# Enterome presents proof-of-concept immune response data and first clinical data from Phase 1/2 trial with EO2401, a first-in-class OncoMimics™ therapeutic cancer vaccine for adrenocortical carcinoma, at ASCO 2022

**Data presented highlight strong immune responses (proof-of-concept) correlating to clinical benefit in patients with adrenocortical carcinoma (ACC)**

**EO2401 plus nivolumab shows efficacy in a subpopulation of patients with ACC, which was defined retrospectively using a set of clinical parameters**

**Enterome to investigate EO2401/nivolumab in expanded subpopulation in randomized Phase 2 trial planned to start in the coming months**

**Paris, France – June 6, 2022**

**Enterome, a clinical stage biopharmaceutical company developing first-in-class immunomodulatory drugs based on its bacterial Mimicry drug discovery platform**, today announces proof-of-concept immune response data and first clinical data from its Phase 1/2 clinical trial of EO2401 in combination with an immune checkpoint inhibitor (nivolumab, Opdivo®) in patients with non-resectable adrenocortical carcinomas (ACC), treated with at least one line (but not more than two prior lines of systemic therapy), or without prior systemic therapy for advanced/metastatic disease (SPENCER trial, EOADR1-19, NCT04116658). The data[1] were presented at the American Society of Clinical Oncology (ASCO) Annual Meeting, on June 4, 2022 in Chicago and virtually.

EO2401 is Enterome's first-in-class off-the-shelf OncoMimics™ cancer immunotherapy. It combines three OncoMimics™ peptides that closely mimic IL13Ra2, BIRC5 and FOXM1, all of which are known driver antigens present on aggressive solid tumors. In addition, EO2401 contains a CD4 helper peptide UCP2. Enterome selected these OncoMimics™ peptides using its Mimicry platform, which applies best-in-class biocomputational tools and bioassays to identify novel therapeutics from its proprietary database of 20+ million bioactive gut microbiome peptides and proteins.

**Key highlights from the EO2401 poster presentation covering the Phase 1/2 SPENCER trial were:**

***Proof-of-concept immune response data***

Immune monitoring of Cohort 2a demonstrates the ability of microbiome-derived peptides to induce a strong Tc1- skewed CD8+ T cell response with strong cross-reactivity against human selected tumor associated antigens.

The level of the specific CD8+ T cell immune responses against the microbiome-derived peptides comprising EO2401 were also found to correlate with clinical outcome (objective responses and progression-free survival).

***Promising clinical outcome in sub-group of patients***

The combination of EO2401 plus nivolumab was evaluated:

- in patients with previously treated ACC (Cohort 2a, n=26) and
- in patients who received no prior systemic therapy for advanced/metastatic disease (Cohort 2b, n=7)

Cohort 2a – group of patients showing benefit in objective tumor responses and time to progression

Analysis of Cohort 2a identified patients with clearly different efficacy outcomes, with one group showing benefit in objective tumor responses and time to progression, and another group with short progression-free survival (PFS) and short survival.

To refine the population for expansion in a randomized Phase 2 trial, different laboratory and clinical parameters were investigated as possible selection criteria.

No correlation was found between clinical outcome and tumor mutational burden, MSI-status, PD-L1 expression, serum cytokines/chemokines, or hormonal levels. However, the study found that patients in Cohort 2a who fulfilled the criteria of having received prior mitotane treatment, ECOG ≤ 1, ACC primary diagnosis > 9 months, max lesion size ≤ 125 mm, ≤ 3 organs involved, reduced lymphocytes ≤ grade 1 (n=14), demonstrated a clinical benefit vs patients not fulfilling these criteria (n=12), as follows:

- **Objective response rates (ORR) – 28.6%** (95% CI 8.4; 58.1) vs **0%** (95% CI 0.0; 26.5)
- **Disease control rates (DCR) – 64.3%** (95% CI 35.1; 87.8) vs **8.3%** (95% CI 0.2; 38.5)
- **Median progression-fee survival (PFS) – 3.9 months** (95% CI 1.9; 9.2) vs **1.6 months** (95% CI 0.5; 1.9)
- **Median survival – 13.0 months** (95% CI 11.3; not evaluated) vs **2.1 months** (95% CI 1.5; 7.4)

Cohort 2b – further follow up to be conducted

The clinical responses to EO2401 plus nivolumab observed in patients in Cohort 2b showed no benefit over the results from all patients in Cohort 2a, and further follow-up will be conducted.

***Safety***

The combination of EO2401, administered sub-cutaneously with the adjuvant Montanide ISA 51 VG, with nivolumab was well tolerated. The safety profile was consistent with the profile of nivolumab monotherapy, except the addition of local administration site reactions (occurring in 21% of patients).

**Dr. Eric Baudin, Associate Professor and Head of the Endocrine Oncology Unit at the Institut Gustave Roussy (Villejuif, France)** commented, *"There has been no significant innovation in the treatment of advanced adrenal tumors and patients with this rare group of diseases are desperately in need*

*of new effective therapies especially at relapse after first-line therapy. If confirmed, EO2401 in combination with nivolumab, represents the most promising therapy of the last three decades in this ultra rare cancer. I am pleased to be participating in this trial and to move forward into a randomized Phase 2 trial in this underserved patient population."*

**Dr. Jan Fagerberg, Chief Medical Officer of Enterome** said, *"The data presented at ASCO for EO2401 in combination with nivolumab are very encouraging, with strong immune responses correlating to clinical outcome in patients having been previously treated for adrenocortical carcinoma. We are also pleased to have been able to define a set of clinical selection criteria that will enable us to refine a patient population for expansion in a Phase 2 randomized trial. We are on track to start this new trial in the coming months and look forward to the results in due course."*

**EO2401 in recurrent glioblastoma**

At ASCO, and separately announced today, Enterome presented the first clinical data from its Phase 1/2 clinical trials of EO2401 in combination with nivolumab +/- bevacizumab for the treatment of patients with recurrent glioblastoma (the ROSALIE trial, EOGMB1-18). View press release **here**.

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**About SPENCER**

The SPENCER trial (EOADR1-19, NCT04187404) is a multicenter, open-label, Phase 1/2 study assessing the safety, tolerability, immunogenicity and preliminary efficacy of EO2401 in combination with the immune checkpoint inhibitor nivolumab in patients with adrenal tumors (adrenocortical carcinoma [ACC] and metastatic pheochromocytoma/paraganglioma [MPP]). The trial is expected to enrol at least 100 patients at clinical sites in Europe and the US.

## References


1. Baudin, E. et al. EO2401, a novel microbiome-derived therapeutic vaccine for patients with adrenocortical carcinoma (ACC): Preliminary results of the SPENCER study. J Clin Oncol 40, 2022 (suppl 16; abstr 4596) doi: 10.1200/JCO.2022.40.16_suppl.4596


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## About Enterome

Enterome is a clinical-stage biopharmaceutical company focused on developing breakthrough immunomodulatory drugs for the treatment of cancer and immune diseases. Enterome's pioneering approach to drug discovery is based on its unique and powerful bacterial Mimicry drug discovery platform allowing to uncover new biological insights from millions of gut bacteria proteins in constant cross-talk with the human body.

Enterome's potentially first-in-class small protein and peptide drug candidates modulate the immune system by closely mimicking the structure, effect or actions of specific antigens, hormones, or cytokines.

Enterome is presently advancing two pipelines of drug candidates, OncoMimics™ and EndoMimics™, which have the potential to address cancer, inflammatory and autoimmune diseases, respectively:

- OncoMimics™ peptides, a pipeline of therapeutic cancer vaccines. The lead candidate EO2401 is in Phase 1/2 clinical trials in patients with glioblastoma and adrenal tumors and has demonstrated clinical proof of concept. A second OncoMimics™ candidate, EO2463 is in a Phase 1/2 clinical trial for indolent non-Hodgkin lymphomas. Clinical proof-of-concept data are expected in H1 2023. EO4010 is in development for colorectal cancer and targeted to enter clinical trials in 2023.
- EndoMimics™ peptides, a pipeline of next generation bioactives acting like human hormones or cytokines for the treatment of immune diseases. EB1010, the lead candidate, is a potent local inducer of IL-10 designed to provide improved therapeutic outcomes for patients with IBD. EB1010 is expected to enter the clinic in 2023.

Enterome employs 65 people and is headquartered in Paris, France. Since its inception, the company has raised a total of €96 million from Europe- and US-based life science investors and more than €120 million from pharmaceutical partnerships.

**For more information, please visit the company's website at: www.enterome.com**