SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER
Pursuant to Rule 13a-16 or 15d-16 of the
Securities Exchange Act of 1934

For the month of February 2017

Commission File Number: 001-36581

Vascular Biogenics Ltd.

(Translation of registrant's name into English)

6 Jonathan Netanyahu St.
Or Yehuda
Israel 6037604
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ☐

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes ☐ No ☒

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-

EXPLANATORY NOTE

Attached hereto and incorporated by reference herein is the registrant's press release issued on February 21, 2017, entitled "VBL Therapeutics Reports Full Data for VB-111 Monotherapy in Phase 2 Trial for Recurrent Thyroid Cancer". This Report of Foreign Private Issuer on Form 6-K shall be incorporated by reference into the Company's registration statement on Form F-3 (File No. 333-207250), filed with the Securities and Exchange Commission (the "SEC") on October 2, 2015, to the extent not superseded by information subsequently filed or furnished (to the extent the Company expressly states that it incorporates such furnished information by reference) by the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

VASCULAR BIOGENICS LTD.

Date: February 21, 2017

By: /s/ Dror Harats
Name: Dror Harats
Title: Chief Executive Officer

Exhibit 99.1

VBL Therapeutics Reports Full Data for VB-111 Monotherapy in Phase 2 Trial for Recurrent Thyroid Cancer

TEL AVIV, ISRAEL, February 21, 2017 — VBL Therapeutics (NASDAQ: VBLT), announced today full results from its exploratory Phase 2 study of VB-111 (ofranergene obadenovec) in patients with advanced, differentiated thyroid cancer. The data will be presented today by Dror Harats, M.D., CEO of VBL Therapeutics, at the Federation of the Israel Societies for Experimental Biology (FISEB) conference in Eilat, Israel.

The primary endpoint of the trial, defined as 6-month progression-free-survival (PFS-6) of 25%, was met with a dose response. Forty seven percent (47%; 8/17) of patients in the therapeutic-dose cohort reached PFS-6, versus 25% (4/12) in the sub-therapeutic cohort, both groups meeting the primary endpoint. Reduction in tumor measurement after the first dose was seen in 44% (7/16) of patients in the therapeutic-dose cohort, compared to 9% (1/11) in the sub-therapeutic-dose cohort. An overall survival benefit was seen with a tail of more than 40% at 3.7 years for the therapeutic-dose cohort (mOS 684 days). This is similar to historical data for pazopanib* (Votrient®), a tyrosine kinase inhibitor; however, most patients in the VB-111 study had tumors that previously had progressed on pazopanib or other kinase inhibitors.

“We are encouraged to see dose-dependent responses and an overall survival benefit with VB-111 monotherapy, in thyroid cancer patients with end-stage disease whose tumors had not responded to multiple lines of therapies, including kinase inhibitors,” said Dr. Dror Harats, CEO. “This trial, together with our Phase 2 trials showing promise for VB-111 in recurrent glioblastoma and platinum-resistant ovarian cancer, point to the potential therapeutic application of VB-111 across multiple solid tumors. We look forward to advancing VB-111 towards commercialization, through our ongoing Phase 3 pivotal GLOBE trial in rGBM and our planned Phase 3 trial in ovarian cancer”, added Dr. Harats.

The open-label dose-escalating study enrolled patients with advanced, recently-progressive, differentiated thyroid cancer that was unresponsive to radioactive iodine, in two cohorts. Most patients had tumors that had not responded to multiple therapies prior to enrollment, including radiation and kinase inhibitors. In the first cohort, thirteen patients received a single intravenous infusion of VB-111 at a sub-therapeutic dose of $3X10^{12}$ viral particles (VPs). The second cohort included seventeen patients, who received VB-111 at a therapeutic dose of 10^{13} VPs every two months until disease progression. One patient proceeded from a single low dose to receive later multiple high doses at progression and was included in both groups (for PFS only). VB-111 was well-tolerated in this study, with no signs of clinically significant safety issues.

About the Federation of the Israel Societies for Experimental Biology (FISEB)

ILANIT/FISEB is a federation of 31 Israeli societies of experimental biology. ILANIT's conference is held every three years in Eilat, with attendance by researchers and students. This year's conference, taking place February 20-23, is the culmination of the most exciting research performed in Israel in many disciplines. For more information, refer to http://fiseb.org/.

About Thyroid Cancer

Thyroid cancer occurs in the thyroid gland, a hormone-producing organ at the base of the neck that regulates heart rate, blood pressure, body temperature and weight. According to the National Cancer Institute, there are an estimated 535,000 people currently living with thyroid cancer in the United States, with an estimated 60,000 new cases each year. The type of treatment depends on the cancer cell type, tumor size and severity of the disease. First-line treatment is surgical removal of the thyroid gland, and is recommended for most patients. Treatment with radioactive iodine after surgery to destroy any remaining thyroid tissue may be recommended for more advanced disease. If radioactive iodine is ineffective, other treatments are prescribed, such tyrosine kinase inhibitors and systemic chemotherapy. However, if such treatments are unsuccessful, the therapeutic options for patients are currently very limited. There are an estimated 1,850 annual deaths in the U.S. as a result of the disease. This subset of patients has an unmet need for novel therapeutic options.

About VBL

Vascular Biogenics Ltd., operating as VBL Therapeutics, is a clinical stage biopharmaceutical company focused on the discovery, development and commercialization of first-in-class treatments for cancer. The Company's lead oncology product candidate, ofranergene obadenovec (VB-111), is a first-in-class, targeted anti-cancer gene-therapy agent that is positioned to treat a wide range of solid tumors. It is conveniently administered as an IV infusion once every two months. It has been observed to be well-tolerated in >200 cancer patients and we have observed its efficacy signals in an "all comers" Phase 1 trial as well as in three tumor-specific Phase 2 studies. Ofranergene obadenovec is currently being studied in a Phase 3 pivotal trial for recurrent Glioblastoma, conducted under an FDA Special Protocol Assessment (SPA).

About Ofranergene Obadenovec (VB-111)

Ofranergene obadenovec is a unique biologic agent that uses a dual mechanism to target solid tumors. Based on a non-integrating, non-replicating, Adeno 5 vector, ofranergene obadenovec utilizes VBL's proprietary Vascular Targeting System (VTS™) to target the tumor vasculature for cancer therapy. Unlike anti-VEGF or TKIs, ofranergene obadenovec does not

aim to block a specific pro-angiogenic pathway; instead, it uses an angiogenesis-specific sensor (VBL's PPE-1-3x proprietary promoter) to specifically induce cell death in angiogenic endothelial cells in the tumor milieu. This mechanism retains activity regardless of baseline tumor mutations or the identity of the pro-angiogenic factors secreted by the tumor and shows efficacy even after failure of prior treatment with other anti-angiogenics. Moreover, ofranergene obadenovec induces specific anti-tumor immune response, which is accompanied by recruitment of CD8 T-cells and apoptosis of tumor cells.

Ofranergene obadenovec completed a Phase 2 study in rGBM, which showed a statistically significant improvement in overall survival in patients treated with ofranergene obadenovec through progression, compared to either patients treated with ofranergene obadenovec followed by bevacizumab alone, or to historical bevacizumab data. In a Phase 2 trial for recurrent platinum-resistant ovarian cancer, ofranergene obadenovec demonstrated a statistically significant increase in overall survival and 60% durable response rate (as measured by reduction in CA-125), approximately 2x the historical response with bevacizumab plus chemotherapy in ovarian cancer. In a Phase 2 study in recurrent, iodine-resistant differentiated thyroid cancer, ofranergene obadenovec met the primary endpoint and provided evidence of disease stabilization and a positive safety profile. Ofranergene obadenovec has received Fast Track Designation for recurrent glioblastoma in the U.S. and orphan drug status for glioblastoma in both the U.S. and EU.

Forward Looking Statements

This press release contains forward-looking statements. All statements other than statements of historical fact are forward-looking statements, which are often indicated by terms such as "anticipate," "believe," "could," "estimate," "expect," "goal," "intend," "look forward to", "may," "plan," "potential," "predict," "project," "should," "will," "would" and similar expressions. These forward-looking statements include, but are not limited to, statements regarding the clinical development of ofranergene obadenovec (VB-111) and its therapeutic potential, clinical trials and clinical results, including the timing thereof. These forward-looking statements are not promises or guarantees and involve substantial risks and uncertainties. Among the factors that could cause actual results to differ materially from those described or projected herein include uncertainties associated generally with research and development, clinical trials and related regulatory reviews and approvals, and the risk that historical clinical trial results may not be predictive of future trial results. In particular, results from our pivotal Phase 3 clinical trial of ofranergene obadenovec (VB-111) in rGBM may not support approval of ofranergene obadenovec for marketing in the United States, notwithstanding the positive results seen in prior clinical experience. A further list and description of these risks, uncertainties and other risks can be found in the Company's regulatory filings with the U.S. Securities and Exchange Commission, including in our annual report on Form 20-F for the year ended December 31, 2015. Existing and prospective

investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. VBL Therapeutics undertakes no obligation to update or revise the information contained in this press release, whether as a result of new information, future events or circumstances or otherwise.

*** Lancet Oncol 2010; 11: 962–72**

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