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Why MedFemTech is critical to the health of our society: It's the opportunity to speak about women's health

Modern medicine was developed with male physiology as the default, and this has left many essential women's health needs unmet. MedFemTech companies could disrupt our lives, our economies, and our societies in numerous ways. In fact, initial breakthroughs have already been achieved across a range of disciplines. It's worth paying attention.

"Your technology is quite interesting; can it be used in other parts of the body?" This is a question that an investor asked Keren Leshem, the CEO of OCON Healthcare, a leader in the FemTech ecosystem, when she presented the company's intrauterine drugdelivery technology, which has multiple indications in women's health.

But why was he asking that question? Fifty-one percent of the population has a uterus; isn't that a big enough market?

For too long, women's health has been considered a niche market. Caroline Criado Perez suggests in her book, *Invisible Women*, "It's not always easy to convince someone a need exists if they don't have that need themselves." And most researchers, inventors, physicians, and investors are men.

Fortunately, this is starting to change. FemTech is at the vanguard of driving growth and investment in women's health, creating big opportunities for value creation and societal impact. We have seen exponential growth in FemTech in recent years. Both public awareness and company formation are surging.

What is FemTech?

The term "FemTech," first coined in 2016 by Ida Tin, encompasses a range of tech-enabled, consumercentric solutions. The FemTech industry was an \$18.7 billion market in 2019, and it is projected to reach \$60.1 billion by 2027, with a compound annual growth rate (CAGR) of over 15.6%. Experts agree that this number is an underestimate. Several companies, such as Progyny and Maven, are already valued at over \$1 billion.

As founders of the MedFemTech Congress, we introduced the term "MedFemTech" to speak about solutions addressing women's health, including scientific breakthroughs or solutions targeting physicians or clinics that would have typically been excluded from FemTech.

More than 2,000 companies are classified as MedFemTech, covering 14 health categories. Maternal health is the largest category and women's oncology is the smallest. Between the two, MedFemTech encompasses solutions that target all female-specific and general health conditions that affect women differently or disproportionately. Female-specific conditions include any topic linked to the reproductive system, such as contraception, fertility, maternal health, and menopause - as well as gynecology and gynecological infections, such as endometriosis, pelvic floor, menstruation, sexual health, bacterial vaginosis, and human papillomavirus (HPV). Women's oncology, including breast cancer, ovarian cancer, and cervical cancer, are also included in MedFemTech.



Prof. Zeev Shoham, Gynecologists and IVF specialist. MedFemTech Co-Founder

Professor Zeev Shoham, a gynecologist, in vitro fertilization specialist and co-founder of IVF-Worldwide, is the man behind the Inaugural MedFemTech Congress, which will take place at the Palais des Congress in Paris, France, May 9-10, 2023.

Prof. Shoham emphasizes that the aspiration for the event and for promoting innovative medical solutions for women was to strengthen the pipeline for diagnostics and treatment – to ultimately improve medical outcomes. These objectives present a huge opportunity for boosting women's lives and livelihoods, and these powerful effects have positive ripple effects on society.

Prof. Shoham assembled a cross-functional team to plan the conference, including Forbes France CEO Dominique Busso, McKinsey & Company partners, Gila Vadnai-Tolub and Marie Busson, Clalit Health Services Chief Innovation Officer Professor Ran Balicer, DigitalRosh Founder Professor Yesha Sivan, and IVF-Worldwide Hong Kong Co-partner Professor Milton Leong.

We spoke with these congress founders individually, and also interview Dr. Marcel van Duin, Chief Scientific Officer at Organon, Marie Busson, Partner at McKinsey & Company, Sharon Handelman, a manager at Sompo Digital Lab in Tel Aviv, and Gerald Seifriedsberger, General Manager, Women's Health Ultrasound at GE Healthcare. We are presenting their comments below in a virtual roundtable format.

Q: As highlighted in recent books, such as *Invisible Women*, *Doing Harm*, and *Sex Matters*, modern medicine was developed with male physiology as the default. Can you explain what that means, and what are the implications for women's health and our society?

Dr. Marcel van Duin: For far too long, the study of women's health issues and basic research in

this important area has been de-emphasized and underfunded. Very few companies have dedicated resources to innovation and improving women's health. Just 4% of all healthcare R&D focuses on women's health, and ensuring women's equal participation in clinical studies requires constant, diligent attention.

Prof. Ran Balicer: For decades, women were excluded from early clinical studies; originally researchers made this decision in order to protect women of child-bearing age and their potential children. To this day, women are too often underrepresented. Because of women's exclusion, diagnostic criteria for common illnesses were based on biased studies. These diagnostic criteria led to misdiagnoses and late diagnoses in women when they presented to physicians with symptoms that differed from men's.

Gila Vadnai-Tolub: The implications of doing research without equal female representation are that women are seven times more likely to be misdiagnosed and discharged from the hospital following a heart attack and they are twice as likely to experience adverse events from pharmaceuticals.

Q: How is MedFemTech expected to disrupt healthcare?

Prof. Zeev Shoham: The key MedFemTech disruption is ensuring that women have a prominent seat at the table. This will help drive the true priorities for women, such as accurate gender-based research, sex-specific medical interventions, and optimal health outcomes.



Sharon Handelman, Sompo Digital Lab, Digital and FemTech expert

Sharon Handelman: MedFemTech players are transforming care delivery with services that "speak to" women — virtual clinics, innovative brick-and-mortar clinics and direct-to-consumer prescription deliveries. They enable women to access care in more convenient, consumer-friendly ways and often, they can deliver culturally competent and tailored care

for subpopulations such as the LGBTQ population or women in low- and middle-income countries.

Gila Vadnai-Tolub: MedFemTech empowers women in multiple ways, such as by enabling self-care. Women now have a chance to learn and address about "stigmatized" topics head on, such as menstrual health, sexual health, or menopause. The simple act of normalizing these conversations can make a difference in many women's lives. In addition, trackers, wearables and at-home diagnostics are giving women the tools to take charge of their own health and make data-based decisions. These data insights can be used to unlock innovation and push the scientific frontiers to address more unmet medical needs in areas such as endometriosis and preterm birth.

Prof. Ran Balicer: MedFemTech solutions also help health providers who have been strained under increasing demand for services while shortages in healthcare providers persist. Covid-19 made this situation worse, as evidenced by the sharp increase in healthcare provider turnover. But Covid-19 also changed patient preferences and providers' appetites to adopt new technologies.

Q: What areas of MedFemTech are you most excited about? What are your considerations when you decide to invest time or resources in a potential new solution?

Prof. Yesha Sivan: In general, digital solutions and digital-driven innovation play a key role in MedFemTech. We can now personalize medicine



Prof. Yesha Sivan,Founder CEO of DigitalRosh

much more extensively based on data. Digital functionality and data are opening up many new avenues for better and more cost-effective care. It is only natural that we first and foremost segment the world into men and women and build medicine from the ground up to match humans' distinct biological differences. MedFemTech is doing just this as a pioneering movement in personalized medicine.

Dr. Marcel van Duin: Our strategy at Organon focuses on building an innovative R&D pipeline by sourcing innovative solutions and unique business development opportunities. Therefore, our search and evaluation activities revolve around early- and late-stage R&D assets and already FDA-approved



Marcel van Duin, Chief Scientific Officer at Organon

products. Our strategy centers on a number of key therapeutic areas: contraception and infertility targeting both women and men; conditions that are unique to women, such as endometriosis, fibroids, polycystic ovarian syndrome, and menopause; maternal health and peripartum conditions, including preterm labor, preeclampsia and post-partum hemorrhage; and conditions that are generally more prevalent in women than in men.

Prof. Ran Balicer: At Clalit Health Services, we are very enthusiastic about solutions that enable home monitoring and self-care. We have already introduced innovative solutions enabling patients to self-perform ultrasounds or lab-grade urine tests in the comfort of their homes and to empower caregivers to monitor children's vital signs at home.

Gerald Seifriedsberger: Patient care worldwide is moving towards precision health, an approach to care that is highly personalized to each patient.

Precision health is creating exploding demand for new technologies and advanced solutions including smarter diagnostic machines, which automatically personalize the test to a patient's specific needs; Albased decision support for a provider's clinical and operational decisions; More precise therapies, using AR/VR to guide surgeries and 3D printed medical models in planning complex therapies; and the extension of precision monitoring into new settings, such as telehealth and outpatient monitoring.

The women's health ultrasound business which I lead at GE Healthcare is focused exclusively on the

care of women. We are continuously innovating to improve image quality and create specialized clinical tools to help clinicians see more anatomical detail with greater certainty, enabling them to provide the best possible precision care to their patients and future generations.

Q: What are the roles of large med-tech and pharma disrupters in supporting innovation? What about payors and providers?



Prof. Ran Balicer, Chief Innovation Officer, Clalit Health Services, Israel

Prof Ran Balicer: In the past, some believed that Aldriven decision support was a potential solution to fight gender-based inequity, because people thought Al would provide impartial judgment. Unfortunately, this was not the case. A decision support algorithm is only as balanced as the practices embedded in its training data – and there is increasing evidence that this data is often derived from sex-imbalanced trials or from biased practices that led to misclassification and underrepresentation. Payors and providers are key to ensuring that care delivery and decision-making tools are as unbiased as possible.



Marie Busson,Partner, McKinsey & Company

Marie Busson: We need more gender-disaggregated data from the pharma and med-tech industries, as well as from academia; all players must strive to incorporate sex differences into research. This robust data helps us better understand outcomes based on sex and translate these insights into action — into how we treat both women and men. Accounting for gender differences makes for healthier men, as well, with diagnoses, dosing, treatments, and devices

aimed not at an average or modified male default, but at sex-specific physiology.



Keren Leshem, CEO OCON Healthcare

Keren Leshem: Even though women's health is getting more attention through the MedFemTech movement, the industry has under-invested in and overlooked this segment for many decades. We need the industry to step up and invest alongside more traditional investors to accelerate positive impacts on women's health and quality of life. It's not just the right thing to do – it is also the smart thing to do given the growth we're seeing in the industry.

Gerald Seifriedsberger: There is so much good that can be done by leveraging AI in healthcare, and one company cannot solve this alone. We need to be creating ecosystems of collaborations.



Gerald Seifriedsberger, Managing Director, Women's Health Ultrasound, GE HealthCare

The ecosystem is constantly evolving, and as such, we are partnering with clinical, industry and technology innovators to create solutions together – to simplify, provide greater access and personalized care for patients. We already have many collaborations in place today. For example, we are collaborating with a leading academic group to develop cutting-edge artificial intelligence algorithms. We are also working with the leading technology innovators to harness their advances in cloud, artificial intelligence, and cybersecurity for precision health.

We have also implemented coaching programs for startups to support them in maintaining focus and ensuring their development runs in parallel with provider needs. The coaching programs are successful because sometimes these startups can, for example, miss elements that we have a lot of experience in, such as regulatory compliance, thought processes, quality assurance, and go-to-market strategies. And ultimately, if the startups are successful across these elements and timing is right, they are far more likely to secure additional investment and longer term partnerships with us.

Q: Who should attend the MedFemTech Congress, and how will it help them?

Dominique Busso: The congress will connect and engage key players in the female medical technology sector, launching a global community of medical professionals, tech visionaries, innovators, investors and other experts from across the healthcare ecosystem – representing doctors, hospitals, clinics, academia, venture capital firms and technology solution companies.

Dr. Marcel van Duin: Conferences like MedFemTech are important opportunities for all parts of the healthcare ecosystem to come together to discuss and invest in innovative approaches to women's health. When women prosper, it positively affects the local community, broader society, and the global economy for generations to come.

Prof. Ran Balicer: I see this conference as a time-opportune meeting for MedFemTech experts, enthusiasts, and industry leaders, including clinicians, scientists, innovation companies, venture capital professionals, and large healthcare system executives. I look forward to the conference becoming an annual event that drives this industry forward – bringing potentially disruptive solutions to the forefront, putting them through their paces, and implementing them at scale.



Gila Vadnai-Tolub, Partner, McKinsey & Company

Gila Vadnai-Tolub: Healthier women make for stronger economies and populations—with cascading benefits for children and the elderly, especially given that women are often primary caretakers. Beyond the vision that addressing women's health equitably is the right thing to do, there is also a compelling business case that shows healthy women make for wealthier economies. The need is real. Now that everyone sees it, this is the ideal time to take action.