

AVEO PHARMACEUTICALS INC

Form 424B5

March 29, 2017

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Filed Pursuant to Rule 424(b)(5)

Registration No. 333-203932

## **Prospectus Supplement**

**(To Prospectus dated May 26, 2015)**

**30,000,000 Shares**

**AVEO PHARMACEUTICALS, INC.**

**Common Stock**

AVEO Pharmaceuticals, Inc. is offering **30,000,000** shares.

Trading Symbol: Nasdaq Global Select Market AVEO

The last reported sale price for our common stock on March 27, 2017 was \$0.65 per share.

## Edgar Filing: AVEO PHARMACEUTICALS INC - Form 424B5

This investment involves risk. See **Risk Factors** beginning on page 8 and in our Annual Report on Form 10-K for the year ended December 31, 2016.

	Per Share	Total
Public offering price	\$0.500	\$ 15,000,000.00
Underwriting discount <sup>(1)</sup>	\$0.035	\$ 1,050,000.00
Proceeds, before expenses, to AVEO Pharmaceuticals, Inc.	\$0.465	\$ 13,950,000.00

<sup>(1)</sup> See Underwriting beginning on page 23 for additional information regarding total underwriter compensation, including expenses for which we have agreed to reimburse the underwriter.

*The underwriter expects to deliver the shares to investors on or about March 31, 2017. We have granted the underwriter an option for a period of 30 days to purchase an additional 4,500,000 shares.*

**Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.**

## Piper Jaffray

The date of this prospectus supplement is March 28, 2017

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**ABOUT THIS PROSPECTUS SUPPLEMENT**

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this common stock offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein. We have not authorized, and the underwriter has not authorized, anyone to provide you with information that is different. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein, is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled *Where You Can Find More Information* and *Incorporation by Reference* in this prospectus supplement and in the accompanying prospectus.

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

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**PROSPECTUS SUPPLEMENT SUMMARY**

*This summary does not contain all of the information that you should consider before investing in our common stock. You should read this entire prospectus supplement and the accompanying prospectus carefully, including the financial statements and other information incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision. In addition, please read the Risk Factors section of this prospectus supplement beginning on page S-8 and the risk factors contained in our Annual Report on Form 10-K for the year ended December 31, 2016.*

**Overview**

We are a biopharmaceutical company dedicated to advancing a broad portfolio of targeted therapeutics for oncology and other areas of unmet medical need. Our proprietary platform has delivered unique insights into cancer and related diseases. Our strategy is to leverage these biomarker insights and partner resources to advance the development of our clinical pipeline. We are focused on developing our lead candidate tivozanib in North America as a treatment for renal cell carcinoma, or RCC. In addition, we have entered into partnerships to fund the further development and commercialization of our clinical stage assets, including AV-380, ficlatuzumab, AV-203, and tivozanib for oncology indications outside of North America and for non-oncologic indications worldwide. We are currently seeking a partner to develop the AV-353 platform, a preclinical asset, worldwide for the potential treatment of pulmonary arterial hypertension, or PAH.

*Tivozanib*

Our pipeline includes our lead candidate tivozanib, an oral, once-daily, vascular endothelial growth factor, or VEGF, tyrosine kinase inhibitor, or TKI. Tivozanib is a potent, selective and long half-life inhibitor of all three VEGF receptors and is designed to optimize VEGF blockade while minimizing off-target toxicities, potentially resulting in improved efficacy and minimal dose modifications. Tivozanib has been investigated in several tumor types, including renal cell, colorectal and breast cancers.

**Clinical and Regulatory Development in RCC**

*RCC First Line Phase 3 Trial (TIVO-1):* We conducted a global phase 3 clinical trial, which we refer to as the TIVO-1 trial, comparing the efficacy and safety of tivozanib with Nexavar<sup>®</sup> (sorafenib), an approved therapy, for first-line treatment of RCC. The trial met its primary endpoint for progression-free survival, or PFS, but showed a non-statistically significant trend favoring the sorafenib arm in overall survival, or OS. In June 2013, the U.S. Food and Drug Administration, or FDA, issued a complete response letter informing us that it would not approve tivozanib for the first-line treatment of advanced RCC based solely on the data from this trial, and recommended that we perform an additional clinical trial adequately sized to assure the FDA that there is no adverse effect on OS.

*TIVO-1 Extension Study One-way crossover from sorafenib to tivozanib (Study 902):* We completed a TIVO-1 extension study in which patients with advanced RCC received tivozanib as second-line treatment subsequent to disease progression on the sorafenib arm in the TIVO-1 first-line RCC trial. We presented the final results at the 2015 American Society of Clinical Oncology (ASCO) Annual Meeting on June 1, 2015. The final results showed a median PFS of 11.0 months and a median OS of 21.6 months, demonstrating the clinically meaningful efficacy of tivozanib in a VEGF treatment refractory population. We believe that the long OS derived from tivozanib following sorafenib that was demonstrated in Study 902 contributed to the discordance in the efficacy results in the TIVO-1 trial between the PFS benefit, which significantly favored tivozanib, and the OS, which trended in favor of sorafenib. However, the FDA did not accept this explanation, finding that the OS results were uninterpretable, and recommended that we perform a second phase 3 trial, as set forth above.



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*European Marketing Authorization Application by EUSA.* Tivozanib has previously been granted orphan drug designation in Europe for the treatment of RCC. Our licensee, EUSA Pharma (UK) Limited, or EUSA, submitted a marketing authorization application, or MAA, for tivozanib for the treatment of RCC to the European Medicines Agency, or EMA, in February 2016 based primarily on our existing dataset, which includes the results from the TIVO-1 clinical trial of tivozanib in the first-line treatment of RCC, combined with the TIVO-1 extension trial, and one phase 1 and two phase 2 trials in RCC. The EMA validated the MAA in March 2016, confirming that the submission was complete and that it would initiate its review process. EUSA received the Day 120 List of Questions from the Committee for Medicinal Products for Human Use, or CHMP, of the EMA in July 2016, and submitted its responses in November 2016. In January 2017, EUSA received the Day 180 List of Outstanding Issues, or LOI, from the CHMP. The Day 180 LOI signifies that the MAA is not approvable at the present time, and outlines outstanding deficiencies, which are then required to be satisfactorily addressed in an oral explanation and/or in writing prior to a final application decision. EUSA has informed us that it expects to submit written responses to the Day 180 LOI in April 2017, and the EMA has tentatively scheduled EUSA to provide an oral explanation to the CHMP in May 2017.

*RCC Third Line Phase 3 Trial (TIVO-3):* In May 2016, we initiated enrollment and treatment of patients in a phase 3 trial of tivozanib in the third-line treatment of patients with refractory RCC, which we refer to as the TIVO-3 trial. The TIVO-3 clinical trial was designed to address the OS concerns from the TIVO-1 trial presented in the June 2013 complete response letter from the FDA and to support a request for regulatory approval of tivozanib in the United States as a third-line treatment and as a first-line treatment for RCC. Our trial design, which we reviewed with the FDA, provides for a randomized, controlled, multi-center, open-label phase 3 clinical trial of approximately 322 subjects randomized 1:1 to receive either tivozanib or sorafenib. Subjects enrolled in the trial must have failed two systemic therapies one of which must have been a VEGF TKI. Patients may have received prior immunotherapy, including immune checkpoint (PD-1) inhibitors, reflecting a potentially evolving treatment landscape. The primary objective of the TIVO-3 trial is to show improved PFS, and secondary endpoints include OS, safety and objective response rate. The trial's sites are located in North America and Europe. The TIVO-3 trial does not include a crossover design, meaning that patients who progress in one therapy will not then be offered the opportunity to cross over to the other therapy. We expect to complete enrollment in the TIVO-3 trial in June 2017, and to report top line data in the first quarter of 2018. The TIVO-3 trial passed an initial safety data assessment in February 2017. We expect a pre-planned interim futility analysis to occur mid-year 2017.

*RCC PD-1 Combination Trial with Opdivo (TiNivo):* In March 2017, we initiated enrollment in a phase 1/2 clinical trial of tivozanib in combination with Opdivo® (nivolumab), an immune checkpoint (PD-1) inhibitor, for the treatment of RCC, which we refer to as the TiNivo trial. Bristol-Myers Squibb is supplying nivolumab for the TiNivo trial, and we are the trial sponsor. In recent clinical trials, TKIs and PD-1 inhibitors have shown promising efficacy in treating RCC in combination. However, several TKI/PD-1 combinations have encountered toxicity levels that we believe are likely to challenge or prohibit such TKIs from safely combining with PD-1 inhibitors for RCC treatment. In our clinical trials, tivozanib has demonstrated a superior tolerability profile relative to certain other TKIs, including lower rates of key potential overlapping toxicities with PD-1 inhibitors. We believe that tivozanib's tolerability profile has the potential to allow tivozanib to combine with PD-1 inhibitors more safely than other TKIs. The TiNivo trial is being led by the Institut Gustave Roussy in Paris under the direction of Professor Bernard Escudier, MD, Chairman of the Genitourinary Oncology Committee. The phase 1 trial will primarily evaluate the safety of tivozanib in combination with nivolumab at escalating doses of tivozanib and, assuming favorable results, is expected to be followed by a phase 2 expansion at the established combination dose. We expect to receive initial data from the phase 1 portion of the TiNivo trial in the first half of 2017.



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### Tivozanib Partnerships

*In-License from KHK.* In 2006, we acquired the exclusive rights to develop and commercialize tivozanib in all countries outside of Asia and the Middle East under a license from Kyowa Hakko Kirin Co., Ltd. (formerly Kirin Brewery Co. Ltd.), or KHK.

*EUSA License Agreement:* In December 2015, we entered into a license agreement with EUSA, under which we granted EUSA the right to develop and commercialize tivozanib for all diseases and conditions in humans, excluding non-oncologic diseases or conditions of the eye, in Europe (excluding Russia, Ukraine and the Commonwealth of Independent States), Latin America (excluding Mexico), Africa, Australasia and New Zealand.

### *Ficlatuzumab*

Ficlatuzumab is a potent Hepatocyte Growth Factor, or HGF, inhibitory antibody. HGF is the sole known ligand of the c-Met receptor, which is believed to trigger many activities that are involved in cancer development and metastasis. In April 2014, we and Biodesix, Inc., or Biodesix, entered into a worldwide co-development and collaboration agreement, or the Biodesix Agreement, to develop and commercialize ficlatuzumab.

We have completed two phase 1 clinical studies of ficlatuzumab administered as a single agent and in combination with erlotinib, an endothelial growth factor receptor, or EGFR, TKI. We also performed a phase 2 clinical trial evaluating ficlatuzumab in combination with gefitinib, an EGFR TKI, in first-line non-small cell lung cancer, or NSCLC. The phase 2 trial failed to demonstrate a statistically significant benefit in the intent-to-treat, or ITT, population. However, a retrospective exploratory subgroup analysis utilizing Biodesix's companion diagnostic, VeriStrat<sup>®</sup>, identified a sub-population of patients who experienced a progression free survival and overall survival benefit from the addition of ficlatuzumab to gefitinib. In December 2014, we and Biodesix initiated the FOCAL trial, a phase 2 confirmatory study of ficlatuzumab in combination with erlotinib in the subset of patients with first-line advanced NSCLC previously identified. After experiencing lower rates of positivity for the two markers and slower than expected enrollment, a blinded look at the FOCAL trial data from enrolled patients found that the patients, who were known to be selected for poor prognosis, experienced materially higher discontinuation rates than observed in both the general ITT population and the retrospective exploratory subgroup population of the prior phase 2 clinical trial. This observation significantly compromised the commercial opportunity and the feasibility of the FOCAL trial. Based on the findings from the interim analysis and the slow enrollment, we and Biodesix agreed in September 2016 to discontinue the FOCAL trial.

We and Biodesix are also funding an investigator-sponsored clinical trial of ficlatuzumab in combination with ERBITUX<sup>®</sup> (cetuximab) in squamous cell carcinoma of the head and neck. We anticipate that we will present preliminary clinical observations from this phase 1 trial at an upcoming scientific conference. We and Biodesix are also funding an investigator-sponsored clinical trial of ficlatuzumab in combination with Cytosar (cytarabine) in acute myeloid leukemia. We anticipate that we will present preliminary clinical observations from this phase 1 trial at an upcoming scientific conference. We continue to evaluate several additional opportunities for the further clinical development of ficlatuzumab.

### *AV-203*

AV-203 is a potent anti-ErbB3 (also known as HER3) specific monoclonal antibody with high ErbB3 affinity. We have observed potent anti-tumor activity in mouse models. AV-203 selectively inhibits the activity of the ErbB3 receptor, and our preclinical studies suggest that neuregulin-1, or NRG1 (also

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known as heregulin), levels predict AV-203 anti-tumor activity. We have completed a phase 1 dose escalation study of AV-203, which established a recommended phase 2 dose, demonstrated good tolerability and promising early signs of activity, and reached the maximum planned dose of AV-203 monotherapy. In 2014, the expansion cohort of this trial was discontinued to conserve capital resources.

In March 2016, we entered into a collaboration and license agreement with CANbridge Life Sciences Ltd., or CANbridge, under which we granted CANbridge the exclusive right to develop, manufacture and commercialize AV-203 in all countries other than the United States, Canada and Mexico. CANbridge has begun its work to optimize the manufacturing of AV-203. CANbridge expects that AV-203 will reenter the clinic in 2018.

### *AV-380*

AV-380 is a potent humanized IgG1 inhibitory monoclonal antibody targeting growth differentiating factor-15, or GDF15, a divergent member of the TGF- $\beta$  family, for the potential treatment or prevention of cachexia. Cachexia is defined as a multi-factorial syndrome of involuntary weight loss characterized by an ongoing loss of skeletal muscle mass (with or without loss of fat mass) that cannot be fully reversed by conventional nutritional support and leads to progressive functional impairment. Cachexia is associated with various cancers as well as chronic kidney disease, congestive heart failure, chronic obstructive pulmonary disease, or COPD, and other diseases. We believe that AV-380 represents a unique approach to treating cachexia because it addresses key underlying mechanisms of the syndrome. AV-380 focuses on a significant area of patient need. It is estimated that approximately 30% of all cancer patients die due to cachexia and over half of cancer patients who die do so with cachexia present (*J Cachexia Sarcopenia Muscle* 2010). In the United States alone, the estimated prevalence of cancer cachexia is over 400,000 patients, and the prevalence of cachexia due to cancer, COPD, congestive heart failure, frailty and end stage renal disease combined is estimated to total more than 5 million patients (*Am J Clin Nutr* 2006).

We have demonstrated preclinical proof-of-concept for AV-380 in multiple cancer cachexia models and have completed cell line development. In September 2014, we presented the results from four preclinical studies of AV-380 in various in vivo cachexia models and in vitro assays at the 2<sup>nd</sup> Cancer Cachexia Conference in Montreal, Canada. Our research was also selected for presentation in an oral session at the conference. In April 2015, we also presented the results from a preclinical study of AV-380 in a cachectic human tumor xenograft model at the Annual Meeting of the American Association of Cancer Research. We have established preclinical proof-of-concept for GDF15 as a key driver of cachexia by demonstrating, in animal models, that the administration of GDF15 induces cachexia, and that inhibition of GDF15 reverses cachexia and provides a potential indication of an overall survival benefit.

In August 2015, we entered into a license agreement under which we granted Novartis International Pharmaceutical Ltd., or Novartis, the exclusive right to develop and commercialize AV-380 and our related antibodies. Under this agreement, Novartis is responsible for all activities and costs associated with the further development, regulatory filing and commercialization of AV-380 worldwide. In connection with the AV-380 program, we have in-licensed certain patents and patent applications from St. Vincent's Hospital Sydney Limited in Sydney, Australia.

### *AV-353 Platform*

The AV-353 platform includes a number of potent inhibitory antibody candidates specific to Notch 3. The Notch 3 pathway is important in cell-to-cell communication involving gene regulation mechanisms that control multiple cell differentiation processes during the entire life cycle. Scientific literature has implicated the Notch 3 receptor pathway in multiple diseases, including cancer, cardiovascular diseases

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and neurodegenerative conditions. Publications, including *Nature Medicine* (2009), have implicated the Notch 3 pathway in PAH, a rare and life-threatening disorder that affects approximately 250,000 people worldwide (*Global Data 2016 PAH Opportunity Analyzer; 2012 Decision Resources PAH Report*) and is caused by enlargement of the arterial walls in small arteries between the heart and the lungs, resulting in restricted blood flow. Currently, no known cure for PAH exists. Existing treatments for PAH have focused on controlling symptoms by avoiding vasoconstriction and increasing vasodilation of blood vessels but have not reversed the underlying cause of the disease. However, the results of a recently concluded pre-clinical research study conducted at the University of California at San Diego (and recently presented in a poster at the November 2016 American Heart Association meeting) using one of our anti-Notch3 antibody candidates, generated preclinical data that supports the ability of the antibody to potentially reverse the thickening of vascular smooth muscle cells, which would represent a disease-modifying approach to treatment. A manuscript of the results is being prepared for submission to a peer-reviewed journal.

We are seeking patent protection of our AV-353 platform, which was developed utilizing our research and development platform and have already filed composition of matter patent applications. We are currently seeking a partner to develop the AV-353 platform worldwide for the potential treatment of PAH.

**Our Corporate Information**

We were incorporated in Delaware on October 19, 2001 as GenPath Pharmaceuticals, Inc. and changed our name to AVEO Pharmaceuticals, Inc. on March 1, 2005. Our principal executive offices are located at One Broadway, 14th Floor, Cambridge, Massachusetts 02142, and our telephone number is (617) 588-1960. Our website is located at [www.aveooncology.com](http://www.aveooncology.com). Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus supplement and the accompanying prospectus, and you should not consider it part of this prospectus supplement and the accompanying prospectus. Our website address is included in this document as an inactive textual reference only. Unless the context otherwise requires, references in this prospectus to AVEO, the Company, we, us, and our refer to AVEO Pharmaceuticals, Inc. and our subsidiaries.

The trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

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**The Offering**

Common stock offered by us pursuant to this prospectus supplement 30,000,000 shares.

Common stock to be outstanding after this offering 105,862,946 shares.

Option to purchase additional shares

The underwriter has an option for a period of 30 days to purchase up to 4,500,000 additional shares of our common stock.

Use of proceeds

We intend to use the net proceeds from this offering for working capital and general corporate purposes, including development and pre-commercial expenses incurred in connection with our ongoing phase 3 clinical trial of tivozanib in the third-line treatment of patients with refractory RCC and with our ongoing phase 1/2 clinical trial of tivozanib in combination with Opdivo (nivolumab). See Use of Proceeds on page S-11 of this prospectus supplement for more information.

Risk factors

See Risk Factors beginning on page 8 and the other information included in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus for a discussion of certain factors you should carefully consider before deciding to invest in shares of our common stock.

NASDAQ Global Select Market symbol AVEO

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The number of shares of our common stock to be outstanding after this offering is based on 75,862,946 shares of our common stock outstanding as of December 31, 2016. The number of shares of our common stock to be outstanding as used throughout this prospectus supplement, unless otherwise indicated, excludes:

4,858,678 shares of common stock issuable upon exercise of stock options outstanding as of December 31, 2016 at a weighted-average exercise price of \$2.31 per share;

19,453,295 shares of common stock issuable upon exercise of warrants outstanding as of December 31, 2016 at a weighted-average exercise price of \$1.00 per share;

2,746,513 shares of common stock reserved as of December 31, 2016 for future issuance under our equity incentive plans; and

307,282 shares of common stock reserved as of December 31, 2016 for future issuance under our 2010 employee stock purchase plan.

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**RISK FACTORS**

*An investment in our common stock involves a high degree of risk. Before deciding whether to invest in our common stock, you should consider carefully the risks described below and discussed in the section captioned "Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2016, which is incorporated by reference herein in its entirety, together with other information in this prospectus supplement, and the accompanying prospectus, and the information and documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment.*

**Risks Related to This Offering**

*We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.*

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses, and these financial losses could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

*If you purchase shares of common stock in this offering, you will suffer immediate dilution of your investment.*

The public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after giving effect to this offering. If you purchase common stock in this offering, you will incur an immediate and substantial dilution in net tangible book value of \$0.39 per share, after giving effect to the sale by us of shares in this offering at the public offering price of \$0.50 per share. The exercise of outstanding stock options and warrants may result in further dilution of your investment. See the section entitled "Dilution" below for a more detailed illustration of the dilution you would incur if you participate in this offering.

*If you purchase shares of common stock in this offering, you may also experience future dilution as a result of future equity offerings.*

To raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by any investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by any investors in this offering.

*Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.*

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

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**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus supplement, the accompanying prospectus and the documents we incorporate by reference herein and therein include forward-looking statements. Any statement contained in this prospectus supplement, the accompanying prospectus or in the documents we incorporate by reference herein and therein other than a statement of historical fact, may be a forward-looking statement, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management. In some cases, you can identify forward-looking statements by such terms as anticipate, believe, could, estimate, expect, intend, may, plan, project, should, will, would or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

the initiation, timing, progress and results of future clinical trials, and our development programs;

our plans to develop and commercialize our product candidates;

our ability to secure new collaborations, maintain existing collaborations or obtain additional funding;

the timing or likelihood of regulatory filings and approvals;

the implementation of our business model, strategic plans for our business, product candidates and technology;

our commercialization, marketing and manufacturing capabilities and strategy;

the rate and degree of market acceptance and clinical utility of our products;

our competitive position;

our intellectual property position;

developments and projections relating to our competitors and our industry;

our estimates of the period in which we anticipate that existing cash, cash equivalents and investments will enable us to fund our current and planned operations;

our ability to maintain compliance with the \$10.0 million financial covenant under our loan agreement with Hercules Technology II, L.P. and Hercules Technology III, L.P., affiliates of Hercules Technology Growth, which we collectively refer to as Hercules;

our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;

our ability to continue as a going concern; and

our intended use of proceeds from this offering.

Our actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including risks relating to:

our ability to maintain our third party collaboration agreements and our ability, and the ability of our licensees, to achieve development and commercialization objectives under these arrangements;

our ability, and the ability of our licensees, to demonstrate to the satisfaction of applicable regulatory agencies the safety, efficacy and clinically meaningful benefit of our product candidates;

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our ability to successfully enroll and complete clinical trials of our product candidates, including our TIVO-3 trial;

our ability to maintain compliance with the \$10.0 million financial covenant under our loan agreement with Hercules;

our ability to achieve and maintain compliance with all regulatory requirements applicable to our product candidates;

our ability to obtain and maintain adequate protection for intellectual property rights relating to our product candidates and technologies;

developments, expenses and outcomes related to our ongoing shareholder litigation;

our ability to successfully implement our strategic plans;

our ability to raise the substantial additional funds required to achieve our goals;

unplanned capital requirements;

adverse general economic and industry conditions;

competitive factors;

our ability to continue as a going concern; and

those risks discussed (i) under the heading "Risk Factors" on page 8 of this prospectus supplement, (ii) in the section titled "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2016 filed with the SEC, and (iii) in other filings we make with the SEC from time to time.

If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements.

You should consider these factors and the other cautionary statements made in this prospectus supplement, the accompanying prospectus and the documents we incorporate by reference herein and therein as being applicable to all related forward-looking statements wherever they appear in this prospectus supplement, the accompanying prospectus, or the documents incorporated by reference. While we may elect to update forward-looking statements wherever they appear in this prospectus supplement, the accompanying prospectus, or the documents incorporated by reference herein and therein, we do not assume, and specifically disclaim, any obligation to do so, whether as a result of new information, future events or otherwise.

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**USE OF PROCEEDS**

We estimate that the net proceeds from our issuance and sale of 30,000,000 shares of our common stock in this offering will be approximately \$13.5 million after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriter exercises its option to purchase additional shares in full, we estimate that our net proceeds will be approximately \$15.5 million after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for working capital and general corporate purposes, including development and pre-commercial expenses incurred in connection with our ongoing phase 3 clinical trial of tivozanib in the third-line treatment of patients with refractory RCC and with our ongoing phase 1/2 clinical trial of tivozanib in combination with Opdivo (nivolumab).

This expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from our and our strategic partners' clinical trials of our product candidates, as well as any additional collaborations that we may enter into with third parties for our product candidates, and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering. Pending use of the proceeds as described above, we intend to invest the proceeds in short-term, interest-bearing, investment-grade securities.

**Table of Contents****PRICE RANGE OF COMMON STOCK**

Our common stock is listed on The NASDAQ Global Select Market under the symbol AVEO. The following table sets forth the high and low sale prices per share of our common stock, as reported on The NASDAQ Global Select Market, for the periods indicated.

	<b>High</b>	<b>Low</b>
<b>2015</b>		
First quarter	\$ 2.02	\$ 0.78
Second quarter	\$ 3.50	\$ 1.16
Third quarter	\$ 2.59	\$ 1.14
Fourth quarter	\$ 1.47	\$ 0.92
<b>2016</b>		
First quarter	\$ 1.27	\$ 0.82
Second quarter	\$ 1.15	\$ 0.84
Third quarter	\$ 1.09	\$ 0.81
Fourth quarter	\$ 0.89	\$ 0.54
<b>2017</b>		
First quarter (through March 27, 2017)	\$ 0.98	\$ 0.55

On March 27, 2017, the last reported sale price of our common stock as reported on the NASDAQ Global Select Market was \$0.65 per share. As of March 17, 2017, there were approximately 57 holders of record of our common stock. We believe that the actual number of stockholders is substantially greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

**DIVIDEND POLICY**

To date, we have paid no cash dividends to our stockholders, and we do not intend to pay cash dividends in the foreseeable future.

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**CAPITALIZATION**

The following table sets forth our consolidated cash, cash equivalents and marketable securities and capitalization as of December 31, 2016, as follows: