

# Annual Meeting

## Interpreting Data from Dose-Finding Studies in Early Phase Oncology Trials to Determine the Optimal Dose

### EXECUTIVE SUMMARY

Dose optimization is a critical aspect of oncology drug development. In recent years, the U.S. Food and Drug Administration (FDA) has emphasized the need for improved dose-finding studies in early phase oncology clinical trials to identify an optimal dose for registrational purposes through the establishment of Project Optimus. Friends of Cancer Research (*Friends*) hosted discussions at their 2021 and 2022 Annual Meetings encouraging updated dose-finding trials to support dose selection and considerations for incorporating patient reported outcomes (PROs) to support a robust understanding of tolerability in dose-finding trials, respectively. Outstanding uncertainties that emerged from these discussions included 1) how to incorporate these data into the totality of evidence without creating a burden on sites and patients and 2) how to interpret the findings to make decisions about dose. *Friends* assembled a new working group to tackle these challenges by outlining the types of data that are collected during dose-finding trials and proposing ways to interpret these data in the identification and selection of the optimal dose for registrational trials. Challenges and opportunities with current data collection methods for the five main data categories that establish the totality of evidence (i.e., pharmacokinetics, pharmacodynamics/ target engagement, efficacy, safety, and tolerability) were assessed. An added emphasis on tolerability was included due to the goals of Project Optimus highlighting the need for doses that maximize efficacy, safety, *and* tolerability. The white paper outlines three decision-making timepoints in early phase dose-finding trials and approaches to consider the totality of evidence at each of these timepoints to make decisions including:

- During Dose Escalation;
- At the end of Dose Escalation to identify the dose(s) for Dose Expansion; and
- At the end of Dose Expansion to identify the dose(s) for Registrational trials.

The findings provide a framework for establishing and analyzing the data that support the totality of evidence for decisions about dose in early phase oncology clinical trials. There are ongoing initiatives led by various stakeholders to perform clinical trials that identify dose and an important next step would be to share findings across organizations to work towards aligned recommendations for data collection and analysis.

Click or access the full white paper with the QR code here:



## Working Group Collaborators

Thank you to our working group collaborators for informing the development of this white paper.

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