Oncology Dose Finding Workshop

June 13, 2016

Walter E. Washington Convention Center, Washington, DC

Room 102 A&B

Purpose: Given the recent history of approvals based on the results of early phase trials driven by extraordinary efficacy data, the incentive for conducting rigorous dose-finding trials may not be overtly apparent. However, the increasing need for the development of combination therapy due to resistance to monotherapy and poor tolerance of approved dosing regimens underscores the need for a more efficient process of dose selection in the early stages of study design.

Theme: With the success of the 2015 FDA-AACR Dose Finding of Small Molecule Oncology Drugs Public Workshop, we are pleased to announce the 2016 FDA-AACR Oncology Dose Finding Workshop. This year, we will broaden the discussion scope to all oncology drugs and focus the theme of the workshop towards drug efficacy. Recent approvals of nivolumab, osimertinib, and pembrolizumab highlight novel dose-finding strategies employed in each respective development program. An interdisciplinary presentation surrounding these development programs along with expert commentary and robust discussion is planned, with particular focus on: exposure-response relationships, modeling and simulation for dose finding, non-clinical models for efficacy, and design for dose-optimization studies.

AGENDA

8:00 AM **Welcome and Workshop Objectives**

Workshop Co-Chairs:
Geoffrey Kim, MD
Director, Division of Oncology Products I (DOP1), Office of Hematology and Oncology, Center for Drug Evaluation and Research, FDA

Amy McKee, MD
Deputy Officer Director (Acting), Office of Hematology and Oncology Products, Center for Drug Evaluation and Research, FDA

Pasi Jänne, MD, PhD
Director, Lowe Center for Thoracic Oncology; Scientific Director, Belfer Institute for Applied Cancer Science; Senior Physician, Dana-Farber Cancer Institute and Professor of Medicine, Harvard Medical School

Eric Rubin, MD
Vice President and Therapeutic Area Head, Oncology Early Clinical Development, Merck Research Labs

SESSION I:	**EXPOSURE-RESPONSE RELATIONSHIPS AND MODELING/SIMULATION FOR DOSE FINDING**
8:05 AM	**Optimal Dosing for Targeted Therapies in Oncology: A Focus on the Development of Pembrolizumab** Dinesh De Alwis, PhD, Merck Research Labs
8:35 AM	**Nivolumab Dose Selection: Challenges, Opportunities and Lessons Learned for Cancer Immunotherapy** Shruti Agrawal, PhD, Bristol-Myers Squibb
9:05 AM	**Evaluating and Quantifying Benefit of Exposure-Response Modeling for Dose Finding** Chyi-Hung Hsu, PhD, Janssen Research & Development
9:35 AM	**BREAK**
9:50 AM	**Model Based Decision Making in Oncology Dose Selection and Study Design** Diane Wang, PhD, Pfizer
10:20 AM	**A Quantitative Systems Pharmacology Model of Immuno-oncology, to Explore Efficacy and Dosing Regimens in Combination Therapy Settings** Gabriel Helmlinger, PhD, AstraZeneca
10:50 AM	**PANEL DISCUSSION** ***(Session I speakers and the following additional panelists)***
Moderator	**Geoffrey Kim, MD,** FDA Kelvin Dickenson, patient representative Jin Jin, PhD, Genentech Sumithra Mandrekar, PhD, Mayo Clinic Lillian Siu, MD, Princess Margaret Cancer Centre Yaning Wang, PhD, FDA
11:50 AM	**LUNCH (on your own)**
SESSION II:	**NON-CLINICAL MODELS USED FOR GO/NO-GO DECISIONS**
12:50 PM	**The Journey of Osimertinib Discovery: From the Lab to the Clinic** Darren Cross, PhD, AstraZeneca
1:10 PM	**Translational Models to Establish Dose Range Selection for Pembrolizumab** Chandni Valiathan, PhD, Merck
1:30 PM	**The Role of the Fc Region in the Antitumor Activity of Immunomodulatory Antibodies: Implications for Dose Selection** Alan Korman, PhD, Bristol-Myers Squibb
1:50 PM	**Human Clinical Trials in Mice: Modeling Inter-patient Response Heterogeneity in PDXs** Juliet Williams, PhD, Novartis

2:05 PM	**PANEL DISCUSSION** ***(Session II speakers and the following additional panelists)***
Moderator	**Todd Palmby, PhD,** FDA Hans Loland, patient representative Thomas Jaki, PhD, Lancaster University Mark Ratain, MD, University of Chicago Amit Roy, PhD, Bristol-Myers Squibb Karthick Vishwanathan, PhD, AstraZeneca
2:35 PM	**BREAK**
SESSION III:	**DESIGNS FOR DOSE OPTIMIZATION STUDIES: PRE-MARKET AND POST-MARKET**
2:50 PM	**Dose Selection: MABEL for Immune Oncology Products** Haleh Saber, PhD, FDA
3:05 PM	**Development of Osimertinib for EGFR mutant NSCLC** Pasi Jänne, MD, PhD, Dana-Farber Cancer Institute
3:20 PM	**Finding Safe and Efficacious Dose Using Sequential Generalized Likelihood Ratio Statistics** Ying Lu, PhD, VA Cooperative Studies Program and Stanford University
3:35 PM	**Dose Optimization: Lenvatinib in RCC** Chao Liu, PhD, FDA
3:50 PM	**Dose Optimization Study: E7080-G000-218** Matthew Guo, PhD, Eisai
4:05 PM	**PANEL DISCUSSION** ***(Session III speakers and the following additional panelists)***
Moderator	**Eric Rubin, MD,** Merck Research Labs Kelvin Dickenson, patient representative Serban Ghiorghiu, MD, AstraZeneca Hans Loland, patient representative Sumithra Mandrekar, PhD, Mayo Clinic Lei Nie, PhD, FDA Nam Atiqur Rahman, PhD, FDA Lillian Siu, MD, Princess Margaret Cancer Centre
4:50 PM	**WRAP UP**
5:00 PM	**ADJOURN**