Qeios

Peer Review

Review of: "Bio sensors (applied nanosensors for environmental detection)"

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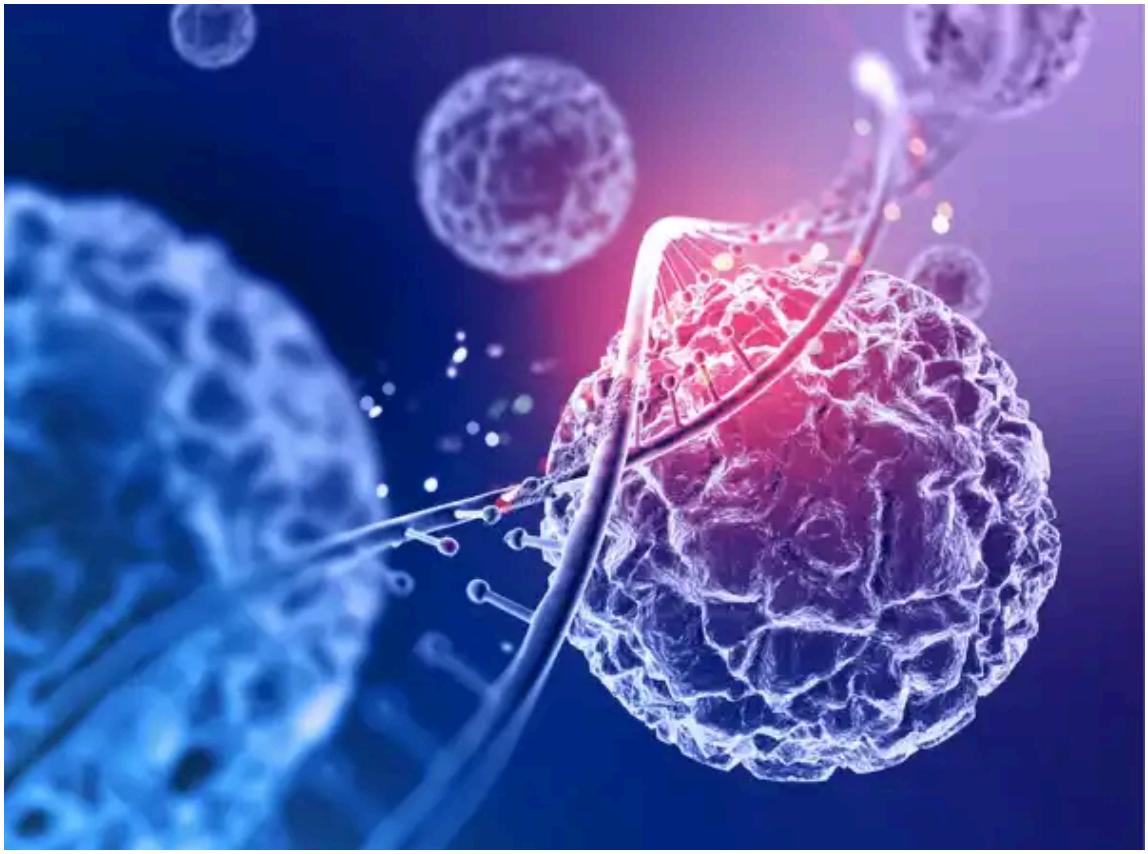
[1][2][3][4][5][6][7][8][9][10][11][12][13][14][15][16][17][18]**These nanosensors are placed in blood cells. Also, a lab-on-a-chip (LOC) and Bio is a device that consists of one or more laboratory actuators on a chip measuring a few millimeters or square centimeters, and deals with very small volumes of fluids and can give us a lot of desired information from a single sample.**



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These sensors are capable of detecting a wide range of chemical vapors. When a molecular bond is formed between the gas being analyzed and nanowires made of a semiconducting material, such as zinc oxide (ZnO), the wire's conductivity changes. The amount of change in the nanowire's conductivity depends on the degree to which the molecule is bound to the nanowire's surface. For example, nitrogen dioxide gas reduces the nanowire's conductivity, and carbon monoxide increases it.

Bio sensors (applied nanosensors for environmental detection)

These types of biosensors (environmental detection) can often be used to detect bacteria or viruses. First, a carbon nanotube is functionalized with antibody conjugates. When a bacterium or virus binds to the antibody, the nanotube's conductivity changes. In another method, the nanotube is connected to a metal and a voltage is passed through it. When a bacterium or virus binds to the nanotube, the current changes and a signal is generated. This method is a rapid method for detecting bacteria.

[19]

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Attachments: available at https://doi.org/10.32388/2WSWFS

Declarations

Potential competing interests: No potential competing interests to declare.