

## Press Release



### **Jubilant Therapeutics Inc.'s Selective, Orally Administered PAD4 Inhibitor Demonstrates Activity in Rheumatoid Arthritis Preclinical Models**

*Research conducted in collaboration with Boston Children's Hospital and published in the peer-reviewed journal - Scientific Reports*

**Bedminster, New Jersey, United States: April 13, 2023** – [Jubilant Therapeutics Inc.](https://www.jubilanttherapeutics.com), a clinical stage biopharmaceutical company advancing small molecule precision therapeutics to address unmet medical needs in oncology and autoimmune diseases, today announced publication of novel research demonstrating that a highly selective, non-competitive and orally administered inhibitor of Protein Arginine Deiminase 4 (PAD4), showed remarkable efficacy in two animal models of Rheumatoid Arthritis (RA). Correlative *in vitro* studies confirmed that PAD4 inhibition acts by inhibiting NETosis, a fundamental pathophysiological mechanism in the establishment of many autoimmune diseases. The research was conducted in collaboration with Prof. Denisa Wagner a pioneer in PAD4 target space, at the Boston Children's Hospital.

The research was published in *Scientific Reports* (<https://doi.org/10.1038/s41598-023-30246-2>).

"We are evaluating several selective, oral PAD4 inhibitors that have emerged from our TIBEO discovery engine for the treatment of both autoimmune diseases and cancer," said **Luca Rastelli, Ph.D., Chief Scientific Officer, Jubilant Therapeutics Inc.** "Previous research on PAD4 activity and the resulting citrullinated proteins has implicated this target in the genesis of autoimmune diseases, therefore making the development of selective, orally available PAD4 inhibitors a valuable option for patients. The results presented in this paper showed substantial improvement in symptoms, molecular biomarkers and in the bone and tendons damage that result from RA. They also confirmed the underlying mechanism of action building on earlier research on PAD4 inhibition. We are now planning to select a lead PAD4 inhibitor candidate and will be progressing it for IND enabling studies."

PAD4 is an enzyme that catalyzes citrullination of proteins and the release of neutrophil extracellular traps (NETs). Its role in autoimmune diseases has been established through clinical genetics and gene knock out studies in mice. This study evaluated an oral, highly selective PAD4 inhibitor, both *in vitro* and in two RA animal models. In human and mouse neutrophils, PAD4 inhibitor inhibited NET formation, *in vitro*. In two RA mouse models, JBI-589 reduced several measures of RA and inflammation including joint erosion, RA clinical score and inflammatory markers.

#### **About Jubilant Therapeutics Inc.**

Jubilant Therapeutics Inc. is a clinical stage biopharmaceutical company developing precision oral medicines with enhanced therapeutic index to address unmet medical needs in oncology and autoimmune diseases for genetically defined patients. Its advanced structure based discovery engine, TIBEO (Therapeutic Index and Brain Exposure Optimization), has been validated through successful partnerships including with Blueprint Medicines for a brain penetrant EGFR Exon-20 program. The Company's pipeline consists of a first in class dual coREST modifier, JBI-802, currently in a Phase I/II clinical trial in multiple tumors, a novel brain-

penetrant modulator of PRMT5 for which an IND has been accepted, brain penetrant and gut restrictive PDL1 inhibitors, as well as PAD4 inhibitors for oncology and inflammatory indications. The Company is headquartered in Bedminster, New Jersey and guided by globally renowned scientific advisors.

For more please visit: [www.jubilanttx.com](http://www.jubilanttx.com)  
Twitter @JubilantTx, [LinkedIn](#)

**Media Contact**

Katie Mathioudakis / Robert Flamm, Ph.D.  
[klarch@burnsmc.com](mailto:klarch@burnsmc.com) / [rflamm@burnsmc.com](mailto:rflamm@burnsmc.com)

**IR Contact**

Monique Kosse  
[Monique@lifesciadvisors.com](mailto:Monique@lifesciadvisors.com)