BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Australian scientists detect cancer with gold plated nanoparticles

August 30, 2018 | News

During the study, the researchers altered gold-coated nanoparticles using DNA to match the miRNA to be detected.



Researchers from the University of New South Wales (UNSW Sydney) in Australia have used gold-plated nanoparticles to detect low microRNA (miRNA) levels in blood samples.

Impaired miRNA activity is known to be associated with tumour formation and metastasis. The new approach is expected to help in identifying various diseases, including cancer.

During the study, the researchers altered gold-coated nanoparticles using DNA to match the miRNA to be detected.

The magnetic nanoparticles were able to bind to the targeted miRNAs, thereby allowing easy extraction. This technique was found to be effective even in the case of little amounts of miRNA.

According to the researchers, the new gold-plated nanoparticles method it is expected to cost less as it requires only 30 minutes compared to nearly 12 hours for quantitative polymerase chain reaction.