



ACCENTURE ENABLING HOME PATIENT TESTING VIDEO TRANSCRIPT

Mirela Alistar [00:00:12] I'm Mirela Alistar, and I'm an assistant professor at the ATLAS Institute in the Department of Computer Science at the University of Colorado-Boulder. I am directing the Living Matter Lab, and in my lab, we work highly interdisciplinary, combining biology, computer engineering and microfluidics. Specifically, we develop devices for personal health care and look into how people can get closer to diagnosis, self-diagnosis in particular, by building devices that they can use of home to do procedures that are traditionally done in a wet lab.

[00:00:47] The focus of my research is around devices called digital microfluidic biochips. These are small electronic devices. I have one right now here and they can manipulate fluids such as blood or other biochemical reagents in very small amounts. Pretty much they can move droplets so that they mix, and they react in a similar way they do in a wet lab.

[00:01:14] An important advantage of using biochips is that they are fully programable, which means that we can develop software that can enable people that don't necessarily know exactly everything about bio protocols or wet lab procedures, we can enable everyone to use them. When you are traveling or when you are going hiking and you're away from the traditional health care providers that you usually have access to. And the second is in countries that are underdeveloped, and they don't have health care that's available on demand.

They have to travel for kilometers to go to health care. So these are the two main advantages of having personal health care devices available at any time to perform this diagnosis.

[00:02:03] Biochips are cheap. They are portable. They will be easy, easy to use, and they have the potential in the future to change the way we interact and perceive health care. The goal is to make biochips accessible to people so that they make health care accessible to people.

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