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Advancement of the Artificial Pancreas through the Development of Interoperability Standards

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Abstract

Despite advancements in the development of the artificial pancreas, barriers in the form of proprietary data and communication protocols of diabetes devices have made the integration of these components challenging. The Artificial Pancreas Standards and Technical Platform Project is an initiative funded by the JDRF Canadian Clinical Trial Network with the goal of developing device communication standards for the interoperability of diabetes devices. Stakeholders from academia, industry, regulatory agencies, and medical and patient communities have been engaged in advancing this effort. In this article, we describe this initiative along with the process involved in working with the standards organizations and stakeholders that are key to ensuring effective standards are developed and adopted. Discussion from a special session of the 12th Annual Diabetes Technology Meeting is also provided.

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Abbreviation: (AP) artificial pancreas, (BGM) blood glucose meter, (CGM) continuous glucose monitor, (PHD) personal health data, (SIG) special interest group

Keywords: artificial pancreas, continuous glucose monitoring, diabetes, insulin pump, interoperability, standards

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