Nano tattoos for medical diagnostic applications

Kurapati Srinivas
GITAM University, India

Nanotechnology is a new and innovative field that measures and manipulates material at the level of one to one hundred nanometers, each of which is one billionth of a meter. Combining this with biology, the physical sciences, and engineering opens an entire new realm of technology called nanomedicine. Although there are currently methods for treating those with diabetes, the approach of testing blood glucose levels and administering insulin injections are not completely effective. Although nanomedicine for diabetes is relatively new and testing is still being done, scientists and engineers must continue to devote time and resources to progress the development of glucose monitoring systems. With the use of nanotechnology, nanoparticles provide a means to measure glucose levels continuously instead of only at specific times. This is very important for diabetics; instead of checking their sugar levels only once or twice a day, they will have constant knowledge as to where their sugar levels are located. The smart tattoo can provide the solution to this ongoing problem. If smart tattoos become commercially available for insulin-dependent diabetics, it is vital that it is a safe and reliable means for glucose monitoring. In order for this to happen, engineers and scientists must undergo comprehensive research, along with a set of guidelines to abide by in order to ensure integrity and honesty. The current paper explores the feasibility of smart tattoos for future medical diagnosis purpose.

srinkura@gmail.com