



CovenD24

EXO-CD24: INHALED EXOSOMES ENRICHED WITH CD24 FOR LOCAL TREATMENT OF COVID-19- RELATED DISORDERS

Company

OBCTCD24 Ltd.
was founded in 2020

Leadership

CSO, Inventor:

Prof. Arber Nadir.

Professor of Medicine
and Gastroenterology
Yechiel and Helen

Lieber Professor for
Cancer Research
Head

– health Promotion
Center

Head - The
Integrated Cancer
Prevention Center
TASMC

Head – Djerassi-Elias
Institute of Oncology
Former Head –

Cancer Research
Center Sakler Faculty
of Medicine – Tel-

Aviv University
Past President –
Israeli

Gastroenterology
Association

CTO, Inventor:

Shapira Shiran,

PhD. Head –

Research Laboratory
Health Promotion
Centre and

Integrated Cancer
Prevention Center
has experience in
wide range of biology
areas including
molecular biology,
antibody engineering,

Market: THE ONGOING COVID-19 PANDEMIC

COVID-19 is highly contagious, World Health Organization (WHO) declared as global public health emergency. So far, there are 97M worldwide confirmed cases of COVID-19, and 2.1M deaths were reported (01/2021).

Background and Rationale

COVID-19 is a highly transmissible disease in the community. The main cause of clinical deterioration is the cytokine storm in the lung, leading to death eventually. CD24 is a small heavily glycosylated GPI-anchored protein which was shown to participate in controlling homeostatic proliferation of T cells, thus can negatively regulate inflammation. CD24Fc fusion given by the IV route is currently evaluated in 25 sites in the US for its anti-inflammatory activity in clinical trials for the treatment of graft-versus-host disease (GVHD) and of COVID-19.

Exosomes delivered via nebulizer, repaired lung injuries due to multiple types of pulmonary fibrosis and Covid-19. Inhaled exosomes are currently being evaluated in clinical trials.

CovenD24 is a therapeutic based on inhaled exosomes overexpressing CD24. They can down-regulate the cytokine storm, and prevent the clinical deterioration, in patients with moderate severity in order to prevent their deterioration to a severe state and intubation

Status

- Technology validated in a set of *in-vitro* and *in-vivo* studies
- The product was proved to be safe in toxicology studied in animals
- IP covering the technology was submitted
- Round A funding of \$1M completed from leading angels' investors
- IND approval for clinical trials by the Israeli ministry of Health (September 2020)
- Record speed: from idea to first-in-human in 6 months



CovenD24

protein expression and purification, gene delivery, methods for personalized medicine and cell biology.

CEO:
Amalia Herszkowicz, MBA.

A seasoned executive with over 15 years of management experience in diverse tech. Extensive experience in regulatory and clinical affairs as well as commercialization. Prior to OBCTCD24, serves in various positions: MIAMBE, Cardicare, Insuline Medical and more.

- Initiation of clinical trials, first patient receiving Exo-CD24 in September 2020
- Twenty 'Severe COVID-19' patients have finished the course of therapy:
 - no adverse effects were seen
 - marked improvement in clinical, histological and laboratory markers within 2-3 days of treatment
- Final stage of clinical trial: dose escalation on ten more patients

CovenD24: Additional Treatment Opportunities:

Acute Respiratory Distress Syndrome (ARDS), Chronic Obstructive Pulmonary Disease (COPD), Chronic/severe asthma, Rheumatoid Arthritis, Multiple Sclerosis, Sepsis, Cytokine Storm Syndrome (Adoptive Cell Therapy- Associated; Tnf- Inhibition Associated), Graft Versus Host Disease (GVHD), Anaphylaxis, Avian Influenza, Inflammatory Bowel Disease, Acute Respiratory Distress Syndrome (ARDS), Ebola

IP: Inventors: Nadir Arber and Shiran Shapira. Title: CELL-DERIVED PARTICLES PRESENTING HETEROLOGOUS CD24 AND USE THEREOF IN THE TREATMENT OF CYTOKINE STORM SYNDROME