



Dear Friends,

The story of Syqe Medical offers a glimpse into the journey of the burgeoning cannabis-tech industry in Israel. With more than 70 active cannabis-tech companies, Israel is seen as a pioneer and a leader in the global “green rush” for medical cannabis technologies. Syqe Medical is the brainchild of its CEO Perry Davidson, who started pursuing his vision in this field when he was only 26 years old. Davidson tells us in an interview about the revolutionary cannabis inhaler that turned Syqe into the world’s first medical cannabis company to sign a distribution agreement with a major global pharmaceutical company.

Other features in this edition include an update about another multi-billion exit by an Israeli company (Orbotech) and a look into a new technology that predicts car accidents, developed by Scientists at Bar Ilan University and tested by the Israeli police. For dessert, our cultural bite section presents the very much off-the-beaten-track Salad Trail tours in the Negev Desert.

In the last 70 years, which would soon be celebrated in Israel, innovation and technology have become a major component in the national DNA. But you might be surprised to know some other fun facts about this country: It has the highest number of museums, orchestras and computers per capita in the world; Only Tokyo and New York City surpass Tel Aviv’s sushi consumption per capita and you even can get hummus-flavored ice cream in Jaffa! On this festive note I wish you all a bright and happy spring.

April Edition

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Latest Transactions

Israeli Orbotech Sold For \$3.4 Billion

Israeli electronic firm Orbotech was acquired by California's KLA Tencor, a global capital equipment company. Orbotech specializes in developing and manufacturing electronics, including printed circuit boards, flat panel displays and semiconductors.

World's biggest brewer buys Israeli startup Weissbeberger for \$80M

Weissbeberger has developed IoT analytics tools for the beer and beverage industry. Sensors placed in beer taps, refrigerators and other important points in the supply chain provide a full picture of the quality of products, the inventory situation, consumer habits and more. Anheuser-Busch InBev has more than 400 beer brands worldwide including Becks, Stella Artois, Leffe and Budweiser.

Houzz Buys Israeli Designer Platform Ivymark for \$40M

IvyMark, a Tel Aviv startup, has developed a business management tool and engaged community for interior designers and home design companies. Based in Palo Alto, California, Houzz is a home design online platform used by more than 1.5 million active home-renovation and design professionals worldwide to showcase their work and reach new clients.

Israeli Trax Buys American Quri for \$30M

Trax offers retailers image recognition and computer vision analytic tools. Among its customers are some of Coca Cola's anchor bottlers and Henkel AG & Company. The acquisition of Quri, which provides real-time data about the performance of products and promotions in retail stores, is part of Trax's global expansion plan.

The World's Largest Performance Marketing Platform Buys Israeli Optimob

Optimob develops automation and optimization technology for ad networks and publisher management. They created software for Seattle based Tune's HasOffers platform which enables performance marketers to optimize and automate their affiliate programs.

Global PIM Provider Akeneo Acquires Top Israeli Machine Learning Company

Sigmento specializes in product data automation. The acquisition bolsters French Akeneo's market-leading position among product information management (PIM) providers and reinforces the company's mission to help retailers turn product information into powerful brand assets.



01 Focus Area



"We transform plants into the future of medicine"

While medical cannabis is becoming widely used around the world, transforming Cannabis into precise doses has transformed its medical and financial legitimacy. **Perry Davidson, the founder of Syqe Medical** that developed a revolutionary inhaler with precisely controlled cannabis dosage, gives a fascinating glimpse of Israel's flourishing Medical Cannabis industry

Back in 2007 Perry Davidson got into his car and drove to Jordan's capital, Amman. Davidson, only 26 years old at that time, changed his license plates and travelled all this way just to persuade a local Sheikh to invest in his medical cannabis company "Tikun Olam". After being rejected by dozens of investors, he was desperately trying to raise money for the first company in Israel that legally grew medical marijuana and distributed it to patients.

A decade later and the tides have turned, Davidson took his cannabis endeavors to a whole new level – today he is the founder and CEO of Syqe Medical which raised tens of millions of dollars. Syqe is a Pharma-Tech company that develops technologies for precise delivery of natural molecules directly from plants. The Syqe Inhaler is the first

drug delivery platform in medical history to successfully administer whole plants at pharmaceutical standards.

"Our first target was to transform the cannabis plant into the most medically advanced solution available to patients" says Davidson, "using our breakthrough drug delivery technologies, patients can now achieve maximum efficacy with minimum adverse events and reclaim their quality of life. We have completed multiple successful clinical trials validating our technology's precision in compliance with pharmaceutical standards. "

In 2016 Syqe Medical set a global precedent when Israel's Teva Pharmaceuticals, the world's biggest maker of generic drugs, signed an agreement to distribute its

product in Israel. It was the first time that a major global pharmaceutical company has agreed to market a medical cannabis product. The “seal of approval” by Teva is a game changer in the way medical cannabis is perceived by the pharmaceutical and financial industries. “After this bold move by Teva, we’re now being contacted by many multi-national pharma companies,” he says.

Pioneer of the Global “Green Rush”

The story of Syqe Medical offers a glimpse into the journey of the burgeoning cannabis-tech industry in Israel. With more than 70 active cannabis-tech companies, Israel is seen as a pioneer and a leader in this field for two main reasons (besides the “start-up vibe” of course): The first one is historic – Medical cannabis research started here back in 1964, with Prof. Raphael Mechoulam who was the first person to identify the main psychoactive constituent in cannabis, THC, back in 1964.

The second reason is the big steps the government have taken towards advancing legislation that would allow cultivation, manufacture and even export of medical marijuana. Israel is one of the only countries in the world which permits conducting experiments with medical marijuana which made its universities and hospitals a hotbed for research in this field.

All these have paved the way for the Israeli “Green Rush” for medical cannabis that motivates scientists, researchers, innovators, entrepreneurs, law firms, startup accelerators and hundreds of entrepreneurs who flew in last year to participate in two large international conferences about medical marijuana.



Cannabis is only the beginning. Other plants will follow shortly

Back to Syqe Medical, the company developed a unique inhaler that vaporizes tiny granules of cannabis in precise doses as small as 1 milligram. “The inhaler is responsive as well,” explains Davison, “By using thermal controllers and lung interfacing, it analyzes how the user is inhaling, and increases or decreases airflow depending on the inhalation pattern.”

Davidson states that one of the industry’s biggest challenges was turning a plant into a pharmaceutical product, with the same level of safety and precision. “All the attempts to make synthetic drugs from cannabis have failed. Before this inhaler, the quantities of active ingredients inhaled were completely unknown, and doctors had no control over the treatment. This curbed the mainstream acceptance of cannabis and drove away government approvals and big-pharma accords. We managed to transform a raw plant into consistent precise doses for the first time in history. Today the doctor can prescribe individually tailored treatment for each patient”.

After being probed in three clinical trials, Syqe’s 3D printed version of its cannabis inhaler has been in use for more than 2 years at Haifa’s Ramban hospital, where patients have been taking it for pain relief. This is the first hospital where doctors prescribe the drug as “standard medical treatment.” Syqe plans to go into clinical trials with tier 1 U.S institutions next year.

“We developed the ability to hit a very narrow therapeutic window, maximizing the ‘medicinal qualities’ of this plant while avoiding the ‘unwanted effects’, by doing so, we’re

making it accessible to as many people as possible”, says Davidson enthusiastically. “Since inhalation is still the gold standard in medical cannabis treatment, the device gives many people who cannot smoke the opportunity to get predictable inhalation treatment.”

Syqe employs a multi-disciplinary team of electronic engineers, software engineers, mechanical engineers, industrial designers, chemists, biologists, physicians and pharmacologists. According to Davidson, there is already huge demand for the inhaler outside the confined walls of hospitals. “People constantly call as to ask if it’s on the market yet”, “We will launch the Syqe inhaler in the next few month and our immediate next target is to apply our technology to many other plants and their naturally occurring molecules - the best source of evolutionarily optimized drugs in the world.”

The best part for him, he says, “is the feedback from patients who describe just how much this inhaler relieved their pain and gave them hope.”

“Our immediate next target is to apply our technology to many other plants and their naturally occurring molecules - the best source of evolutionarily optimized drugs in the world. Using our transformative technology we can relieve the suffering of as many patients as possible in the fastest possible way and that’s the main goal of Syqe.”



The Israeli Medical Cannabis Ecosystem

Agrotech Companies



Investors



Life Science Companies



Research & Government



others





02 Israeli Innovation

Predicting the Next Car Accident with the Help of AI

Israeli scientists developed a new and highly sophisticated weapon against road collisions – crash prediction software based on Artificial Intelligence.

A team of researchers from Israel's Bar Ilan university, led by Prof. Sarit Kraus and Dr. Ariel Rosenfeld, collected analytic data from car accidents in Israel over the past 13 years. Parameters such as the slope and angle of roads as well as the height of the sun and its effect on eyesight at the time of the accident were used in creating a detailed map of Israel's entire road network.

In total, the software uses 120 variables – even rain and public transportation strikes - to predict the probability of severe traffic accidents on each of the country's roads. The result is suggested daily police patrol schedules and placement of road police units within a 10 meter range of the predicted spot. By placing police units close to accident-prone locations, the researchers hope dangerous drivers would be motivated to drive more safely.

The software is currently being tested on Israeli roads by the local traffic police by creating a worksheet for the police 24 hours in advance. The developers say it can be used to manage units in real time. Indian police are also considering using the technology.



03 Cultural Bite

The Salad Trail in the Negev

Walking in the middle of the desert and happening upon fields of fruit and vegetables is quite an incredible experience. Desert agriculture is one of Israel's greatest successes. The Negev desert covers over 60% of the country and is filled with cutting edge agricultural activity that has turned large parts of its sands into green fields.

A great way to experience this up close is the Salad Trail. A team of professional guides, led by famous Agronomist Uri Alon will take you on an agricultural tour in Kibbutz Talmei Yosef, in the Northern Negev.

The three-hour tour is a complete senses-and-learning experience: You will hear all about the advancements and innovations in agricultural technology and environmental techniques while picking and eating vegetables straight from the fields and greenhouses. This is a great opportunity to get a feel for the land and its produce.

In this blossoming oasis Alon grows 15 varieties of cherry tomatoes, seven varieties of mint, edible flowers, four colors of carrots, two types of chili, two types of strawberries, three types of cucumbers, three kinds of radishes and more than 30 herbs.

This is absolutely not just another farming tour – it's an illuminating adventure into modern agriculture.

The Salad Trail Website