



# RESEARCH2REALITY

Shining a light on research & innovation.

## UBC Researcher Tames Drug-Resistant Cancer

An interview with Professor Martin Gleave  
Cancer Clinical Biologist, University of British Columbia

### How does cancer evade treatment?

So cancer is the number one cause of death in our society and we want to better understand how that happens, recognize it, and treat it. But specifically, I'm interested in how cancers avoid our attempts to control it with drugs: what causes resistance, how they evolve and adapt around our attempts to kill them, and in doing so, it gives you real insights into the complexity of biology and of life. How living organisms want to live even when conditions become harsh. So you've got this huge spectrum of aggressiveness and potential lethality that we're only now beginning to better understand and segment so that individual cancers are better placed on a large spectrum of aggressiveness so that your cancer fits here, your cancer fits there, your cancer fits there. And as a result, we're better able to individualize treatments.

### How has research helped prostate cancer patients?

I think we're a real tangible illustration of investing in research and we're only now harvesting the seeds that were planted several decades ago in research. If you look at prostate cancer in 2004, we had really only hormone therapy as a treatment that prolonged survival, and once you became resistant, overall survival was about 16 months. Ten years later, we now have six new drugs that prolong survival and overall survival is now more than 36 months. So we now have more tools in our toolbox. People are living not just longer, but much better and more productive lives. We are getting to the point where as we get more drugs available, we're now combining them much more rationally and creating incredible, durable responses that were otherwise unfathomable ten years ago.