

Stockholm 2020-10-01

## **Independent validation of the concept behind Sprint Biosciences' drug project Vps34**

**Newly published results from three independent research groups support the concept behind Sprint Biosciences' drug project Vps34. The articles confirm that autophagy in tumors makes it easier for cancer cells to escape attacks from the body's immune system. This external validation leads to an increased interest in the Vps34 project in the pharmaceutical industry and strengthens Sprint Biosciences' position in discussions with potential licensees.**

Sprint Bioscience were the first to describe how autophagy can promote tumor development in an article published in Science Advances earlier this year. The concept is now being confirmed by research groups at the pharmaceutical companies Pfizer and Agios, as well as by a world-leading authority in autophagy, whose research results have been published in the top-ranked scientific journals Nature, Nature Cancer and OncoImmunology. (ref 1-3)

The company's research findings have been widely disseminated both in academia and among researchers in the global pharmaceutical industry. Two summary articles have been published in scientific journals (ref 4-5) and the company's scientists have been invited to present the results at scientific conferences.



“Immunotherapy is showing tremendous benefits in cancer but unfortunately the majority of cancer patients do not respond to current immunotherapy approaches. There is therefore a great need to increase the tumor’s susceptibility of attack from the immune system, and here inhibitors of the protein Vps34 may play an important role ”, says Sprint Biosciences' scientific advisor, Dr. Ravi Amaravadi, MD Associate Professor of Medicine at the University of Pennsylvania and co-leader of The Cancer Therapeutics Program at the Abramson Cancer Center.

Sprint Bioscience has previously shown that the Vps34 inhibitor SB02024 strongly activates the immune system in tumors of malignant melanoma and colorectal cancer with reduced tumor growth as a result (ref 6) SB02024 increased the number of active immune cells in the tumor, including T cells and NK cells, indicating its ability to activate the body's own defenses against cancer. This opens up possibilities for future treatment with Vps34 inhibitors both as a single drug and in combination with other immune-oncological drugs.

The three newly published articles that support the concept behind Vps34 projects can be found below.

1. Arensman, M. D. et al. Anti-tumor immunity influences cancer cell reliance upon ATG7, *OncoImmunology*, 9:1, (2020), <https://doi.org/10.1080/2162402X.2020.1800162>
2. Lawson, K.A. et al. Functional genomic landscape of cancer-intrinsic evasion of killing by T cells. *Nature* 586, 120–126, (2020). <https://doi.org/10.1038/s41586-020-2746-2>
3. Poillet-Perez, L. et al. Autophagy promotes growth of tumors with high mutational burden by inhibiting a T-cell immune response. *Nat Cancer* 1, 923–934, (2020). <https://doi.org/10.1038/s43018-020-00110-7>

Sprint Bioscience's own research articles:

4. Janji, B. et al. Lighting up the fire in cold tumors to improve cancer immunotherapy by blocking the activity of the autophagy-related protein PIK3C3/VPS34, *Autophagy* (2020): <https://doi.org/10.1080/15548627.2020.1815439>
5. Janji, B. et al. Firing up the cold tumors by targeting Vps34, *OncoImmunology*, 9:1, (2020) <https://doi.org/10.1080/2162402X.2020.1809936>
6. Noman, M. Z. et al. Inhibition of Vps34 reprograms cold into hot inflamed tumors and improves anti-PD-1/PD-L1 immunotherapy, *Science Advances*, Vol. 6, no. 18, (2020) <https://doi.org/10.1126/sciadv.aax7881>

**For further information, kindly contact:**

Martin Andersson, Chief Scientific Officer, Sprint Bioscience  
Tel: 08-411 44 55  
E-mail: [martin.andersson@sprintbioscience.com](mailto:martin.andersson@sprintbioscience.com)

**About Sprint Bioscience AB (publ)**

Sprint Bioscience is part of the new Swedish pharmaceutical industry. The company aims to develop drug candidates for the global drug market in the cancer area in a more time- and resource-efficient way. The company is headquartered in Stockholm with laboratories in Huddinge. The Sprint Bioscience share is listed on the Nasdaq First North Premier Growth Market and is traded under the short name SPRINT. Further information is available on the company's website; [www.sprintbioscience.com](http://www.sprintbioscience.com).

Certified Advisor is FNCA Sweden AB; +46 (0) 8 528 00 399, [info@fnca.se](mailto:info@fnca.se), [www.fnca.se](http://www.fnca.se).

