BioSpectrum
the business of Bi
24 years of leveraging the business of Bio
www.biospectrumindia.co

Biosensors developed for detecting dengue

12 June 2017 | News

The scientists coated the biosensor with a thin film of bacterial cellulose nanocrystals, which effectively detected a protein known as NS1 from blood samples.



Brazilian scientists at the Federal University of Paraná have developed a biosensor that can quickly detect dengue and could help create a cheap tool to diagnose the painful mosquito-borne virus that infects millions each year.

Scientists are looking to produce a testing kit that would cost clinics and hospitals around $30 and take about 15 minutes to analyse blood samples for a key dengue protein. The scientists coated the biosensor with a thin film of bacterial cellulose nanocrystals, which effectively detected a protein known as NS1 from blood samples. They are working to explore ways to create cost-effective biosensor components that could be used to analyse multiple blood samples.

The technology could potentially be adapted to detect proteins from viruses such as Zika, which is also transmitted by the *Aedes aegypti* mosquito.

The main challenge is that simple tools such as testing blood from a finger prick, used to detect malaria, are not available for dengue, and there is no dedicated treatment for the virus which is usually found in urban and semi-urban areas.