INNOVATIONS JOURNALS

Editorial

Highlights from 2023: *Innovations in Digital Health, Diagnostics, and Biomarkers*

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The third volume of *Innovations in Digital Health, Diagnostics and Biomarkers* (IDDB) has successfully come to a close. At the same time the recent pandemic has come to a close, and the scientific community, as much as the rest of the world, is finding its post-pandemic pace, in many instances with innovations introduced during the pandemic identifying additional areas of adaptation and implementation. Innovation is a blanket term, covering a wide range of products, processes, or services. True innovations emerge when specific needs are identified, defined, and creative solutions are pursued to confer an advantage by their utilization, often in a context-specific manner. Emerging innovations often reflect a regionally defined and fragmented set of requirements. In all cases, the researchers behind the innovations strive to advance opportunities for improvement through systematic and scientific methods, the details of which are captured within IDDB.

The manuscripts published in IDDB describe the variation and emergence of innovations, showcasing the wide interest in digital health, diagnostics, and biomarkers research with multidisciplinary approaches.[1,2] For example, a brief report by Abboute et al[3] focuses on the digitization of biomedical research infrastructures in low- and middle-income countries, where the rate of digitization is highly context-dependent, as are many digital solutions. The brief report by Paiman describes implementation of an open-source software within a highly developed research facility in Austria; once more highlighting different context-driven solutions against the common background of supporting clinical research.[4] Original research by Duhm-Harbeck and Habermann described a novel data protection concept to enable personalized medicine through biobanking in the clinical context, marrying an innovative approach in sensitive, personal data handling at scale as part of established, healthcare-integrated biobanks.[5]

The transdisciplinary nature of innovation is aptly demonstrated in the manuscript by Wang et al,[6] who published a detailed review of innovative configurations for collecting biospecimen datasets from chimeric antigen receptor T cell (CART) clinical trials in relation to pediatric healthcare research. Furthermore, Luong et al[7] reviewed the existing gaps, challenges, and opportunities in areca nut and betel quid research. In particular, novel chemical preparation processes for these products have reportedly decreased carcinogenic compounds, such as alkaloid arecoline. A second review by the same group of Luong et al,[8] extends this research with a particular focus on adolescent health, where novel policies and innovations for communicating health benefits are needed.

Innovations are often fuelled by individual perspectives as they emerge over a specific field of scientific activity, such as the digital twin research project by Sfera et al,[9] who present an innovative virtual methodology to investigate diseases at individual and population levels. The inclusion of such diverse subjects and expertise is one of the unique advantages of publishing with IDDB, reducing institutional blocks that stifle further connections and limiting creativity. Innovation-related achievements are also reported in international conference proceedings, such as the annual Advancing Healthcare Innovation Summit (AHIS). Research abstracts presented at AHIS represent a wide range of geographical

and subject diversity, having healthcare innovation and a strong belief in the potential impact of such innovation as the common denominator.

We would personally like to thank the Journal staff for their tireless support during this third year (including social media support for @EditorsIDDB), and the entire editorial board for continuous encouragement and scientific direction of the Journal as it continues to develop. We are excited to have had Dr Beheshta Paiman complete her year-long editorial fellowship – and to be joined this year by two new editorial fellows, Drs Radwa Hassan and Benjamin Thong. We look forward to working with them in 2024. A special mention should be made for the Innovative Healthcare Institute (IHCI) that shoulders the cost of operations and publication under the leadership of Dr Abdul Rahman Jazieh. Finally, we gratefully acknowledge the many reviewers who actively supported the peer-review process, which has resulted in stronger contributions to the body of literature on healthcare innovations.

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