MEDTECH FORUM | 2016 ASIA PACIFIC

Suntec Singapore Convention & Exhibition Centre
8th - 10th November 2016 | Singapore

CONFERENCE HIGHLIGHTS

Creating New Partnerships in Healthcare

apacmed.org

CONTENTS

KEY STATISTICS

The Forum in numbers

511
TOTAL ATTENDEES

85
SPEAKERS

20
PANELS

22
countries represented, including Singapore, USA, Malaysia, China, and Japan

Dear Friends and Colleagues,

As Asia's dynamic healthcare landscape continues its rapid transformation, the need for collaboration is greater than ever. With regulatory changes, technological disruption, and new paradigms in healthcare delivery on the horizon, we must work together to realise our collective goal of expanding access to quality healthcare in the region.

At our second annual Asia Pacific MedTech Forum 2016 in Singapore on November 8-10, we laid the foundation for partnerships that will help us unlock opportunities and tackle challenges in this fast-changing region. We heard lively discussions from leaders in industry, policy, and care provision. We reconnected with old friends, made new ones and made specific plans to address the evolving role of the medical technology industry.

The Forum was the culmination of months of planning and preparation from our members and partners, and we at APACMed are deeply grateful for the contributions of everyone involved. Our hope and expectation is that the Forum will mark the beginning of constructive partnerships that will last for many years to come.

Fredrik Nyberg,
Chief Executive Officer,
Asia Pacific Medical Technology Association (APACMed)

APACMed ASIA PACIFIC MEDICAL TECHNOLOGY ASSOCIATION

"Medical technology firms increasingly see Asia as much more than a growth engine. They understand that it is becoming a global centre of industry activity, from manufacturing to R&D."

Anna Maria Braun, President, Asia Pacific and Management Board Member, B. Braun Melsungen and Vice Chairman, APACMed

WHY PARTNERSHIPS MATTER

Unlocking Opportunities to Improve Standards of Care in Asia

As healthcare systems across Asia modernise, medical technology companies from around the world are racing to capture new opportunities. Yet in a region as diverse and dynamic as Asia, none can succeed on their own. They will need to work with together, as well as with public sector institutions and other stakeholder groups, to create meaningful and sustainable change.

At the second annual Asia Pacific MedTech Forum in Singapore 2016 on November 8-10, global healthcare leaders convened to discuss strategies and identify opportunities for collaboration in Asia. Hosted by APACMed, the first and only industry association dedicated to medical devices equipment and in-vitro diagnostics companies in Asia, the Forum brought together more than 500 delegates from over 20 countries. The delegates came from diverse backgrounds, including medical technology firms, government agencies, payers, providers, non-governmental organisations (NGOs), and patient groups.

The theme of the Forum was *Creating New Partnerships in Healthcare*. Over the course of three days of plenaries, breakout sessions, and networking events, it highlighted diverse opportunities for industry-wide collaboration. Existing partnerships were renewed and the Forum sparked inspiration for news ones in areas such as regulatory affairs, digital health, global surgery, medical device registries, and medical education.

The mood of the Forum was upbeat. Experts from many backgrounds predicted that Asia will provide a growing share of global medical technology spending, innovation, and leadership in the coming years. One of those optimists was Anna Maria Braun, President, Asia Pacific and Management Board Member, B. Braun Melsungen and Vice Chairman, APACMed. In a panel about the evolving role of Asia, she explained why this region demands greater attention.

The numbers support her case. According to a 2015 report by McKinsey & Company, Asia Pacific is expected to surpass the European Union as the world's second largest medical technology market by 2020. As it develops, growing income and consumer sophistication will drive greater demand for high quality care. The region already accounts for more than half the global population and chronic disease burden, yet it only accounts for 22% of the global medical technology spending, suggesting ample room for growth.

Yet no one sugarcoated the challenges. Throughout the Forum, panelists talked about ongoing obstacles in accessing Asia's fragmented markets, such as navigating changing reimbursement regimes, building market-appropriate products, training health workers in low-resource settings, and bolstering local talent. Gary Pruden, Worldwide Chairman of Medical Devices for Johnson & Johnson, warned about the further risk of growing international protectionism and economic volatility in the coming years.

All speakers and delegates agreed that partnerships are essential to overcoming these obstacles, and the Forum provided inspiring stories of many such partnerships in action. These partnerships came in many shapes and sizes, from small-scale pilots to long-term multi-stakeholder agreements. Yet all had one thing in common—a growing recognition that collaboration is the only way forward in Asia's fast-changing markets.

- ↗ **Asia will be the world's second-largest medical technology market by 2020**
- ↗ **A growing share of global R&D, talent, and innovation will come from the region**
- ↗ **Partnerships are essential for capturing opportunities**

"Regulatory progress requires constructive government-industry engagement. It takes two hands to clap."

Tran Quan, Vice President of Regulatory Affairs, APACMed

NAVIGATING THE REGULATORY MAZE

Gradual Convergence Amid Growing Complexity on the Road to Regulatory Harmonisation

For many at the Forum, regulatory advocacy and capacity building was one of the most important topics. In the *2016 APACMed - McKinsey Business Sentiment Survey*, 82% of the 130 respondents cited regulatory advocacy as a key opportunity for industry-wide collaboration. At the same time, only 35% believed they had strong capabilities in regulatory affairs, and many felt less prepared to deal with regulatory challenges than in the previous year. This is particularly true in China, where only 15% of respondents felt they were ready for regulatory change.

The challenge involves negotiating the region's fragmented regulatory landscape. While some fragmentation is to be expected in a region as diverse as Asia, there remain inconsistencies in device classifications, mutual recognition agreements, clinical trial requirements, and other regulatory areas. These inconsistencies make it hard for medical technology companies to bring innovative products to patients in many parts of the region.

Partnerships are helping to drive progress towards regulatory harmonisation. One example is the work of APACMed's Regulatory Affairs Committee, which provides a platform for collaboration on regulatory advocacy and capacity building initiatives. Comprised of senior industry leaders, the committee actively participates in key regulatory meetings, including those held by the Asia Pacific Economic Cooperation Regulatory Harmonisation Steering Committee (APEC-RHSC), the Asian Harmonization Working Party (AHWP), and the China International Medical Device Regulatory Forum (CIMDR). They also work on specific policy proposals, such as the ASEAN Medical Devices Directive, and conduct regulatory trainings in countries like Vietnam and Indonesia.

In a session on **The Road to Regulatory Harmonisation & Convergence**, APACMed's Vice President of Regulatory Affairs Tran Quan described a situation of growing complexity but gradual convergence in regulatory policy, and emphasised the importance of ongoing engagement with multiple stakeholders.

Tran spoke on a panel that included regulators from around the region, including Dr. Jun Kitahara from Japan's Pharmaceuticals and Medical Devices Agency (PMDA), Dr. Choongman Hong from Korea's Ministry of Food and Drug Safety (MFDS), and Associate Prof. Raymond Chua from Singapore's Health Sciences Authority (HSA). It was moderated by Associate Prof. John Lim of the Centre for Regulatory Excellence (CoRE), an organisation geared towards building regulatory capacity in Asia. Founded in 2014 and hosted at the Duke-NUS Graduate Medical School in Singapore, CoRE actively partners with institutions around the region.

The panel also addressed the need to bolster the region's regulatory workforce. With the pace of technological progress accelerating, regulatory processes will require ever more technical skills in the coming years. More action is needed to attract, retain, and incubate regulatory talent in both industry and government. This will require outreach to young professionals who may not be aware of the many exciting job opportunities in regulatory affairs.

- ↗ Regional partnerships across Asia are driving gradual convergence in regulatory policy
- ↗ Medical technology executives in Asia see big opportunity for regulatory collaborations
- ↗ Capacity building in government and industry is essential for continued progress

THE TALENT GAP

New Approaches for Educating Health Workers and Industry Professionals

Partnerships can help address the workforce shortages and talent gaps that persist in healthcare systems across Asia. Many speakers talked about the dearth of skilled health workers across the region and the challenge of keeping them up-to-date with the latest advances in medical technology. The challenge remains particularly acute in Asia's emerging markets, but also in rural and remote areas of more developed markets.

The medical technology industry has long played a vital role in educating healthcare workers. In 2014, for example, 11 major medical technology companies invested nearly US $130 million to train healthcare professionals in Asia. Organisations like Ethicon Institute of Surgical Education (EISE), managed by Johnson & Johnson Medical, has three campuses in India that actively partner with medical communities in the region to improve the healthcare talent base.

To avoid conflicts of interest that could arise when medical technology companies support the education and training of health workers, legal and ethical guidelines must always be considered. In January 2016, APACMed members partnered to adopt a *Code of Ethical Conduct for Interactions with Healthcare Professionals*, which helped mobilise leading companies around shared principles. APACMed Chairman Vladimir Makatsaria described this as one of the association's key accomplishments at the Forum.

A panel moderated by Christopher White, Chief Operating Officer and General Counsel of the Advanced Medical Technology Association (AdvaMed), addressed some of the latest legal considerations in practitioner engagement. The panel included Lok Mun Leng, who directs procurement for SingHealth, and three legal professionals from the industry—Richard Hamilton of Stryker, Campbell Clark of Medtronic, and Benjamin Kwak of Zimmer Biomet.

Another challenge is the quality of training at many medical schools in Asia, but new approaches to learning may help improve the current situation. In a panel on medical education and capacity building in Asia, Prof.

"Codes of conduct are a place to start, but we need to work together as an industry to ensure we meet the expectations of the codes."

Richard Hamilton, Chief Legal Counsel, Stryker Corporation

Robert Kamei of Duke-NUS talked about his work developing "flipped learning" programmes for medical students. Contrary to traditional models of education that typically revolve around scheduled lectures, flipped learning allows students to watch on-demand online lectures and use their class time for discussion. This lets students accrue knowledge at a pace and schedule that works best for them, ensuring that class time provides more interactive learning.

These methods could help build talent within medical technology companies and government agencies as well. Dr. Sherry Keramidas, who served as the Executive Director of the Regulatory Affairs Professional Society (RAPS) until 2016, said that she often used online learning platforms at RAPS to support the professional development of her members. As the pace of technological and organisation disruption accelerates, continuing professional education will be increasingly necessary in all disciplines. By partnering with innovative academic institutions and educational technology companies, the medical technology industry may find new ways to build its talent base.

- Healthcare systems in many Asian countries face significant talent gaps
- Medical technology companies must partner to improve the talent base
- APACMed's *Code of Ethical Conduct for Interactions with Healthcare Professionals* helps industry engage health workers ethically

EMBRACING DISRUPTION

The Quest for Market-Appropriate Products

To serve a greater share of Asia's value-oriented patient base, many speakers at the Forum identified a need for more market-appropriate products and business models. While some medical technology companies tend to focus on premium market segments, many others aspire to innovate their way into markets with greater cost sensitivities. Most have realised that multi-stakeholder partnerships are the best way to do so.

In a session on **The Era of HealthTech**, five digital health enthusiasts came together to discuss the latest trends in disruptive medical technology. The panel was moderated by Dr. Ronald Ling of Galen Growth Asia (GGA), a Singapore-based organisation that facilitates partnerships and catalyses innovation at the intersection of healthcare and technology. The panel presented examples of up-and-coming companies working to help digitise Asia's healthcare systems. One of those companies was Holmusk, whose Chief Executive Officer Nawal Roy shared his work on building data-driven disease management programmes to address diabetes and other chronic conditions.

Another session on **Developing Market-Appropriate Products for Emerging Economies** offered more case studies on innovative healthcare technologies. One of the panelists was Bruno Occhipinti of Philips Healthcare Asia Pacific, whose recent work includes developing mobile ultrasound systems for low-resource settings. An example of this is the mobile obstetrics monitoring telehealth programme in Indonesia.

The panel featured executives from three design firms—Yan Lin Lye of Cambridge Consultants, Bassam Jabry of Chemistry, and Matt Durack of Lunar Design Singapore. All three companies have long track records of partnering with healthcare providers to develop innovative new products in emerging markets. For example, Yan Lin Lye presented a suitcase-sized laparoscopic surgery system that her firm developed as an alternative for larger and more expensive units common in high-resource settings.

There are many other types of partnerships that can also drive innovation. Provider networks, for example, can work with medical technology companies to help them understand usage patterns for products and build business models that drive greater value for all stakeholders. Technology firms can help co-create new tools, such as connected medical devices and telehealth services, that provide powerful analytics capabilities and new efficiencies in care delivery.

Apollo Hospitals Group, an India-based provider network with a long track record of innovation, presented a case study that illustrates the power of new technologies for extending access to care. Dr. Rana Dasgupta, Chief Operating Officer of Apollo Hospitals Group, talked about how the company uses telehealth services to increase access to care in underserved rural communities. By partnering with forward-thinking provider systems like Apollo, medical technology companies can build relationships that drive innovation in both products and business models.

- ↗ Asia needs more medical technologies geared for value-oriented consumers
- ↗ Multinational corporations (MNCs), start-ups, and design firms are actively working on market-appropriate solutions
- ↗ Partnerships with providers and other stakeholders can drive innovation

"New technologies can help drive improved standards of care, but local partnerships are the cornerstone of successful implementation of these solutions, to ensure they have long-lasting impact."

Bruno Occhipinti, Director of Strategy and New Business Development, Philips Healthcare Asia Pacific

DATA REVOLUTION

Unleashing the Power of Big Data, Real-World Evidence, and Medical Device Registries

"While medical device registries can improve product development, value assessment, and patient safety, we still need to build proper regulations and build capacity to manage them in Asia."

Simranjit Singh, Senior Director of Strategies Planning and General Manager of Medical Devices and Diagnostics, Asia Pacific, QuintilesIMS

Another key topic of discussion was the growing centrality of data in healthcare. Most healthcare professionals in Asia recognise that modern information technologies and analytic methods provide exciting new opportunities for medical research and healthcare systems management, such as the possibility of using real world evidence for outcomes-based reimbursement. Given the complexity of big data technologies, however, multi-stakeholder partnerships will be essential for realising their value.

Medical device registries, which enable longitudinal tracking of patient outcomes for implants and other devices, provide one mechanism for making this happen. High-quality registries are rarely possible without collaboration between providers, clinicians, medical technology companies, and regulators. These collaborations hold tremendous promise for both clinical research and post-market surveillance, but often require negotiation around who pays for the registry, who owns the resulting data, and who gets to access it.

Three experts on the topic—Dr. Amit Shanker of Boston Scientific, and Dr. Laurent Metz and Dr. Christine Lim of Johnson & Johnson—offered further thoughts on how to make medical device registries a reality. Their key message was that no single medical technology company can succeed on its own. While most of the technology needed for managing a registry already exists, the complexity of determining what to measure, how to measure it, and what to do with the results will require input from across the healthcare ecosystem.

APACMed's forthcoming *Consensus Statement on the Future of Medical Device Registries Across Asia Pacific and Middle East-North Africa* reflects necessary collaborative efforts to pave the way for medical device registries in Asia. Developed by APACMed's Medical and Clinical Affairs Committee in partnership with the Medical Technology Association of Australia and MecoMed, it offers guidelines that will help all interested parties find common ground and avoid conflicts of interest.

- ↗ Connected health systems offer new opportunities for data-driven care
- ↗ Medical device registries hold potential to provide valuable industry data and insights
- ↗ APACMed's consensus statement on medical device registries supports collaborative efforts to make them possible

"The medical technology industry has been with us every step of the way. They help us get the right tools, build quality infrastructure, support advocacy with governments, and ensure health workers are trained to provide safe, effective procedures."

Russell Gruen, Vice-Dean (Research) & Prof. of Surgery, Lee Kong Chian School of Medicine, National Technology University, Singapore

MAKING THE CUT

Extending Access to Safe Surgical Care

In 2015, the Lancet Commission on Global Surgery published *Global Surgery 2030*, a study on the current and projected future state of surgical care around the world. The report found that more than five billion people lack access to safe, affordable surgery when needed. Given the centrality of surgery to modern healthcare, a growing number of healthcare leaders regard this as the world's biggest public health challenge.

- Low surgical capacity is arguably the world's biggest public health challenge
- Surgical NGOs like Operation Smile and the G4 Alliance work actively with industry
- Public sector partnerships will be crucial for improving access to surgical care

At this year's Forum, some of the world's top experts held an open dialogue on this challenge and how the medical technology industry can support initiatives to address it. The topic was introduced in a panel moderated by Johnson & Johnson's Dr. Ross Segan. The panel began with a presentation from Prof. Russell Gruen, one of the original Lancet Commissioners, who gave an overview of the findings.

Gruen shared the stage with two public health activists who focus on tackling this challenge—Dr. William McGee of Operation Smile and Dr. Jaymie Claire Ang Henry of Global Alliance for Surgical, Obstetric, Trauma, and Anaesthesia Care (G4 Alliance).

The panelists noted that partnerships with medical technology companies are essential for their work. Dr. Henry said that more private sector engagement would be needed to hit the Lancet Commission's target of 80% coverage of timely access to essential surgical procedures by 2030.

Dr. McGee shared the full story of what inspired him to start Operation Smile, a global charity that provides cleft lip and palate repair surgeries for those in need. He recalled going to the Philippines on a medical mission in 1982 and realising that there were too many cases to treat on his own. He felt remorse for having to turn away hundreds of children, and decided to make a change. Since then, he helped build a worldwide organisation that is making positive impact around the globe. Throughout the story, he cited a long list of partnerships with medical technology firms and government agencies that helped him along the way.

Many provider groups are also working to improve surgical capacity in low-income, remote settings. A panel moderated by Dr. Hunter Cherwick of Alcon looked at examples in ophthalmology. One of the panelists, Dr. Elesh Kumar Jain, discussed his work to bring high-quality standards of ophthalmological care to underserved patients in rural India.

As some governments in Asia take on greater responsibility for care provision and reimbursement, public sector partnerships will be increasingly important for efforts to improve surgical capacity in the coming years.

KEY STATISTICS FROM *GLOBAL SURGERY 2030*

- Five billion people across the globe still lack access to safe, affordable surgical and anaesthesia care when needed
- 143 million additional procedures are needed yearly to fill unmet need
- Every year, 33 million people face serious financial difficulties following surgical care
- Investment in surgical and anaesthesia care saves lives, is affordable, and promotes economic growth
- Surgery is an indivisible, indispensable part of health care

THE WAY FORWARD

A Call to Action from Industry Leaders and Patients

"To better serve patients in need, we need a long-term, holistic approach across the region. We need to prove we are committed in order to successfully partner with local stakeholders in addressing local needs."

Supratim Bose, Executive Vice President and President, Asia Pacific Middle East & Africa, Boston Scientific and Board of Directors, APACMed

To conclude the Forum, three medical technology leaders and APACMed board members—Supratim Bose of Boston Scientific, Harvinder Singh of Abbott Vascular, and Stephen Ooi of Zimmer Biomet—reflected on the Forum. They reiterated the huge opportunities to improve standards of care in Asia. They also offered perspective on the way forward.

One of their key points was the importance of partnering with local stakeholders to address gaps in regulatory capacity, medical education, access to surgery, and other areas of need. Yet for many international organisations, this is easier said than done. It often involves navigating cultural barriers and building trust in the integrity of their intentions.

The panelists discussed the need to invest more in building market-appropriate offerings. For medical technology companies focused primarily on premium customers, this may require much more than simply removing features and reducing costs on existing products. In many cases, it demands innovative partnerships with providers, design firms, digital health start-ups, and other organisations that can help forge new business models.

The story of Yoshitaa Jayabala, a 23-year-old Malaysian who spoke at the Forum, provides one example of how patients across the region will benefit from these efforts. Diagnosed at 13 with Type 1 diabetes, she faced chronic health challenges, social stigma from her peers in school, and long periods of deep guilt about the burden of her condition on her family. Thanks in part to an insulin pump and the guidance of her physicians, she was ultimately able to pursue her dream of becoming a doctor to help others like her.

- ↗ Partnering with local stakeholders in Asia requires trust and long-term commitments
- ↗ Medical technology companies must rethink their products and business models
- ↗ Patients across Asia will benefit from access to safe, affordable treatments

Stories like these provide an important reminder that innovative care changes lives. Yet across Asia, countless millions are still waiting for life-changing treatments. Getting them the care they need is about much more than bringing new medical technologies to market. It's about working with stakeholders across the ecosystem to ensure these technologies are delivered widely, safely, and affordably.

The medical technology industry has both the power and responsibility to help improve standards of care in the region. This year's Forum offered a remarkable opportunity for healthcare leaders to discuss and collaborate on solutions together. While no one denies the scale of the challenge, the Forum helped shine a bright light on the path ahead. Partnerships will be crucial at every step of the way.

"Simply removing features from products to reduce cost for markets in Asia is not the right approach. We need to think in terms of market-appropriate product designs, portfolios and rethink business models completely."

Stephen Ooi, Senior Executive Advisor, Zimmer Biomet Asia Pacific and Treasurer, APACMed

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