

### India will become a leader in Medtech space: CAMTech director

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The director of CAMTech, Ms Elizabeth Bailey, spoke exclusively to BioSpectrum's Raj Gunashekar, voicing her thoughts on India's healthcare challenges, accelerating and commercializing <u>innovations</u>, CAMTech's India plans, collaborations, and addressing India's obstacles in the medtech space. Excerpts:

#### Q: What are the current pressing healthcare challenges that you see in India?

**A:** Through our work in <u>India</u>, and specifically since the launch of the CAMTech INDIA program, CAMTech has identified critical health challenges related to reproductive, maternal and child health (RMNCH) in <u>India</u>.

The program aims to accelerate the development and adoption of new technologies to address preventable causes of death among women and children in India.

Specific areas that our events and initiatives have focused on include RMNCH challenges like newborn survival, safe births and family planning.

In addition to RMNCH, our hackathon in October 2015 focused on <u>innovation</u> in the diagnosis, prevention and treatment of <u>diabetes</u> in India - a significant area of unmet needs.

Q: How are these challenges, according to you, different in India compared to other LMIC countries? Any similarities?

A: Neonatal mortality in India contributes to about a guarter of the world's total number of infant deaths each year, and 99%

of maternal and newborn deaths occur in the developing world more broadly.

While there are differences in the Indian ecosystem, we have seen some exciting opportunities for <u>innovation</u> in India to help solve clinical problems on a global scale.

Issues of access to quality care, for example, are not unique to India, but in order for innovations to be successfully adopted here, they need to have local buy-in with an understanding of the local context.

This is why CAMTech focuses on sourcing local innovation that involves local stakeholders.

As we have seen in recent years, <u>diabetes</u> has become one of the leading causes of death in India, which in turn has serious implications on the healthcare system in India.

This has motivated CAMTech to organize events that will work with local innovators in India to develop solutions that will help to address the epidemic in this country.

#### Q: How is CAMTech involved in addressing these challenges?

A: The process begins by identifying specific clinical challenges from our network of clinical, academic and industry partners.

We work to tackle these challenges through medical technology hackathons and <u>funding</u> programs, which act as a way to crowdsource <u>innovation</u> and bring game-changing technological solutions forward.

The most promising of these solutions are sourced and developed through CAMTech's ecosystem of incubation resources that help build and foster entrepreneurial capacity.

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#### Q: How do you view India's medtech landscape? How does it fare at the moment compared to the West?

**A:** We see so much promise in India's medtech landscape. The passion and talent alone is unprecedented, and the entrepreneurial culture seems to be gaining momentum.

What has been most exciting is to see how much innovators can accomplish, even with limited resources, compared to groups in the West.

It is much more expensive to do business and launch ventures in the West, and I think India has a real competitive advantage because of the lower cost of doing business.

I have no doubt that India will become a leader in the medtech space over the next decade, and it will have a huge impact not only on India but on other emerging and developing countries as well.

And we see enormous potential for <u>reverse innovation</u> where new health technologies coming from India can help to reduce costs and improve the quality of care in markets like the US.

#### Q: In India, what are the major challenges that you have experienced in moving an innovation forward?

**A:** The entire CAMTech team and all of our partners in India have been really inspired by the community of health innovators across the country.

There is a growing network of clinicians, engineers and entrepreneurs who are passionate about making a difference and improving health in India.

The biggest challenge however, seems to be the fragmentation of the medtech innovation ecosystem.

There are many people and organizations in India doing meaningful and impactful work, but they are not always able to work cohesively.

One of the primary goals of the CAMTech program has been to bring these disparate groups together to work more collaboratively to accelerate the whole process of innovation.

There has also been a dearth of resources and support for early-stage health innovators, and we are keenly focused on filling that gap with things like increasing mentorship, funding, technical assistance and partnership opportunities for Indian innovators.

## Q: Briefly explain what are the key elements needed to successfully accelerate healthcare medtech innovations in India.

A: First and foremost, we want to start with real and identified clinical challenges.

All too often, technologies are developed in isolation from clinicians, and that is why we have ended up with many technologies that are not used despite being available.

CAMTech works closely with our clinical partners to identify challenges and have those drive the <u>technology</u> innovation process. We also believe that successful technologies incorporate business, medicine and technology right from the start.

Successful innovations are ones that are not only technically-innovative, but also clinically-impactful and commercially-viable.

No one group or discipline should be innovating in isolation, and cross-disciplinary teams are the ones who are most successful and expedite the entire process.

In terms of what early-stage innovators need in this space, we often hear that there is not a roadmap or clear place to go to get guidance or needed information or resources.

CAMTech and our partners are working to create an ecosystem that can support global health innovators through the entire process of technology development, commercialization and market adoption and scale.

#### Q: Currently how does the healthcare entrepreneurship scene look like in India?

**A:** As I've mentioned, the innovator community in <u>India</u> and their desire to make a difference has inspired us. We do hear from those in our innovator network that it's not necessarily celebrated to become an entrepreneur, and that parental expectations influence many people to take a more traditional professional path.

We see that changing, however, but it has been slower outside of internet <u>start-ups</u> and particularly slow in the medtech space.

The more that industry, government bodies and academia can do to promote and celebrate entrepreneurship, the more health <u>start-ups</u> we'll see. The passion is definitely there, but they also need a little push to get comfortable with all the risks a <u>start-up</u> presents.

**Q**: Tell us about your key partners and the role they play in helping healthcare innovations.

**A:** CAMTech's broad range of clinical, academic and industry partners play a large role in the success and impact that our organization has in India and throughout the world.

Our partners provide ongoing clinical expertise and problem identification, event sponsorship, as well as mentorship, monetary awards and incubation support to global health innovators.

Some of our key partners in India include Lattice Innovations, who plays an integral role in the planning and implementation of our events; the Public Health Foundation of India (PHFI) and Lata Medical Research Foundation (LMRF), whose expertise and experience within diverse clinical backgrounds has helped identify high-priority clinical challenges in India; GE Healthcare India, who has served as host for two CAMTech INDIA events, and the Federation of Indian Chambers of Commerce and Industry (FICCI), which provides a unique opportunity for hackathon teams to compete for a monetary reward as well as mentorship after the hackathon.

The National Health System Resource Center (NHSRC) also offers exciting opportunities in health technology assessment, piloting, connections with industry partners and facilitating a closer relationship between state governments and early-stage innovators.

#### Q: How is CAMTech India supported?

A: CAMTech INDIA is supported by the United States Agency for International Development (USAID/India), the Omidyar

Network and the Bacca Foundation, in addition to several large medical device and technology companies such as Medtronic, GE, Merck for Mothers, AB InBev, the Novartis Foundation and others.

The organization also draws on the expertise of many local partners.

#### Q: Enlighten us about the current happenings at CAMTech.

**A:** In June 2015, CAMTech launched the CAMTech Innovation Platform, which connects global health innovators worldwide with an extensive network of experts (across public health/medicine, technology and business), with a goal to accelerate the development and commercialization of affordable global health technologies and work to enable the entire continuum - from challenge identification to market adoption and scale-up.

And <u>diabetes initiative in October 2015 in Hyderabad</u> was sponsored by Marico Innovation Foundation, Terumo and other industry sponsors, with an exciting group of clinical partners including Narayana Health, L V Prasad Eye Institute, the Public Health Foundation of India (PHFI), Madras <u>Diabetes</u> Research Foundation, Apollo Sugar Clinics and Dr Mohan's Diabetes Specialties Centre.

#### Q: So far, tell us about what CAMTech has achieved in India.

**A:** Since its launch, CAMTech INDIA has completed milestone events in Kolkata and Bangalore, including one hackathon at <u>Vellore Institute of Technology (VIT)</u>, one open healthcare hackathon and two RMNCH-focused 'Jugaad-a-thons', (how CAMTech refers to its India hackathons).

CAMTech INDIA has also organized several clinical site visits, which serve as immersion opportunities for participants prior to the Jugaad-a-thon.

The visits enable participants to gain insights into clinical environments and care pathways for women and children, and to better understand physician and hospital workflow.

CAMTech INDIA has also hosted two clinical summits, a series of panel discussions that take place prior to the Jugaad-athon and feature a diverse group of stakeholders, such as patients, healthcare workers, government officials and public health experts, who are focused on tackling pressing clinical health challenges.

Following both clinical summits, CAMTech has held two Technology Showcase events, featuring interactive presentations of early-stage and newly-marketed technologies focused on a particular area of care.

Over 500 participants have attended CAMTech INDIA's events and tackled over 150 clinical challenges.

During that time, they have created over 100 innovations designed to address critical health problems in the country.

# Q: Give us an idea about innovations and products that were enabled and accelerated by CAMTech successfully in India.

A: Several innovations have come out of CAMTech INDIA events and initiatives, including:

- ï,§ 2014 CAMTech India Jugaadathon First Prize Winner BabySteps a mobile application that aids in early diagnosis of developmental delays in children
- ï,§ 2014 CAMTech India Jugaadathon Second Prize Winner PEL-Dia a measurement system developed to diagnose a condition called Cephalo Pelvic Disproportion CPD occurs when the baby's head is too large to pass through the mother's pelvis
- i,§ 2015 CAMTech India Jugaad-a-thon First Place and CAMTech/USAID Grand Prize Winner Trust# a mobile platform for adolescents and adults that encourages open and effective communication about safe sex and family planning
- ï,§ 2015 CAMTech India/USAID First Place Winner Team Slow Forward an effective video consultation for rural areas with low bandwidth
- ï,§ 2015 CAMTech India/USAID Second Place Winner Team Peekaboα an interactive gaming application that aids in identifying vision impairment for children
- ï,§ 2015 GE Healthcare India First Place Award Winner Team O2-Matic a low-cost method for oxygen production to address

unpredictable availability of medical gases in limited resource settings

#### Q: Tell us about how you collaborate with Indian academic universities and healthcare organizations?

**A:** CAMTech's academic, clinical and industry partners in India have provided ongoing expertise, funding and participation in our events and initiatives.

We seek to engage both public and private sector groups from a range of institutions that will help broaden our reach in the healthcare landscape and support the end-goal of accelerating medical technologies to tackle clinical challenges and move them toward commercialization and impact.

Clinical organizations are at the heart of our program, because we want medical technology <u>innovation</u> to start with the clinical challenge and involve clinical end-users throughout the whole process.

We also love working with our academic partners, including both students and faculty. Our first academic partner in India - VIT - has been outstanding in terms of supporting their students to engage in the CAMTech program to help drive healthcare innovation in India.

They are a stellar example of what university leadership can enable in an academic setting by enabling their students to pursue their interests in healthcare innovation and empower them to chart their own path.

#### Q: Going forward, what is CAMTech's plans in India?

**A:** CAMTech is working to expand its platform in India to look at process and business model innovation in health, in addition to technology innovation.

We are looking forward to strengthening our relationships with government groups and other stakeholders to help engage a diverse community of innovators focused on improving health in India and embracing new approaches to innovation.

We are also looking to expand our connections to the corporate sector, with both more multinationals and small <u>start-ups</u> who want to be part of an open innovation platform. Good ideas can come from anywhere, so we want to be as broad and inclusive as we can to drive innovation in pursuit of a healthier India.