Overview of Planned NIH Sponsored PZA Workshop Scheduled for Spring 2012

Background

Pyrazinamide (PZA) has potent sterilizing activity and is a highly important drug in current anti-tuberculosis (TB) combination therapy. Unfortunately, while PZA resistant TB has been increasing worldwide, rapid and reliable diagnostic tools for the detection of PZA-resistant TB are still unavailable. This presents a major barrier for treatment, especially for multi-drug resistant (MDR) and extensively drug resistant (XDR) disease. PZA is the least understood anti-TB drug due to its complex mechanisms of action and obstacles in establishing animal models for PZA testing.

Purpose

1. To review current PZA use and historical data as well as the resistance patterns and clinical correlations in different regions; to address and identify the most promising research approaches for developing accurate and feasible PZA susceptibility testing. Mechanisms of action, how to determine optimal use in new combinations for drug-susceptible and -resistant TB, novel treatment strategies, and approaches to improve activity and overcome toxicity and resistance will also be discussed.

2. To bring awareness to the scientific community regarding these research areas and to help identify the best approaches, strategies, and models for future advances in PZA research.

3. To discuss future directions on PZA research and establish joint efforts and partnerships between government, industry, academia, and non-profit organizations.

Who should participate in the workshop

The majority of the invitees will be basic and clinical researchers from the US and the countries that have a high TB burden. Ideally, this meeting will also include scientists from related areas of research, e.g., geneticists, microbiologists, and immunologists who have not previously conducted PZA research or any TB research.

Core planning committee members

Under the auspice of the Federal TB Task Force, NIAID TB Clinical Research Team: Richard Hafner, Jing Bao; CDC: Michael Iademarco and Bonnie Plikaytis; and FDA: TBD; and from academia, JHU: TBD; Interested USG Parties: CDC, DTBE (Clinical Research Branch, Laboratory Branch); FDA (list)

Anticipated Outcome

1. Networking and discussions from the meeting are expected to result in knowledge exchange and foster further collaborations and joint research projects to advance the field.

2. A meeting report summarizing the state of the art in research on PZA and recommendations for future research will be composed. This report will be submitted for scientific publication to increase awareness in the scientific community and promote cutting-edge research.

3. The research priorities identified from this meeting may serve as a source for the development of a a) Program Announcement or another type of NIH FOA to support needed research and b) refined CDC and FDA research agenda.

Number of Participants: 70 to 100 people will be invited to participate in this meeting.

Proposed date: FY 2012, Spring 2012

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