

October 27, 2020

California Institute for Regenerative Medicine (CIRM)
1999 Harrison Street, Suite 1650
Oakland, CA 94612

Re: CIRM Grant Application CLIN2-12149 entitled “Phase 1 Clinical Development of IO-202, A First-in-Class Antibody Targeting LILRB4, for the Treatment of AML with Monocytic Differentiation and CMML”

Dear Independent Citizens Oversight Committee (ICOC),

Thank you for your careful review and thoughtful comments regarding our application for IO-202, a monoclonal antibody targeting LILRB4 in acute monocytic leukemia (AML) with monocytic differentiation and chronic myelomonocytic leukemia (CMML).

We are pleased to update CIRM and this Committee that IO-202 received U.S. FDA Orphan Drug Designation on October 21, 2020, for the treatment of AML. Such designation recognizes both the unmet medical need of AML and the scientific rationale of IO-202 in targeting LILRB4 for its therapeutic effect.

We would like to highlight the significant unmet medical needs of AML patients and CMML patients in the US as a whole, and in California. AML is a devastating disease that inflicts ~20,000 patients in the United States with a 5-year survival rate of approximately 25%. Patients with monocytic AML are more likely to be refractory to standard of care treatment with venetoclax + azacitidine and have a dismal overall survival of 89 days versus 518 days for non-monocytic AML patients (Pei, Cancer Discovery 2020). CMML is a malignant hematopoietic stem cell (HSC) disorder, with approximately 2,000 new cases of CMML diagnosed each year in the US.

To date, human AML leukemia stem cells (LSCs) are the most well studied cancer stem cell population. Considerable evidence shows that LILRB4 is expressed by LSCs in monocytic AML and confers “leukemic stemness.” By targeting LILRB4, IO-202 is dependent on targeting LSCs for its therapeutic effect.

Immune-Onc Therapeutics was founded to target novel myeloid pathways and to go after hard-to-treat cancers, that larger companies may find too small or challenging to pursue. We are an innovative start-up biotech company located in Palo Alto, California. We are the first company to develop an LILRB4 targeting antibody for AML and our therapeutic approach is based on cutting-edge research and compelling preclinical data. CIRM funding would allow us to continue to develop IO-202 in this unmet medical need, a subtype of AML that is difficult to treat and

that is resistant to current therapies, and to support and potentially expand our operations in California.

It was noted in the feedback for the grant application that we should consider investigating IO-202 in pediatric patients with this form of AML. We agree, recognize the clinical need of pediatric patients with this illness, and plan to do so as soon as possible; however, this will first require the determination of a safe and effective dose in adults through the phase 1 trial as outlined in our CIRM Application CLIN2-12149 and approved by the FDA, before enrolling pediatric patients.

We appreciate the consideration of CIRM in funding this phase 1 clinical trial in a rare, orphan indication, with a first-in-class, innovative therapeutic antibody that may benefit Californians with a significant unmet medical need, including pediatric AML patients in the future.

Sincerely,

Paul Woodard, MD
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