AO-176, a normal cell sparing humanized anti-CD47 antibody

Prabir Chakraborty, Myrian M. Bouchlaka, Benjamin J. Capocchia, Ronald R. Hiebisch, Michael J. Donio, Robyn J. Puro, Vicki Sung and Daniel S. Pereira

Arch Oncology, 4320 Forest Park Avenue, St. Louis, MO 63108 and 2000 Sierra Point Parkway, Brisbane, CA 94005

Presented at the American Association for Cancer Research (AACR) Annual Meeting, March 29–April 3, 2019, Atlanta, GA, USA

ABSTRACT

AO-176 is a highly differentiated next-generation anti-CD47 IgG2 antibody with preferential binding and activity on tumor versus normal cells. AO-176 binds to tumor cells preferentially to normal cells with negligible impact on red blood cells (RBCs) or other normal cells. In vivo, AO-176 shows negligible red blood cell effects and is well tolerated in cynomolgus monkeys. AO-176 exhibits potent and durable tumor growth inhibition and tumor cell killing in xenograft models. AO-176 has also shown promising pre-clinical activity in other tumor models including ovarian carcinoma and triple-negative breast cancer.

CONCLUSIONS

- AO-176, a highly differentiated next-generation anti-CD47 IgG2 antibody exhibits preferential binding and activity on tumor versus normal cells especially RBCs, which differentiates it from all other anti-CD47 antibodies that highly bind to normal cells.
- AO-176 is a normal cell sparing humanized anti-CD47 antibody with negligible impact on RBCs or other normal cells.
- AO-176 shows promising pre-clinical activity in tumor models including ovarian carcinoma and triple-negative breast cancer.
- AO-176 is being evaluated in a phase I clinical trial for the treatment of patients with select solid tumors.