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Module Innovations to create effective diagnostic alternatives

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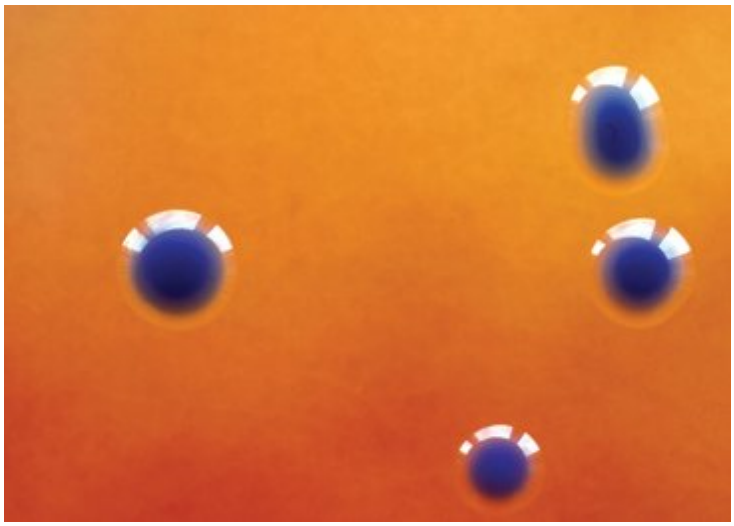

The current techniques for bacterial detection like culture, PCR, and ELISA are time consuming, costly and need skilled manpower. This limits these techniques for deployment in on-site scenarios. Therefore, to provide an effective alternative, a start-up, Module Innovations is developing a reusable, quick, colorimetric and portable strip form of sensor kit for detecting E.coli bacteria.

The idea that laid the foundation for Module was conceived when Mr Sachin Dubey and Mr Usman Khan were pursuing their internship at National Chemical Laboratory (NCL), Pune. The team won the second prize at the ABLE BEST Awards 2012. Soon after that, the team approached NCL to seek necessary assistance and after presenting the business plan and necessary technology, Module was incubated at Venture Center, which is NCL's incubator. The team received the scientific support from Dr Jyoti Jog, retired scientist 'G', NCL and Dr V Premnath, scientist at NCL and director, Venture Center.

The company received a cash prize of Rs 3 lakh for bagging second prize at ABLE BEST 2012. This became its first funding source. Soon after, the project got the necessary funding for proof-of-concept studies by NCL, Pune. The company has now applied for Biotechnology Industry Research Assistance Council's (BIRAC) Biotechnology Ignition Grant (BIG), for further support.

Talking enthusiastically about his product, Mr Sachin Dubey, Founder & CEO, Module Innovations mentioned, "Rural people have to travel to cities for getting them diagnosed. Moreover the time taken sometimes leads to patient's death. Albeit our strip can be reused for five tests. Our product promised to alleviate these problems and is poised to bring diagnostic lab to home. This would prove to be a boon not only to urban diagnostic scenario but for rural areas, which lack doctors and diagnostic facilities severely."

When asked about how important are PPPs to them, Mr Usman Khan, COO, Module Innovations, explained, "We as a young start-up look for public support and collaboration, so that the innovative and world changing ideas we bring do not die down

because of the ack of funding and proper support. Researchers and entrepreneurs like us are ready to apply our knowledge and skills in the market. However, there are some limiting factors, which we would stumble upon. There is often a mismatch in technological and financial resource capability between the public and private sectors. This makes finding the common ground for research even more difficult."

At present, Module is undergoing the proof-of-concept studies, which if successful will revolutionize the diagnostic arena the world over. The sensor strip will not only be a cost-effective detection kit for bacterial infection, it will also be cheap, and could be used without instrumentation and skilled labor. Moreover, one strip could be used for up to five tests.
"Module aims to develop innovative sensors for detecting various microbial species that pose a threat to human health care. Initially we started with E.coli, which is a common bacterium that causes diarrhea and other food poisoning diseases. Subsequently, we are looking at developing similar diagnostic strips for other common disease causing bacteria," concludes Mr Dubey.