



RESEARCH2REALITY

Shining a light on research & innovation.

'The Days When You Could Do Everything Are Gone'

An interview with University of British Columbia researchers:

Peter Zandstra, Biomedical Engineer, Director, UBC School of Biomedical Engineering

Carl De Boer, Biomedical Engineer, Assistant Professor, UBC School of Biomedical Engineering

Carolina Tropini, Biomedical Engineer, Assistant Professor, UBC School of Biomedical Engineering

Kelly McNagny, Biomedical Engineer, Professor, UBC School of Biomedical Engineering

and **Calvin Kuo**, Biomedical Engineer, Assistant Professor, UBC School of Biomedical Engineering

Peter Zandstra

Over the last 20 years we've seen incredible progress in new therapeutics to treat a variety of degenerative diseases and chronic diseases, including cancer.

Carl De Boer

Collaboration is becoming increasingly important in science. It's like the days when you could do everything are pretty much gone because science is now so complicated that you need to be a specialist in one area, and to do the really exciting projects you need to collaborate with other people.



Carolina Tropini

The world is multidisciplinary. If we ask about a person's health, the answer is going to be relying on the chemical interactions, is going to be relying on the behaviour. The way that science and engineering works nowadays is that it can't be done in a silo. It has to be done across scales and it has to be done across institutions.

Kelly McNagny

Any time you get dragged out of your comfort zone, where you get dragged into a new area that you normally didn't think about, then all the magic happens. That's when new ideas come about.

Calvin Kuo

There's a lot of great work that happens in engineering, and then there's this big barrier between engineering — all the stuff that we do, all the really great stuff that we do — and then actually getting it to clinical practice.

Kelly McNagny

Engineers can come up with, you know, artificial organs that kind of purify your blood or things like that, but they may be bulky and they may be awkward, and they'll be kind of horrible to carry around. The biologists understand that part of it. Maybe they can help you design something that will now be more compatible and you won't even know you're wearing a device. Or, rather than have a device, maybe talking with an engineer you can design cells that will work like a device. And that sounds like science

