



## **Autolus announces presentation of data for CAR-T cells with reduced sensitivity to checkpoint inhibition at the 2017 American Society of Hematology Annual Meeting**

December 11, 2017 at 8:00 AM EST

A pan-checkpoint inhibition strategy programmed into CAR T-cells

London, 11th December 2017

Autolus Limited, a clinical-stage biopharmaceutical company focused on the development and commercialisation of next-generation engineered T-cell therapies, announced that data were presented today for its pan-checkpoint blocking technology at the American Society of Hematology (ASH) 59th Annual Meeting in Atlanta.\*

Checkpoint inhibition is a common defence mechanism used by cancer cells to evade killing by T-cells. The presentation by Dr Martin Pulé, CSO and founder of Autolus, shows that CAR T-cells expressing an engineered adaptor protein designed to block the PD1 and related pathways renders CAR T-cells resistant to this cancer defence mechanism.

The engineered adaptor protein is a dominant negative SHP2 protein that restores CAR T-cell activation by cancer cells expressing PD-L1, triggering cancer cell killing, and normal T-cell proliferation and cytokine release.

As opposed to systemic monoclonal antibody based checkpoint inhibition therapies with their well described safety signals, this strategy is confined to the engineered CAR T-cells, potentially leading to less systemic toxicity. In addition it has the potential to block a range of inhibitory signals as the adaptor proteins SHP1 and SHP2 are common to many inhibitory receptor pathways.

Dr Christian Itin, Chairman and CEO of Autolus, commented:

“This pan-checkpoint block is an example of the technologies Autolus is working on to address the layers of defence cancers are deploying to avoid killing by T-cells. Use of this and additional technologies will be important for the application of CAR T therapy; not only in blood cancers, but also for the treatment of patients with solid tumours.”

\*Abstract: #3190 <https://ash.confex.com/ash/2017/webprogram/Paper106896.html>

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Notes for Editors:

### **About Autolus**

Autolus is a private, clinical-stage, biopharmaceutical company, focused on the development and commercialisation of engineered T-cell immunotherapy products to combat cancer. Utilising its advanced cell programming and manufacturing technologies, Autolus has a pipeline of products in development for the treatment of both haematological malignancies and solid tumours. For further information please visit the Company's website at: [www.autolus.com](http://www.autolus.com)