



Enterome to present data on its innovative microbiome-derived molecular mimicry approach to cancer immunotherapy at AACR 2019

Paris, France and Cambridge, MA, USA – March 27, 2019.....

ENTEROME SA, a clinical-stage biopharmaceutical company leveraging its unique knowledge of the key functional and molecular interactions between the gut microbiome and the human body to develop targeted therapeutics, announces it will present data on its innovative microbiome-based approach for the development of therapeutic peptide cancer vaccines for the first time in a poster at the American Association of Cancer Research (AACR) Annual Meeting 2019 in Atlanta, GA, USA (March 29 to April 3).

Enterome's innovative approach is based on the concept of "molecular mimicry" whereby microbiome-derived bacterial antigens show molecular similarity with Tumor-associated Antigens (TAAs) and Tumor-specific Neoantigens (TSNAs). Based on this similarity, bacterial antigens ("onco-mimics") mimic key tumor antigens that are highly expressed by tumors to trigger tumor-specific cytotoxic T cell immune responses.

Enterome has developed a proprietary discovery platform to identify such bacterial onco-mimics from the human gut microbiome. The data to be presented at AACR 2019 demonstrate that onco-mimics identified by Enterome elicited strong immune responses against self-peptides that were, by themselves, not immunogenic. While mice vaccinated with TAAs did not generate an immune response, vaccination with onco-mimics were observed to result in a strong immune response against both bacterial peptides and selected TAAs. Furthermore, adoptive transfer of T cells from mice immunized with onco-mimics into tumor-engrafted nude mice led to tumor control in the presence of checkpoint inhibitors.

Dr. Christophe Bonny, CSO of Enterome, commented: *"We are very excited by these data that we believe represent an early validation of our innovative approach to cancer immunotherapy. It is now well recognized that the gut microbiome plays an important role in driving the development of T cells and the presence of commensal-specific memory T-cells. We believe our approach, based on bacterial molecular mimicry, has the potential to open up opportunities to develop new targeted therapies against tumor cells that are not detected as non-self by the immune system."*

Enterome's first product candidate developed using its molecular mimicry approach, EO2401, comprises three onco-mimics that are highly homologous to solid tumor antigens. Enterome expects to initiate a Phase 1b/2a clinical trial of EO2401 in 2019 as a potential new immunotherapy for glioblastoma multiforme (GBM), for which no curative treatments exist.

The presentation details are:

- **Poster title:** Microbiome derived peptides stimulate strong immune response against tumor associated antigens and trigger in vivo tumor regression after vaccination
- **Session title:** Cancer Vaccines and Intratumoral Immunomodulation
- **Abstract ID#:** 1475 (poster board 30)
- **Poster presentation:** April 1, 8 am – 12 pm EST, Georgia World Congress Center, Exhibit Hall B, Poster Section 22

The abstract is available online - [click here](#).

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About Enterome

Enterome is a clinical-stage biopharmaceutical company leveraging its unique knowledge of the key functional and molecular interactions between the gut microbiome and the human body to develop targeted therapeutics. By combining its drug development expertise with its proprietary discovery and bioinformatics platform, Enterome is able to undertake a full genomic and functional analysis of the microbiome and identify, isolate and characterize extensive libraries of bioactive molecules in order to discover novel drug targets and product candidates. Enterome is developing a broad product pipeline of small molecules, short peptides and protein therapeutic candidates for the treatment of cancer, including immuno-oncology, and auto-immune disorders. Enterome has also established four collaboration partnerships with leading pharmaceutical companies and currently has seven programs in development or co-development: two first-in-class clinical-stage product candidates and five preclinical programs.