

Advances in Cancer Immunotherapy: From Bench to Bedside and Back

Session Descriptions

ACI Program Directors

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The content areas will focus on the professional scope of clinical oncologists involved in the utilization of cancer immunotherapy and treatment of cancer, as continually identified through analysis of professional knowledge and practice gaps and other educational needs, as well as the development of early career professionals.

These regional meetings offer attendees extensive opportunity to learn and interact with peers and experts in the field in the following sessions (may vary by region):

Adoptive T Cell Transfer

This session will provide an introduction to the concept of adoptive T cell therapy for the treatment of cancer, including the types of cells used, the rationale for conditioning chemotherapy/irradiation and the methods in development for cell preparation. Attendees will learn about the clinical data generated on adoptive T cell therapy for cancer, as well as discuss some of the challenges and barriers to clinical implementation of adoptive cell therapy.

Basic Immunology

This session will introduce the basic concepts of immunotherapy and describe various strategies in development, which may include methods for monitoring anti-tumor immune responses in patients. Speakers will provide an overview of tumor immunology, including a description of the differences between innate and adaptive immunity, an introduction to the cells and soluble factors involved in tumor cell recognition and suppression and review the concept of immune regulation. The concept of tumor immunosurveillance and immunoediting will also be explored.

Checkpoint Blockade

This session will introduce the concept of checkpoint blockade and describe various T cell targets available for therapeutic intervention. Speakers will then review pivotal clinical trials data from checkpoint inhibitors and describe the indications for treatment and importance of response kinetics with these agents. This session will provide information on the adverse events and their management utilizing published literature and case reports to highlight clinical management.

Combination Therapies

This session will introduce the rationale for combining immunotherapy reagents and combining immunotherapy with cytotoxic chemotherapy, radiation therapy and targeted therapy in the treatment of cancer. Speakers will also discuss clinical trial data on combination therapy and may introduce expected and promising new combinations in early phase development.

Current Immunotherapies and Immunemonitoring

An overview of immune monitoring techniques for patients on tumor immunotherapy clinical trials will be explored, in addition to a discussion on the development of predictive and prognostic biomarkers under investigation in tumor immunotherapy studies.

Immune Potentiating Cytokines

This session will introduce the biologic activities and rationale for cytokine therapy in the treatment of cancer, including pivotal clinical data on the role of interferon and interleukin-2 in the treatment of cancer. The session will discuss indications for cytokine therapy, describe adverse events and their management with cytokine therapy; this may include instructive case reports to highlight clinical management principles. The session may also include a discussion of novel cytokines in development as immunotherapy agents.

Innate Immunity

This session will serve as an introduction to the basic biology of innate immunity, including a description of the cells and soluble factors involved in the innate immune response. Attendees will also learn about the various immunotherapy approaches that target the innate immune system.

Therapeutic Cancer Vaccines

Attendees will learn about the identification and role of antigens available for vaccine development against a variety of cancers, various vaccine strategies and platforms in development, potentially including pre-clinical data. Speakers will describe the results of high-profile cancer vaccine clinical trials and may include case reports to highlight clinical aspects of vaccine administration in the clinic.

Tumor Microenvironment

This session will describe the complex interactions between tumor cells, the immune system and host stroma in the tumor microenvironment. Speakers will discuss immune suppressive factors and describe the role of inflammation in promoting and inhibiting anti-tumor immunity. The session will also include a discussion of locally targeted approaches designed to modify the tumor microenvironment to promote immune effector function and inhibit regulatory environment.