Autolus Therapeutics announces publication in Blood Cancer Journal

March 11, 2024 at 7:00 AM EDT

LONDON, March 11, 2024 (GLOBE NEWSWIRE) -- Autolus Therapeutics plc (Nasdaq: AUTL), a clinical-stage biopharmaceutical company developing next-generation programmed T cell therapies, today announced a publication in Blood Cancer Journal entitled '*Dual T-cell constant β chain (TRBC)1 and TRBC2 staining for the identification of T-cell neoplasms by flow cytometry.*' [1]

Diagnosing leukemic T-cell malignancies poses challenges due to their resemblance to reactive T-cells. In the paper published by Pedro Horna of Mayo Clinic in collaboration with Autolus, the authors introduce a unique approach for identifying T-cell neoplasms by flow cytometry[1]. This method adopts the recently described monoclonal antibodies targeting TRBC1 and TRBC2[2, 3], to assess for TRBC-restriction as a surrogate of clonality. The strategy mirrors the routine and broadly adopted analysis of kappa and lambda immunoglobulin chain restriction for the identification of B-cell malignancies.

This innovative and simple strategy to detect clonal expansion of T-cells by flow cytometry has the potential to facilitate the development of more comprehensive diagnostic panels that can be seamlessly integrated into existing screening protocols, obviating the need for separate T-cell clonality assessments. Autolus is working with world leading flow cytometry companies, including Beckman Coulter Life Sciences, BD (Becton, Dickinson and Company) and Thermo Fisher Scientific, in order to enable the development and distribution of diagnostic panels based on these unique TRBC1 and TRBC2 antibodies.

Advancements in diagnostic approaches for T-cell malignancies, coupled with the development of TRBC1 and TRBC2-directed CAR T cell therapeutics[4], may contribute to the improvement of therapeutic strategies in this area of unmet clinical need.

1. Horna et al. Dual T-cell constant β chain (TRBC)1 and TRBC2 staining for the identification of T-cell neoplasms by flow cytometry. Blood Cancer J. 14, 34 (2024). | doi: 10.1038/s41408-024-01002-0

2. Maciocia et al. Targeting the T cell receptor β-chain constant region for immunotherapy of T cell malignancies. Nat Med 23, 1416–1423 (2017) | doi: 10.1038/nm.4444

3. Ferrari et al. Structure-guided engineering of immunotherapies targeting TRBC1 and TRBC2 in T cell malignancies. Nat Commun 15, 1583 (2024) | doi: 10.1038/s41467-024-45854-3

4. Cwynarski et al. First in human study of AUTO4, a TRBC1-Targeting CAR T cell therapy in refractory T cell lymphoma. Hematol Oncol 41, 80–81 (2023) | doi: 10.1002/hon.3163_44

About Autolus Therapeutics plc
Autolus is a clinical-stage biopharmaceutical company developing next-generation, programmed T cell therapies for the treatment of cancer and autoimmune disease. Using a broad suite of proprietary and modular T cell programming technologies, Autolus is engineering precisely targeted, controlled and highly active T cell therapies that are designed to better recognize target 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, solid tumors and autoimmune diseases. For more information, please visit www.autolus.com.

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 Autolus' development of its 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. These risks and uncertainties include, but are not limited to, the risks that Autolus' preclinical or clinical programs do not advance or result in approved products on a timely or cost effective basis or at all; the results of early clinical trials are not always being predictive of future results; the cost, timing and results of clinical trials; that many product candidates do not become approved drugs on a timely or cost effective basis or at all; the ability to enroll patients in clinical trials; and possible safety and efficacy concerns. For a discussion of other risks and uncertainties, and other important factors, any of which could cause Autolus' actual results to differ from those contained in the forward-looking statements, see the section titled "Risk Factors" in Autolus' Annual Report on Form 20-F filed with the Securities and Exchange Commission, or the SEC, on March 7, 2023 and in Autolus' Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 9, 2023, as well as discussions of potential risks, uncertainties, and other important factors in Autolus' subsequent filings with the Securities and Exchange Commission. All information in this press release is as of the date of the release, and Autolus 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. You should, therefore, not rely on these forward-looking statements as representing Autolus' views as of any date subsequent to the date of this press release.

Contact:

Olivia Manser
+44 (0) 7780 471 568
o.manser@autolus.com

Julia Wilson
+44 (0) 7818 430877
j.wilson@autolus.com

Susan A. Noonan
S.A. Noonan Communications
+1-917-513-5303
susan@sanoonan.com