PBTC-051:
First in pediatrics phase 1 study of CD40 agonistic monoclonal antibody APX005M in pediatric subjects with recurrent/refractory brain tumors

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PBTC
Pedatric Brain Tumor Consortium

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COI Declaration

The following presenters have no conflict of interest relating to this presentation with any corporate organizations :

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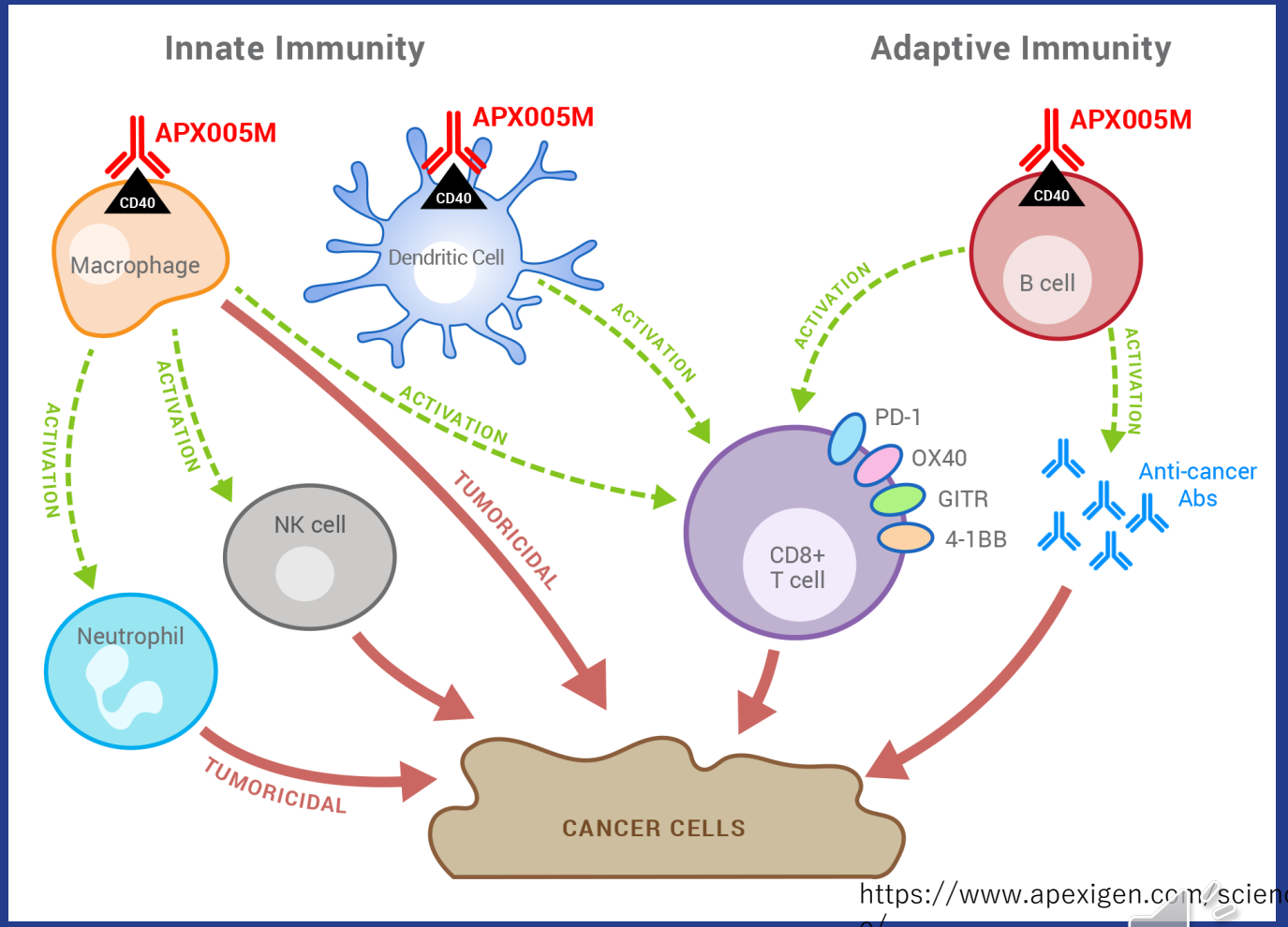
APX005M Mechanism of Action

- APX005M: CD40 agonist IgG1 humanized monoclonal antibody (Apexigen, Inc.)
- CD40: co-stimulatory molecule expressed on antigen presenting cells (APCs)
- CD40 functions to:
  - Reverse systemic cancer-induced immune suppression
  - Activate APCs → activates innate and adaptive immunity
  - Stimulate anti-tumor CD8+ T cell response
- APX005M mechanism of action does **not** require CD40 expression on tumor cells



https://www.apexigen.com/science/

PBTC-051 Study Overview

- First-in-pediatrics evaluation of APX005M by the Pediatric Brain Tumor Consortium
- APX005 administered IV over 1 hour every 3 weeks for maximum 36 cycles
- Stratum 1: Patients 1-21 years old with recurrent, refractory, or progressive primary malignant CNS tumors
  - Patients with progressive DIPG or bulky tumors (mass effect, midline shift, uncal herniation) excluded

Study Objectives

- Primary study objectives:
  - Evaluate safety of APX005M administered IV q3 week to children with CNS tumors
  - Determine maximum tolerated dose and/or recommended phase 2 dose
  - Determine APX005M pharmacokinetics

- Exploratory study objectives
  - Assess incidence of anti-drug antibodies
  - Determine immune pharmacodynamics of APX005M
  - Identify tumor and blood efficacy and/or resistance biomarkers

Stratum 1 Enrollment

- 21 total patients enrolled on study
  - 19 patients off treatment for progressive disease
  - 1 patient off treatment for side effects
  - 1 patient ineligible
- Youngest enrolled patient: 2 yo, oldest: 21 yo
- Most common diagnoses: ependymoma (7 patients) and glioblastoma (5 patients)

Stratum 1 APX005M Adverse Events

- Most common adverse events: neutropenia (max grade 3) and leukopenia and lymphopenia (max grade 4)
- 2 dose-limiting toxicities: both grade 3 infusion-related reactions
  - Both at highest dose level (dose level 3)
- 1 death on study and 1 death within 1 month off-study
  - Both secondary to progressive disease and not drug toxicity

Stratum 1 Results

- Highest dose level (dose level 3 = 0.6 mg/kg) is stratum 1 pediatric recommended phase 2 doses

- Total 12 evaluable patients enrolled at dose level 3 in dose escalation and expansion cohorts
  - For reference, the adult R2PD is DL2=0.3 mg/kg

- 2 patients received >15 cycles of therapy at dose level 3
  - One of these patients (diagnosis ependymoma) received a total of 30 cycles (still on therapy)
  - The other diagnosed with GBM received a total of 16 cycles (off therapy due to PD)

Acknowledgements

- NCI/NIH grant UM1 CA081457 supporting the Pediatric Brain Tumor Consortium
- The American Lebanese Syrian Associated Charities for partial support of the PBTC Operations, Biostatistics and Data Management Core
- Our patients and their families