AACR American Association for Cancer Research

AACR ANNUAL MEETING 2022

April 8 – 13, 2022
Ernest N. Morial Convention Center
New Orleans, Louisiana

The focal point of the cancer research community

The AACR Annual Meeting is the focal point of the cancer research community, where scientists, clinicians, other health care professionals, survivors, patients, and advocates gather to share the latest advances in cancer science and medicine. From population science and prevention; to cancer biology, translational, and clinical studies; to survivorship and advocacy; the AACR Annual Meeting highlights the work of the best minds in cancer research from institutions all over the world.

Remarks by Marcia R. Cruz-Correa, MD, PhD, AGAF, FASGE, AACR Annual Meeting Chair of the Program Committee on the Meeting theme and anticipated highlights:

THE THEME OF this year's meeting is Decoding Cancer Complexity| Integrating Science | Transforming Patient Outcomes. This is reflected in the five Plenary Sessions that address the cancer research continuum, encompassing precancer, early diagnosis, interception, targeted treatments, and patient outcomes, examined through the interactions between an individual at the cellular level and the macroenvironment. More than 40 thought leaders representing the entire spectrum of cancer research field worked tirelessly to develop a very exciting scientific program that integrates the meeting's theme, with the goal of stimulating attendees to prioritize research that will improve outcomes for all patients with cancer.

We have endeavored to capture the essence of the meeting's theme in the opening plenary session that has visionary leaders in the areas of cancer susceptibility, tumor evolution, tumor microbiome, diet and cancer, and early cancer detection discussing the latest advances and future path for these fields of cancer research. Specifically, Dr. Charles Sawyers will deliver a lecture in this session in which he will chart out a path for the future of cancer research in transforming patient outcomes.

The AACR has been a pioneer in addressing the science of cancer health disparities. This important area of cancer research is weaved into all sessions in the meeting. One of our five plenary sessions is Decoding Cancer Health Disparities: Integration of Complex Data and Diversity to Achieve Equity, representing one of the major pillars of the scientific program. Educational sessions, scientific sessions, and forums all prominently link to the topic of cancer health disparities to promote data sharing and discussion.

I would like to draw your attention to a special Presidential Select Symposium that will be chaired by AACR President, Dr. David A. Tuveson. This Symposium will include a provocative and stimulating discussion on the role of aging and stress on cancer incidence and cancer disparities.

We are so excited to be returning to an in-person meeting in New Orleans, a city that represents a global community with a mixture of cultures that is also the essence of the meeting's theme and attendance. For our colleagues who cannot join us in-person this year, we are offering a virtual registration that provides real-time access to livestreamed sessions.

We (the Journal) posed several questions to the organizers of the Meeting that we thought would be of interest to our readers. Their replies are summarized below.

Q. What can you tell us about sessions on the expanding diversity of drugs and therapies directed to treating cancers – e.g., photon and proton radiation, drugs directed specific gene mutations, novel immunotherapies, or the emerging class of cell-based therapies?

A. A number of sessions will focus on radiation oncology, including a session on Predictive Biomarkers for Precision Radiation Oncology. In the era of precision oncology, potential biomarkers to match the right patient to receive a targeted therapy are rapidly emerging. Some biomarkers have been validated to enable targeted interventions (i.e., EGFR mutations in patients with non-small cell lung cancer) and many others are currently undergoing validation.

Resistance to checkpoint inhibitors (CPI) have been an impediment to expanding the therapeutic benefit to even more cancer patients. Proper T-cell priming is important for increasing the sensitivity for CPI activity and it has been found that radiation therapy can function as a priming agent. Details and examples will be shared in a session on Radiation and Immunotherapy.

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A special Forum will bring together experts to discuss "Insights Into Choosing the Right Immune Oncology Drug Combinations for Patients." Challenges to developing new immune checkpoint drug combinations, new combinations on the horizon, and novel biomarkers that can facilitate testing and optimizing these combinations for more effective treatment of cancer patients will all be discussed.

We are holding a special KRAS Anniversary Session marking the 40th anniversary of the cloning of the first human oncogene. Leaders in the field will discuss challenges and opportunities. Also covered in this session will be the discovery of a druggable pocket on KRAS G12C that ultimately led to the field's first approved KRAS G12C inhibitor.

A series of three sessions on New Drugs on the Horizon will share first disclosures of twelve innovative agents.

Q. What topics will be discussed in the areas of early cancer detection and treatment by way of biomarkers, marker panels, or the use of liquid biopsies for solid tumors and blood cancers?

A. Precancer discovery science, cancer prevention, early detection, and interception are important topics that are covered throughout the meeting.

Following an exciting two days of educational programming, we will hold our first in-person Saturday plenary session that it is entitled, "Precancer Discovery Science." Topics such as precancer stem cell detection and eradication, the precancer atlas, and opportunities for genomics in cancer interception, will be discussed by an international group of experts.

Sessions such as Biomarkers of Cancer Evolution: From Bench to Clinical Application will take a broad look at how our understanding of cancer evolution can be leveraged to find biomarkers in the clinic for therapeutic application.

Specifically in the area of liquid biopsy, we will have a session focused on discovery to the clinical application. This session will have an emphasis on clinical applications for personalized medicine.

Q. What is on the agenda for technology topics – such as the application of machine learning to match therapies to patients – be addressed at the meeting?

A. Beginning with the Educational Program, several topics will be introduced, including, Introduction to AI/ML in Cancer Genomics and Imaging, and Artificial Intelligence in Cancer Imaging.

A session on Interpreting and Building Trust in Artificial Intelligence Models will be held on April 11. Deep learning models are revolutionizing our ability to make predictions from data. The opportunities for AI will be discussed in detail in this session, which is chaired by Dr. Trey Ideker.

Two other sessions discussing this important topic are, Artificial Intelligence in Cancer Research and Care, and Next Generation Pathology: From Histopathology to Artificial Intelligence.

Q. To what extent will electronic and computer-based tools to manage office and health systems be included (e.g., EMR/EHRs, billing, etc.)?

A. Telehealth will be addressed in two provocative forums, Impact of Telehealth on Cancer Care Delivery, and Breaking Down Silos: If We Did It during the COVID Pandemic, Why Not for Cancer? Telehealth is tied closely to EMR/EHRs, but the topic will be more broadly discussed in the context of how telehealth is being used to expand access to care.

Q. As a public health-focused organization, can you talk about sessions on programs to promote equitable and diverse access to oncology advances and cancer prevention programs?

A. There are 11 sessions in our Regulatory Science and Policy, and Science and Health Policy tracks, several of which will specifically address access to care.

This year's theme is carried throughout the meeting, and one of our six plenary sessions is entitled, Decoding Cancer Health Disparities: Integration of Complex Data and Diversity to Achieve Equity. This is one of the major pillars of the scientific program. Educational sessions, scientific sessions, and forums all prominently link to this topic to promote data sharing and discussion. A special track of sessions also focused specifically on Advances in the Science of Cancer Health Disparities, and includes sessions such as, "Molecular Epidemiology of Stress and Discrimination and Cancer Outcomes," and "Applying an Equity Lens to Implementation Research: A Pathway to Reduce Cancer Health Disparities."

We also take a deep dive into exploring disparities in cancer care and incidence in sessions focused on colon cancer (What Is the Causal Link between Race and Early Onset of Colon Cancer?) and cervical cancer (Addressing Disparities in Cervical Cancer: A Tale of Two Strategies). The session, "Where You Live Matters: From Biological to Social Determinants of Cancer Outcomes" will address the structural causes of health disparities.

Expanding access to care will also be a main point of discussion in the forums that address the use of telehealth.

Q. Are there sessions or topics of particular interest that have attracted your attention for this meeting?

A. This year's meeting will feature four Clinical Trials Plenary Sessions that will include the presentation of 16 clinical trials, along with paired discussants to share the science behind the therapeutics and the trials. Titles for these trials will be released on March 8, and additional information will be released on April 8. Additional clinical trials will be presented during short talks in minisymposia and as posters.

A sixth plenary session, titled "AACR Annual Meeting 2022 Highlights: Vision for the Future" will provide a comprehensive overview of the cutting-edge data presented during the course of the meeting in the areas of basic and translational research, prevention, early detection, population sciences, disparities research, and clinical research. JoPM

For more details, go to: www.AACR.org/AACR2022

Marcia R. Cruz-Correa, MD, PhD, AGAF, FASGE

Dr. Marcia Cruz-Correa completed her B.S. in Biology and her medical degree at the University of Puerto Rico (UPR). She completed a residency in Internal Medicine at the UPR and a fellowship in Gastroenterology & Hepatology at the Johns Hopkins University. She completed a doctorate degree in Clinical Investigation and Genetic Epidemiology at Johns Hopkins Bloomberg School of Public Health.

She is Professor of Medicine at the UPR, Adjunct Associate Professor of Medicine at Johns Hopkins University (Maryland, USA) and Adjunct Professor of Surgical Oncology at MD Anderson Cancer Center (Houston, TX). In 2020, Dr. Cruz-Correa became the first women Executive Director of the UPR Comprehensive Cancer Center and has continue to lead the Gastrointestinal Oncology Research Program. She is the lead investigator of the Hispanic Alliance for Clinical & Translational Research, NIGMS funded research infrastructure and career development grant. Her multidisciplinary research program has been continuously funded by the NIH for over 19 years and is aimed at understanding the etiology and genetics of gastrointestinal cancer, use of endoscopic methods for screening and surveillance of gastrointestinal cancer. Furthermore, the program explores multiple agents to prevent, intercept or treat cancer using early phase clinical trials. Dr. Cruz-Correa is a physician-scientist with strong focus in chemoprevention, hereditary cancer and health disparities.

Her career as a clinical investigator has combined her advanced endoscopic therapeutic skills focused on gastrointestinal oncology specifically understanding chemoprevention in the progression of disease for patients with familial adenomatous polyposis, Lynch Syndrome, Barrett's esophagus, gastrointestinal metaplasia and colorectal cancer. She is actively involved in several national professional organizations including the *American Association for Cancer Research (AACR)* where she is currently a governing board member, is past Chair of the AACR Minorities in Cancer Research Council and the Women in Cancer Research Council. Since 2021, she was elected to the governing board of the American Association for Cancer Institutes and the Alliance Foundation for Clinical Oncology. She is governing board member of the *Puerto Rico Colorectal Cancer Coalition* a non-for-profit organization focused on increasing awareness for colorectal cancer, education and health policy efforts in Puerto Rico. She is past board member of the NCI *National Cancer Advisory Board* and of the *American Gastroenterology Association (AGA)*. She is also editor of several prestigious medical journals including *Gastroenterology* and AACR *Cancer Prevention Research*. Dr. Cruz-Correa has over 100 peer-reviewed scientific articles and has mentored over 50 graduate students, residents and gastroenterology fellows as thesis/research advisor.

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