



# The State of Medical Technology in Israel

## Updates from the 'Startup Nation'

OurCrowd is a leading equity crowdfunding platform for accredited investors to invest in global companies. Medical technologies are a key focus area for our investment strategy; currently, there are 23 medical companies in our portfolio, with more than \$80M raised for this sector. In late 2014, OurCrowd IPO'd its first medical technology investment when ReWalk Robotics (NASDAQ: RWLK) went public. In November 2016 OurCrowd launched Israel's first fund exclusively dedicated to digital health, OurCrowd Qure. OurCrowd's MedTech practice is led by Dr. Morris Laster, an industry veteran with over 25 years of experience building and exiting medical technologies. He is supported by a medical advisory board, led by Dr. S. Morry Blumenfeld, former Managing Director of GE Medical Systems in Israel. Learn more at [www.ourcrowd.com](http://www.ourcrowd.com)

## OurCrowd's Medtech Portfolio

Startup solutions for every stage of medical care



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# Medtech remix: Machine learning for diabetes management



The company that becomes a leader in diabetes management will empower patients to better understand and self-manage their disease through decision-support algorithms. It's with that end goal that DreaMed, an Israeli startup, developed the next-generation machine learning solution for diabetes management and decision support.

## DreaMed's solution

Co-founded by world-renowned diabetologist and researcher Professor Moshe Phillip MD and biomedical engineering and algorithm expert Eran Atlas, DreaMed is providing customized basal rate adjustments to diabetic patients that are extremely accurate. Through a series of patented digital decision-support algorithms, DreaMed recreates the way a physician would prescribe insulin as it relates to glucose levels in a diabetic patient in real time, as opposed to what is pre-prescribed. The technology is designed primarily for type 1 diabetes, but there is promise in applying it to type 2 as well. The DreaMed algorithm is designed to be flexible and responsive, and is being adopted by the biggest names in diabetes industry.

DreaMed's GlucoSitter is the only diabetes closed-loop algorithm with regulatory approval, and was tested in trials at some of the world's most prestigious institutions. The results of these trials were published in leading journals, including the New England Journal of Medicine.

## Key Investment Highlights

- Breakthrough proprietary software for managing and monitoring diabetes
- Addressable market size projected to reach \$114B by 2018
- Strong early validation with commercial partner, Medtronic
- Experienced management team in the field of diabetes related technology

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## Recent company updates

DreaMed recently applied to receive FDA and CE approval for its newest product, Advisor. Advisor is a decision support tool for on-demand personalized medicine, quickly determining the optimal treatment for maintaining balanced glucose levels. With its real-time, consistent and coherent data analysis, Advisor can automatically adjust its insulin treatment and behavior modification recommendations, just like a medical expert would!, Glooko, the leading diabetes management platform that DreaMed runs its proprietary solution on, raised \$35M led by Georgian Partners along with other new investors Insulet Corporation and The Mayo Clinic. They join existing investors Canaan Partners, Social Capital, Medtronic and Samsung Next. Glooko plans to use the funding to increase commercialization efforts in France, Germany, the U.K., Asia and the Middle East, thus expanding the reach of potential DreaMed customers.

In addition, DreaMed has an endorsement from Medtronic, one of the world leading medical device companies in the world, which has invested in the company.

## Access to this startup opportunity

Currently, DreaMed is raising its Series B round; OurCrowd is participating and invites accredited investors to join in the investment. If you'd like to learn more about the company and the investment, visit our website.

*\*Note: you must be an accredited investor to join and view the details.*



**Dr. Morris Laster** is OurCrowd's Medical Venture Partner with over 25 years in the biopharmaceutical industry, having founded and managed many companies from start-up through IPO and beyond.

## Digital Health is the next frontier for healthcare

It's no secret that healthcare in the United States is in crisis. Simply put, healthcare is too expensive, not personalized, and there are serious question marks around accessibility, quality, and transparency. The massive growth of the insured population through the Affordable Care Act and the influx of baby boomers into Medicare are taxing the availability of supplies and services, as well as massively straining state and federal budgets.

Digital Health is a rapidly emerging area that has the potential to both lower costs and expand coverage while simultaneously improving quality.

Digital Health is where innovative and disruptive technologies like artificial intelligence, wearable monitoring technologies and big data analytics are applied to solve some of health care's most pressing problems. Digital Health turns our smartphones into medical devices, with applications supporting better health, disease management, prevention, wellbeing and remote-care – all accessible with the swipe of a finger. Our watches, powered by sensors and algorithms, become convenient tools to capture critically important vital signs or sleep patterns.

Digital Health offers the opportunity to radically transform medicine – for patients and the entire healthcare delivery system. Personalized medicine, long a pipe-dream of the distant future, suddenly becomes a reality today through patient-specific insights available from digital health solutions.

Rather than simply a “one-size fits all” approach from a box in a chart, individual treatment approaches are developed to accommodate people with unique circumstances.

The healthcare industry in the U.S. is predicted to re-allocate over \$300B to Digital Health treatments in the coming years. In 2016, digital health was validated as the fastest growing investment domain with over 87 M&A deals valued at over \$10.4B in exits. To capitalize on the need within this market, we have founded OurCrowd Qure – Israel's first exclusively focused digital health fund that is targeting investments in disruptive digital solutions being applied to healthcare. Our goal is to pave the road for massive impact, both now and for future generations. We've partnered with Johns Hopkins University as well as other major organizations to help us build startups that will be the backbone of our personalized, accessible and affordable healthcare future.

If you're interested in becoming involved or have a digital health startup to introduce, [learn more](#).



*\$50M fund with 12-15 seed & series A companies*

The fund focuses on technologies that:

- Significantly improve patient care and health services
- Reduce costs of healthcare
- Create information transparency
- Empower consumers to make better health choices
- Encompass AI, genomics, big data, analytics, personalized disease management



**Allen Kamer** Managing Partner of OurCrowd Qure, is a successful entrepreneur and experienced corporate executive in the healthcare and medical informatics space. He co-founded Humedica, a transformative population health and analytics company, which was acquired by UnitedHealth (NYSE UNH – the largest U.S. health insurer) in 2013.



**Dr. Yossi Bahagon** Managing Partner of OurCrowd Qure, is an active family physician who previously managed the digital health division at Clalit Health Services, the second largest health maintenance organization in the world. He founded Luminox, a strategic digital health consulting firm and startup hub, as well as handpicked and seeded six successful digital health startups. acquired by UnitedHealth (NYSE UNH – the largest U.S. health insurer) in 2013.

*Accredited investors can learn more about Qure,  
an investment opportunity on the OurCrowd platform.*

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## Medtech startups: Solutions for every stage of medical care

As medical costs rise, and more people around the world are diagnosed with complex diseases, the world of health care must move forward. Medtech companies have taken up the challenge. They are making remarkable strides in every stage of healthcare, from preventative care and, diagnostics, through to surgery and intervention, and finally recovery and self-care. The following are on-the-ground examples of Israeli companies with huge market potential and promising medical solutions.



### Preventative Care



**MedAware** combats the prevalence of preventable prescription errors using big data analysis. The software saves lives and reduces medical costs by raising alerts, using real world data to look for deviations from prescription patterns, including age, gender and other factors. This methodology makes MedAware's solution the most accurate in the market.



**Sweetch** is a digital platform and app that measures, monitors and predicts risk and time horizon for a pre-diabetic's conversion to diabetes, and then engages the user to follow a customized diabetes prevention program. Considering itself a "digital vaccine" Sweetch aims to lower diabetes conversion for this dangerous, costly, and rapidly growing disease. With digital therapies being estimated by Goldman Sachs to become a \$30B market in the next decade, Sweetch comes at a lucrative time.



**Kol Gene** facilitates connections with global genetic testing labs to find the fastest and most cost-effective choice for patients. The marketplace connects clinicians and labs automatically and generates pricing bids, opening the market beyond the local monopolies. The genetic testing market is forecasted to reach \$7.4B in 2020, and the number and nuances of tests are growing rapidly.

*The medtech startup scene has never been more robust or accessible.  
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## Diagnostics



**Zebra Medical Vision** is a machine vision technology that teaches computers to interpret medical images. This will make radiological diagnostics cheaper, faster, and more accurate, freeing up flooded radiologists while creating a treasure trove of research data. The founding team is made up of Israeli startup, Med-Tech, and R&D elite, and boast top investors including Khosla Ventures, Marc Benioff, and OurCrowd First.



### sight

**Sight** is a computer vision platform fully automating blood diagnostics through a patented blood-preparation technique which skips the costly and time-consuming microscope. Their first application is the 300 million annual malaria tests performed worldwide. The Malaria testing market itself is estimated at \$600M a year, and Sight intends to expand into multiple types of blood diagnostic tests.



### ElMindA

**ElMindA** has created a tool to map and quantify neural communication beyond the traditional brain imaging tools of CTs and fMRIs. Using a powerful electrode cap, they can map the way the brain communicates, quantifying symptoms such as stress, pain, attention and memory loss, which has until now have been relegated to subjective methods of diagnosis. ElMindA's FDA and CE approved device is being used in Athletico clinics, Select Medical and The Walter Reed Army Medical Center, and was included on Fast Company's annual list of the World's Most Innovative Companies alongside Apple, Google, and Tesla.



**PulmOne** has changed respiratory testing from a full body procedure that requires a trip to the hospital into a portable "minibox" which can be used in the clinic setting. This will allow diagnosis of various respiratory symptoms quickly, accurately and cheaply. The new technology, which skips the "body box", is relevant for the more than 40m people in the US alone who need to undergo PFT.

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## Surgery and Intervention



**Surgical Theater** has created software that combines virtual reality and advanced CT and MRI imaging to allow surgeons to perform a highly accurate pre-surgery rehearsal simulation. This FDA approved technology reduces cost, improves outcome, and minimizes the risk of complex surgeries. It also invites the patient to experience the procedure, so they can understand their care to the fullest extent.



**Medical Surgical Technologies (MST)** is a robotic vision system for laparoscopic surgery that tracks and follows a surgeon's tools using video analytics to produce a stable and precise image. MST's system utilizes proprietary advanced video analytics algorithms to automatically track and follow a surgeon's tools in order to provide a stable and precise image in the OR and to enable natural surgical workflow, without a surgical assistant. With MST, the multi-billion-dollar laparoscopy market could cut costs and exponentially improve essential visual coordination.



**HIL Applied Medical** is making proton therapy for cancer affordable by re-inventing the expensive particle accelerators and magnets used to create and deliver protons to the patient. Proton therapy, though highly effective and causing 2-6x less damage than radiation to healthy tissue surrounding tumors, is underutilized due to cost constraints of the current system. The market potential for this new proton delivery system is estimated at \$10B, and the under 40 proton therapy centers worldwide are already overbooked, showing high demand.



**BrainQ** has developed a new technology called LearQ which uses algorithms to generate customized electromagnetic field simulations for impaired neural networks after a brain injury, enhancing natural rehabilitation. In clinical trial phase, LearQ patients have had significant improvement, particularly in the case of stroke, spinal cord injury, and traumatic brain injury. Stroke, one of the major focuses of BrainQ, affects a large amount of people, and the current costs of rehabilitation are rising.

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## Recovery and Self Care



**DreaMed**, have made 'artificial pancreas' software allowing patients to better understand and self-manage diabetes through a series of patented digital decision-support algorithms. DreaMed is aiming to become the leader in diabetes management, tackling the growing health crisis that is the 8.5% of the global adult population that has diabetes. DreaMed has partnered with Medtronic, the world's leading insulin pump manufacturer, and Glooko, an innovative diabetes management platform to make care more patient-centric.



### Intendu

**Intendu** has designed an Active Brain Trainer console for people with brain impairments to improve their cognitive skills at home. Based on interactive, personalized video games, Intendu's program simulates day-to-day interactions and scenarios, incorporates motions and gestures, and responds in real time to the pace and biofeedback from the patient. With so many mentally impaired patients far away from quality treatment and recovery centers, this platform allows therapists to reach and meet the intensive rehabilitative needs of cognitively impaired patients in their homes.



**UPnRIDE** is providing a next gen powered wheelchair with the capability to transition to both sit and stand positions. The sleek, seamless sit-to-stand function has enormous mental and physical benefits, including reduced risk of osteoporosis, increased blood circulation, urological benefits and self-esteem improvement. Wheelchairs are used for more than 3.6 million handicapped people in the US alone, and solutions for the permanently wheelchair-bound are critical for continued health.



**Syqe Medical** has developed an advanced, certified, pocket-sized, metered-dose cannabis inhaler which vaporizes the precise prescribed amounts of cannabis. This allows the patient to receive efficient, rapid, safe and psychoactively-adjustable symptom relief, giving physicians the assurances and confidence needed to prescribe cannabis as a standardized drug. As the uses and acceptability of cannabis as a medical intervention grows, the market potential for accurate, unabused application becomes highly lucrative.

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