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AMIR JAFRI, CEO

# 

A SINGLE IMMUNOTHERAPY SOLUTION TO POTENTIALLY TREAT ALL SOLID-TUMOR CANCERS WITHOUT COMPROMISES



**AMIR JAFRI** 

how to stop them from doing so." Jafri and company have discovered a solution that can possibly manipulate cytokines safely and efficiently, without inducing traditional side effects. Today, this concept

has transcended healthcare



barriers, showcasing the promising potential of treating a wide range of diseases from cancer to cardiovascular conditions, autoimmune diseases, renal ailments, and even COVID-19.

#### IMMUNOPHERESIS - REVITALIZING THE IMMUNE SYSTEM

Immunicom's solution is intended to allow patients to fight cancer naturally without introducing anything new into the patient's body. The company designs capture molecules intended to bind and neutralize specific disease causing cytokines. But rather than devising a pharmaceutical product to achieve the same, Immunicom has found a workaround through biochemistry to potentially stabilize the captured molecule in a blood filtering columnthat attaches to any plasma and blood filtering machine. The process is very similar to traditional dialysis.

Immunicom's first product, LW-02, is designed to target the removal of specific cytokines. In scientific terms, a patient's immune system releasesa protein, TNF (Tumor Necrosis Factor), which is tasked to attack and destroy cancerous cells. Cancer cells counterattack this phenomenon by the secretion of sTNFR (soluble TNF Receptors) that shield the tumor from TNF protein. The cancer shielding sTNFR then binds with TNF, nullifying its tumor-fighting abilities and allowing for tumor cells' subsequent growth. Combating this eventuality, Immunicom leverages the industry-standard Apheresis system to send the patient's blood through a separation system that breaks apart its plasma component, which then flows through the company's Immunopheresis<sup>TM</sup> column to potentially capture and filter the sTNFR. The column contains Immunicom's first proprietary capture molecule, engineered to trap sTNFR, while the purified plasma flows out of the column, re-combined and returned to the bloodstream of the patient. This entire process is meticulously designed to ensure that only sTNFR is removed from the bloodstream while other vital components remain undisturbed in the treatment course. Upon completion, cancer-shielding cytokines are reduced significantly within the patient; the TNF proteins can then directly combat cancer cells

The therapeutic procedure has the potential to treat all solid tumors while offering the capability to be used alongside other cancer treatments. It is designed to neither harm healthy cells nor hinder the patient's quality of life. Since the procedure occurs outside of the body and does not involve any pharmaceutical products going into the patient's body, it falls in the subtractive treatment category. This indicates that the procedure does not createany chemical change to the blood of the patient. "Owing to our unique approach, the therapyis classified as a medical device by both European regulatory bodies and the FDA. Medical devices have a more efficient path to approval, devoid of any complex manipulations to the biology of the patient," adds Jafri. In addition to the streamlined approval times, the clinical trials are much more efficient than the pharmaceutical space, possibly decreasing time to market intervals.

#### A PLATFORM WITH DIVERSIFIED APPLICABILITY

Immunopheresis, as a platform, has

enabled the company to develop a multitude of products, one of which is the LW-02. The LW-02 column has achieved FDA Breakthrough Device Designation and has received European Regulatory approval for use in adults with advanced, refractory, triplenegative breast cancer, which is known to have limited treatment options. Designed to address different types of solid tumors, LW-02 is going through multiple trials for various cancers across Europe. In Israel, clinical trials are underway for melanoma and renal cancer; In Istanbul, the same is being applied to lung cancer. In early 2021, Immunicom is expanding its clinical trials to the United States. These trials are shorter than pharmaceutical ones, owing to the medical device classification of the therapy.

other products on the verge of entering the early clinical studies that are designed to address inflammatory diseases, autoimmune diseases, and cardiovascular ailments. The therapy could potentially extend the lives of patients on the death bed and serve as a cure, alongside traditional therapeutic procedures.

Immunicom also boasts two

Interestingly, the science behind Immunopheres is shows applicability toward the possible treatment of COVID-19. Quite a few studies have demonstrated certaintypes of cytokines and autoantibodies are causing death among COVID-19 patients. Though Immunicom's therapyis crafted toward cancer and other chronic illnesses, the possibility of applying to the pandemic treatment is undoubtedly noteworthy.

#### THE MANIFESTATION OF EXPERIENCE AND **EXPERTISE**

Immunicom prides its 200 years' worth of collective experience in the healthcare industry, which is a pivotal factor in

understanding the causality of diseases and their plausible treatments. The CEO insists that the leadership team handpicks experts to join them, preferably identifying individuals who excel on the technological side of the spectrum and working both in the startup arena as well as global companies. Jafri sheds light on one of the key qualities needed for every startup in order to be successful in the long run. "All of our key executives and

billion-dollar organization for an IPO or provision a suitable acquisition," he adds. "All of us have headed Fortune 20 and Fortunes 50 companies with global divisions and product portfolios, and effectively, understand what it takes to grow the business in the right direction. This isn't our first rodeo: we have done it several times."

The genesis of Immunicom itself stemmed from Jafri's work in an incubator

> where he befriended a scientist and researched



**WE FOUND THAT A LARGE GROUP** OF PROTEINS—CYTOKINES— WHICH TRADITIONALLY REGULATE THE IMMUNE SYSTEM ARE ALSO **USED BY THE DISEASE-CAUSING** AGENTS TO DEFEND AGAINST THE **IMMUNE SYSTEM** 

board members understand what it means to have just ten employees and only a million dollars in the bank while tasked with the challenge of taking the necessary steps to build the company, such that it can eventually grow into a multi-

Both the visionaries laid the foundation to what Immunicom is today. Unfortunately, the scientist passed away, and Jafri, along with his exceptional team, took it upon himself to further develop these ideas. "When we started Immunicom, it wasn't just to create another cancer therapy but to create something humane, affordable, and approachable." Today, the company and its therapy stands to eradicate or decrease the concentration of deadly diseases. It intends to offer a safe and efficient avenue to control cytokines and other disease causing factors and potentially fasten the recovery of patients. In the next 12-18 months down the line, Immunicom plans to release a slew of products that would enter the preclinical phases of validation without necessarily restricting themselves to cancerous diseases.



**BIOTECH EDITION** 

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### **Immunicom**



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Kenneth Thomas