

William Blair



Welcome to our 7th Annual Cancer Immunotherapy Conference

William Blair and MaidStone Life Sciences welcome you to a unique, two-day conference that brings together the founding scientists, leading clinicians, and pioneering biopharmaceutical companies driving the field of cancer immunotherapy. The agenda is designed to facilitate the exchange of information and highlight potential areas of opportunity for executives, investors, and others involved in transforming the future of cancer treatments. Each day will consist of a series of presentations from leading experts across the various disciplines in immuno-oncology followed by panel discussions to further elucidate key issues and paths forward.

The field of cancer immunotherapy is rapidly evolving, and we believe numerous opportunities exist based on the breadth of innovative research in both academia and industry. This conference is aimed at helping the participants explore and begin to define the dynamics and key issues that will drive the sector over the next 12 to 24 months.

We hope that the presentations and our perspectives will make for a productive and enjoyable conference, and we look forward to visiting with you.

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The two-day event is divided into five main sections:

March 29

- **Keynote Speech**
- **Therapeutic Vaccines**
- **Immunomodulators**
- **Adoptive Cell Therapies**

March 30:

- **Keynote Speech**
- **Immunotherapy Combination Approaches**

This book also contains the following information:

- Agenda
- Organizer bios
- Speaker bios
(in order of appearance)

Cancer Immunotherapy Conference

March 29

7:30 a.m. *Registration*

8:00 Opening Remarks

8:15 **Keynote Address: Immunotherapy—Making the Immune System Great Again**

James Gulley, M.D., Ph.D., Chief–Genitourinary Malignancies Branch;
Director–Medical Oncology Service Center for Cancer Research, NIH

Therapeutic Vaccines

9:00 **The Evolving Role of Cancer Vaccines**

Col. (ret.) George E. Peoples, M.D., FACS, MC, USA, Founder and CEO, Cancer Insight, LLC; Director–Cancer Vaccine Development Program; Professor of Surgery, Uniformed Services University; Professor (adj.), Surgical Oncology, MD Anderson Cancer Center

9:20 **In Situ Vaccination to Potentiate Checkpoint Blockade: Optimizing Cross-Presentation in Mouse and Man. And Woman**

Joshua Brody, M.D., Director–Lymphoma Immunotherapy Program
Icahn School of Medicine at Mount Sinai, Hess Center for Science and Medicine

9:40 **AutoSynVax Overview**

Robert Stein, M.D., Ph.D., President–Research and Development and CSO, Agenus

9:50 **Development of pLADD Immunotherapy Targeting Tumor-Specific Neoantigens to Treat Advanced MSS Colorectal Cancer**

Thomas W. Dubensky, Jr., Ph.D., CSO, Aduro Biotech

10:00 **Panel Discussion**

Moderator: Col. (ret.) George E. Peoples, M.D., FACS, Founder and CEO, Cancer Insight, LLC; Director, Cancer Vaccine Development Program; Professor, Surgery, Uniformed Services University; Professor (adj.), Surgical Oncology, MD Anderson Cancer Center

Joshua Brody, M.D., Director–Lymphoma Immunotherapy Program, Icahn School of Medicine at Mount Sinai, Hess Center for Science and Medicine; Thomas W. Dubensky, Jr., Ph.D., CSO, Aduro Biotech; Robert Stein, M.D., Ph.D., President–Research and Development and CSO, Agenus

10:45 *Coffee Break*

Immunomodulators

11:00 **Immunotherapy: What's Genes Got to Do With It?**

Timothy A. Chan M.D., Ph.D., Vice Chair, Department of Radiation Oncology; Director–Translational Oncology Division; Member–Human Oncology & Pathogenesis Program; Director–Immunogenomics and Precision Oncology Platform; Paine Webber Chair in Cancer Genetics, Memorial Sloan Kettering Cancer Center

11:20 **Direct Activation of STING in Tumor Microenvironment Leads to Potent and Systemic Tumor Regression and Immunity**

Thomas W. Dubensky, Jr., Ph.D., CSO, Aduro Biotech

11:35 **NKTR-214, a T-Cell Growth Engine for Immuno-oncology**

Deborah Charych, Ph.D., Executive Director–Research and Development, Nektar Therapeutics

11:50 **Systematic Targeting of Immune Cells to Treat Cancer**

Robert Sikorski, M.D., Ph.D., Senior Vice President and CMO, Five Prime Therapeutics

12:05 p.m. **TLR9 Agonists in Cancer Immunotherapy**

Robert Coffman, Ph.D., Senior Vice President and CSO, Dynavax

12:20 *Lunch*

1:10 **Panel Discussion**
Moderator: Robert Sikorski, M.D., Ph.D., Senior Vice President and CMO, Five Prime Therapeutics

Timothy Chan M.D., Ph.D., Vice Chair, Department of Radiation Oncology; Director–Translational Oncology Division; Member–Human Oncology & Pathogenesis Program; Director–Immunogenomics and Precision Oncology Platform; Paine Webber Chair in Cancer Genetics, Memorial Sloan Kettering Cancer Center; **Deborah Charych, Ph.D.**, Executive Director–Research and Development, Nektar Therapeutics; **Robert Coffman, Ph.D.**, Senior Vice President and CSO, Dynavax; **Thomas W. Dubensky, Jr., Ph.D.**, CSO, Aduro Biotech

Adoptive Cell Therapies

2:00 p.m. **CD19-Targeted CAR T-Cells: Past, Present, and Future**
Marco Davila, M.D., Ph.D., Associate Member, Department of Blood and Marrow Transplantation, H. Lee Moffitt Cancer Center and Research Institute

2:15 **Engineering TCRs to Treat Solid Tumors**
Helen Tayton-Martin, Ph.D., Chief Business Officer, Adaptimmune

2:30 **Synthetic Regulation of T-Cells**
David Spencer, Ph.D., CSO, Bellicum Pharmaceuticals

2:44 **HPV Targeted T-Cells for HPV-Associated Cancers**
Christian Hinrichs M.D., Investigator, Experimental Transplantation and Immunology Branch, Lasker Clinical Research Scholar, Center for Cancer Research, National Cancer Institute

3:00 *Break*

3:15 **CAR-T 2.0—Universal Allogeneic, Off-the-Shelf, CAR-T Programs Entering the Clinic**
André Choulika, Ph.D., CEO, Collectis

3:30 **Next Generation of Redirected T-Cell Therapies**
Christian Itin, Ph.D., Chairman and CEO, Autolus

3:45 **Panel Discussion**
Moderator: Marco Davila, M.D., Ph.D., Associate Member, Department of Blood and Marrow Transplantation, H. Lee Moffitt Cancer Center and Research Institute

Helen Tayton-Martin, Ph.D., Chief Business Officer, Adaptimmune; **David Spencer, Ph.D.**, CSO, Bellicum Pharmaceuticals; **Christian Hinrichs, M.D.**, Investigator, Experimental Transplantation and Immunology Branch, Lasker Clinical Research Scholar, Center for Cancer Research, National Cancer Institute; **André Choulika, Ph.D.**, Chief Executive Officer, Collectis; **Christian Itin, Ph.D.**, Chairman and Chief Executive Officer, Autolus

5:00 p.m. *Reception*

March 30

7:30 a.m. *Registration*

8:15 **Keynote Address: Immunologic Checkpoint Blockade—Exploring Combinations and Mechanisms**
Jedd Wolchok, M.D., Ph.D., Lloyd J. Old/Virginia and Daniel K. Ludwig Chair in Clinical Investigation; Chief–Melanoma and Immunotherapeutics Service; Director–Parker Institute for Cancer Immunotherapy at Memorial Sloan Kettering Cancer Center; Associate Director–Ludwig Center for Cancer Immunotherapy; Member–Ludwig Cancer Research; Professor of Medicine, Weill Medical College of Cornell University

Immunotherapy Combination Approaches

9:00 **Targeting the Tumor Microenvironment in Combination With Checkpoint Inhibitors**
Miriam Merad, M.D., Ph.D., Chair Professor in Cancer Immunology and Director of the Precision Immunology Institute, Mount Sinai School of Medicine

9:20 **Overcoming Resistance to Checkpoint Blockade by Selectively Targeting PI3K-Gamma**
Jeffery Kutok, M.D., Ph.D., CSO, Infinity Pharmaceuticals

9:40	Immunotherapy Combinations: Science Informing Clinical Studies Christoffer Boshoff, M.D., Ph.D., Senior Vice President–Immuno-oncology, Early Development, and Translational Oncology, Pfizer Inc.	1:20 p.m.	<i>Break</i>
10:00	<i>Break</i>	1:30 p.m.	Immunotherapy for Lung Cancer and the Landscape of Combinations Jamie E. Chaft, M.D., Medical Oncologist, Memorial Sloan Kettering Cancer Center
10:20	Checkpoint Inhibition Strategies in Hematologic Malignancies Eric Hedrick, M.D., Clinical Advisor, BeiGene	2:00	Borrowing from Military Strategy in Immunotherapy War in Cancer James Gulley, M.D., Ph.D., Chief–Genitourinary Malignancies Branch; Director–Medical Oncology Service Center for Cancer Research, NIH
10:40	Emerging Next-Generation Checkpoint Modulators Robert Stein, M.D., Ph.D., President—Research and Development and CSO, Agenus	2:20	Bispecific Antibodies and the Future of Oncology John Lin, M.D., Ph.D., Vice President–Immuno-oncology and Head–Regeneron Bispecific R&D, Regeneron
11:00	Development of Rational Combinations in Immuno-oncology Michael Kalos, Ph.D., CSO–Cancer Immunobiology, Lilly Research Laboratories, Eli Lilly and Company	2:40	<i>Break</i>
11:20	Immunosequencing in the Service of Immuno-oncology Ilan “Lanny” Kirsch, M.D., Senior Vice President–Translational Medicine, Adaptive Biotechnologies	3:00	Panel Discussion Moderator: James Gulley, M.D., Ph.D., Chief–Genitourinary Malignancies Branch; Head–Immunotherapy Section; Director–Medical Oncology Service, Center for Cancer Research, NIH Andrea Apolo, M.D., Investigator–Genitourinary Malignancies Branch, Head–Bladder Cancer Section, NIH Lasker Clinical Research Scholar, Center for Cancer Research, NIH; Christoffel Boshoff, M.D., Ph.D., Senior Vice President–Immuno-oncology, Early Development, and Translational Oncology, Pfizer Inc.; Jamie E. Chaft, M.D., Medical Oncologist, Memorial Sloan Kettering Cancer Center; Eric Hedrick, M.D., Clinical Advisor, BeiGene; Tim Reilly, Ph.D., Vice President, Head–Early Oncology Development, Bristol-Myers Squibb
11:40	<i>Break</i>	4:15	<i>Reception</i>
Noon	Lunch Presentation—Challenges in Immuno-oncology Drug Development Laura Vidal, M.D., Senior Medical Director-Global Oncology and Hematology, INC Research		
12:20 p.m.	Panel Discussion Moderators: Laura Vidal, M.D., Senior Medical Director-Global Oncology and Hematology, INC Research, and John Sonnier, Biotechnology Research Analyst, William Blair Jeff Allen, Ph.D., President and CEO, Friends of Cancer Research; Andrea Apolo, M.D., Investigator–Genitourinary Malignancies Branch, Head–Bladder Cancer Section, NIH Lasker Clinical Research Scholar, Center for Cancer Research, NIH; Jamie E. Chaft, M.D., Medical Oncologist, Memorial Sloan Kettering Cancer Center; Michael Kalos, Ph.D., CSO, Cancer Immunobiology, Lilly Research Laboratories, Eli Lilly and Company		

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Please contact us at +1 800 621 0687 or consult williamblair.com/Research-and-Insights/Equity-Research/Coverage.aspx for all disclosures.

William Blair

John Sonnier

Biotechnology Analyst

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John Sonnier, partner, joined William Blair in September 2005 to build the firm's biotechnology equity research practice. Before joining William Blair, Mr. Sonnier was a biotechnology equity research analyst for seven years with the Prudential Equity Group. He began his career on Wall Street at Vector Securities International, where he served in roles of increasing responsibility in equity research, lastly as partner. Mr. Sonnier brings a wealth of biopharmaceutical industry experience to William Blair, having spent eight years in various commercial and strategic roles at Johnson & Johnson and Baxter International. He holds a Master of Public Health degree from Johns Hopkins University.

Y. Katherine Xu, Ph.D.

Biotechnology Analyst

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Y. Katherine Xu, Ph.D., partner, joined William Blair in March 2011 as a biotechnology analyst. Ms. Xu previously was senior vice president and senior biotechnology analyst at Wedbush Securities, vice president and senior biotechnology analyst at Credit Suisse, and a senior biotechnology analyst at Pacific Growth Equities. Ms. Xu was recognized by the *Financial Times*/StarMine "World's Top Analysts" listing, ranking No. 7 overall for stock-picking in the United States in 2010, and No. 2 for stock-picking in biotechnology in 2011; she received the No. 2 ranking in *The Wall Street Journal's* "Best on the Street" listing in 2011 as well. Before her move to equity research, Ms. Xu worked in investment banking for two years. Ms. Xu holds a Ph.D. in developmental biology and a Ph.D. minor in engineering-economic systems and operations research from Stanford University Schools of Medicine and Engineering, respectively, and worked on a postdoctoral project in bioinformatics at the Department of Mathematics, Stanford University. She attended Peking University in Beijing and Kalamazoo College in Michigan, where she gained her B.A. with honors.



Janet L. Dally

Founder and Managing Director
MaidStone Life Sciences LLC

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Janet L. Dally has more than 20 years of experience in the biotechnology, pharmaceutical, and medical technology industries as an investor relations advisor, healthcare fund analyst, business development and medical device marketing manager, and microbiologist. She is an active advocate for the biotechnology industry.

Before establishing MaidStone Life Sciences, Ms. Dally was senior partner at MD Becker Partners. Prior to this, she was president of MontRidge, LLC, a boutique investor relations and strategic consulting firm specializing in the life science industry. During her tenure at these firms, Ms. Dally built meaningful relationships with the executive management of life science clients and the U.S. and European investment communities, resulting in increased institutional ownership, diversified shareholder base, sell-side analyst coverage, enhanced valuation, and successful financing.

Prior to MontRidge, Ms. Dally was vice president of investor relations at Burns McClellan, a life sciences communication firm. She was also a buy-side analyst for six years for the Merrill Lynch Healthcare Fund, evaluating and recommending biotechnology, pharmaceutical, medical device, and healthcare services firms. She previously held executive positions in strategic planning, business development, licensing, and M&A at Sterling Drug and Forest Laboratories.

Ms. Dally has an M.B.A. from the Tepper School of Business, Carnegie Mellon University; an M.S. in microbiology from Wagner College; and a B.S. in medical technology from Rutgers University.

Keynote Speech: Immunotherapy: Making the Immune System Great Again

James Gulley, M.D., Ph.D.

Chief-Genitourinary Malignancies Branch, Head-Immunotherapy Section, and Director-Medical Oncology Service, Center for Cancer Research, NIH



Dr. Gulley is an internationally recognized expert in immunotherapy for cancer. He serves within the Center for Cancer Research (CCR) of the National Cancer Institute, USA, as chief of the Genitourinary Malignancies Branch, director of the Medical Oncology Service, and Head of the Immunotherapy Section. He has been instrumental in the clinical development of Prostavac, an experimental prostate cancer vaccine developed within the CCR and is the principal investigator of the Prospect Trial, an international randomized Phase III study of Prostavac, which completed enrollment in 2015 with results expected this year. He also has been instrumental in the clinical development of avelumab (EMD Serono / Pfizer), an anti-PDL1 antibody that the first-in-human study was done at the CCR and now has been given breakthrough designation by the FDA with multiple Phase III studies ongoing or planned. He has been an investigator on more than 100 trials, authored over 240 scientific papers or chapters, and has made numerous presentations at national and international meetings.

Therapeutic Vaccines

The Evolving Role of Cancer Vaccines

Colonel (Retired) George E. Peoples, M.D., FACS

Founder and CEO, Cancer Insight, LLC
Director–Cancer Vaccine Development Program
Professor of Surgery, Uniformed Services University
Professor (adjunct) of Surgical Oncology, MD Anderson
Cancer Center



COL (ret). George E. Peoples retired after 30 years of active duty as a surgeon and research scientist in the military. He is the founder and director of the Cancer Vaccine Development Program (CVDP), which is associated with the Uniformed Services University of the Health Sciences (USUHS), Bethesda, Maryland. The CVDP has 15 years of experience in discovering, developing, and clinical testing of cancer vaccines—four of which have been licensed for commercial development. With his retirement, the CVDP now has a commercial counterpart, Cancer Insight, LLC, which is a boutique cancer immunotherapy CRO currently conducting multiple Phase I and II trials.

Dr. Peoples serves as the CEO of Cancer Insight, professor of surgery at USUHS, and professor (adjunct) of surgical oncology at MD Anderson Cancer Center (MDACC). He is the past chair of the Cancer Program, San Antonio Military Medical Center and the past Deputy Director of the United States Military Cancer Institute. He is a graduate of the United States Military Academy, West Point and the Johns Hopkins School of Medicine. He completed his surgical training at Harvard's Brigham and Women's Hospital and a surgical oncology fellowship at MDACC. He has written extensively on the immune response to cancer with over 300 peer-reviewed manuscripts, abstracts, and book chapters.

In Situ Vaccination to Potentiate Checkpoint Blockade: Optimizing Cross-Presentation in Mouse and Man. And Woman

Joshua Brody, M.D.

Director–Lymphoma Immunotherapy Program
Icahn School of Medicine at Mount Sinai, Hess Center
for Science and Medicine



Joshua Brody, M.D., is an assistant professor in hematology and medical oncology and the director of the Lymphoma Immunotherapy Program at the Mount Sinai School of Medicine in New York City. He is also a Damon Runyon Cancer Research Foundation clinical investigator, a member of the Lymphoma Research Foundation's (LRF's) Mantle Cell Lymphoma Consortium, and an LRF Career Development Award grant recipient.

Dr. Brody received his M.D. from State University of New York, Stony Brook School of Medicine and his B.A. in molecular and cellular biology from Harvard University. He completed his residency in internal medicine at Yale New Haven Hospital and his fellowship in medical oncology at Stanford University School of Medicine. With clinical focus in chronic lymphoid leukemia, cutaneous lymphomas, follicular lymphoma, mantle cell lymphoma, and post-transplant lymphoproliferative disorders, his lab at Mount Sinai centers on basic and applied tumor immunology.

Dr. Brody's current research focuses on two areas: lymphoma immunotherapy and a class of targeted therapies called B-cell receptor signaling inhibitors. His group developed an approach called in situ vaccination in which an immune stimulant is injected directly into one lymphoma tumor, but can then induce an anti-tumor immune response that travels throughout the body to eliminate tumors systemically. Preclinical models and early phase clinical trials have demonstrated durable regressions of even bulky and advanced stage tumors and show promise as a novel modality toward a cure for these difficult diseases.

AutoSynVax Overview

Robert B. Stein, M.D., Ph.D.

President–Research and Development and Chief Scientific Officer, Agenus Inc.



As chief scientific officer and head of research and development at Agenus Inc., Dr. Robert Stein is responsible for all aspects of R&D, including the antibody platforms. He joined Agenus in January 2014. Over his 35 years in the biopharmaceutical industry, he played a pivotal role in bringing Sustiva®, Fablyn®, Viviant®, PanRetin®, TargRetin®, Promacta®, and Eliquis® to market. Prior to joining Agenus he held a number of progressively responsible senior management positions including CSO and senior vice president of research for Ligand Pharmaceuticals, executive vice president of research and preclinical development for Dupont Merck, president and CSO for Incyte Pharmaceuticals, president of Roche Palo Alto, and CEO of KineMed. From 1981 to 1990, Dr. Stein began his career at Merck, Sharp and Dohme. He holds an M.D. and a Ph.D. in physiology and pharmacology from Duke University.

Agenus Inc.

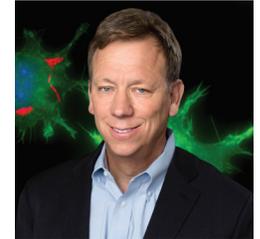
Agenus is an immuno-oncology company focused on the discovery and development of revolutionary new treatments that engage the body's immune system to benefit patients suffering from cancer. By combining multiple powerful platforms, Agenus has established a highly integrated approach to target identification and validation, and for the discovery, development, and manufacturing of monoclonal antibodies that modulate targets of interest. The company's broad portfolio of novel checkpoint modulators and other immuno-modulatory monoclonal antibodies, vaccines, and adjuvants work in combination to provide the opportunity to create best-in-class therapeutic regimens. Agenus's heat shock protein-based vaccine, Prophage™, has successfully completed Phase II studies in newly diagnosed glioblastoma. The company is collaborating with Merck and Incyte to discover and develop multiple checkpoint modulators. For more information, visit www.agenusbio.com.

agenus

Development of pLADD Immunotherapy Targeting Tumor-Specific Neoantigens to Treat Advanced MSS Colorectal Cancer

Thomas W. Dubensky, Jr., Ph.D.

Chief Scientific Officer, Aduro Biotech, Inc.



Dr. Thomas Dubensky has served as chief scientific officer of Aduro Biotech since September 2011. From 2009 to 2011, he served as chief scientific officer of Immune Design Corp., a biotechnology company, where he was responsible for overseeing the development of immune therapies based on proprietary molecularly defined adjuvants and dendritic cell targeting vaccine platforms. He was a co-founder and CSO of Anza Therapeutics, a biotechnology company that was spun out from Cerus Corporation in 2007, where he served as the vice president of research beginning in 2002. At Cerus and at Anza, he helped develop vaccine platforms based on attenuated strains of *Listeria monocytogenes*, a platform that continues to be advanced by Aduro. Previously, Dr. Dubensky developed vaccine/immunotherapy and oncolytic virus platforms based on alphaviruses, adenoviruses, retroviruses/lentiviruses, and plasmid DNA in positions of increasing responsibility at Viagene Biotech, Chiron Corporation, and Onyx Pharmaceuticals. A major focus of his current research is the role of the STING (stimulator of interferon genes) pathway in regulating the development of anti-tumor immunity and autoimmunity, and the development of therapeutic interventions that target this pathway to affect desired clinical outcomes. A first-in-human clinical study to evaluate a STING agonist in patients with advanced cancers is ongoing. Dr. Dubensky received his B.A. in bacteriology and immunology from the University of California, Berkeley; he earned his Ph.D. at the University of Colorado Health Sciences Center; and he was a post-doctoral fellow at Harvard Medical School in the Department of Pathology.

Aduro Biotech, Inc.

Aduro is an immunotherapy company focused on the discovery, development, and commercialization of therapies that transform the treatment of challenging diseases. Aduro's technology platforms, which are designed to harness the body's natural immune system, are being investigated in cancer indications and have the potential to expand into autoimmune and infectious diseases. Aduro is collaborating with leading global pharmaceutical companies to expand its products and technology platforms.

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Panel Discussion

Bios for the panelists who have presented or will present can be found in the indicated section of the book. Otherwise, they begin on the following page.

Moderator: Col. (ret.) George E. Peoples, M.D., FACS, Founder and CEO, Cancer Insight, LLC; Director, Cancer Vaccine Development Program; Professor, Surgery, Uniformed Services University; Professor (adj.), Surgical Oncology, MD Anderson Cancer Center (Therapeutic Vaccines)

Joshua Brody, M.D., Director–Lymphoma Immunotherapy Program, Icahn School of Medicine at Mount Sinai, Hess Center for Science and Medicine (Therapeutic Vaccines)

Robert Stein, M.D., Ph.D., President–Research and Development and CSO, Agenus (Therapeutic Vaccines)

Thomas W. Dubensky, Jr., Ph.D., CSO, Aduro Biotech (Therapeutic Vaccines)

James Gulley, M.D., Ph.D., Chief–Genitourinary Malignancies Branch; Head–Immunotherapy Section; Director–Medical Oncology Service, Center for Cancer Research, NIH (Therapeutic Vaccines)

Notes

Notes

Immunomodulators

Immunotherapy: What's Genes Got to Do With It?

Timothy A. Chan M.D., Ph.D.

Vice Chair–Department of Radiation Oncology; Director–Translational Oncology Division; Member–Human Oncology and Pathogenesis Program; Director–Immunogenomics and Precision Oncology Platform; Paine Webber Chair in Cancer Genetics, Memorial Sloan Kettering Cancer Center

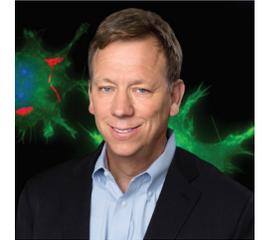


Dr. Chan is a cancer geneticist and physician scientist with an interest in immunogenomics and immunotherapy. He is currently vice chair of the Department of Radiation Oncology and the PaineWebber Chair in Cancer Genetics at the Memorial Sloan Kettering Cancer Center (MSKCC). He is a member/professor in the Human Oncology and Pathogenesis Program at MSKCC and director of the Immunogenomics and Precision Oncology Platform (IPOP), a program focused on precision immuno-oncology. Dr. Chan obtained an M.D. and Ph.D. in genetics from the Johns Hopkins School of Medicine. He went on to complete a residency in radiation oncology and a postdoctoral fellowship in epigenetics. His main interests are utilizing cancer genomics, functional genomics, and statistical genetics to dissect the molecular determinants of tumor aggressiveness and response to cancer therapies. He led the team that first described mutational burden as a determinant of clinical benefit to immunotherapy and showed that mutational landscapes help determine response to immune checkpoint blockade. His lab is developing pioneering approaches to examine neoantigens and the genomic foundations of response to cancer immunotherapy.

Direct Activation of STING in Tumor Microenvironment Leads to Potent and Systemic Tumor Regression and Immunity

Thomas W. Dubensky, Jr., Ph.D.

Chief Scientific Officer, Aduro Biotech, Inc.



Dr. Thomas Dubensky has served as chief scientific officer of Aduro Biotech since September 2011. From 2009 to 2011, he served as chief scientific officer of Immune Design Corp., a biotechnology company, where he was responsible for overseeing the development of immune therapies based on proprietary molecularly defined adjuvants and dendritic cell targeting vaccine platforms. He was a co-founder and CSO of Anza Therapeutics, Inc., a biotechnology company that was spun out from Cerus Corporation in 2007, where he served as the vice president of research beginning in 2002. At Cerus and at Anza, he helped develop vaccine platforms based on attenuated strains of *Listeria monocytogenes*, which serves as the technology basis for Aduro. Previously, Dr. Dubensky developed vaccine platforms based on alphaviruses, adenoviruses, retroviruses/lentiviruses, and plasmid DNA in positions of increasing responsibility at Viagene Biotech, Inc., Chiron Corporation, and Onyx Pharmaceuticals, Inc., all biotechnology companies. He has co-authored more than 70 scientific papers and is an inventor on 34 issued U.S. patents and multiple pending applications. Dr. Dubensky received his B.A. in bacteriology and immunology from the University of California, Berkeley; he earned his Ph.D. at the University of Colorado Health Sciences Center; and he was a post-doctoral fellow at Harvard Medical School in the Department of Pathology.

Aduro Biotech, Inc.

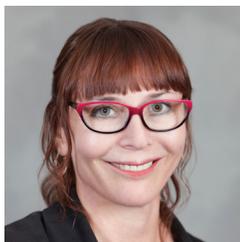
Aduro is an immunotherapy company focused on the discovery, development, and commercialization of therapies that transform the treatment of challenging diseases. Aduro's technology platforms, which are designed to harness the body's natural immune system, are being investigated in cancer indications and have the potential to expand into autoimmune and infectious diseases. Aduro is collaborating with leading global pharmaceutical companies to expand its products and technology platforms. For more information, visit www.aduro.com.



NKTR-214, a T-Cell Growth Engine for Immuno-oncology Systemic Targeting of Immune Cells to Treat Cancer

Deborah Charych, Ph.D.

Executive Director—Research Biology, Nektar Therapeutics



Dr. Deborah Charych has held senior scientific leadership positions in both academia and biotechnology. At Nektar Therapeutics, she heads the immunotherapy pipeline and identified a novel approach to modulate tumor immunology using polymer conjugation technology. This work led to the development of NKTR-214, a biased agonist of the IL-2 pathway, in Phase I clinical development. The pipeline also consists of other immune modulating cytokine and small molecule conjugates. At Five Prime Therapeutics, Deborah led a team focused on matching orphan receptor-ligand pairs to identify new biological pathways and targets. Dr. Charych was also a key contributor to the clinical development of FP-1039, a pan-FGF inhibitor for oncology now in Phase II clinical trials. As director of Five Prime's process development group, she led the downstream process development and manufacturing of several complex biologics for oncology and inflammation scaling from research to GMP manufacturing. While at Chiron Corporation, she initiated and led a large scale proteomics effort to guide oncology target discovery. At Lawrence Berkeley National Laboratory, she quickly assumed an academic leadership role as principal investigator, focusing on new polymeric materials for biosensor applications. Dr. Charych's formal education is in chemistry. She earned a Ph.D. from University of California at Berkeley and a B.S. in chemistry from Carnegie-Mellon University, Pittsburgh.

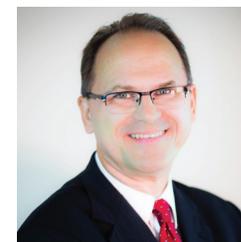
Nektar Therapeutics

Nektar Therapeutics is a clinical-stage biopharmaceutical company developing a pipeline of drug candidates that use its PEGylation and polymer conjugate technology platforms, which are designed to improve the benefits of drugs for patients. Its product pipeline consists of drug candidates across a number of therapeutic areas, including oncology, pain, anti-infectives, anti-viral, and immunology. Nektar's research and development activities involve small molecule drugs, peptides, and other potential biologic drug candidates. Its drug candidates are designed to improve the pharmacokinetics, pharmacodynamics, half-life, bio-availability, metabolism, or distribution of drugs and improve the overall benefits and use of a drug for the patient.



Robert Sikorski, M.D., Ph.D.

Senior Vice President—Global Clinical Development
Five Prime Therapeutics, Inc.



Dr. Sikorski has served as Five Prime's chief medical officer since June 2016 and as senior vice president of global clinical development since January 2016. Dr. Sikorski also served as vice president of global clinical development from September 2014 to January 2016. From December 2010 to September 2014, he served as senior director of global oncology research and development at Medimmune, a wholly owned subsidiary of AstraZeneca, a public biotechnology company. From March 2006 to December 2010, Dr. Sikorski served as director of global oncology research and development at Amgen. From October 2004 to March 2006, he served as a medical affairs consultant to Genzyme, and from 1998 to 2003, as chief technology officer at Mednav, Inc., a biomedical data acquisition and analytics firm. From 1994 to 1997, Dr. Sikorski served as a Howard Hughes Research Fellow and Visiting Scientist at the National Cancer Institute and the National Human Genome Research Institute. Dr. Sikorski received an M.D. and Ph.D. from The Johns Hopkins University School of Medicine. He completed his residency at Massachusetts General Hospital and completed an oncology fellowship at The Johns Hopkins Oncology Center. Dr. Sikorski is board certified in both oncology and internal medicine.

Five Prime Therapeutics, Inc.

Five Prime Therapeutics discovers and develops innovative therapeutics to improve the lives of patients with serious diseases. Five Prime's comprehensive discovery platform, which encompasses virtually every medically relevant extracellular protein, positions it to explore pathways in cancer, inflammation, and their intersection in immuno-oncology, an area with significant therapeutic potential and a growing focus of the company's R&D activities. Five Prime has entered into strategic collaborations with leading global pharmaceutical companies and has promising product candidates in clinical and preclinical development. For more information, visit www.fiveprime.com.



TLR9 Agonists in Cancer Immunotherapy

Robert L. Coffman, Ph.D.

Senior Vice President and Chief Scientific Officer
Dynavax Technologies Corporation



Robert Coffman, Ph.D., is senior vice president and chief scientific officer of Dynavax Technologies Corporation in Berkeley, California. Prior to joining Dynavax in 2000, he was a founding member of the DNAX Research Institute in Palo Alto, California. Dr. Coffman has authored more than 200 scientific publications, is a member of the National Academy of Sciences and the American Academy of Microbiology, and has received a number of prestigious awards for his work.

With colleague Dr. Tim Mosmann, he defined the two principal subtypes of helper T cells, termed Th1 and Th2 cells, and demonstrated the central relationship between their differences in cytokine expression and function. Dr. Coffman defined basic mechanisms of T-cell regulation in asthma and infectious and parasitic diseases, and demonstrated the central role of regulatory CD4+ T cells in preventing inflammatory bowel disease. At Dynavax, Dr. Coffman has pioneered the development of agonists and antagonists for Toll-like receptors, key recognition receptors in innate immunity.

Dynavax Technologies Corporation **DYNAVAX**

INNOVATING IMMUNOLOGY

Dynavax, a clinical-stage biopharmaceutical company, discovers and develops novel vaccines and therapeutics in the areas of infectious diseases and oncology. Dynavax's lead product candidates are HEPLISAV-B™, a Phase III investigational adult hepatitis B vaccine, and SD-101, an investigational cancer immunotherapeutic currently in several Phase I/II studies. For more information, visit www.dynavax.com.

Panel Discussion

Bios for the panelists who have presented or will present can be found in the indicated section of the book. Otherwise, they begin on the following page.

Moderator: Robert Sikorski, M.D., Ph.D., Senior Vice President–Global Clinical Development, Five Prime Therapeutics (Immunomodulators)

Timothy A. Chan M.D., Ph.D., Vice Chair–Department of Radiation Oncology; Director–Translational Oncology Division; Member–Human Oncology and Pathogenesis Program; Director–Immunogenomics and Precision Oncology Platform; Paine Webber Chair in Cancer Genetics, Memorial Sloan Kettering Cancer Center (Immunomodulators)

Deborah Charych, Ph.D., Executive Director–Research Biology, Nektar (Immunomodulators)

Thomas W. Dubensky, Jr., Ph.D., CSO, Aduro Biotech (Immunomodulators)

Robert L. Coffman, Ph.D., Senior Vice President and CSO, Dynavax (Immunomodulators)

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Adoptive Cell Therapies

CD19-Targeted CAR T-Cells: Past, Present, and Future

Marco Davila, M.D., Ph.D.

Associate Member, Department of Blood and Marrow Transplantation, H. Lee Moffitt Cancer Center and Research Institute



Dr. Marco Davila is a medical oncologist that specializes in the treatment of patients with hematologic malignancies. He received his medical degree from Duke University and medical training at the New York Presbyterian Weill Cornell Medical Center and Memorial Sloan Kettering Cancer Center. His clinical focus is on diseases such as chronic lymphocytic leukemia, B cell Acute Lymphoblastic Leukemia (B-ALL), and Acute Myeloid Leukemia. His clinical management includes the use of chemotherapies and/or cell therapies. He is appointed as an Associate Member in the Blood and Marrow Transplantation and Immunology Departments at the H. Lee Moffitt Cancer Center and Research Institute. As a translational physician-scientist, he is engaged in both clinical and laboratory research involving cancer. His research has helped usher in a new field of medical oncology by developing a novel cell engineered therapy for B-ALL. His work has been recognized with awards from the American Society of Hematology, American Society for Clinical Investigation, and Damon Runyon Cancer Research Foundation.

Engineering TCRs to Treat Solid Tumors

Helen Tayton-Martin, Ph.D.

Chief Business Officer, Adaptimmune



Dr. Helen Tayton-Martin recently changed roles at Adaptimmune to chief business officer and is one of Adaptimmune's co-founders. Prior to this, she was chief operating officer since July 2008. She is responsible for business development and commercial activities, including Adaptimmune's strategic partnership with GSK.

Dr. Tayton-Martin has 23 years of experience working within the pharma, biotech, and consulting environment in disciplines across preclinical and clinical development, outsourcing, strategic planning, due diligence, and business development. Prior to Adaptimmune, she was at Avidex Limited (subsequently Medigene) where she was responsible for commercial development of the soluble TCR programme in cancer and HIV therapy from 2005 to 2008. Dr. Tayton-Martin holds a Ph.D. in molecular immunology from the University of Bristol, U.K., and an M.B.A. from London Business School.

Adaptimmune Therapeutics plc



Adaptimmune is a clinical-stage biopharmaceutical company focused on novel cancer immunotherapy products based on its T-cell receptor (TCR) platform. Established in 2008, the company aims to utilize the body's own machinery—the T cell—to target and destroy cancer cells by using engineered, increased affinity TCRs as a means of strengthening natural patient T-cell responses. Adaptimmune's lead program is an affinity-enhanced T-cell therapy targeting the NY-ESO cancer antigen.

Adaptimmune has a strategic collaboration and licensing agreement with Glaxo-SmithKline for the development and commercialization of the NY-ESO TCR program. In addition, the company has a number of proprietary programs. It has identified more than 30 intracellular target peptides preferentially expressed in cancer cells and is progressing 12 through unpartnered research programs. Adaptimmune has over 200 employees and is located in Oxfordshire, U.K., and Philadelphia, Pennsylvania.

Synthetic Regulation of T-Cells

David M. Spencer, Ph.D.

Chief Scientific Officer, Bellicum Pharmaceuticals, Inc.



David M. Spencer, Ph.D., is a co-founder and chief scientific officer of Bellicum Pharmaceuticals. He joined the company on a full-time basis in December 2011, after 15 years at Baylor College of Medicine, where he was professor and vice chairman of pathology and immunology. He co-developed the chemical inducer of dimerization (CID) technology in the early 1990s, while he was a post-doctoral fellow at Stanford University, following receipt of a Ph.D. from MIT in 1991. Dr. Spencer is also a co-inventor of DeCIDE™ and CaspaCIDE™, the two CID applications that have since entered the clinic along with GoCART™ and CIDECAR™ in late preclinical development. GoCART is based on CAR T-cell technology but relies on inducible costimulation, and CIDECAR provides constitutive costimulation to CAR T cells with the CaspaCIDE suicide gene to modulate the immune response.

Dr. Spencer's academic research program focused on CID, and he is the co-author of more than 70 peer-reviewed papers along with numerous patents. CID technology is now in use in thousands of laboratories worldwide, and Dr. Spencer continues to stay at the forefront of this field, pushing its potential applications in both Bellicum's preclinical research activities and clinical applications.

Bellicum Pharmaceuticals, Inc.

Bellicum is a clinical stage biopharmaceutical company focused on discovering and developing cellular immunotherapies for cancers and orphan inherited blood disorders. Bellicum is using its proprietary chemical induction of dimerization (CID) technology platform to engineer and control components of the immune system. Bellicum is developing next-generation product candidates in some of the most important areas of cellular immunotherapy, including hematopoietic stem cell transplantation (HSCT), and CAR T and TCR cell therapies. More information can be found at www.bellicum.com.



HPV-Targeted T-Cells for HPV-Associated Cancers

Christian Hinrichs, M.D.

Investigator, Experimental Transplantation and Immunology Branch, Lasker Clinical Research Scholar, Center for Cancer Research, National Cancer Institute



Dr. Hinrichs researches immunotherapy for HPV+ cancers, which include cervical, oropharyngeal, anal, vulvar, vaginal, and penile malignancies. He has discovered personalized cellular and gene therapies for HPV+ cancers. His laboratory is studying why these treatments work in some patients and not in others and is using what is learned to innovate more effective therapies.

Dr. Hinrichs received his B.A. and M.D. degrees from the combined 6-year program at the University of Missouri - Kansas City (UMKC). He completed a residency in general surgery at UMKC followed by a fellowship in surgical oncology at Roswell Park Cancer Institute. He then came to the Surgery Branch at the National Cancer Institute (NCI) as a surgical oncology fellow and studied tumor immunology in the laboratory of Dr. Nicholas P. Restifo. Subsequently he completed an internal medicine residency at George Washington University and a medical oncology fellowship with the Medical Oncology Branch, CCR.

CAR-T 2.0—Universal Allogeneic, Off-The-Shelf, CAR-T Programs Entering the Clinic

André Choulika, Ph.D.

Founder and Chief Executive Officer, Cellectis

André Choulika, Ph.D., is one of the founders of Cellectis and served as chief executive officer since the company's inception in 1999. He has been chairman since 2011 and president of Calyxt since August 2010. From 1997 to 1999, Dr. Choulika worked as a post-doctoral fellow in the Division of Molecular Medicine at Boston Children's Hospital, where he was one of the inventors of nuclease-based genome editing technologies and a pioneer in the analysis and use of meganucleases to modify complex genomes. After receiving his Ph.D. in molecular virology from the University of Paris VI (Pierre et Marie Curie), he completed a research fellowship in the Harvard Medical School Department of Genetics. His management training is from the HEC (Challenge +).



Cellectis

Cellectis is a biopharmaceutical company focused on developing immunotherapies based on gene edited engineered CAR T-cells (UCART). The company's mission is to develop a new generation of cancer therapies based on engineered T-cells. Cellectis capitalizes on its 17 years of expertise in genome engineering - based on its flagship TALEN® products and meganucleases and pioneering electroporation PulseAgile technology - to create a new generation of immunotherapies. CAR technologies are designed to target surface antigens expressed on cells. Using its life science focused, pioneering genome engineering technologies, Cellectis' goal is to create innovative products in multiple fields and with various target markets. Cellectis S.A. is listed on the Nasdaq Global Market and on the NYSE Alternext market.



Next Generation of Redirected T-Cell Therapies

Christian Itin, Ph.D.

Chairman and Chief Executive Officer, Autolus

Christian Itin, Ph.D., joined Autolus as chairman at the inception of the company and subsequently took on the role of CEO. Previously, he was CEO and chairman of Cytos Biotechnology Ltd, a public biotechnology company that merged with Kuros Biosurgery Holding Ltd; he now serves as chairman of the merged entity, renamed Kuros Biosciences Ltd. Dr. Itin also serves as a non-executive director of the U.K.-based human antibody company, Kymab Ltd. Prior to joining Cytos, he was president and CEO of Micromet Inc., a formerly Nasdaq-listed biopharmaceutical company that was acquired in March 2012 by Amgen, Inc. for \$1.2 billion in cash. Micromet pioneered T-cell engaging antibodies and with blinatumomab developed the first approved product in this field. After serving in senior management roles at Micromet, Dr. Itin was appointed CEO in 2004. Prior to joining Micromet in 1999, he co-founded Zyomyx, Inc., a protein chip company based in Hayward, California. He received a diploma in biology and a Ph.D. in cell biology from the University of Basel, Switzerland. In addition, he performed post-doctoral research at the Biocenter of Basel University and at Stanford University School of Medicine in California.



Autolus Limited

Autolus (London, U.K.) is a privately held biopharmaceutical company focused on the development and commercialization of precise, controlled and highly active engineered T-cell therapy products for the treatment of cancer. Autolus was spun out from University College London (UCL) with support from Syncona LLP in 2014 and builds upon a suite of cell programming and manufacturing technologies that originated at UCL. The company expects three programs to enter clinical development in 2017.



Panel Discussion

Bios for the panelists who have presented or will present can be found in the indicated section of the book. Otherwise, they begin on the following page.

Moderator: Marco Davila, M.D., Ph.D., Associate Member, Department of Blood and Marrow Transplantation, H. Lee Moffitt Cancer Center and Research Institute
Marcela Maus, M.D., Ph.D., Director–Cellular Immunotherapy, Massachusetts General Hospital (Adoptive Cell Therapies)

Helen Tayton-Martin, Ph.D., COO, Adaptimmune (Adoptive Cell Therapies)

David Spencer, Ph.D., CSO, Bellicum Pharmaceuticals (Adoptive Cell Therapies)

Christian Hinrichs, M.D., Investigator, Experimental Transplantation and Immunology Branch, Lasker Clinical Research Scholar, Center for Cancer Research, National Cancer Institute (Adoptive Cell Therapies)

André Choulika, Ph.D., Chief Executive Officer, Collectis (Immunotherapy Combination Approaches)

Christian Itin, Ph.D., Chairman and Chief Executive Officer, Autolus (Adoptive Cell Therapies)

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Keynote Speech: Immunologic Checkpoint Blockade: Exploring Combinations and Mechanisms

Jedd Wolchok, M.D., Ph.D.

Lloyd J. Old/Virginia and Daniel K. Ludwig Chair in Clinical Investigation; Chief, Melanoma and Immunotherapeutics Service; Director–Parker Institute for Cancer Immunotherapy at Memorial Sloan Kettering Cancer Center; Associate Director–Ludwig Center for Cancer Immunotherapy; Member–Ludwig Cancer Research; Professor of Medicine, Weill Medical College of Cornell University



Dr. Wolchok is the Lloyd J. Old and Daniel K. Ludwig Chair in clinical investigation, chief of the melanoma and immunotherapeutics service, and attending physician at Memorial Sloan Kettering Cancer Center (MSK) with an expertise in the treatment of metastatic melanoma. His additional appointments include head of the Swim Across America - Ludwig Collaborative Laboratory; associate director of the Ludwig Center for Cancer Immunotherapy (LCCI) and director of the Parker Institute for Cancer Immunotherapy at MSK. Dr. Wolchok helped establish MSK as a leader in the discovery and treatment of cancers with novel immunotherapies. He was instrumental in the clinical development leading to the approval of ipilimumab for advanced melanoma and recently designed and led a global Phase III trial of combined checkpoint blockade for melanoma.

He has been at the forefront of cancer immunotherapy as both an active clinician scientist exploring innovative immunotherapeutic strategies in laboratory models and as a principal investigator in numerous pivotal clinical trials. In 2011, he established the Immunotherapeutics Clinical Core, a specialized Phase I outpatient unit at MSK that is focused on the conduct of novel immunotherapy trials, with a specific emphasis on pharmacodynamic biomarker identification. This group treats patients with a broad spectrum of malignancies and has become a model for similar efforts by other major cancer centers throughout the world.

Immunotherapy Combination Approaches

Targeting the Tumor Microenvironment in Combination With Checkpoint Inhibitors

Miriam Merad, M.D., Ph.D.

Chair Professor in Cancer Immunology and Director of the Precision Immunology Institute, Mount Sinai School of Medicine



Miriam Merad, M.D., Ph.D., is the Mount Sinai chair professor in cancer immunology and the director of the Precision Immunology Institute at Mount Sinai School of Medicine in New York. Dr. Merad obtained her M.D. at the University of Algiers, Algeria. She did her residency in hematology and oncology in Paris, France, and obtained her Ph.D. in immunology in collaboration between Stanford University and University of Paris VII. She was recruited to Mount Sinai in 2004 and promoted to the rank of associate professor with tenure in 2007 and to full professor in 2010, and in 2014, she obtained an endowed chair professor in cancer immunology.

Dr. Merad's laboratory studies the contribution of macrophages and dendritic cells (DCs) to cancer and inflammatory diseases in mice and humans. Her pioneering work mapping the regulatory network of DCs resulted in identification of a lineage of DC, the CD103+ DC, which is considered a key target to improve antiviral and antitumor immunity. In addition, contrary to the previously held beliefs that monocytes are precursors of macrophages, she found that tissue-resident macrophages in fact arise from embryonic precursors that take residence in tissues prior to birth and are maintained independently of adult hematopoiesis—a key discovery. These insights are being used to develop novel macrophage and DC-specific targets for the treatment of cancer and inflammatory diseases.

Dr. Merad has authored more than 160 primary papers and reviews in high profile journals. She receives generous funding from the National Institutes of Health (NIH) for her research on innate immunity and their contribution to human disease, and she belongs to several NIH consortia. Dr. Merad is an elected member of the American Society of Clinical Investigation, and lectures around the world on her work.

Overcoming Resistance to Checkpoint Blockade by Selectively Targeting PI3K-Gamma

Jeffery Kutok, M.D., Ph.D.

Chief Scientific Officer, Infinity Pharmaceuticals



Jeffery Kutok, M.D., Ph.D., serves as Infinity's chief scientific officer. Prior to joining Infinity in 2010, Dr. Kutok was an associate professor of pathology at Harvard Medical School and Brigham and Women's Hospital. His laboratory focused on translational medicine research and biomarker identification in cancer, and he is an author on over 190 journal articles, reviews and book chapters. Dr. Kutok is board certified in Anatomic Pathology and Hematology and had clinical duties in Hematopathology and Molecular Diagnostics at Brigham and Women's Hospital. Dr. Kutok received his B.S. in biology and his M.D., Ph.D. in medicine and molecular pathology from the State University of New York at Stony Brook. His Ph.D. was earned working in the laboratory of Dr. Barry Collier, M.D. in the field of platelet pathobiology. He was also a post-doctoral fellow at Harvard University in the laboratory of Dr. Gary Gilliland, M.D., Ph.D.

Infinity Pharmaceuticals, Inc.

Infinity is an innovative biopharmaceutical company dedicated to discovering, developing, and delivering best-in-class medicines to people with difficult-to-treat diseases. Infinity combines proven scientific expertise with a passion for developing novel small molecule drugs that target emerging disease pathways. For more information on Infinity, refer to the company's website at www.infi.com.



Immunotherapy Combinations: Science Informing Clinical Studies

Christoffer Boshoff, M.D., Ph.D.

Senior Vice President–Immuno-oncology, Early Development, and Translational Oncology, Pfizer Inc.

Chris Boshoff, M.D., Ph.D., FMedSci, is the head and senior vice president for immuno-oncology, early development and translational oncology at Pfizer where he directs the strategies for early cancer drug development, precision medicine and immuno-oncology. Dr. Boshoff obtained his Ph.D. from the Institute of Cancer Research in London and trained as a medical oncologist at the Royal Marsden and Royal Free Hospitals in London. Before joining Pfizer in 2013, he was the director of the University College London (UCL) Cancer Institute (2007-2013). He was appointed Adjunct professor at Yale University in 2014, and has published more than 150 original articles covering cancer biology, tumor virology, and experimental cancer medicine.



Pfizer Inc.

Infinity is an innovative biopharmaceutical company dedicated to discovering, developing, and delivering best-in-class medicines to people with difficult-to-treat diseases. Infinity combines proven scientific expertise with a passion for developing novel small molecule drugs that target emerging disease pathways. For more information on Infinity, refer to the company's website at www.infi.com.



Checkpoint Inhibition Strategies in Hematologic Malignancies

Eric Hedrick, M.D.

Clinical Advisor, BeiGene

Eric Hedrick, M.D. has served as a clinical advisor to BeiGene since June 2015. He was previously chief medical officer at Epizyme, and vice president of oncology development and interim chief medical officer at Pharmacyclics, where he was involved in the development of ibrutinib, the BTK inhibitor approved for treatment of chronic lymphocytic leukemia, mantle cell lymphoma, marginal zone lymphoma, and Waldenström's macroglobulinemia. Previously, Dr. Hedrick was a group medical director at Genentech and an attending physician on the Hematology Service at Memorial Sloan-Kettering Cancer Center. He has an M.D. from University of Maryland School of Medicine.



BeiGene

BeiGene is a global, clinical-stage, research-based biotechnology company focused on molecularly targeted and immuno-oncology cancer therapeutics. With a team of over 300 scientists, clinicians and staff in mainland China, the United States, Australia, and Taiwan, the company is advancing a pipeline consisting of novel oral small molecules and monoclonal antibodies for cancer. BeiGene is working to create combination solutions aimed to have both a meaningful and lasting impact on cancer patients.



BeiGene

Emerging Next-Generation Checkpoint Modulators

Robert B. Stein, M.D., Ph.D.

President–Research and Development and Chief Scientific Officer, Agenus Inc.



Dr. Robert Stein, president of research and development, leads global research-and-development efforts at Agenus. Dr. Stein joined Agenus in January 2014, bringing more than 35 years of experience and accomplishments in the pharmaceutical and biotech industry to the Agenus leadership team. Over the course of his career Dr. Stein has played a significant role in the discovery and development of eight marketed drugs, including Sustiva®, Fablyn®, Viviant®, PanRetin®, TargRetin®, Promacta®, & Eliquis®. Prior to joining Agenus, he held a number of progressively responsible senior management positions including head of pharmacology for Merck & Co., CSO and senior vice president of research for Ligand Pharmaceuticals, EVP of research and preclinical development for Dupont Merck, president and CSO for Incyte Pharmaceuticals, president of Roche Palo Alto, and CEO of KineMed. Dr. Stein spent the early part of his career at Merck, Sharp and Dohme Research Laboratories. He holds an M.D. and a Ph.D. in physiology and pharmacology from Duke University.

Agenus Inc.

Agenus is a clinical-stage immuno-oncology company focused on the discovery and development of novel therapies that engage the body's immune system to fight cancer. The company's vision is to expand the patient populations benefiting from cancer immunotherapy by pursuing a number of combination approaches that leverage a broad repertoire of antibody therapeutics and proprietary cancer vaccine platforms. Agenus is equipped with a suite of antibody discovery platforms and a state-of-the-art GMP manufacturing facility with the capacity to support pre-commercial clinical programs. Agenus is based in Lexington, Massachusetts.

agenus

Development of Rational Combinations in Immunology

Michael Kalos, Ph.D.

Chief Scientific Officer–Cancer Immunobiology, Lilly Research Laboratories, Eli Lilly and Company



Dr. Kalos is a member of Lilly's Research Oncology Division, where he leads preclinical and translational efforts in cancer immunotherapy. Dr. Kalos is a recognized international key thought leader in the fields of immunotherapy and biomarkers, with more than 20 years' experience spanning biotech, academia, and big pharma. He has authored multiple high-impact primary and review articles and book chapters in the field of cancer immunotherapy, has been an invited speaker at national and international scientific meetings, and is a member of institutional and corporate scientific advisory boards and steering committees for international immunotherapy societies and working groups.

Eli Lilly and Company

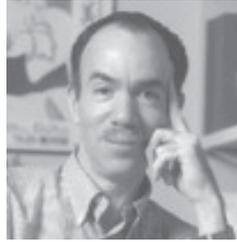
Lilly is a global healthcare leader that unites caring with discovery to make life better for people around the world. The company was founded more than a century ago by a man committed to creating high-quality medicines that meet real needs, and remains true to that mission in all its work. Across the globe, Lilly employees work to discover and bring life-changing medicines to those who need them, improve the understanding and management of disease, and give back to communities through philanthropy and volunteerism. To learn more about Lilly, visit www.lilly.com.

Lilly

Immunosequencing in the Service of Immuno-oncology

Ilan “Lanny” Kirsch, M.D.

Senior Vice President-Translational Medicine, Adaptive Biotechnologies



Dr. Kirsch received his M.D. from Harvard University Medical School and subsequently completed his residency at Children’s Hospital Medical Center, Boston, Massachusetts, and his fellowship in pediatric hematology/oncology at the National Cancer Institute (NCI) in Bethesda, Maryland. Dr. Kirsch also completed a three-year postdoctoral fellowship in molecular genetics in the laboratory of Dr. Philip Leder at the National Institute of Child Health and Human Development. Subsequently he spent more than 20 years at the NCI as a basic researcher, attending physician, and, ultimately, chief of the genetics branch within the Center for Cancer Research. His research interests have been focused on cancer-specific genetic instability and cancer genetics. In 2005 Dr. Kirsch joined the biotech/pharma company Amgen as an executive director heading the oncology research group at Amgen Washington in Seattle. During the next six years, the Amgen Washington group was responsible for bringing a number of different therapeutic targets and modalities to Phase I trial evaluation. It also provided basic research support for many projects in late-stage clinical development or marketed. Dr. Kirsch has been an independent consultant to the biotech/pharma industry with extended assignments focused on the development of antibody therapeutics and molecular diagnostics. He currently serves as the senior vice president of translational medicine at Adaptive Biotechnologies in Seattle. Dr Kirsch is an author of more than 150 peer-reviewed manuscripts and over 30 books, chapters, or reviews.

Adaptive Biotechnologies

Adaptive Biotechnologies is the leader in combining high-throughput sequencing and expert bio-informatics to profile T-cell and B-cell receptors of the adaptive immune system. Adaptive brings the accuracy and sensitivity of its immunosequencing platform into laboratories around the world to drive groundbreaking research in cancer and other immune-mediated diseases. Adaptive is also committed to translating immunosequencing discoveries into clinical diagnostics and therapeutic development to improve patient care. Visit www.adaptivebiotech.com for more information.



Lunch Presentation—Challenges in Immuno-oncology Drug Development

Laura Vidal, M.D.

Senior Medical Director-Global Oncology and Hematology, INC Research



Dr. Vidal completed her medical degree at the Autonomous University of Barcelona, Medical School, followed by her residency in Medical Oncology at the Hospital de Sant Pau and Santa Creu in Barcelona in 2003.

Throughout her career, Dr. Vidal has been the principal investigator and sub-investigator in multiple Phase I, II, and III trials for various malignancies but has focused mainly on ovarian cancer. Her expertise provides not only deep knowledge on the indication but also the competitive landscape and the regulatory requirements for drugs targeting cancer, as she has served as a consultant for the Spanish regulatory agency. Her close connection with sites and principal investigators brings support to all aspects of clinical trials, including medical monitoring, trial design, feasibility, and operational matters. She is principal and co-author of numerous publications in peer reviewed journals and has presented extensively at international conferences. Dr. Vidal joined INC Research in September 2015, where she is a senior medical director in the Oncology and Hematology business unit, sharing her medical and clinical development expertise with customers worldwide.

INC Research

INC Research is a leading global contract research organization (CRO) providing the full range of Phase I to Phase IV clinical development services for the biopharmaceutical and medical device industries. Leveraging the breadth of its service offerings and depth of therapeutic expertise across multiple patient populations, INC Research connects customers, clinical research sites, and patients to accelerate the delivery of new medicines to market. The company was named “Best Contract Research Organization” in December 2015 by an independent panel for Scrip Intelligence, and ranked “Top CRO to Work With” among large global CROs in the 2015 CenterWatch Global Investigative Site Relationship Survey. INC Research is based in Raleigh, North Carolina, with operations across six continents and experience spanning more than 110 countries.



Panel Discussion

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Moderators:

Laura Vidal, M.D., Senior Medical Director-Global Oncology and Hematology, INC Research, and

John Sonnier, Biotechnology Research Analyst, William Blair

Jeff Allen, Ph.D., President and CEO, Friends of Cancer Research

Andrea Apolo, M.D., Investigator-Genitourinary Malignancies Branch, Head-Bladder Cancer Section, NIH Lasker Clinical Research Scholar, Center for Cancer Research, NIH

Jamie E. Chaft, M.D., Medical Oncologist, Memorial Sloan Kettering Cancer Center (Immunotherapy Combination Approaches)

Michael Kalos, Ph.D., CSO, Cancer Immunobiology, Lilly Research Laboratories, Eli Lilly and Company (Immunotherapy Combination Approaches)

Jeff Allen, Ph.D.

President and Chief Executive Officer, Friends of Cancer Research



Jeff Allen, Ph.D. serves as the president and CEO of Friends of Cancer Research (Friends). During the past 20 years, Friends has been instrumental in the creation and implementation of policies ensuring patients receive the best treatments in the fastest and safest way possible. As a thought leader on many issues related to food and drug administration, regulatory strategy, and healthcare policy, he is regularly published in prestigious medical journals and policy publications, and has contributed his expertise to the legislative process on multiple occasions. Recent Friends initiatives include the establishment of the new breakthrough therapies designation and the development of the Lung Cancer Master Protocol, a unique partnership that will accelerate and optimize clinical trial conduct for new drugs. Dr. Allen received his Ph.D. in cell and molecular biology from Georgetown University, and holds a Bachelors of Science in biology from Bowling Green State University.

Friends of Cancer Research

Friends of Cancer Research (Friends) drives collaboration among partners from every healthcare sector to power advances in science, policy and regulation that speed life-saving treatments to patients. During the past 20-plus years, Friends has been instrumental in the creation and implementation of policies ensuring patients receive the best treatments in the fastest and safest way possible. Its success has been due to an ability to convene the right people at the right time and put forth revolutionary, yet realistic ideas. Now more than ever Friends' goal is to continue this critical work with trusted partners, to create innovative solutions to overcome barriers standing in the way of conquering cancer.



Andrea Apolo, M.D.

Investigator-Genitourinary Malignancies Branch
Head-Bladder Cancer Section
National Cancer Institute



Dr. Apolo is a Lasker Clinical Research Scholar, tenure-track investigator, and chief of the Bladder Cancer Section of the Genitourinary Malignancies Branch of the National Cancer Institute. She received her M.D. from Albert Einstein College of Medicine in New York and completed an internal medicine residency at New York-Presbyterian Hospital/Weill Cornell Medical Center, followed by a medical oncology fellowship at Memorial Sloan Kettering Cancer Center. She then joined the Medical Oncology Branch of the National Cancer Institute with the charge of developing a bladder cancer translational program. She holds board certifications for internal medicine and medical oncology. Dr. Apolo has served in national and international committees including the genitourinary track leader of the Education Program Committee and a member of the Scientific Program Committee of the American Society for Clinical Oncology (ASCO), a member of the Bladder Cancer Program Committee of the Society of Urologic Oncology (SUO), and chair of the Bladder Cancer Advocacy Network (BCAN) Think Tank Steering Committee.

Dr. Apolo is dedicated to improving the lives of patients with genitourinary tumors. Her research involves designing and implementing clinical trials to test novel agents for the treatment of urologic cancers. Her primary research interest is developing targeted and immune-based therapies in bladder cancer, including angiogenesis inhibitors and agents that target MET. Another research interest is improving detection of bladder tumors by developing new imaging modalities. Finally, Dr. Apolo is interested in identifying molecular alterations in bladder tumors that will serve as targets for individualized treatment strategies.

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Immunotherapy for Lung Cancer and the Landscape of Combinations

Jamie E. Chافت, M.D.,

Medical Oncologist
Memorial Sloan Kettering Cancer Center



Jamie Chافت, M.D., is a board-certified medical oncologist who specializes in caring for patients with lung cancer at Memorial Sloan Kettering Cancer Center. She is the lead investigator on clinical trials with a focus on evaluating multimodality treatment, including approved chemotherapies, new treatment approaches, radiation, or surgery, to improve cure rates in patients with non-small cell lung cancers. Additionally, she conducts research to identify biomarkers that are unique to a patient or his or her cancer. Discovering such biomarkers will allow physicians to optimize the use of available therapies to maximize the benefit of anticancer treatments while minimizing the patient's exposure to side effects of less-active treatments. This is a promising and active research niche in the area of personalized medicine where Dr. Chافت aims to improve the outcomes and quality of life of patients diagnosed with lung cancer.

Dr. Chافت received her M.D. from New York University School of Medicine and her B.A. in chemistry from Princeton University. She completed her residency in internal medicine at the New York Presbyterian Weill Cornell Medical Center and her fellowship in medical oncology at Memorial Sloan Kettering Cancer Center.

Borrowing from the Military Strategy in Immunotherapy War in Cancer

James Gulley, M.D., Ph.D.

Chief-Genitourinary Malignancies Branch, Head-Immunotherapy Section, and Director-Medical Oncology Service, Center for Cancer Research, NIH



Dr. Gulley is an internationally recognized expert in immunotherapy for cancer. He serves within the Center for Cancer Research (CCR) of the National Cancer Institute as chief of the genitourinary malignancies branch, director of the medical oncology service, and head of the immunotherapy section. He has been instrumental in the clinical development of Prostavac, an experimental prostate cancer vaccine developed within the CCR, and is the principal investigator of the PROSPECT Trial, an international randomized Phase III study of Prostavac, which recently completed enrollment. He also has been instrumental in the clinical development of avelumab (EMD Serono/Pfizer), an anti-PDL1 antibody, for which the first-in-human study was done at the CCR and now has been given breakthrough designation by the FDA with multiple Phase III studies ongoing or planned. Dr. Gulley has been an investigator on over 60 trials, authored more than 200 scientific papers or chapters, and made numerous presentations at national and international meetings.

Bispecific Antibodies and the Future of Oncology

John Lin, M.D., Ph.D.

Vice President–Immune Oncology & Head, Regeneron
Bispecific R&D, Regeneron



Dr. Lin recently joined Regeneron after working at Rinat Neuroscience Corp. with increasing responsibilities since its inception in 2002 and through its acquisition by Pfizer. Before that he was a postdoctoral fellow at Genentech. He received a Ph.D. in biological and biomedical sciences from Harvard University, and an M.D. from the College of Medicine, National Taiwan University.

Throughout his career, Dr. Lin is passionate about developing novel biologics to address many critical challenges of human health. Since 2012 he had spearheaded Pfizer’s renewed effort of cancer immunology, e.g., checkpoint inhibitors, costimulatory agonists, and genetically engineered T-cell therapy. He joined Regeneron in 2016 to head up the bispecific antibody R&D programs, spanning across immune oncology and other therapeutic focus areas.

Regeneron

Regeneron is a leading science and technology company delivering life-transforming medicines for serious diseases. Founded by physician-scientists nearly 30 years ago, our science-driven approach has resulted in four FDA-approved medicines and numerous product candidates in a range of diseases, including ophthalmology, rheumatoid arthritis, atopic dermatitis, asthma, pain, cancer and infectious diseases.



Panel Discussion

Bios for the panelists who have presented or will present can be found in the indicated section of the book. Otherwise, they begin on the following page.

Moderator: James Gulley, M.D., Ph.D., Chief–Genitourinary Malignancies Branch; Head–Immunotherapy Section, Director–Medical Oncology Service, Center for Cancer Research, NIH (Immunotherapy Combination Approaches)

Andrea Apolo, M.D., Investigator–Genitourinary Malignancies Branch, Head–Bladder Cancer Section, NIH Lasker Clinical Research Scholar, Center for Cancer Research, NIH (Immunotherapy Combination Approaches Lunch Panel)

Christoffel Boshoff, M.D., Ph.D., Senior Vice President–Immuno-oncology, Early Development, and Translational Oncology, Pfizer Inc.; (Immunotherapy Combination Approaches)

Jamie E. Chaft, M.D., Medical Oncologist, Memorial Sloan Kettering Cancer Center (Immunotherapy Combination Approaches)

Eric Hedrick, M.D., Clinical Advisor, BeiGene (Immunotherapy Combination Approaches)

Tim Reilly, Ph.D., Vice President, Head of Early Oncology Development, Bristol-Myers Squibb

Timothy P. Reilly, Ph.D., DABT

Vice President, Head of Early Oncology Development
Bristol-Myers Squibb



Dr. Reilly is vice president and head of oncology early asset development at Bristol-Myers Squibb Company in Princeton, New Jersey. In that role, Dr. Reilly is responsible for establishment of the overall vision, strategic and operational plans, and leadership of cross-functional teams overseeing all nonclinical and clinical aspects of BMS's early oncology portfolio. He has a proven track record of 14 years in pharmaceutical R&D, including leadership for development teams for both small molecules and protein/biological therapeutics across a wide range of disease areas including oncology, immunoscience, and genetically-defined and metabolic diseases. Prior to joining BMS, Dr. Reilly was a research fellow at the National Institutes of Health in Bethesda, Maryland. He obtained his undergraduate degree from the University of Notre Dame, his doctoral training in pharmaceutical sciences from Wayne State University, and is a board-certified Diplomate of the American Board of Toxicology. Dr. Reilly is also co-founder and chief scientific officer of a non-profit organization, Spinal Muscular Atrophy Research Team (SMART).

Bristol-Myers Squibb Company Bristol-Myers Squibb

Bristol-Myers Squibb is a global biopharmaceutical company whose mission is to discover, develop, and deliver innovative medicines that help patients prevail over serious diseases. The company's medicines are helping patients in their fight against cancer, cardiovascular disease, hepatitis C, HIV, and rheumatoid arthritis. Bristol-Myers Squibb has a vision for the future of cancer care that is focused on immuno-oncology, now considered a major treatment choice alongside surgery, radiation, chemotherapy, and targeted therapies for certain types of cancer. In addition to immuno-oncology, other emerging platforms of interest include cardiovascular diseases, fibrotic diseases, genetically defined disease, and immunoscience.

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