UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the Month of December 2018

Commission File Number: 001-38547

Autolus Therapeutics plc
(Translation of registrant's name into English)

Forest House
58 Wood Lane
White City
London W12 7RZ
United Kingdom
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of 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): ☐

Other Events

ASH Press Releases

On December 2, 2018, Autolus Therapeutics plc (the "Company") issued a press release providing updated results from two of its ongoing Phase 1/2 clinical trials of AUTO3 in B-cell malignancies which were presented at the 60th American Society of Hematology ("ASH") Annual Meeting in San Diego, California. The press release is attached as Exhibit 99.1 hereto and is incorporated by reference herein.

Additionally, on December 1, 2018, the Company issued a press release announcing the dosing of the first patient in its Phase 1/2 clinical trial of AUTO4 in TRBC1-positive peripheral T cell lymphoma and the presentation of additional data from its preclinical study of AUTO5 targeting TRBC2-positive lymphoma at the 60th ASH Annual Meeting. The press release is attached as Exhibit 99.2 hereto and is incorporated by reference herein.

Information in the attached Exhibits 99.1 and 99.2 is being furnished and these exhibits shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that Section, nor shall they be deemed incorporated by reference in any filing made by the Company under the Securities Act of 1933, as amended, or the Exchange Act, except as otherwise set forth herein or as shall be expressly set forth by specific reference in such a filing.

EXHIBIT LIST

Exhibit	Description
99.1	Press Release dated December 2, 2018, "Autolus Therapeutics Presents Initial AUTO3 Clinical Data from Phase 1/2 Clinical Trials in B cell Malignancies at the 60th ASH Annual Meeting."
99.2	Press Release dated December 1, 2018, "Autolus Therapeutics Announces Update on its Novel CAR T Cell Program for Peripheral T Cell Lymphoma (PTCL)."

SIGNATURES

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.

Autolus Therapeutics plc

Date: December 3, 2018

By: /s/ Christian Itin
Name Christian Itin, Ph.D.
Title: Chief Executive Officer

Autolus Therapeutics Presents Initial AUTO3 Clinical Data from Phase 1/2 Clinical Trials in B cell Malignancies at the 60th ASH Annual Meeting

- Initial results were presented from ongoing Phase 1/2 trials in pediatric acute lymphoblastic leukemia (AMELIA trial) and diffuse B cell lymphoma (ALEXANDER trial) -

LONDON, December 2, 2018 — Autolus Therapeutics plc (Nasdaq: AUTL), a clinical-stage biopharmaceutical company developing next-generation programmed T cell therapies, today highlighted updated results from its ongoing Phase 1/2 AMELIA clinical trial of AUTO3 in patients with relapsed/refractory pediatric acute lymphoblastic leukemia (pALL) and its ongoing Phase 1/2 ALEXANDER clinical trial in patients with relapsed/refractory diffuse large B cell lymphoma (DLBCL) presented at the 60th American Society of Hematology (ASH) Annual Meeting, San Diego, California. AUTO3 is a dual-targeted therapy incorporating two separate chimeric antigen receptors (CARs). Observations from preclinical studies indicate that AUTO3 independently targets CD19 and CD22. AUTO3 is designed to reduce relapse driven by antigen loss, a key defense mechanism used by the tumor cells and the primary cause of relapse in pALL.

“The preliminary results of the AMELIA trial indicate that AUTO3, the first dual targeting CD19 and CD22 CAR T cell therapy under development for pediatric ALL, appears to have a manageable safety profile, with the potential to overcome target-negative relapse, a major limitation of current CD19-targeted therapies,” said Professor Persis Amrolia, lead investigator and Consultant in Bone Marrow Transplant at Great Ormond Street Hospital (GOSH) and NIHR Research Professor of Transplantation Immunology at UCL Great Ormond Street Institute of Child Health (ICH).

“In the ALEXANDER trial, preliminary results indicate that AUTO3 followed by consolidation with a limited duration of anti-PD1 therapy appears to have a manageable safety profile at the doses evaluated. This is the first therapy that aims to address two emerging resistance mechanisms for non-Hodgkin lymphoma, target-negative relapse and checkpoint upregulation,” said Dr. Anas Younes, Chief, Lymphoma Service at Memorial Sloan Kettering Cancer Center.

Simultaneous Targeting of CD19 and CD22: Phase 1 Trial of AUTO3, a Bicistronic Chimeric Antigen Receptor (CAR) T-cell Therapy, in Pediatric Patients with Relapse/Refractory B-cell Acute Lymphoblastic Leukemia (r/r B-ALL): AMELIA Trial (Abstract Number 279, oral presentation at 8:00AM on Sunday, December 2, 2018)

Dr. Amrolia reported on 10 patients with relapsed or refractory ALL who received an AUTO3 infusion as a single dose or split dose dependent on their tumor burden. Key inclusion criteria included age 1-24 years old with relapsed or refractory B-lineage ALL at high risk in first relapse or in second or greater relapse. Prior targeted therapies to CD19 and CD22 were not excluded. The average age of the 10 evaluable patients was 8.5 years, the median number of prior lines of therapy was 3. Product was successfully manufactured for all patients. AUTO3 was generally well tolerated with no ^{3} Grade 3 CRS, no ICU admission, and no pressors or critical care support for CRS required. One case of Grade 3 neurotoxicity was observed which was considered unlikely related to AUTO3 and primarily attributed to prior intrathecal chemotherapy. Grade 3 or higher cytopenias lasting at least 30 days were noted in 4 out of 10 patients. Among the 10 evaluable patients at all dose levels, 8 out of 10 achieved MRD negative CR and higher response rates were observed at doses ^{3}3 x10^{6}/kg dose levels with all patients achieving MRD-negative remission. In the higher dose group, 4 out of 6 (67%) patients have an ongoing molecular CR and importantly, no loss of CD19 or CD22 was noted among relapsed patients. Initial data indicates response rates and persistence are dose dependant. Dose escalation is ongoing.

For more information about this trial and the inclusion criteria, visit www.ClinicalTrials.gov (NCT03289455).

Trial of AUTO3, the First Bicistronic Chimeric Antigen Receptor (CAR) Targeting CD19 and CD22, Followed By Anti-PD1 Consolidation in Patients with Relapsed/Refractory (r/r) Diffuse Large B Cell Lymphoma (DLBCL): Alexander Trial (Abstract Number 1679, poster presentation from 6:15 PM – 8:15PM on Saturday, December 1, 2018)

Dr. Kirit Ardeshna, principal investigator at University College London, UK, reported preliminary clinical data on safety and efficacy from this open-label, multi-center trial in patients with DLBCL treated with a single dose of AUTO3 followed by consolidation with anti-PD-1 antibody (pembrolizumab). Key inclusion criteria included histologically confirmed DLBCL, chemotherapy-refractory disease or relapse after at least two lines of therapy or after ASCT, and no prior allogeneic stem cell transplant. There were 7 patients evaluable for safety with at least 28 day follow up post-treatment. The median number of prior lines of therapy in these 7 evaluable patients was 3 (range was 2 to 4). All patients were treated at the starting dose of 50x10^{6} transformed CAR T cells. Three patients received a consolidation with pembrolizumab, and 4 patients did not receive treatment with pembrolizumab. None of the treated patients developed CRS grade 3 or higher and one patient had neurotoxicity grade 3, considered possibly related to AUTO3. No dose limiting toxicities were observed and dose escalation continues. Six patients were evaluable for response, two achieved a CR and two a PR; two patients did not respond. The two CRs were ongoing at six and three months, respectively.

For more information about this trial and the inclusion criteria, visit www.ClinicalTrials.gov (NCT03287817).

About AUTO3

AUTO3 is a programmed T cell therapy containing two independent chimeric antigen receptors targeting CD19 and CD22 that have each been independently optimized for single target activity. By simultaneously targeting two B cell antigens, AUTO3 is designed to minimize relapse due to single antigen loss in patients with B cell malignancies. AUTO3 is currently being tested in two clinical trials, referred to as the AMELIA and ALEXANDER trials.

The AMELIA trial is a single-arm, open label, multi-center Phase 1/2 clinical trial of AUTO3 in patients up to 24 years of age with high-risk relapsed or refractory B-lineage. The trial also is enrolling patients who previously received CD19 or CD22 targeting therapies including other CAR T cell therapy. The primary objective for Phase 1 is to assess the safety and tolerability of AUTO 3 administration as well as to identify the Phase 2 dose and schedule. The purpose of this trial is to test the safety and efficacy, including the complete remission rate or minimal residual disease (MRD) negative response, of AUTO3. Autolus expects to enroll up to 54 patients in this trial.

The ALEXANDER trial is a single-arm, open label, multi-center Phase 1/2 clinical trial of AUTO3 in patients with relapsed or refractory diffuse large B cell lymphoma (DLBCL). The primary objective for the Phase 1 portion is to assess the safety and tolerability of AUTO3 administration as well as to identify the recommended Phase 2 dose and maximum tolerated dose (MTD) of AUTO3. The purpose of this trial is to test the safety and efficacy, including the overall response rate as per Lugano criteria, of AUTO3 followed by limited duration of consolidation with anti-PD1 antibody. Autolus expects to enroll approximately 100 patients in this trial.

For more information about these trials and the inclusion criteria, visit www.ClinicalTrials.gov.

About Autolus Therapeutics plc

Autolus is a clinical-stage biopharmaceutical company developing next-generation, programmed T cell therapies for the treatment of cancer. Using a broad suite of proprietary and modular T cell programming technologies, the company is engineering precisely targeted, controlled and highly active T cell therapies that are designed to better recognize cancer cells, break down their defense mechanisms and eliminate these cells. Autolus has a pipeline of product candidates in development for the treatment of hematological malignancies and solid tumors.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts, and in some cases can be identified by terms such as “may,” “will,” “could,” “expects,” “plans,” “anticipates,” and “believes.” These statements include, but are not limited to, statements regarding the progress, timing and results of the company’s clinical trials and the anticipated clinical development of the company’s product candidates. Any forward-looking statements are based on management’s current views and assumptions and involve risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. For a discussion of other risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the section titled “Risk Factors” in the company’s Annual Report on Form 20-F filed on November 23, 2018 as well as discussions of potential risks, uncertainties, and other important factors in the company’s future filings with the Securities and Exchange Commission from time to time. All information in

this press release is as of the date of the release, and the company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise, except as required by law.

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Autolus Therapeutics Announces Update on its Novel CAR T Cell Program for Peripheral T Cell Lymphoma (PTCL)

-First patient dosed in Phase 1/2 trial of AUTO4 in TRBC1-positive peripheral T cell lymphoma-

-Preclinical data for AUTO5 targeting TRBC2-positive peripheral T cell lymphoma presented at the 60th Annual American Society of Hematology (ASH) Meeting-

LONDON, December 2, 2018 — Autolus Therapeutics plc (Nasdaq: AUTL), a clinical-stage biopharmaceutical company developing next-generation programmed T cell therapies for the treatment of cancer, today announced that the first patient has been dosed in its Phase 1/2 LibrA T1 clinical trial of AUTO4, a developmental therapy for the treatment of relapsed or refractory TRBC1-positive peripheral T cell lymphoma (PTCL). In addition, the company also announced that data on the preclinical sister program, AUTO5 targeting TRBC2-positive lymphoma, were presented at the 60th American Society of Hematology (ASH) Annual Meeting, San Diego. Autolus' T cell Program comprises a companion diagnostic to determine whether the PTCL is TRBC1- or TRBC2-positive and two novel CAR T cell product candidates AUTO4 & 5. PTCL is a rare and heterogeneous form of non-Hodgkin lymphoma, currently estimated to affect approximately 2,900 patients in the United States, annually.[1]

"There are limited treatment options for patients with relapsed and/or refractory peripheral T cell Lymphoma. We are particularly excited to participate in the LibrA T1 trial of AUTO4, a novel CAR T cell therapy for this aggressive cancer," said Dr. Kate Cwynarski, Principal Investigator, Consultant Haematologist at University College London Hospital and Honorary Senior Lecturer at University College London.

"Effective systemic treatment for peripheral T cell lymphomas remains a challenge. CAR-T therapies selectively targeting TRBC1-positive and TRBC2-positive T cell lymphomas have the potential to be major therapeutic advances," said Steven T. Rosen, M.D. provost and chief scientific officer of City of Hope and director of the Beckerman Research Institute of City of Hope."

On December 2 at the 60th ASH Annual Meeting in San Diego, the company presented data from preclinical studies of AUTO5 targeting TRBC2. TRBC1 and TRBC2 are virtually identical in sequence, and antibody binders had to be designed to differentiate TRBC1 from TRBC2 extracellular domains by selectively recognizing a single inversion of two amino acids. Employing a structural biology approach and molecular modelling techniques, a binder was generated that could bind TRBC2 without binding to TRBC1, and when included in a CAR T approach, selectively eliminated TRBC2-positive cells.

Structure guided engineering of highly specific Chimeric Antigen Receptors for the complete treatment of T cell lymphomas (Abstract number 1661, poster presentation from 6:15 PM PST- 8:15 PM PST, on Saturday, December 1, 2018.)

About LibrA T1 P1/2 Clinical Trial

The LibrA T1 trial is a single-arm, open label, multi-center, Phase 1/2 trial evaluating the safety and efficacy of AUTO4, a single dose intravenous CAR T cell treatment targeting TRBC1 in patients with relapsed or refractory TRBC1-positive selected PTCL. The trial will consist of a Phase 1 portion, or dose escalation phase, and a Phase 2 portion, or expansion phase. The Phase 1 portion of the trial, which is expected to enroll up to 25 patients, is designed to evaluate up to three dose levels, beginning with a low dose of 25 million AUTO4 cells in cohorts of three to six patients. If no dose limiting toxicities are observed, the dose escalation phase of the trial will continue to higher doses of 75 million AUTO4 cells and 225 million AUTO4 cells. Once a recommended dose has been identified in the Phase 1 portion of the trial, up to 30 patients will be enrolled and treated in the Phase 2 portion.

About AUTO4 and AUTO5

AUTO4 is a programmed T cell therapy product candidate being developed to leverage a new targeting approach based on the mutually exclusive expression of two subtypes of the T cell receptor beta chain: AUTO4 targets TRBC1, while another of the company's product candidates in development, AUTO5, targets TRBC2. Normal T cells contain both TRBC1 and TRBC2 compartments, whereas T cell lymphoma cells are derived from mature cells and express only TRBC1 or TRBC2. A companion diagnostic is used to identify if the T cell lymphoma is TRBC1 or TRBC2 positive. Unlike non-selective approaches targeting the entire T cell population that can lead to severe immunosuppression, this approach has the potential to eradicate a portion of T cells containing the malignancy, while preserving a healthy T cell sub-population to preserve cellular immunity.

For more information about this trial and the inclusion criteria, visit www.clinicaltrials.gov.

About Peripheral T Cell Lymphoma (PTCL)

Lymphoma is the most commonly occurring blood cancer. The two main forms of lymphoma are Hodgkin lymphoma (HL) and non-Hodgkin lymphoma (NHL). Lymphoma occurs when cells of the immune system called lymphocytes, a type of white blood cell, grow and multiply uncontrollably. Lymphomas can originate from two types of lymphocytes, B-cells and T cells. T cell lymphoma is a rare and heterogeneous form of NHL, representing approximately 10 to 20% of NHL cases and 3 to 4% of all hematological malignancies

While T cell lymphoma is a smaller percentage of all lymphomas compared to B cell lymphomas, T cell lymphoma is an aggressive disease. Most T cell lymphomas are PTCL, and generally involve high-grade tumors, with a relatively high proportion of patients rapidly developing significant

morbidity. The five-year survival rate ranges from 18% to 24%. The first-line treatment for PTCL consists of the combination chemotherapy CHOP, consisting of cyclophosphamide, vincristine, doxorubicin and prednisolone. However, treatment with chemotherapy introduces toxicity concerns, including low blood cell counts, nausea, vomiting, diarrhea, hair loss, mouth sores, and increased risk of infections. Additionally, with CHOP chemotherapy, complete response rates are lower than in DLBCL and relapse is more common. In many treatment centers, CHOP chemotherapy is consolidated with high-dose chemotherapy and autologous or allogenic stem cell transplantation. According to National Comprehensive Cancer Network (NCCN) guidelines, participation in a clinical trial is the preferred option for all patients with T cell lymphoma with any stage disease.[2]

REFERENCES

1. Noone AM, Howlader N, Krapcho M, Miller D, Brest A, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2015, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2015/, based on November 2017 SEER data submission, posted to the SEER web site, April 2018.
2. Horwitz SM, Ansell SM, Ai WZ, Barnes J, Barta SK, Choi M, Clemens MW, Dogan A, Greer JP, Halwani A, Haverkos BM, Hoppe RT, Jacobsen E, Jagadeesh D, Kim YH, Lunning MA, Mehta A, Mehta-Shah N, Oki Y, Olsen EA, Pro B, Rajguru SA, Shanbhag S, Shustov A, Sokol L, Torka P, Wilcox R, William B, Zain J, Dwyer MA, Sundar H. NCCN Guidelines Insights: T-Cell Lymphomas, Version 2.2018. J Natl Compr Canc Netw. 2018 Feb;16(2):123-135. doi: 10.6004/jnccn.2018.0007. PubMed PMID: 29439173.

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“Risk Factors” in the company’s Annual Report on Form 20-F filed on November 23, 2018 as well as discussions of potential risks, uncertainties, and other important factors in the company’s future filings with the Securities and Exchange Commission from time to time. All information in this press release is as of the date of the release, and the company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise, except as required by law.

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