participated actively during the Annual GAP meetings, organizing extremely successful collaborative sessions in Infections in Cancer. Following our commitment with GAP and our Sister Institutions, this year we will focus on two vital clinical processes: Infection Control and Antimicrobial Stewardship. Our goal will be to share our best practices on prevention and judicious use of antimicrobials in our immunocompromised cancer population.

Also, pursuing our common goal to foster future collaborative research projects between MDACC and our Sister Institutions around the world, we will continue to promote the presentation of the best scientific infectious diseases research projects during GAP 2017 in Houston. Any research projects in infectious diseases in cancer could be presented, not limited to only Infection Control and Antimicrobial Stewardship.

***Intellectual Property and Commercialization (NOT for abstract submission) - Ferran Prat, Andrew Dennis**

Clinical trials at the vast majority of medical institutions all over the world follow one of three paradigms: 1) trials sponsored and fully controlled by industry, 2) Investigator Initiates Studies (IIS's), driven by faculty, and 3) Trials driven by cooperative groups. Each model has its unique characteristics, but all of them have significant problems that have hampered clinical development of exciting agents. At MD Anderson we have advocated and executed strategic alliances with industry that have the best elements of each one of the models, while trying to address the pitfalls. The rationale for such a new model and the successes to date will be discussed, emphasizing how our sister institutions could potentially become a part of it.

Traditional technology transfer as a one-way direction of IP licensing has run its course. We will discuss the technology transfer design and experience at MD Anderson Cancer Center in recent years, and how we have adapted to the current market forces. Several transactions will be highlighted during this session, and an emphasis will placed on how our sister institutions could combine complementary strengths in this dynamic marketplace.

Melanoma - Michael Davies

Melanoma is the most aggressive form of skin cancer. While historically outcomes have been very poor in patients with this aggressive disease, the understanding and treatments for this disease have been revolutionized by an improved understanding of pathogenesis and progression of melanoma. These insights have led to new targeted therapies and immunotherapies with unprecedented activity. While these agents have generated tremendous clinical benefit, many questions remain regarding the heterogeneity of this

disease; the clinical associations and significance of molecular and immune markers; the utility of new agents in patients with earlier stages of disease; and new strategies to overcome resistance to existing therapies. This session will present new research and insights into these and other unmet challenges in melanoma.

Metastatic Disease - Valerae O. Lewis

In 2016, it is estimated that there will be 1.6 million new cancer cases and approximately 13.7 million Americans with a history of cancer. Bone metastasis will affect 50% of these patients. It is crucial for the oncologic physician to know how to effectively recognize, work up metastatic (or presumptive metastatic) and treatment disease. As the survival for this patient population continues to improve, appropriate and durable fixation/management is imperative. This session will present a multidisciplinary approach to the treatment of metastatic disease. So far I have IR, spine, Rad onc and thoracic surgery.

Molecular Pathology, Translating Molecular Pathology into Clinical Applications - Ignacio Wistuba

The main goal of this session is to discuss the emergence of new approaches to develop biomarkers for cancer precision medicine. The development of molecular biomarkers in clinical trials, and ultimately for patient care, is becoming increasingly important for better selection of patients for targeted therapy and immunotherapy approaches. Currently, there is active translational and clinical research in the fields of liquid biopsy (cell free DNA, exosome, etc.) and the development of predictive biomarkers for immunotherapy using tissue, blood and other fluids. The current process of optimizing and implementing a new molecular-based test is slow and faces multiple obstacles, particularly when patients' tumor tissue (e.g., core needle biopsy, endoscopic biopsy, fine needle aspiration) and tumor derivatives in blood and other body fluid specimens are limited. Thus, new technologies and methodologies are needed to overcome these barriers.

RNA-Based Therapies and Nanotechnology Applications – Gabriel Lopez, Bulent Ozpolat

RNA interference has revolutionized human functional genomics and therapeutics. With recent technological advances, RNA silencing pathways are becoming clearly defined, and their components are now being tested in clinical trials. This session will focus on the development and application of small non-coding RNAs as therapeutics and will cover synthetic siRNAs, miRNA therapies and anti-miRNA therapies and will also highlight current methods used for the in vivo applications of RNA-based therapies in preclinical and clinical settings. Because in vivo delivery of RNA-based therapeutics to tumors remains a great challenge development and

applications of delivery systems using nanotechnology/ nanomedicine and nanoparticles based approaches is of great interest.

Onco-Medicine – David Tweardy

- **Onco-Cardiology - Syed Wamique Yusuf**

Cancer and cardiovascular disease (CVD) are the two most common causes of mortality and morbidity worldwide. Advancement in cancer therapy and supportive care has led to increasing number of survivors of childhood cancer with late effects of cancer-related cardiotoxicity. Physicians and ancillary staff frequently have to take care of patients with concomitant cancer and cardiovascular disease. Some cardiac diseases predates the diagnosis of cancer, whereas other conditions like chemotherapy-induced cardiomyopathy and radiation-related heart disease are directly related to the cardiotoxic side effects of cancer therapy.

The annual GAP Conference provides a forum for faculty from MD Anderson and our sister institutions to develop collaborations and exchange research ideas and results.

The aim of this cardio-oncology session is to provide oncologists, cardiologists, and other healthcare professionals with the most current scientific data and clinical knowledge in the field of cardiovascular diseases in patients with cancer. By bringing together a collaborative effort from partners from other institutions worldwide, this conference will provide the most current strategies for the investigation, diagnosis and prevention in this field and also identify emerging areas of research.

In this meeting we will discuss the issue of cardiotoxicity in survivors of cancer and also management of common cardiovascular condition in patients with cancer. Some of the topics that will be discussed are as follows:

- Identify and outline the common anti-cancer agents leading to cardiotoxicity and understand the preventive and treatment measures.
- Identify common cardiovascular problems in cancer survivors.eg. Chemotherapy induced cardiomyopathy and radiation induced heart disease.
- Learn the diagnostic and treatment strategies for common cardiovascular issues in cancer patients e.g. heart failure, ischemic heart disease, arrhythmias, thromboembolism, and hypertension.

- **Onco-Hospitalist – Josiah Halm**

Comprehensive cancer Centers are increasingly utilizing dedicated hospitalists to care for hospitalized cancer patients. Prior to this most cancer patients were cared for by out-patient based onclogists or house staff in training. This session will describe the demographics of the

hospitals and physicians engaged in this practice and the improved outcomes and costs related to having Onco-hospitalists managing medical problems, as well as symptoms and complications related to cancer or it is treatment.

- **Onco-Nephrology – Farhad Danesh**

Onco-nephrology is an emerging medical subspecialty concerned with the diagnosis and treatment of renal diseases in cancer patients. Although kidney disease is very common in patients with cancer, most nephrologists have little exposure with renal syndromes that are unique to patients with cancer, or being caused by cancer treatment. Section of Nephrology at MD Anderson Cancer Center invites abstracts describing basic science or clinical research programs, initiatives, or evaluation strategies addressing the many changes and challenges in the care of cancer patients with kidney disorders. Each abstract should include background information and a description of methods, programs, or practices. Abstracts should describe original work and can include work in progress. Posters and abstract presentations may have been presented elsewhere. In that case, please plan to update the material and make it specific to the event.

- **Oncologic Emergencies – Kumar Alagappan**

Oncologic Emergency Medicine is an emerging sub-specialty concerned with the diagnosis, treatment and management of medical and surgical emergencies unique to the cancer patient. The complexity of care of cancer patients has increased as many new cancer therapies, the sequel of these treatments and the natural history of many therapies and cancer itself are associated with many urgent and emergent medical issues. This session will accept abstracts related to the multidisciplinary management of cancer patients in the ED.

Pain Management - Salahadin Abdi

According to the World Health Organization (WHO), cancer is the leading causes of death worldwide. It is estimated that approximately 14 million new cases of cancer occur a year and this number is expected to rise by about 70% over the next 2 decades. More than 60% of world's total new annual cases of cancer occur in Africa, Asia and Central and South America. These regions account for 70% of the world's cancer deaths. Further, it is estimated that two-thirds of patients with advanced disease experience pain that is largely undertreated for a variety of reasons including but not limited to cost, lack of access to providers and drugs as well as healthcare policy barriers. This is especially true for low and middle-income countries where the majority of cancer deaths in the world occur and only a fraction of opioid analgesics are consumed compared to high income countries.

The theme of the pain management session at the GAP 2017 is "Global Cancer Pain Management: Understanding Challenges and Opportunities."

The 90 min pain management session will be co-chaired by internationally respected leaders in pain medicine and delivered by a diverse and internationally renowned faculty and addresses the challenges and opportunities that exist in terms of cancer pain management in different parts of the world, including America, Europe, Asia, Latin America, Middle East and Africa.

Pediatric Sarcomas - Cindy Schwartz

Although more than half of children with sarcomas are curable, progress has been slow in recent years as we attempt to address refractory or recurrent disease. Even for those who are cured, the treatments have significant long term toxicities ranging from cardiotoxicity to sterility to secondary malignancy. The next decade offers hope that advances in understanding of sarcoma biology will parlay into novel targeted therapies and immunotherapies that will change the long term outcomes for children and adolescents, both by increasing treatment efficacy and by approaches that may reduce long term toxicities. This session will focus on the following:

1. Genomics of sarcoma and the potential impact on therapy.
2. Immunotherapy of sarcomas.
3. Mitigating long term toxicity by reduction of therapy, prevention, and assessments of individual

Pediatric Brain Tumors - Soumen Khatua

- Overview of childhood brain tumors
- Molecular Era of brain tumors in children
- Insights into targeted therapy including immunotherapy in brain tumors

Brain tumors constitute the commonest solid tumor in children, and remain a leading cause of morbidity and mortality amongst childhood cancers. Even with advances in neurosurgery, radiation oncology, chemotherapeutic strategies, recurrence and progression remains unpredictable and therapeutically frustrating. Recent revelations into the molecular biology of these tumors are now paving the way into profiling targeted therapy based on druggable targets seen in these malignancies. Immunotherapy is emerging as an important therapeutic modality, now used in these tumors. This session will discuss these topics, including exploring more global collaborations- with major centers in other countries as a part of the GAP consortium endeavor.

Precision Cancer Medicine: Technology, Informatics and Systems Biology – John Mendelsohn

We welcome presentations on new methods for assessing DNA, RNAs, proteins, and immune status in tumor specimens and blood, in order to assign cancer patients to therapies most likely to be of benefit. We also invite reports on how results of these tests are distributed to practicing clinicians and the clinical record, including the use of decision support tools. Finally, we seek updates on how systems biology, network-based methods and new algorithms are being used to better define "drivers" and "master regulators" that might be useful biomarkers and optimal targets for cancer therapy.

Precision Cancer Medicine: Biomarker Driven Clinical Trials with Targeted Therapies – John Mendelsohn

We welcome presentations on the impact of genomic analysis of tumors upon patient access to approved (off label) and experimental therapies, results of trials with single agents or combinations (including immunotherapies), and new designs that enhance efficiency of trials with targeted drugs. Trials based on analysis of gene expression, miRNAs and activated or altered proteins in both patients' tumors and in the blood, are also of great interest.

Proton (Particle) Therapy - Steven Frank

- 10 years of advancing the biology, physics, and clinical outcomes of proton therapy at MD Anderson
- International randomized trials in HPV+ and HPV- oropharyngeal tumors and EBV+ nasopharyngeal tumors
- Advancing the biological basis of heavy ion therapy in radio resistant tumors to improve overall survival

Radiation Oncology - Stephen Hahn

- Imaging biomarkers for response assessment following radiotherapy
- The role of radiation as an immune modulator in the metastatic setting
- Global access to high quality radiation therapy and the impact on overall survival

REDCap - Mark Munsell

REDCap (Research Electronic Data Capture - www.project-redcap.org) is a secure web-based application for building and managing databases for research studies. It was developed at Vanderbilt University and is now used by more than 2,029 institutions in 104 countries, with more than 250,000 databases used by more than 300,000 users. REDCap provides an intuitive and user-friendly environment for building databases using point-and-click tools. No special

programming skills are needed – one can start with a data collection form and build a fully functional database with data quality checks in a few hours, depending on the number of data collection forms needed. Details of how to get REDCap at no cost for your institution and a list of institutions currently using REDCap can be found at www.project-redcap.org under "PARTNERS". The software requirements for hosting REDCap at your institution and instructions for getting a trial version can be found under "SOFTWARE". REDCap can be installed in a variety of languages, including English, French, Spanish, and Portuguese.

Robotic Surgery - David Rice

Robotic surgery has transformed the fields of urologic and gynecologic surgery, allowing surgeons to perform complex surgical resections minimally invasively leading to improved perioperative and oncologic outcomes. More recently, robotic technology has been explored for surgical treatment of cancer treatment at other organ sites including thoracic, head and neck and colorectal malignancies. This session will explore the current application of robotic surgery for lung, esophageal, colorectal and head and neck malignancies. Additionally, issues relating to the implementation and economics of establishing a robotic oncology program within an academic center will be discussed. Finally, we will take a look at the current state-of-the-art of robotics and highlight technology in development and what the future might hold for treatment of patients with cancer.

Showcase of Biostatistics and Bioinformatics Tools for Clinical Trials Design and Genomic Data Analysis – J. Jack Lee and John N. Weinstein

The Department of Biostatistics and the Department of Bioinformatics and Computational Biology have been the world leaders in developing methods for novel clinical trial design/analysis, computational genomics, and integromics. In addition innovations in methodology, we have developed computer software for learning, designing, and implementing adaptive designs. We have also developed tools for the processing and visualization of genomic data. All of the tools are freely available to be downloaded or used online with a web browser. Some of them have been containerized and implemented in Galaxy and/or on the cloud. In this showcase session, the main objective is the dissemination of information on those novel biostatistics and bioinformatics methods and tools. We will demonstrate many useful tools for Bayesian adaptive designs and genomics analysis including the followings:

1. Sample size and power calculation for clinical trials.
2. Shiny tools for learning Bayesian update and inference.
3. Dose-finding programs for continual reassessment method, Bayesian optimal interval method, etc.
4. Adaptive and stratified randomization.
5. Clinical trial design with toxicity and efficacy endpoints.

6. Clinical trial conduct and interim monitoring by computing posterior probability and predictive probability.
   Many of the above tools can be found at https://www.mdanderson.org/research/departments-labs-institutes/departments-divisions/biostatistics/research.html.
7. Highly interactive "Next-Generation Clustered Heat Maps" (NG-CHMs) on which one can zoom and navigate for exploration of large omic databases using Google Maps-like technology and link outs.
8. MBatch for quality-control diagnosis and correction of batch and trend effects in omic databases.
9. Compendia of >1,000 NG-CHMs and MBatch visualizations for all 33 TCGA tumor types and data types.
10. Compendia of TCGA proteomic data in The Cancer Proteome Atlas (TCPA) and lncRNAs in TANRIC.
11. Links to our other public tools, including DeMix, Transvar, SuperCurve, Genesmash, iBAG SpliceSeq, PathwaysWeb, at http://bioinformatics.mdanderson.org/main/Main_Page.

The target audience is clinical and genomic researchers. Participants with some statistical and genomic knowledge is preferred but not required.

School of Health Professions - Graduate School of Biomedical Sciences (GSBS) – Michelle Barton, Shirley Richmond

School of Health Professions - The University of Texas MD Anderson Cancer Center's School of Health Professions promotes excellence in education and training for students to succeed technically and academically in their chosen allied health profession. Our students acquire specialized skills through classroom instruction, hands-on laboratory practice, and interactive training in affiliated hospital clinics and/or research laboratories. As a result of their combined knowledge, skills and established working relationships with potential employers during the students' clinical education, our students are afforded a wide variety of settings for employment. Our graduates obtain employment in hospitals, independent laboratories, research, industry, government agencies and academia.

The School of Health Professions provides academic and clinical education in a broach spectrum of degrees that can only be found at a major medical care and academic research center such as MD Anderson Cancer Center. We offer the following degree programs in Laboratory Sciences and Radiologic Sciences.

Bachelor of Science

- Clinical Laboratory Science
- Cytogenetic Technology
- Cytotechnology
- Diagnostic Imaging

Master of Science

- Diagnostic Genetics
- Radiologic Sciences

- Diagnostic Medical Sonography
- Health Care Disparities, Diversity and Advocacy
- Histotechnology
- Medical Dosimetry
- Molecular Genetic Technology
- Radiation Therapy

Graduate School of Biomedical Sciences (GSBS) - At the University of Texas MD Anderson Cancer Center UT Health Graduate School of Biomedical Sciences (GSBS), a partnership between MD Anderson and UT Health, we offer doctoral (PhD and MD/PhD) and master's degrees. Our programs encompass numerous areas of biomedical sciences, including Cancer Biology, Immunology, Biostatistics, Bioinformatics, Systems Biology, Genetics, Medical Physics, Epigenetics, Developmental Biology, Experimental Therapeutics, Clinical and Translational Sciences as well as others. Our GSBS community is diverse and expansive, including more than 600 faculty members and approximately 400 students. We welcome opportunities to further training and collaborative interactions for our students and faculty through participation in exchange programs, workshops or research with a shared vision of training the next generation of biomedical scientists.

Sister Institution Network Fund (SINF) – Oliver Bogler

The Sister Institution Network Fund (SINF) is the first financial support Global Academic Programs has offered to researchers at MD Anderson who are working with our Sister Institutions (SIs) worldwide. The goal of the SINF program is to seed collaborative research between MD Anderson, our SIs, extensions, and other global partners. The awarded projects successfully partnered MD Anderson faculty with over 50 partner institutions, in 30 countries over the past five years. This session highlights some of the ongoing projects between MD Anderson and the global network.

Stem Cell Transplantation – Borje Andersson

Stem Cell Transplantation has become an accepted therapeutic alternative for a multitude of malignant and non-malignant disorders. In this session we will review the major impact contributed to by recent developments in pretransplant conditioning therapy for high risk patients receiving salvage therapy for lymphomas and genetic diseases. Further, we will review the challenges that come with the increasing use of alternative donors to expand the accessibility of transplants to patients who lack a tissue-matched donor. Finally, we will visit the new and sensational application of gene-modified cell therapy to patients with chemotherapy-refractory malignancies and the potential use of such therapy for patients with non-malignant,

autoimmune, disorders. All of these exciting developments have already made, or hold promise of making, game-changing contributions in ending cancer and point out important areas of future investigations.

***The Administrative Role in Supporting the Integrated Cancer Practice (NOT for abstract submission) – Bob Brigham**

This session will provide highlights and an overview of the following topics:

- Patient Experience
- Multi-Disciplinary Teams
- Physician and Administrative Partnership
- Joint Commission Oncology-Specific Survey
- Quality Improvement
- Workforce Engagement

Thyroid, Parathyroid and Adrenal Neoplasms – Steven I. Sherman

- Very low risk differentiated thyroid carcinoma: over-diagnosis and management
- Novel targeted therapies and immunotherapies for thyroid, parathyroid and adrenal malignancies
- Biomarkers for sporadic and familial endocrine malignancies
- Optimizing surgical management strategies for endocrine tumors
- Application of functional imaging studies to personalize the management of advanced endocrine tumors: diagnostic, prognostic and predictive role

Tobacco Prevention and Treatment Landscape - Paul Cinciripini, Alexander V. Prokhorov, Katherine Russell

Smoking is the number one preventable cause of premature death and disability in the US and across the developing world. Tobacco use is associated with an estimated 6 million deaths per year, worldwide with more than 5 million of those deaths resulting from of direct tobacco use and over 600 000 the result of non-smokers being exposed to second-hand smoke. Nearly 80% of the world's 1 billion smokers live in low- and middle-income countries. Effective tobacco control revolves around prevention, cessation and policy. In this session we will discuss on-going efforts to prevent youth from using tobacco which utilize state of the art communications techniques and media specifically designed to reach those at risk and which highlight the dangers of new and emerging tobacco products and the thereat thy pose towards raising a whole new generation of smokers. We will also discuss the neurobiological underpinnings of nicotine dependence, the status of current treatment approaches and provide an example of implementing an optimum treatment program in a major medical setting. Finally we will provide an example of a large scale institutional effort to unify tobacco control policies and interventions which can provide a model for using the collective efforts of tobacco control advocates and providers with health care systems.

These informative and thought-provoking ideas at MD Anderson will be followed by substantive evidence from partners around the globe presenting their experiences in the aforementioned areas of prevention activities; showcasing their successes and generating further interest in attendees for this critical area of tackling cancer control.

Translational Research - Mien-Chie Hung

1. Investigation of mechanism of actions for the anti-cancer drugs
2. Delineation of mechanisms that contribute to drug resistance
3. Development of combinatorial therapy for precision medicine

Translational research bridges basic science to clinical settings to benefit cancer patients. One major area of translational research is studying drug resistance, which is a major drawback in cancer treatment. Despite new anti-cancer drugs including target therapy and immune checkpoint therapy have been developed to treat cancer patients, many cancer patients relapse due to resistance to these drugs after a certain period of treatment. Thus, to overcome drug resistance, it is critical to understand mechanisms of action for these anti-cancer drugs and for drug resistance. In addition, it is essential to develop effective combinatorial therapy to overcome drug resistance and is imperative to identify biomarkers to stratify patients who will receive maximum benefit from combinatorial therapy. These are major steps toward precision medicine.

Tumor Microenvironment Controls Cancer Progression and Metastasis - Raghu Kalluri

Tumors contain cancer cells and non-cancer cell constituents. Such non-cancer cell associated components are referred to as the stroma or tumor microenvironment (TME). This session will discuss the composition of TME and its functional role in cancer progression and metastasis, as determined from experimental studies and analyses of clinical samples.

Urologic Oncology, Advances and Controversies - Jose Antonio Karam

- Novel surgical and medical treatments for urologic malignancies
- Role of surgical cytoreduction in metastatic urologic malignancies
- Neoadjuvant and adjuvant therapies in urologic malignancies
- Multidisciplinary care of patients with urologic malignancies
- Rare urologic malignancies

Abstracts are encouraged from medical students, residents, research fellows, clinical fellows, and faculty, with the goal of showcasing the best of their research programs while actively participating in GAP 2017, in addition to providing a platform for future collaborative efforts among sister institutions.

NURSING TRACK

Clinically Focused - Topics related to nurse-led or interdisciplinary care for patients across practice settings

Research Focused - Topics related to nurse-led or nurse-engagement in research)

Leadership Focused - Topics related to nursing administration such as quality, safety, high reliability, leadership)

*Please note, three sessions, as indicated are not open for abstract submission. Thank you.