



# A remarkable opportunity to dream and build!

How Dr. Jake Thiessen is building Canada's Pharmacy School of the future.

Imagine this: You're one of Canada's best-known and most respected professors of Pharmacy, with an enviable list of research and teaching credentials to your name. One day your phone rings and a voice offers you the chance to design and create a cutting edge Pharmacy school from the ground up. No limitations, no parameters – just create a dream and run with it.

That's the invitation that Dr. Jake Thiessen got from the University of Waterloo back in 2004. And he's been busy making the dream come true ever since.

Dr. Thiessen is the visionary and guiding force behind the brand new University of Waterloo School of Pharmacy, due to enrol its first class of about 100 Pharmacy undergraduates in 2008. In the quest to create a school that breaks new ground in Pharmacy studies, Dr. Thiessen has spent three years travelling throughout Europe and North America, gathering ideas and opinions from some of the world's finest Pharmacy educators, researchers and innovators. Everything about the school -- from its first-in-Canada co-op program, to its unique medicine garden, to the way it selects applicants -- will be unique and innovative.

We sat down recently with Dr. Jake Thiessen, the man behind this remarkable project.

**Most educational institutions are scrambling for funding. How did you acquire the money to get your new school off the ground?**

Dr. Thiessen: "It's really quite a remarkable story. Kitchener had a parcel of land in its downtown area that it wanted to redevelop as part of a strategy to revitalize the centre of the city. After conducting research to understand the numerous options, the city's officials decided that bringing a University and our project to the site would be the prescription for rejuvenation. So, in a heroic decision, the City of Kitchener donated \$30 million plus the land to build our school and kick-start the development. Please understand, this wasn't provincial government funding – the people of Kitchener made it happen. What other city in the world would have the vision to do that kind of thing? It was a courageous and far-sighted investment in the future, and it's something other cities can learn from. Later, we also received generous support from the Region of Waterloo, a broader tier of municipal government in our area. The Region committed \$15 million to help provide infrastructure for the McMaster University medical program which is coming to our site."

### One of the things that will set the new School of Pharmacy apart is its co-op program. Why was co-op so important to your vision?

Dr. Thiessen: “One of the complaints by numerous employers is that students from Pharmacy schools have not been coming out with their feet on the ground, ready to work. They’ve had excellent head knowledge, but the translation of that into practice has not been great. When I came to Waterloo, I was brought face to face with the concept of co-op education. It certainly was a compelling educational approach, to make graduates ready for the workplace. It was intriguing to learn how this Waterloo “brand” was shaping the lives of students and that many employers, including Bill Gates, were selecting its graduates because the kids possessed real world experience, and could problem solve and take on complex projects. It seemed to be a no-brainer. However, as you know, Pharmacy schools have typically used the medical model – learn all the theory first, and put the practical experience at the end. To be frank, we really wrestled with the entire concept of experiential learning and how co-op might work in Pharmacy. Clearly, we felt that going in this direction would be swimming up-stream. Ultimately, with the encouragement of many pharmacists and employers, we decided to adopt co-op. It will have a profound impact on our students! And this is the perfect place to do it: the University of Waterloo has a vast understanding of this model; more than 13,000 students experience co-op every year. We’re committed to it, and it’s going to happen.”



### Another distinctive feature of the school will be its Medicine Garden. Tell us about that.

Dr. Thiessen: “Our facility will be developed in a number of phases. One of our later phases, a stunning glass atrium, will feature the Medicine Garden. The idea for the garden came while brainstorming about our new building’s design with the architects. I mentioned that more than 50% of modern medicines have their origin in the natural (plant) world, and the idea was born and grew from there. We thought, why not bring a transformative image of healing to this site, formerly a warehouse district occupied by businesses such as a tire and rubber company. In addition to giving an image of life and healing, we might even cultivate some of the important medicinal plants. It could become a wonderful way for students to research the plants first hand. Also, if shaped the right way, it could be an attraction for the community, and become an educational tool for children – our future Pharmacists -- who want to learn more about the field. As conceived, we feel this Medicine Garden will become a signature feature of the School, and we’re very excited about it.”



### Why do you feel the time is right for a Pharmacy school like this?

Dr. Thiessen: “Pharmacy faces a significant manpower shortage, even though it continues to gain prominence as a profession. One might even think that it is really coming into its own. Many cities and universities are investing heavily in Pharmacy education; drugs represent an ever-growing portion of health care costs in Canada – currently about 17%. There is no question in my mind that well-trained Pharmacists can help manage these drugs more effectively, whether you’re talking about controlling costs, finding new and better drugs, or simply giving superior patient care. I have often proposed that Pharmacists can be the “chemical quarterbacks” in health care – the individuals who orchestrate and optimize therapy on the real playing field. The world is crying out for people who understand and can make sound decisions in the midst of biology, the role of disease, consumer choices, medicines, etc. And the need for such a person can hardly be denied. In the United States alone, problems with pharmaceuticals -- adverse drug reactions, the use of inappropriate meds, etc. -- cost up to \$100 billion a year. It’s not that the medicines are bad, it’s that we need better-trained people to manage them. It’s like a car; cars are good, but when people don’t know how to operate them properly you have problems. And with an aging population these medicines will be even more in demand in the future.”



I've heard you say that the philosophy of the school will be "of the community." Can you expand on that theme?

Dr. Thiessen: "This School will not have a moat around it. It's really an inherent value or attitude, undoubtedly shaped by its beginning, including the role played by the people of Kitchener. Fundamentally, whether we are dealing with research, innovations, or our students, we will be engaged with people, business, systems and governments. As an illustration, we are bringing Community Service learning into our program, to help our students see the real world, to experience the trauma and difficulties people face in the community. In Europe there is a program where students are put into teams and sent out to places like prisons and halfway houses to investigate food quality, inmate care, etc. We're making community service an integral part of our program. The heartbeat of the community is becoming the heartbeat of the school. The community is the fabric of this place."



Many academic facilities consider *business* to be a dirty word. You don't see it that way, do you?

Dr. Thiessen: "Look, Waterloo University was founded by entrepreneurs, by business people. It's one of the few places where discoveries are owned by the investigators – the university owns nothing. UW is very keen to see people take any discoveries they make and translate them into business. So when I hire faculty they will know that we will support them in going out and commercializing their discoveries. We embrace business. Practically, this will also include Pharmacy's business."

In fact, isn't it true that business management will be part of the curriculum?

Dr. Thiessen: "Absolutely. It doesn't matter whether you are dealing with a community Pharmacy, a hospital practitioner, a primary health team, a start-up company or even a new School of Pharmacy, all are predicated on an underlying business model. Healthcare professionals often find the business end of their practice difficult and frustrating. So every student in our program is going to be trained in business management, entrepreneurship and Human Resources. They need to know how to manage people. We are also entertaining extended study options. For example, what about adding an optional extra year to the program, during which a student could complete an MBA? This illustrates that we're creating a diverse education that will allow our students to better realize their dreams."

What's your goal for the school, the "big picture" that you're trying to achieve here?

Dr. Thiessen: "We have lofty ambitions on various fronts. We want to be transformative and excellent, because the chance to shape young lives and impact the future of a nation is a humbling privilege. As educators, creating a wave that brings personal and common good to succeeding generations is something most are very keen to do. For us, this includes many faces of Pharmacy. For example, I've gone on record as saying that as a nation we need to get to a place where we mature in the world of pharmaceuticals."



People have always hoped that Canada will do something progressive in this field -- make discoveries, develop innovations -- but we've never embraced this mindset and made it a national priority. We've always been ambivalent or even content to let someone else do it. Countries like Ireland have targeted pharmaceuticals, and said 'We can make this a national resource'. India has done that too. Canada is a glorious nation with a petrochemical industry that can make anything, an intelligent workforce, and everyone in the world loves us, yet we have no prescribed agenda when it comes to pharmaceuticals. We regard pharmaceuticals only as a negative, as a cost. We've never thought, here's an industry that we should champion and develop. Among many ambitions, that's one I'd like to get to. That's the attitude we'd like to foster here."

*There's much more of our interview with Dr. Jake Thiessen to come. Next month, read an expanded story about the unique Medicine Garden, and why the University of Waterloo School of Pharmacy considers it an important part of their program.*



45 Vogell Road, Suite 200, Richmond Hill, Ontario L4B 3P6  
Phone: 905-770-3711 Toll Free: 1-877-821-7724 Fax: 905-770-4811  
**For more information visit: [PPCdrugs.com](http://PPCdrugs.com)**