DAC Global Bridge 2023

Navigate cross industry growth opportunities by learning first-hand insights from key players and stakeholders from multiple industry ecosystems

INNOVATION = Digitization + Automation + Cross Industry Collaboration

THE U.S. HEALTHTECH MARKET OPENS UP FOR KOREAN INNOVATORS THROUGH PARTNERSHIPS WITH GLOBAL COLLABORATION LEADERS LIKE MAYO CLINIC

The Korean Healthcare System is the Best in the World

In 2021, CEOWorld Magazine ranked S. Korea to be #1 among global healthcare systems, hardly its first Health Care Index recognition using multiple criteria of S. Korea's truly remarkable national achievement.

With an aging population, the recent global pandemic, and a massive shortage of nurses and doctors globally, especially in the U.S., you would think that automation and technology-driven healthcare solutions from S. Korea would be everywhere. Yet, if you are looking for a global market presence, you will find just a handful of Korean medical solution brands in Forbes 2000.

Innovative Korean Brands Do Not Lead Global Healthcare or Healthtech

How is it that with exemplary innovations and results, Korean health technology and innovation do not lead the world?

Since 2011, CEOWorld Magazine has reported 302 YCombinator startups in health-related areas (biotech, pharma, robotics, diagnostics, health tech, mental health, apps, remote health, etc.), none of which came from South Korea.

It time for healthcare innovators to start looking at more collaboration opportunities and adopt a growth path to expand our brands globally, rather than just in Korea or regionally?

To best navigate these questions, we looked at recent examples of remarkable Korean health tech startups that have made the same missteps. Developers often start by creating a solution with plans to test it in Korea. After testing they find out that for further expansion their brand needs to be embedded into a global ecosystem of influencers, decision-makers, buyers, and users. And they need to figure it all out on their own, without any global experience.

How can Korean leaders help advance health tech innovators to take the global stage?

Korean Healthtech Innovators

We can provide countless examples of innovators with high market potential who lack market-driven knowledge, focusing just on technology specs. These players could be fully realized if more strategically visible.

International success is typically achieved with strong brand visibility efforts, including thought leadership approaches, securing the right collaboration partners, and implementing market-driven global business development and marketing strategies.

Let's take Orange Biomed – an innovative team consisting of Duke University alumni that came up with an improved method for diabetes detection and management. Orange Biomed is testing the first guided, reusable, pocket-sized HbA1c meter for quicker and easier at-home results. The device currently wins against other technologies in the market for PoC or portable HbA1c solutions, and yet, the company needs to figure out on its own how to secure a place in the global market.

iMediSync is an innovative digital mental health platform company that is integrating an FDA-cleared portable EEG brain scanner with NIR-LED photobiomodulation and cloud-based QEEG automatic analysis system targeting early detection and preventive care for dementia, Alzheimer's disease, mood problems, and other mental disorders, even at the preclinical stage. It's revolutionizing diagnostics and enhancing the accessibility to mental healthcare by digitizing conventional EEG with AI technology.

Regenerative multi-channel stimulation technology developer Nu Eyne has launched technology that restores the visual function of damaged retinal tissues and nerves resulting from various eye diseases. It enables tinnitus self-diagnostics and relief, induces functional and structural recovery of the paralyzed facial nerve, and relieves trigeminal nerve migraine pain. Despite the innovation, most U.S. parties are unaware and therefore the technology has gone largely unnoticed in the market.

(Top) Orange Biomed, (Bottom) iMediSync

We can go on and on with many more breakthrough technologies. The list of Korean developers with next generation methods that struggle to generate global support are seemingly endless. Despite their potential, none of these companies are well known in the U.S., the country with the largest health market. Each will need to acquire a lot of global know-how to launch and win in areas that are most prominently impacted by worldwide public health problems: diabetes, Alzheimer's, rare disease, degenerative conditions, and beyond.

What can be done to help them take the stage they deserve globally?

I believe that our national healthcare successes can very well be expanded to the international market landscape. But how?

First of all, we should start integrating our innovators into global research and development much earlier in the invention cycle, investing in more collaboration and global partnerships, which, in turn, brings more interest from other highly relevant ecosystem players. It means that we ought to raise young talent to be global, primarily English-speaking, with education and connections in the U.S. / EU in leading and transformative industries. That would be a sure long-term win.

Second, for quick short-term gains, we need to establish open and easy scouting for collaboration opportunities between Korean innovators and global players in other parts of the world. Traditionally, it's not easy for them to find partners due to cultural and language barriers. It's a major gap now, especially during COVID, when trade shows are closed, voiding Korean enterprises of opportunities to be seen and be found. Also, it's more than just being seen at the tradeshow: promoting the brand and solution skills are lacking across industries, including healthtech.

American and other global healthcare organizations are working on finding cures for the most complex diseases and increasing healthcare efficiency. There are plenty of opportunities for truly innovative technologies and products.

Historically supplied by Chinese partners, COVID-related disruptions are pushing buyers towards a multi-partner strategy (with some redundancy) to ensure they are achieving their goals no matter what is happening with suppliers/ partners. And partnerships are easier to establish in a free country like S. Korea with the most advanced healthcare.

Suzy had a conversation with Dr. Morice, President, and CEO of Mayo Collaborative Services (MCS), who kindly provided guidance and helpful advice for Korean CEOs seeking to implement successful global expansion. Dr. Morice shared valuable insights for our readers to help accelerate overall collaborations between U.S. and Korean companies, and efforts specifically with his organization.

Dr. Morice, President, and CEO of MCS (Mayo Collaborative Services) & former President of MCL (Mayo Clinic Laboratories) has spent his entire career within the Mayo Clinic system (MCS is the parent company of Mayo Clinic Laboratories, the global reference laboratory for Mayo Clinic), and was previously the president of Mayo Clinic Laboratories (MCL).

Photo outside the Mayo Clinic Laboratories (MCL)

Dr. Morice, President and CEO, Mayo Clinic Laboratories (MCL).

A berry box used by customers to send samples.

MCL brings to market tests performed in the Mayo Clinic Department of Laboratory Medicine and Pathology (DLMP). DLMP is one of the largest academic pathology departments in the country, if not the world, with over 3,000 test offerings – spanning from more routine testing to managing the care of patients with the rarest testing needs. Now, MCS has a direct focus on growth and diversification into other areas of diagnostics.

GOALS FOR MAYO CLINIC COLLABORATIVE SERVICES, GLOBALLY

Suzy: What are some of your goals for the upcoming year given your new role?

Dr. Morice: As we come into the management phase of COVID, my goal is to really help reestablish diagnostics. We are starting to diversify how we deliver our laboratory tests by looking at other areas of diagnostics, in particular digitized diagnostics, remote diagnostics, and also the extension of our diagnostic capabilities into the biopharma space. And we are not just diversifying domestically – we do have over 3,000 hospital-based customers in the U.S., but we also have activities in over 60 countries. **The real focus now is on growing our testing capabilities globally, with a particular focus on the APAC region.**

Suzy: What kind of collaborations are you looking for internationally, particularly in South Korea?

Dr. Morice: The founders of the Mayo Clinic had a vision of creating a cosmopolitan system of healthcare across the globe. To reach different parts of the world, we are looking for testing partners. It's clear with challenges in the supply chain and with global logistics, those will continue to be stressed.

One of the things that we'll see in the U.S. is a real jump from most diagnostics being delivered in a healthcare setting to much more distributed or remote diagnostics: looking at mobile technologies and direct-to-patient testing modalities. I know these are more advanced in Asia, and definitely more advanced in Korea than they are in the U.S. market.

Additionally, as the Mayo Clinic continues to think about workforce challenges in the U.S., partnering with companies in South Korea that are advanced in automation will help develop how we think about automation in laboratory diagnostics.

The key challenge now is a higher patient demand but a low supply of workforce, which necessitates more automation and effective solutions for better outcomes. In order to get good outcomes for patients, we need to diagnose, triage and treat the patients quickly and efficiently. Therefore, practitioners need to shorten the time of the end-to-end process as much as possible, which is where remote diagnostics and care come in handy.

PATIENT-CENTRIC PARTNERSHIP MODEL FOR MAYO CLINIC

Suzy: Can you speak to what the MCL model for a successful partnership has been in the past?

Dr. Morice: The MCL model has been to deliver diagnostics in the local environment when possible, so when we work with our hospital customers, we actually help them utilize in-source testing. As a result, only 2-5% of the business will come to us, which is usually the case that necessitates more advanced testing. For this reason, working with a partner that really understands the customer is crucial.

GLOBAL INNOVATION-CENTRICITY AT MAYO CLINIC

Suzy: What support or growth opportunities does MCL offer that can be beneficial for international or South Korean developers?

Dr. Morice: A lot of the innovation that we're seeing in the U.S. is on the digital pathology side. And so, our business model for MCL is very dependent on self-funded, self-driven innovation, because Mayo Clinic is a place where people come with serious and complex conditions, often that are undiagnosed or partially diagnosed. Therefore, opening up our campuses for technological collaboration is important for this model.

On the Rochester, MN campus, we now have an independent building called Discovery Square One that has an advanced diagnostic laboratory that allows diagnostic manufacturers to come in and work with us to co-develop assays or co-develop use cases that will be used to get assays through FDA approval.

So that's something I hope would pique the interest of some of the people reading this and that they would look to us to potentially work with them.

Suzy: Are there any updates that you would like to share about MCL's current collaborations?

Dr. Morice: One exciting development is that Mayo Clinic Ventures is actually coming over to help with our biopharma activity.

COLLABORATIONS IN DIAGNOSTICS

Suzy: Can you elaborate on the collaborations that you have with other ecosystem players to develop diagnostic testing to best support them?

Dr. Morice: Collaboration for us is all about working with others on the outside to create value, without losing our internal focus as well. Collaborating with the clinicians we serve specifically is important for the ultimate goal of adding value to patients in the entirety of the diagnostic ecosystem.

Diagnostics has a special role in this because while it actually constitutes probably about 5% of the total healthcare spending, it drives about 70% to 80% of the clinical decisions. Therefore, laboratories will be key in making the move towards a more value-based reimbursement system.

Inside the Mayo Clinic Laboratories (MCL) examination room.

TRANSLATIONAL COLLABORATIONS ARE A PRIORITY

Suzy: Korean health tech, biotech, and other med tech innovators may already have solutions that meet these needs, but they're unknown to U.S. entities. How can these key players seek to support clinicians' needs through MCL? And if developers partner with you already for research, are they recommended to the clinicians?

Dr. Morice: One thing that's important to remember about Mayo Clinic innovation, compared to say, a university setting, is that the needs of the patient come first. This is our core philosophy and our core vision. So, our innovation focus has always been very much translational, meaning we really focus on innovations that can get to the bedside and have an impact for patients. And so for companies on the outside that might want to work with Mayo Clinic, we focus on taking what our partners have and making it available to patients and to the healthcare system. And of course, if it's a company from outside the U.S. that wants to gain market share in the U.S., we have our national reach with the Mayo brand as a trusted innovator in healthcare, as well as a really good understanding of the overall diagnostic industry landscape in the U.S.

I currently sit as the Chair of the Board of Directors for the American Clinical Laboratory Association, which is a trade association for laboratories. That's just an example of how we are participating in thought leadership around healthcare delivery and diagnostics in the U.S.

BARRIERS OF ENTRY FOR KOREAN INNOVATORS TO THE U.S. MARKET

Suzy: The next set of questions is based on recent news about more POC or at-home tests that are heading our way. Many Korean companies need help to receive FDA approval for rapid or home portable tests, despite receiving clearance in their clinical settings, or sufficient interest from healthcare providers and patients. What are the reasons? What are the blockages that these companies face when they're applying for clearance and the barriers to entering for such companies?

Dr. Morice: The regulatory process in the U.S. is different. Being in direct contact with the FDA can really work with pre-submission to help guide. Once you know what the FDA is looking for, you can be much more targeted in how you're going to approach generating the data. However, then the challenge becomes really getting access to patients to generate that data, which is where Mayo Clinic Labs has a lot of experience and resources since we have care facilities across the country.

REDUCING DIFFICULTIES OF WORKING WITH THE FDA

Suzy: What do you recommend for South Korean companies working to get FDA approval?

Dr. Morice: I think it is important to have a good understanding and a strong working relationship with the FDA. Most FDA incidents would have been avoided if there was just a better working relationship between the entity and the FDA, which is something that we can help facilitate. It has recently become more and more important to have open channels with the FDA given the increased scrutiny and pressure on the FDA at this time.

IDEAL MUTUALLY-BENEFICIAL RELATIONSHIPS

Suzy: What does an ideal collaboration look like for MCL?

Dr. Morice: The key question we are asking is, 'Which companies can help us understand where MCL would add value to patients in South Korea?' The ideal relationship would be mutually beneficial, with each entity adding value to and creating market share for the other in their respective country.

We want to grow and diversify more in the APAC region because we were overly leveraged in China, for instance, for some of our healthcare manufacturing, which really has hurt us a couple of times now.

Additionally, because we are seeing a move towards remote and mobile technologies for diagnostics and diagnostics management, as well as the growth of regenerative medicine therapies, we will be looking for companies in these realms specifically.

The ideal relationship would be mutually beneficial, with each entity adding value to and creating market share for the other in their respective country.

Current areas of interest for Mayo Clinic collaboration: diagnostics automation, holistic diagnostics, digital pathology, point of care, remote, or mobile diagnostics, diagnostics management at slate, new diagnostics modalities including for patient triage and monitoring, and any other advanced technologies and innovations related to diagnostics and regenerative medicine.

If you are interested in a potential partnership and long-term relationships with the companies mentioned in this article or others in the U.S./ Korea, contact Suzy at sim@bdmtglobal.com for potential collaboration opportunities.

BDMT Global
TRANSFORM AND DRIVE DEMAND

Suzy Im

As the head of BDMT Global in Boston, Im focuses on accelerating the innovative transformation of global companies. She is a Professor of Marketing and a member of the Advisory Board at Emerson College. Im is co-founder of 'Sponsors of the Future,' a non-profit organization that leads corporate social responsibilities. Well-known business development marketing strategist in the global field for over 20 years. After merging the two critical global business functions of Business Development (BD) and Marketing Transformation (MT) for the first time, she was recognized for her innovative business model and contribution and received five consecutive awards in the U.S. including the North American Business Awards and TITAN Business Award 2022 in Biotechnology.