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## Israeli Life Sciences Industry Catalog Bio International Convention 2018

Israeli Life Sciences Industry: A Source of Innovation

Israeli Pavilion Booth 2101 Boston, Massachusetts > June 4-7 2018

## Meet the Sponsoring Organizations

The sponsoring organizations of the Israeli delegation provide a full array of support and services to nurture the development of industry and innovation:

#### **About Israel Innovation Authority**

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**The Israel Innovation Authority,** responsible for the country's innovation policy, is an independent and impartial public entity that operates for the benefit of the Israeli innovation ecosystem and Israeli economy as a whole. Its role is to nurture and develop Israeli innovation resources, while creating and strengthening the infrastructure and framework needed to support the entire knowledge industry.

As such, the Israel Innovation Authority advises the government and Parliament ("Knesset") committees regarding innovation policy in Israel and furthermore monitors and analyzes the dynamic changes taking place throughout the innovation environments in Israel and abroad. The Authority creates cooperation with counterpart agencies to promote technological innovation in the Israeli industry and economy.

Innovation is by far the most valuable resource for the State of Israel, serving as a national asset crucial to economic prosperity. Strengthening the innovation ecosystem is the mission of the Israel Innovation Authority, which seeks to further develop and support technological innovations in Israel through various support tools.

The Israel Innovation Authority provides a variety of practical tools and funding platforms aimed at addressing the dynamic and changing needs of the local and international innovation ecosystems.

With deep knowledge and understanding of the unique challenges facing the Israeli companies and entrepreneurs, the tools and programs offered by the Authority are based on the specific stage and needs of the company. This includes programs for early stage entrepreneurs, mature companies developing new products or manufacturing processes, academic groups seeking to transfer their ideas to the market, multinational corporations interested in Israeli technology, Israeli companies seeking new markets abroad, and traditional factories and plants seeking to incorporate innovative and advanced manufacturing into their businesses.





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The Israel Innovation Authority – Americas Desk was established in 2013 in order to initiate and develop partnerships with U.S. counterparts at the state and federal level, as well as with stakeholders in the private sector. We provide partner matching services as well as access to joint funding mechanisms dedicated to the development of business-driven partnerships of Israeli and U.S.-based companies through joint innovation projects. These programs reduce the risks taken in international R&D ventures, while creating new business opportunities.

We operate in the Americas through the bilateral foundations with the US (BIRD) and Canada (CIIRDF) as well as other funding programs with Canada (national and provincial), the U.S. (federal and state), Mexico, Colombia, Brazil, Argentina, Chile and Uruguay. We also have cooperative structures with provinces, states, multinational corporations and other innovation partners across the region, including CIIRM in California and Baycrest in Canada and the Inter-American Development Bank. Additionally, we cover technology adaptation costs in Latin America. In all programs, we take no equity and let the project partners agree on IP and commercialization terms. We welcome innovative projects in all technological fields and provide free scouting and partner matching services for qualifying relevant companies that can provide innovative technologies.

#### For more information please contact:

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The Israel Advanced Technology Industries (IATI) is Israel's umbrella organization of the high-tech, Life Sciences and other advanced technology industries, with about 700 paying members from every level and aspect of the ecosystem, including Venture Capital Funds, Israeli R&D Centers of Multinational Companies, Start-Ups, Incubators & Accelerators, Tech Transfer Organization, Academic Institutions, Innovation Centers, Hospitals, Municipalities, service Providers and more. Through this broad range of members, IATI connects Israel's tech ecosystem, provides solutions and support at all levels, and integrates the various sectors of the industry with strategic and ongoing governmental goals.



Ministry of Economy and Industry

The Foreign Trade Administration at the Ministry of Economy is responsible for managing and directing the international trade policy of the State of Israel. The main fields of activity include promotion of trade and export, initiating and maintaining trade agreements for the improvement of Israel's trade conditions, attracting and encouraging foreign investments and creating strategic cooperation with foreign companies.



## Israel: A Powerhouse of Opportunities

Israel is frequently referred to as the "Start-Up Nation". Its extensive technological resources, entrepreneurial spirit and exceptional human capital along with the cultural willingness to take chances and acceptance of loss as part of the journey to success, resulted in our ability to develop innovative capabilities and knowhow, create new technologies and establish successful startup companies.

The ICT innovation system (Information and Communication Technology), the most advanced and developed in Israel, features a broad and advanced infrastructure. It is our aim is to harness this existing ICT expertise and infrastructure for the benefit of digital health and the development of personalized medicine in Israel.

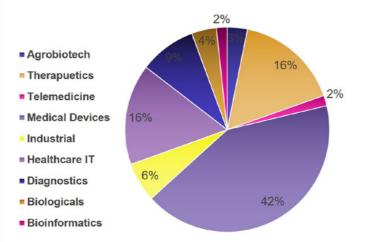
Over the last decade, Israel has introduced a wealth of groundbreaking and valuable innovations in Life Sciencess. Israel's Life Sciencess sector is supported by a strong foundation of academic excellence, including some of the world's leading research institutes, renowned R&D facilities and cuttingedge medical centers. Bolstered by a highly skilled workforce, a flourishing high-tech environment, and an entrepreneurial spirit, Israeli companies have been joined by leading multinationals in making Israel a recognized force in the industry worldwide.

Global giants, including Johnson & Johnson, Medtronic, GE Healthcare, Phillips Medical, IBM, Merck Serono and Takeda, together with local companies such as Teva - itself a multinational company - Mazor Robotics, Lumines, Neurodrem, Given Imaging, InSightec, and others have been continuously developing and marketing life-changing medical breakthroughs and innovations.

Prior to 1996, Israel was home to 186 Life Sciencess companies. By 2017, this number had exceeded 1,400. With some 120 new companies forming every year, 41% of all Life Sciencess companies operating in Israel today were established during the last ten years. In a relatively short period of time, an impressive 40% of these companies are in advanced stages and have already begun to generate revenue.

This demonstrates that Israel has crossed the threshold from an attractive start-up arena to a source of advanced, commercially viable and promising businesses. The bridge connecting excellent science to revenue-generating companies has been established. As proof of the industry's development, in 2016 Life Sciencess exports reached \$6.9 billion. A rich pipeline of seed companies promises to perpetuate current growth.

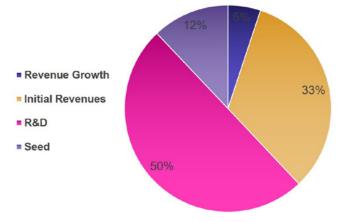
#### Israel Life Sciences snapshot, by sectors and company stage (source, IATI 2017)



#### Why Israel?

- > Over 1400 Life Sciencess companies. Over 40% already generating revenue
- Civilian R&D is highest as % of **GDP** among **OECD** countries
- Source of numerous blockbuster drugs such as Humira, Enbrel, Rebif and Copaxone, generating about \$20B in annual sales
- > Third most innovative nation in the world (World Economic Forum's **Global Competitiveness Report** 2016-2017)





- Produces more scientific papers per capita than any other country (The Luzzatto Group Research, 2017)
- Pioneers in immune and stem cell research and therapeutics
- Extensive international R&D and commercial partnerships
- > World-renowned academic research institutes such as the Technion and the Weizmann Institute
- > Unique financing tools and incubator frameworks for start-ups

## Israel's Competitive Edge

#### **Academia and Research**

Approximately 50% of all academic research funding in Israel is in the field of Life Sciencess, and institutions such as the Hebrew University of Jerusalem, Tel Aviv University, Ben Gurion University of the Negev, the Technion-Israel Institute of Technology and the Weizmann Institute of Science have played dominant roles in advancing biotech R&D.

In 2017, the Weizmann Institute of Science was named the world's sixth best research institute and the top research institute outside of the United States. During the same year, Israel's Technion was ranked #1 worldwide in digital education. These accolades stem from impressive levels of R&D funding and highly skilled and creative manpower, which continue to generate new patents in this field.

#### **Cluster Effect**

Many of Israel's achievements in the Life Sciencess sector stem from the fact that over 90% of the population resides within two hours driving time of each other and within close proximity to seven major universities and industrial clusters. This cluster effect creates economies of scale, and allows for better information sharing and synergies between the companies.

#### The Israel Innovation System

Today, Israel ranks extremely high in most innovation indices (see diagram below), and particularly excels in the intensity of civilian R&D, 4.3 percent of GDP – first in the world in almost every year during the last ten years – and in its entrepreneurial activity. These achievements are the result of decades of intelligent innovation policy at the center of which lies a productive partnership between the private and government sectors.



#### **Attractive cluster for Multinational Corporations Activity**

The Israeli innovation system constitutes a focus of attraction for the most advanced technology companies in the world. During recent decades, some 350 multinational corporations, active at the forefront of technology, chose to establish a research and development center in Israel. During the previous ten years, multinational corporations have been thronging to Israel in increasing numbers: between 2007-2016, an average of twenty new R&D centers were established every year. The establishment of a center, or its expansion, frequently takes place following the acquisition of Israeli companies. Over time, multinational corporations operating R&D centers in Israel have acquired more than 100 Israeli companies.

In order to strengthen and expand the R&D centers' activity in Life Sciences, the Israel Innovation Authority is opening several programs to encourage the establishment and expansion of R&D centers in biotechnology and medicine. This is in addition to the Israeli government's reduction of corporate tax on high-tech companies from 25% to 6-12%, on dividend and capital gains tax.

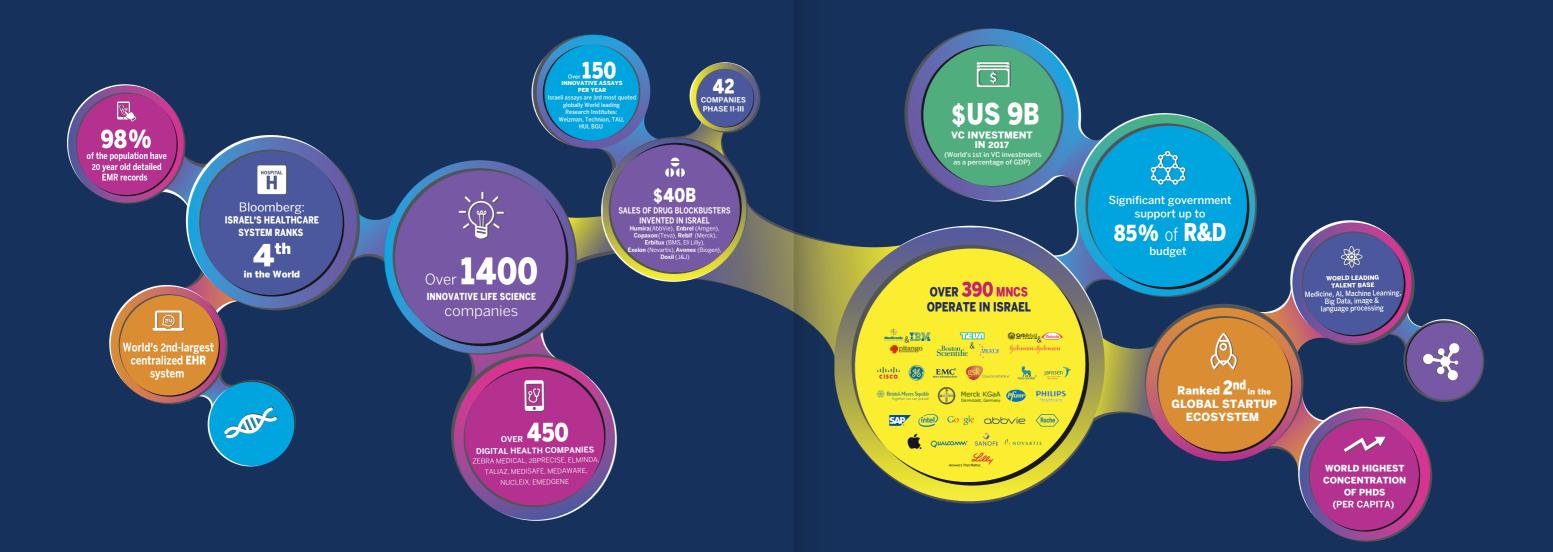
#### **Entrepreneurial Spirit and Ingenuity**

The exceptional volume of Life Sciencess start-ups and patents attests to the entrepreneurial and risk-taking climate in Israel. Israeli researchers and entrepreneurs overcome technological barriers and solve development problems within a short period of time and at a fraction of the cost of some of their larger and more affluent competitors overseas.

#### **Rapid Research to Financial Return**

The last few years have witnessed several significant Israeli Life Sciencess "exit" transactions with investors realizing impressive returns via IPOs, mergers and acquisitions. According to IVC Research Center, during the last decade Israeli Life Sciencess companies raised more than \$6.7 billion on NASDAQ. The majority of this amount (over \$5 billion) was raised after 2013. In addition, the amount paid to acquire Israeli Life Sciencess companies over the past five years was \$4 billion. Close to 60 Life Sciencess companies went public on the Tel Aviv Stock Exchange (TASE) in recent years, among them BioLight Life Sciencess, BiolineRx, Biondvax, Brainsway, Intec Pharma, Mazor, Prolor, Pluristem and Nasvax, and approximately 21 Israeli companies have gone public on foreign exchanges, mainly in the US.





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## Meet the 2018 Bio Israeli Delegation

On behalf of the organizers and partners, we would like to introduce you to the 2018 Bio Israeli Delegation. 10 remarkable companies are attending, spanning the spectrum of Israel's vigorous Life Sciences community, from innovative start-ups to established companies. Please take the time to explore their innovative solutions which you can find in this catalog.

We hope you will take the time to schedule a meeting with some of these companies and see for yourself why Israel is driving innovation in the Life Sciencess industry. You can visit the Israel national pavilion at **Booth 2101.** 

Additionally, the Israeli companies are participating in the Bio Business Forum one-on-one partnering service, and you can find them in the online system at:

http://convention.bio.org/partner/

## **Participating Companies**

BiomX
Cell Cure Neurosciences Ltd
ElMindA
FutuRx Ltd.
Metabomed
Mitoconix
Nucleix Ltd.
Pluristem Therapeutics Inc.
TALIAZ Ltd.
VBL Therapeutics



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## **Company Profile**

BiomX is a microbiome drug discovery company developing customized phage therapies that target and destroy harmful bacteria in chronic diseases. We discover and validate proprietary bacterial targets and customize our natural and engineered phage compositions against these targets.

Our pipeline is focused on chronic diseases, where the microbiome is of impact, and includes inflammatory bowel disease (IBD), GI tract associated cancers, liver disease and immuno-oncology. IBD, which includes Crohn's disease and ulcerative colitis, is our most advanced program and is expected to enter the clinic in 2019. Investors in the Company include OrbiMed Israel Incubator LP, Johnson & Johnson Development Corporation Inc., Takeda Ventures, Inc., Seventure Partners, Mirae Asset Global Investments, and SBI.

## **Technology Description**

The Company's platforms use computational and synthetic biology and cutting-edge research from Profs. Rotem Sorek, Ph.D., Eran Elinav, M.D., Ph.D., and Eran Segal, Ph.D., of The Weizmann Institute of Science; and Professor Timothy K. Lu, M.D., Ph.D., of The Massachusetts Institute of Technology.

Our technology platform is comprised of three tiers:

- **Target discovery** We utilize various approaches ('lenses') combining advanced computational and molecular platforms to examine the complex microbiome and identify key harmful bacteria driving diseases. These approaches include high resolution strain level abundance, bacterial growth dynamic profiling and differential RNA expression to characterize microbiome response to a given trigger.
- **Phage Discovery** We screen, identify, characterize and synthetically engineering (if necessary) phages specific to a given bacterial target. Candidate phage are characterized through assay and genomic approaches with respect to many parameters such as host range, resistance build up, stability and many other in order to allow selection of customized phage cocktail.
- Product Development We are establishing the necessary capacities and assets both internally and through collaboration in order to rapidly drive our pipeline to clinical testing. These include building proprietary assays, processes, and analyses to support products during clinical testing while adhering to strict regulatory specifications.

BiomX Category: Biotechnology

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## **Company Profile**

Cell Cure Neurosciences Ltd. located in Jerusalem Israel, a fully owned subsidiary of BioTime Inc. (NYSE: BTX), a leader of next-generation therapies for regenerative medicine based on stem cell derived technologies. Our company specializes in developing and manufacturing therapeutic cell products for retinal degenerative diseases. The company owns and operates a state of the art GMP manufacturing plant for cell based therapeutics. OpRegen® the lead product is in phase I/IIa clinical in Dry Age Related Macular Degeneration. Other hESC-derived products are currently in preclinical development.

## **Technology Description**

Human embryonic stem cells (hESCs) encompass the potential to differentiate to every cell of the body. Cell Cure's novel technology takes advantage of this unique characteristic of hESCs in the development of hESCs-derived products replacing dysfunctional cells in degenerative diseases. Since its inception, the company's research scientists have gained vast experience and knowledge of hESC biology, which allowed developing unique differentiation processes towards specialized, mature and organ-specific cells.

OpRegen<sup>®</sup>, the leading product, comprises of a suspension of human retinal pigment epithelium (RPE) cells derived from hESC under GMP, xeno-free conditions and formulated in a novel Thaw-and-Inject cryopreserved formulation, which allows easy administration to patients. OpRegen<sup>®</sup> is currently in phase I/IIa clinical trial evaluating its potential as cellular replacement treatment for dry age related macular degeneration (AMD), the leading cause of blindness in adults over 50 years of age, to which no treatment is available yet.

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# **EI**MindA

## **Company Profile**

ElMindA, an Israel-US unique neuro-technology company founded in 2006 with an expert multi-disciplinary team, is leading a revolution in understanding brain health. Currently, the company holds 60+ patents and a proprietary large database. ElMindA was declared by the World Economic Forum as a Technology Pioneer and was ranked among Fast-Company top 50 most innovative companies worldwide.



WORLD ECONOMIC FORUM

## **Technology Description**

BNA by ElMindA combines EEG-technology with big-data analytics and machine learning, to quantify and visualize brain network functionality. Applying cutting-edge algorithms, including digital-signal processing, graph theory, clustering analysis, and pattern recognition, this groundbreaking innovation uncovers multidimensional patterns of brain activity, and shows them clearly and effectively like never before.

This inventive imaging, and its correlated cognitive domains (i.e., working memory, attention, motor and sensory domains), may lead to identifying neuromarkers, serving as a powerful diagnostic and monitoring tool for normal and abnormal brains (e.g., depression, Alzheimer's disease, traumatic brain injury and Parkinson's disease) as well as enhance CNS drug development success.







#### ElMindA Exhibition Representatives

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# Futur

## **Company Profile**

FutuRx is a biotechnology incubator that provides a unique model for supporting the transformation of breakthrough discoveries into novel medicines. FutuRx was founded in 2014 by three leading global healthcare players – Takeda (Takeda Ventures Inc.), Johnson & Johnson (JJDC), and OrbiMed Israel Partners – after winning Israel Innovation Authority's tender.

FutuRx is focused on growing a variety of innovative biotech startups targeting unmet medical needs. It combines the expertise of its management team with the global capabilities of its founders, resulting in a clear impact on the efficient translation of innovative research into clinically meaningful products.

## **Technology Description**

FutuRx is a catalyst of drug development bridging the gap between concept and proof-of-concept through its dedicated and unique structure. FutuRx establishes and supports companies with high-quality infrastructure and experienced management leading early stage programs towards value driving milestones.

FutuRx management and its founders provide robust support to its portfolio companies:

- Incubation: A budget of up to \$2.8M over a 3-year period, and access to additional funds
- **Infrastructure:** 1400sqm facility including offices and fully-equipped laboratories
- Mentoring and guidance: Access to expertise of FutuRx' management and its global founders
- **Operations:** Finance, accounting, business development, IP, legal, IT, admin and HR
- Network: Extensive network of potential collaborators, investors, KOLs, and R&D experts
- Follow-on rounds: Exposure to investors and partners, and support in the deal process







FutuRx Ltd. Category: B

**Category:** Biotechnology, Pharmaceutics, Biopharmaceutical

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Small Molecule Biologics PTx Mitoconix Neurodegenerative Oncology diseases BARCURE Protext MCI- Alzheimer's Immuno-oncology disease Mabirix Inflammation Orphan disease Oncology (WAS/XLT) 2 Cell Therapy Phage **BiomX** IMM PACT Bio Immuno-oncology Inflammation (CAR-T) Infection

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## **Company Profile**

Metabomed is a drug discovery company in the field of cancer metabolism. The company is developing drugs based on a proprietary target identification platform based on computational biology, genomics and metabolomics.

The platform identifies metabolic pathways that arise uniquely in cancers and are essential for their growth. These discoveries are used to develop drugs that specifically target the reprogrammed cancer cells' metabolism to halt their growth. Since these molecules inhibit divergent pathways that are specific to cancer cells, these therapies will have an improved safety profile.

## **Technology Description**

Metabomed's interdisciplinary platform for target identification is based on harnessing the potential of synthetic lethality. When a genetic mutation in one gene is countered by a rescue mechanism of another, the two genes are considered a synthetically lethal pair, and only the loss of both genes would lead to cell death. Metabomed focuses on identifying drugs that hit the survival-enabling bypasses that form synthetically lethal pairs with null-mutations of metabolic genes in cancers. The platform combines the power of genomics, cancer metabolism and systems biology to facilitate the discovery and development of novel therapeutics that disrupt the metabolic pathways which emerge uniquely in cancer cells.

#### Metabomed

Category: Biotech, Oncology, Metabolism

#### **Exhibition Representatives**

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## **Company Profile**

Mitoconix Bio Ltd is pioneering a novel strategy to improving mitochondrial health as a disease-modifying therapeutic for neurodegenerative diseases.

Disruptions of mitochondria fission (fragmentation) and fusion are implicated in many pathological conditions, including neurodegenerative diseases. Therefore, maintaining a proper balance between fission and fusion is a promising therapeutic approach to prevent cell damage and neurodegeneration.

Mitoconix is developing a therapeutic peptides that are designed to selectively inhibit excess mitochondria fission or fusion for maintaining cellular integrity, thereby conferring neuroprotection and functional benefit. The company is aiming to initiate first in human study by late 2018.

## **Technology Description**

MTC-1203, is a disease-modifying therapeutic for neurodegenerative diseases. Its a selective peptide inhibitor of pathological mitochondrial fragmentation (fission) and dysfunction; that maintains neuronal health through improved mitochondrial functions, ATP production and reduced oxidative stress in culture models of HD, PD, ALS. In vivo efficacy in animal models of Huntington's (HD) and Parkinson's diseases (PD) and beneficial activity in patient-derived cells of HD, sporadic and genetic PD, and sporadic and genetic Alzheimer's disease (AD)

#### MTC-1203; A DISEASE-MODIFYING THERAPEUTIC FOR HUNTINGTON'S DISEASE

- Demonstrates in vivo efficacy (improves motor and cognitive function, delays progression) in mouse HD and PD models:
- Reduces level of Htt protein aggregates and neuronal loss (causes of the pathology) in a mouse HD model;
- Reduces neuroinflammation (microglia activation and inflammatory cytokine elevation);
- Benefits of treatment associated with a decline in peripheral biomarkers.
- Exerts no discernable adverse effects in normal mice even after 5 months of treatment.

#### MTC-1203: A DISEASE-MODIFYING THERAPEUTIC FOR FAMILEL PARKINSON'S DISEASE

- Demonstrates in vivo efficacy (improves motor and cognitive function, delays progression) in mouse PD models
- Restored proper mitochondria function in LRRK2 mutation patients cells
- · Significantly reduced mitochondria fragmentation in LRRK2 mutation patients cells
- Establishment of MTC-1203 mechanism of action in relation to LRRK2







**Mitoconix** Category: Biotech **Exhibition Representatives** Gili Hart gili@mitoconix.com **Contact Details** 2 Ilan Ramon Nes Zionna **T** +972-54-2424554

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# NUCLEIX

## **Company Profile**

Nucleix Ltd. develops, manufactures and markets innovative non-invasive molecular cancer diagnostic tests. Our first product Bladder EpiCheck® is a urine test for monitoring of bladder cancer, and includes a panel of 15 proprietary DNA methylation biomarkers that are multiplexed in a real-time PCR analysis. This test has shown 92% sensitivity, 88% specificity and 99% NPV (excluding Ta-LG) in a multi-center study and was recently launched in the EU market.

Nucleix also developed a blood test for lung cancer screening using its proprietary and highly innovative technology with overall 91% specificity and 74.4% sensitivity. Nucleix is backed up by leading investors including OrbiMed - the world's largest bio-medical VC funds.

# Nucleix Ltd.

Category: Cancer Diagnostics, IVD

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## Portfolio

Methylation of the DNA is a set of 'switches' that activate or deactivate specific genes in order to allow different cell types to perform their role. It is therefore a powerful tool to distinguish between cell types. Cancer cells show changes in methylation pattern in relation to healthy cells, and if one could "read" these methylation changes against a large background of normal signal coming from healthy cells, one would be able to detect the presence of tumors in body fluids, such as urine and blood.

#### Nucleix technology is based on our two tools -

- Bioinformatics tool enabling rapid and systematic development of biomarker panels for a wide range of clinical tasks.
- Biochemical tool a proprietary technology for a simple, low cost clinical assay with a sensitivity that is better than 1:200,000 (that is identifying one methylation change in a background of 200,000 normal molecules).

#### Our technology allows for major advantages over other technology platforms:

- Rapid development of tests
- Low cost
- Standard lab processes and equipment

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# Pluristem Therapeutics Inc.

## **Company Profile**

Pluristem Therapeutics is a leading developer of placentabased cell therapy products. Each patented PLX (PLacental eXpanded) cell product releases a distinct combination of therapeutic proteins in response to signals from tissues that have been damaged by conditions such as inflammation, ischemia, hematological disorders, or exposure to radiation. The cells products require no tissue matching prior to administration, making them cost effective and convenient for use in most medical settings.

The Company's proprietary three-dimensional expansion technology can be used to grow PLX cells in mass quantities with batch-to-batch consistency at Pluristem's FDA, EMA and PMDA-approved, state-of-the-art manufacturing facility.

Pluristem has a robust balance sheet, a strong intellectual property position, and strategic relationships with major institutions around the globe.

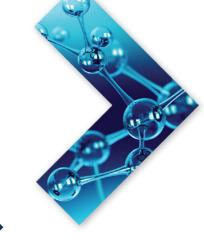
## **Technology Description**

Pluristem use a unique, proprietary, three-dimensional (3D) technology platform to develop cell therapy products. These products release a cocktail of therapeutic proteins in response to signals from the patient's body, and stimulate the body's own healing process.

Early in our development as a company, we understood the need to develop the first tightly controlled, completely automated, efficient and scalable cell manufacturing technology in order to produce the highest quality cell therapy products on a commercial scale. We developed a state-of-the-art, proprietary bioreactor system which provides a three dimensional (3D) micro-environment for our cells that resembles the environment in the human body. As a result, our cells expand rapidly and remain healthy and potent as we alter conditions within our bioreactors to transform them into unique, patented cell therapy products- Placental expanded cell product. Our advanced manufacturing technology can generate cell products on a mass scale with batch-to-batch consistency, making them true commercial products.

PLacental eXpanded (PLX) cells are placenta-derived, mesenchymal-like adherent stromal cells that may be administered to patients without the need for HLA-matching. This is possible because of the cells' low immunogenicity and immune-modulatory properties. Accumulated data from multiple in vitro and in vivo experiments indicate that these cells have the capacity to release soluble biomolecules, such as cytokines, chemokines and growth factors, which act in a paracrine or endocrine manner to facilitate healing of damaged tissue. The secreted therapeutic factors reach the target tissue through the bloodstream and initiate the healing process, while the cells remain in the muscle into which they were injected.







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## **Company Profile**

AI-DRIVEN TOOL EMPOWERING DOCTORS WITH INFORMATION TO PREDICT PATIENT'S THERAPY OUTCOMES AND ACCORDINGLY TO PERSONALIZE THE PRESCIPTION

TALIAZ is an AI health analytics company that has harnessed its proprietary IP and expertise in scientific data analysis to innovate a bespoke doctor-centric preventive platform - Predictix.



## **Technology Description**

Predictix generates therapy prediction reports by deep learning & AI technologies, which are managed as a decision support tool, empowering doctors (family doctors and specialists) to make informed decisions and deliver the promise of personalized medicine. The Predictix flagship application is for the number one health burden in the world (WHO) - depression.

The Predictix algorithm matrix analyzes combinations of hundreds of genomic, clinical and demographical features for each patient and generates a simple report that ranks the efficiency of different antidepressant treatments. The Predictix report empowers physicians with the information to better match antidepressants to the patient's individual needs and optimize depression therapy outcomes.

The Predicix Anti-Depressant was developed subject to a strategic agreement with the NIH (National Institute Health, USA) and includes the analysis of raw data from STARD, the largest ever study on depression therapies. Predictix is managed as a bespoke platform enabling the development of additional AI driven decision support tools for common health concerns in addition to depression such as ADHD and Anxiety.



#### **TALIAZ Ltd**

Category: Personalized Medicine

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## **Company Profile**

VBL Therapeutics is a publicly-traded, late-stage clinical biopharmaceutical company focused on the discovery, development and commercialization of treatments for cancer.

The Company's lead oncology product candidate, VB-111, is a targeted anti-cancer gene-therapy agent that is positioned to potentially treat a wide range of solid tumors. VB-111 is currently studied in a Phase 3 potential registration trial for in platinum-resistant ovarian cancer.

We have also developed novel small molecules and biologics for inflammatory diseases which are available for partnering.

## **Technology Description**

The company has developed in-house three novel platform technologies:

- 1. The Vascular Targeting System (VTS): VBL has pioneered a first-in-class gene therapy platform technology which enables systemic administration of genes to either destroy or promote angiogenic blood vessels. Our lead oncology drug candidate VB-111 (ofranergene obadenovec) is in Phase 3. VB-111's novel dual mechanism of action combines blockade of tumor vasculature with an immune response. Other VTS candidates can be utilized for ischemic conditions.
- 2. Our exciting MOSPD2 program for both oncology and inflammatory indications: MOSPD2 is a tumor-selective surface protein that can be utilized for selective targeting of several tumor types. Targeting of MOSPD2 may have several therapeutic applications, including inhibition of monocyte migration in chronic inflammatory conditions, inhibition of tumor cell metastases and targeting of MOSPD2-expressing tumor cells. VBL is developing biologics for those purposes and is open to collaborations.
- 3. The Lecinoxoids, our small molecules anti-inflammatory platform: a family of orally administered small molecules designed to modulate the body's inflammatory response. Lecinoxoids are compounds that are structurally and functionally similar to naturally occurring molecules, known as oxidized phospholipids, which demonstrate immune modulating antiinflammatory proprieties, modified to enhance stability and activity. Lead candidate VB-201 is Phase-2 ready, with potential for NASH and fibrosis.

Our technologies have broad applicability supported by strong science and IP.



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