AVEO Announces Milestone Payment from CANbridge for AV-203

Company Provides Updated Financial Guidance

CAMBRIDGE, Mass. – April 3, 2017 – AVEO Oncology (NASDAQ: AVEO) today announced receipt of a $500,000 milestone payment from CANbridge Life Sciences Ltd., a biopharmaceutical company focused on developing western drug candidates in China and North Asia, related to a technology transfer milestone for AV-203, AVEO's clinical-stage ErbB3 (HER3) inhibitory antibody candidate. AV-203 has demonstrated preclinical activity in a number of different tumor models including breast, head and neck, lung, ovarian and pancreatic cancers. CANbridge is planning clinical development of AV-203 in squamous cell esophageal cancer as its initial indication.

"Receipt of this milestone payment from CANbridge reflects continued progress by our partner to engineer the manufacturing process for AV-203 in an effort to develop an antibody manufacturing process suitable for commercialization," said Michael Bailey, president and chief executive officer of AVEO. "We look forward to continued progress in this program, and with the balance of our partnered pipeline, including AV-380, a potentially disease modifying treatment for cachexia which is partnered with Novartis, and ficlatuzumab in development for squamous cell carcinoma of the head and neck and acute myeloid leukemia, which is partnered with Biodesix. With these programs advancing, we continue to focus on tivozanib, including continuing our execution of the TIVO-3 and TiNivo studies for our U.S. pivotal clinical strategy, and support of our licensee, EUSA Pharma, in its response to European regulators."

In March 2016, AVEO announced an exclusive collaboration and license agreement, granting CANbridge worldwide rights to AV-203, excluding the United States, Canada, and Mexico. Under the terms of the collaboration and license agreement, CANbridge paid AVEO an upfront payment of $1 million, and AVEO is also eligible to receive up to $133 million in reimbursement and milestone payments, assuming the successful achievement of specified development, regulatory and commercialization objectives. The transaction was awarded the 2016 Deal of the Year by RNDer, a leading Chinese publication providing value-added analysis for pharmaceutical and biotechnology companies conducting business in China. AVEO has retained North American rights to AV-203 and is also eligible for a tiered royalty, with a percentage range in the low double digits, on net sales of AV-203 in the partnered territories.

AVEO also announced today an update to its financial guidance. The Company believes its recently completed underwritten public offering, which yielded net proceeds of $15.5 million (on gross proceeds of $17.3 million), together with its existing cash resources, would be sufficient to fund its operations into the second quarter of 2018. This guidance excludes any potential partnership milestone payments to or from the Company, potential debt or equity financings, acceleration of existing debt principal payments under the term loan with Hercules which could result from non-compliance with the cash covenant of that agreement, or proceeds from any potential future partnership agreements.

As previously guided, top line data from the TIVO-3 trial, AVEO's ongoing Phase 3 clinical trial of tivozanib in the third-line treatment of patients with refractory renal cell carcinoma (RCC), is anticipated in the first quarter of 2018.

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," "would," "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: the expected timelines for receiving top-line data readouts in TIVO-3; AVEO's guidance regarding the period in which it expects to have cash to fund its operations and its expectations regarding the assumptions and factors that may affect such timeframe; plans and strategies of AVEO and its partners and the potential for continued progress and achievement by AVEO and its partners of clinical, regulatory, commercial, manufacturing and other development goals and milestones for AV-203 and AVEO's other product candidates; the potential safety, efficacy, tolerability and other benefits of tivozanib in the treatment of renal cell carcinoma as a third line therapy, first line therapy, single agent or in combination with other therapies. AVEO has based its estimates, including its forecast for the period in which its cash will be available to fund operations, on assumptions that may prove to be incorrect. As a result, readers are cautioned not to place undue reliance on these 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.

AVEO Contact:
David Pitts, Argot Partners
(212) 600-1902
aveo@argotpartners.com