The development of biosensor devices from ideation to startup initiatives, including the electrolateral flow immunosensor for stroke monitoring (POC4Triage)

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Point-of-Care devices became popular with increase in interest in diagnostics in our society, thanks to their convenience and utility such as in companion diagnostics. Thus, sprang the interest in biosensors, biochips and lab-on-a-chip to field the technological challenges they pose. With time it became clear that this interest was compounded by consumerism finding synergy in the rapid progress in mobile communication, 5G, data mining, artificial intelligence and Big Data. This quantum leap has brought renewed interest in our field of biosensors which we must admit fielded little commercial success despite the well-known exception, the glucometer. We will describe here the various techniques we have developed in the field of biosensors, and their applications, including those with potential for startups, and our recent interests in innovating in the field of quantitation in POCT. We will also describe attempts to commercialize our developed technologies.