

Late-stage biopharma targeting treatment

of severe autoimmune diseases

A NEW COVID 19 TREATMENT November 2020 Investigational Drug: IV MCS222



A NEW COVID 19 TREATMENT OPTION FOR THE ACUTE RESPIRATORY STRESS SYNDROME

- → Treatment Target: New preclinical results point towards an exceptional inhibitory effect of the cytokine storm responsible for severe cases of SARS CoV 2 infected patients with symptomatic, acute respiratory syndrome.
- → Innovative: New IP protection through a European Patent Application
 - describing an efficient treatment of the SARS CoV 2 cytokine storm,
 - submitted to the European Patent Office, with priority date April 30, 2020.
- → **Proof of Concept** well advanced (solid safety data in Humans on the active molecule/Drug candidate).
- IV formulation tested in Humans: immediate use if clinical efficacy is validated; possibility of getting an oral formulation.
- → Clinical testing in preparation with dedicated network.
- → Immediate objective:
 - test the efficacy of this company's original immunomodulatory drug in a Phase 2 clinical trial, with patients at immediate risk of a severe respiratory syndrome (10 to 15 % of all COVID patients),
 - search for an industrial partnership (co-development and/or licensing).





PRECLINICAL DATA

- The Spike 1 Protein of SARS CoV 2 strongly stimulates human PBMCs in vitro to release excessive quantities of proinflammatory cytokines.
- Our new drug- MCS222- is able at non toxic micromolar concentrations to inhibit the excessive synthesis/release of a bunch of potentially well known pathogenic cytokines.
- Preclinical data were obtained through in vitro studies in a convenient study system allowing to follow the biological response of human hematopoietic cells to their exposure to graded quantities of the recombinant Spike protein, known to be the agonist of the ACE 2 receptor, located on lung cells, on various immune cells and others, such as cells of the olfactory mucosa.
- Among overexpressed cytokines, inhibited by the investigational drug MCS222, are IL 6, and TNF alpha, key proinflammatory cytokines, responsible for detrimental inflammatory reactions in various pathologies involving the immune system.



Transaction Objectives

- Search for an industrial partnership (co-development and/or licensing)
- → Expedite the final detailed preclinical study for the exact determination of the target proinflammatory SARS cytokines (underway).
- → Execute a phase 2-3 study on safety and efficacy of patented IV /oral treatment options for controling the SARS CoV 2 cytokine storm.
- → Develop and commercialize an effective treatment of severe COVID 19 Patients.
- → Extend to other pathologies with damaging cytokine storms.



