Introduction

Biosensing devices have been utilized for years, but as they can only process one input, their use is strictly limited. The concept of biosensors with built-in logic challenges those restrictions for good and aims for applications in revolutionary bio-medical processes.

Common biosensors have helped to analyse and detect certain single substances. One popular example for an application is the diabetes therapy, where a biosensor measures the concentration of insulin of diabetes patients.

In contrast to recent biosensors, those with a built-in logic promise a higher fidelity, a greater range of processable inputs, more complex applications such as sense-act-treat loops and rapid assessment of the respective substances.

With the usage of enzymes to create bio-computing devices, the new concept allows to process multiple substances at once, which are narrowed down to a single binary output. This possibility is mostly anticipated in the field of medical treatment development, where the yet to be realized concept of bio-molecular biosensors could contribute to the development of devices, that analyse certain body-parameters and immediately induce the correct treatment.

Considerations