Through Data, Digital Medicine Paints a More Complete Patient Picture

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Wearable devices have become a common way for people to count their steps, monitor their heart rate, track their sleep and collect other health data. These kinds of devices are becoming increasingly important in the realm of “digital medicine” as well. At the Pfizer Innovation Research, or PfIRe Lab, wearable devices are adding a new dimension to clinical trials, helping scientists monitor symptoms, assess health and better understand how treatments work.

Digital medicine may be able to supplement what patients share during a clinical trial with additional data. Those more subjective insights from patients aren’t always accurate, explains David Caouette, Head of Digital Data Science with Pfizer. “You are prone to recall bias. You’re prone to not really remembering what you ate that day, how you felt that day,” says Caouette.

Currently, the team at the PfIRe Lab is using wearable devices to help scientists monitor treatment for a chronic skin condition called atopic dermatitis, which affects more than

40 million people in the United States. The lab equips patients with a device that can monitor sleep disruption caused by scratching. The team assesses that sleep disruption both with treatment and without treatment to determine how effective a particular therapy is for that particular endpoint. “Think of someone that scratches 100 times an hour. Maybe with treatment they would scratch 10 times an hour,” says Caouette. The wearable device will be able to track and share data one would likely have a hard remembering precisely on their own.

Digital medicine approaches like what the PfIRe lab team is using can provide a more complete picture for scientists, and that can have a lasting impact in how Pfizer develops therapies.

“What’s happening in the PfIRe lab used to be called the future of medicine,” says David Caouette, Head of Digital Data Science with Pfizer. “But it’s happening now.”

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