

AVEO Announces Presentations at the 2017 ASCO Annual Meeting

CAMBRIDGE, Mass. – April 20, 2017 – AVEO Oncology (NASDAQ: AVEO) today announced that poster presentations for three clinical studies will be presented at the upcoming 2017 American Society of Clinical Oncology (ASCO) Annual Meeting, held June 2-6, 2017.

Among these is a Trials in Progress presentation highlighting the ongoing Phase 3, randomized, controlled, multi-center, open-label TIVO-3 study comparing tivozanib, the Company's potent, selective, long half-life inhibitor of all three vascular endothelial growth factor (VEGF) receptors, to sorafenib in subjects with refractory advanced renal cell carcinoma. The remaining two presentations will highlight ficlatuzumab, the Company's potent hepatocyte growth factor (HGF) inhibitory antibody that binds to the HGF ligand with high affinity and specificity to inhibit HGF/c-Met biological activities, in two investigator-sponsored studies, one in head and neck squamous cell carcinoma and the other in acute myeloid leukemia.

Tivozanib is partnered for oncologic indications with EUSA Pharma under an exclusive license agreement covering territories outside of North America and Asia, including Europe, South America and South Africa. AVEO and Biodesix, Inc. have a worldwide agreement to develop and commercialize ficiatuzumab.

Details for the poster presentations at ASCO 2017:

Title: Tivo-3: A phase 3, randomized, controlled, multi-center, open-label study to compare tivozanib hydrochloride to sorafenib in subjects with refractory advanced renal cell carcinoma (RCC)

Presenter: Brian I. Rini, MD, FACP, Professor of Medicine, Lerner College of Medicine, Leader, GU Program, Department of Hematology and Oncology, Cleveland

Clinic Taussig Cancer Institute **Abstract Number:** TPS4600

Session: Genitourinary (Nonprostate) Cancer

Date and Time: Sunday, June 4, 2017, 8:00-11:30 AM CT

Title: Phase I study of the anti-HGF monoclonal antibody (mAb), ficlatuzumab, and cetuximab in cetuximab-resistant, recurrent/metastatic (R/M) head and neck squamous cell carcinoma (HNSCC)

Presenter: Julie E. Bauman, MD, MPH, Chief, Division of Hematology and Oncology, Associate Director, Translational Research, University of Arizona Cancer Center

Abstract Number: 6038

Session: Head and Neck Cancer

Date and Time: Monday, June 5, 2017, 1:15-4:45 PM CT

Title: CyFi: A phase I study exploring the role of cMET pathway inhibition with ficlatuzumab (Fi) combined with high-dose cytarabine (Cy) in patients with high risk relapsed or refractory acute myeloid leukemia (AML)

Presenter: Charalambos (Babis) Andreadis, MD, Hematologic Malignancies and Blood

and Marrow Transplantation Program, University of California, San Francisco

Abstract Number: 7040

Session: Hematologic Malignancies—Leukemia, Myelodysplastic Syndromes, and

Allotransplant

Date and Time: Monday, June 5, 2017, 8:00-11:30 AM CT

About AVEO

AVEO Oncology (AVEO) is a biopharmaceutical company dedicated to advancing a broad portfolio of targeted therapeutics for oncology and other areas of unmet medical need. The company is focused on seeking to develop and commercialize its lead candidate tivozanib, a potent, selective, long half-life inhibitor of vascular endothelial growth factor 1, 2 and 3 receptors, in North America as a treatment for renal cell carcinoma and other cancers. AVEO is leveraging multiple partnerships aimed at developing and commercializing tivozanib in non-oncologic indications worldwide and oncology indications outside of North America, as well as to progress its pipeline of novel therapeutic candidates in cancer and cachexia (wasting syndrome). For more information, please visit the company's website at www.aveooncology.com.

Cautionary Note Regarding Forward-Looking Statements

This press release contains forward-looking statements of AVEO that involve substantial risks and uncertainties. All statements, other than statements of historical fact, contained in this press release are forward-looking statements. The words "anticipate," "believe," "expect," "intend," "may," "plan," "potential," "could," "should," "seek," "look forward," "advance," "goal," "strategy," or the negative of these terms or other similar expressions, are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among others: AVEO's and its collaborators' future discovery, development and commercialization plans and efforts, including without limitation with respect to tivozanib, ficlatuzumab and AVEO's other programs and platforms; and AVEO's strategy, prospects, plans and objectives. AVEO has based its expectations and estimates on assumptions that may prove to be incorrect. As a result, readers are cautioned not to place undue reliance on these expectations and estimates. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that AVEO makes due to a number of important factors, including risks relating to AVEO's ability to enter into and maintain its third party collaboration agreements, and its ability, and the ability of its licensees and other partners, to achieve development and commercialization objectives under these arrangements; AVEO's ability, and the ability of its licensees, to demonstrate to the satisfaction of applicable regulatory agencies the safety, efficacy and clinically meaningful benefit of AVEO's product candidates; AVEO's ability to successfully enroll and complete clinical trials, including the TIVO-3 and TiNivo studies; AVEO's ability to achieve and maintain compliance with all regulatory requirements applicable to its product candidates; AVEO's ability to obtain and maintain adequate protection for intellectual property rights relating to its product candidates and technologies; developments, expenses and outcomes related to AVEO's ongoing shareholder litigation; AVEO's ability to successfully implement its strategic plans; AVEO's ability to raise the substantial additional funds required to achieve its goals, including those goals pertaining to the development and commercialization of tivozanib; unplanned capital requirements; adverse general economic and industry conditions; competitive factors; and those risks discussed in the

section titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" included in AVEO's Annual Report on Form 10-K for the year ended December 31, 2016 and in other filings that AVEO may make with the SEC in the future. The forward-looking statements in this press release represent AVEO's views as of the date of this press release. AVEO anticipates that subsequent events and developments may cause its views to change. While AVEO may elect to update these forward-looking statements at some point in the future, it specifically disclaims any obligation to do so. You should, therefore, not rely on these forward-looking statements as representing AVEO's views as of any date other than the date of this press release.

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