

A Novel Technological Approach to Maintaining the Cold Chain during Transportation

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Abstract : Innovators propose to use the Internet of Things to solve the problem of maintaining the cold chain during the transport of biopharmaceutical products. Sending a data logger with refrigerated goods is only useful to inform the recipient of the goods that they have either breached the cold chain and are therefore potentially spoiled or that they have not breached it and are therefore assumed to be in good condition. Connecting the data logger to the Internet of Things means that the supply chain manager will be informed in real-time of the exact location and the precise temperature of the material at any point on earth. Readable using a simple online interface, the supply chain manager will watch the progress of their material on a Google map together with accurate and crucially real-time temperature readings. The data logger will also send alarms to the supply chain manager if a cold chain breach becomes imminent allowing them time to contact the transporter and restore the cold chain before the material is affected. This development is expected to save billions of dollars in wasted biologics that currently arrive either spoiled or in an unreliable condition.

Keywords : internet of things, cold chain, data logger, transportation

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