

Highlights from 2022: Innovations in Digital Health, Diagnostics, and Biomarkers

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The second volume of *Innovations in Digital Health, Diagnostics and Biomarkers* (IDDB) has successfully come to a close. The Journal was launched during a historic pandemic, and as the fields of biomedical research and healthcare are now moving into a transition period (from the pandemic emergency towards a new normal), it is evident that the pandemic has been a universal catalyst for innovative thinking. During such transition, drivers for change have ranged from introducing new technologies to developing new operating frameworks for existing capacities, anchored in a context-dependent manner. Thus, the emerging innovations vary and often reflect a regionally defined and fragmented set of requirements.

Notwithstanding the latter, manuscripts published in IDDB demonstrate wide interest in digital health, diagnostics, and biomarkers research, which defines the publishing niche that we are developing through a consistent multidisciplinary approach.^[1] For example, original research by Liang et al.^[2] reported the photo-toxicity sensitivity for cells grown in vitro, and Pardes et al.^[3] introduced the use of a mobile health platform for remote assessment of suicidal ideation, depression, and anxiety. The team of Qu et al.^[4] provided a detailed review of innovative technologies for healthcare application, pointing out existing gaps, challenges, and opportunities, as well as identifying key areas where immersive technologies can impact healthcare provision. Additional articles by Medina et al.,^[5] and Kozlakidis et al.^[6] showcase focused areas of scientific activity, namely construction and application of biobank infrastructure for infectious diseases and a state-of-the-art review of betel nut use, respectively.

Innovations are often fuelled by individual perspectives, as they emerge over a specific field of scientific

activity, such as in this case. The editorial by Cheong and Wang^[7] describes the Chinese experience with digital health applications in public health interventions. The commentary by Xu^[8] focuses on aspects of biopsy specimen acquisition during longitudinal sampling. 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 limits creativity. The transdisciplinary nature of innovation is aptly demonstrated in the three related manuscripts by Arnholdt-Schmitt et al.^[9–11], where original observations regarding balancing of reactive oxygen and nitrogen species (ROS and RNS, respectively) in plants, which contributes to shaping a foundational mechanism of health resilience. This group conducted pilot testing of early metabolic responses in cultured primary target cells infected with influenza H3N2 and SARS-CoV-2.

The achievements made by scientists are also reported in international conference proceedings. One example is the 2021 International Society for Biological and Environmental Repositories (ISBER) virtual workshop proceedings by Ivanova and Katsaounis.^[12] This report summarizes key barriers, challenges, and perceptions to digital innovations with respect to informed consent in biobanking (and wider implications for longitudinal sampling and organ donation). Additionally, IDDB has been privileged to publish the abstracts presented at the 2022 Advancing Healthcare Innovation Summit (AHIS)^[13] in Cincinnati, OH, USA. As with the manuscripts mentioned above, abstracts from AHIS represent a wide geographical and subject coverage, having healthcare innovation and a strong belief in the potential impact of such innovation as their common denominator.

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social media support for @EditorsIDDB). I thank my Associate Editor, Dr Daniel Catchpoole, and the entire editorial board for continuous encouragement and scientific direction of the Journal as it continues to develop. We are excited to have two young professionals (Drs Beheshta Paiman and Gowhar Rashid) who recently joined IDDB as part of a year-long editorial fellowship. 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. Abdulrahman Jazieh. Finally, I gratefully acknowledge the many reviewers^[14] who actively supported the peer-review process, which was applied to all manuscripts alike and has resulted in stronger contributions to the body of literature on healthcare innovations.

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