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Biosensors are analytical devices that are capable of providing a selective sensitive information by means of a biorecognition element and a transducer to an electrical signal. ey appeared as a respond to fast observation and pathogen identi cation in clinical application and have grown toward di erent markets such as environmental monitoring, food and biodefense. Within biosensors, electrochemical biosensors have been preferred for in situ recognition due to their facility of being miniaturized for end user devices [1]. Nevertheless, even if there is a clear growing market, there is still a gap between academically developed biosensors and the ones that can be industrialized.

Among the di erent markets, clinical biosensors have been one of the most exploited ones due to the need of replacing routine tests for diseases monitoring and handling. Using biosensors to perform such exams has led to a reduction in costs and sample volumes, and an increase in sensitivity and response. Some commercial biosensors in the clinical industry include glucose [2], chorionic gonadotrophin [3], in uenza A and B viruses [4] and Helicobacter pylori [5], among others. Although most of them are oriented as point-of-care devices, few of them have included a communication with smartphones, computers or networks [6].

e food industry have been using biosensors for checking the safety and quality of food by the recognition of chemical and/or biological contaminants. Mainly, food biosensors focus in the recognition of sugars, amino acids, toxins and additives by means of oxidases, peroxidases and dehydrogenases enzymes [7]. However, commercial biosensors oriented toward the food market are primarily used to determine the concentration of glucose and lactic acid. Contrary to clinical biosensors, and perhaps due to their large scale application, these biosensors are found in di erent forms such as autoanalyzers, laboratory instruments and portable systems, in which the latest is usually easily connected to a computer or smartphone [8].

Biosensors for biodefense applications have appeared as a response to the need of detecting certain bacterial and viral agents that can threaten public health. ese ones have been oriented towards toxins detection in water resources and are mainly composed of a micro uidic device. e leading company in this area is ANP Technologies, which has developed an anthrax biosensor by means of a speci c immobilized antibody [9].

e use of biosensors in the environmental market is expeditiously increasing due to the continuously industrial development. A er the establishment of the Kyoto Protocol in 1992, countries have been faced with the need of measuring the greenhouse emissions and other contaminants that contribute to environmental pollution. As a result, biosensors have appeared in the environmental market as a tool to perform such measurement. One of the most explored technique for measuring pollution is the Biochemical Oxygen Demand (BOD) method, which measures the biological oxygen demand of wastewaters during 5 days at 20°C [10]. All of the commercial available BOD biosensors have an automatic sample injection and are calibrated by means of a standard solution with a de ned BOD. In addition, an increase in commercial environmental biosensors based on surface plasmon resonance have appeared due to their ability to improve detection and quanti cation of chemical and biological agents [1].

Even though there is an extensive literature on biosensors, there is still just a small portion of them that are commercialized. is is usually due to the limits of scalability that are common among academically developed biosensors and their relatively high production costs. However, recognition elements and targets have appeared to diversify in the last years, which could increase the target industries of biosensors beyond the ones already mentioned. Moreover, the existing commercial biosensors must consider their integration with other devices for facilitating data processing and handling. erefore we welcome the Biosensors Journal initiative that seeks for the publication of new developments on the eld of Biosensors that we hope will reach attention not only to scientist but also to companies.

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