



# Entrepreneur Grants Give Hip Technology Inventors A Leg Up

Armen Bakirtzian had one of his best moments last December in an operating room at Mount Sinai Hospital in Toronto. After more than six years of developing and prototyping miniaturized sensor technology that improves the accuracy of implant selection and positioning during hip replacement surgery, Mr. Bakirtzian and his business partners finally saw their product used for the first time in the O.R.



Intellijoint co-founders Armen Bakirtzian, Andre Hladio and Richard Fanson say that their success in obtaining early-stage funding from grants, competitions and government loans brought far-reaching benefits to their growing medical device company. Watch 2014, Issue #1, April 2014, [rtparkwatch.com](http://rtparkwatch.com). Hilary Gauld Photography, [hilarygauld.com](http://hilarygauld.com)

"It's a long journey to commercialize a medical device," says Mr. Bakirtzian, CEO of Intellijoint Surgical Inc., the Waterloo-based company he founded with two former university classmates. "My co-founders and I were in the operating room when our product was first used in the surgical field – it was like an early Christmas present."

Mr. Bakirtzian and his partners developed their product while studying engineering at the University of Waterloo. Other technologies that do the same thing are available today, but because they are large and very expensive, most hospitals in Canada don't use them when doing hip replacements.

"Right now, implant selection and placement is done by eye, guided by the orthopedic surgeon's professional judgement," says Mr. Bakirtzian. "Unfortunately, this sometimes leads to the implant being positioned incorrectly or one leg being longer than the other. There are numbers out there that suggest 30 per cent of patients are dissatisfied with the outcome of their hip replacement surgery, largely due to discrepancy in leg length."

Mr. Bakirtzian and his co-inventors knew they had a viable medical product, but they also knew that developing it and getting it to market would be a complex and costly undertaking.

"Access to capital is a problem for a lot of businesses in this country," says Mr. Bakirtzian. "That problem is more pronounced for hardware companies and even more so for medical device companies."

Because they typically lack credit history and collateral, small business start-ups often find it hard to secure a loan. According to Statistics Canada, close to 80 per cent of the country's entrepreneurs use their personal savings to support their start-up.

Mr. Bakirtzian and his partners did something different. In 2010, two years after graduating from university, they entered an Ontario government competition for young entrepreneurs, through the Ontario Centres of Excellence. They won, and received a loan of \$18,000. Shortly after, they launched Intellijoint.

As they improved and prepared their technology for market launch, the co-founders continued to apply for grants and loans through other government and non-profit organizations. They received funding from the National Research Council and the Canadian Youth Business Foundation, now known as Futurpreneur Canada. They also received additional funding from the Ontario Centres of Excellence.



Intellijoint's approach to early-stage financing puts them in the minority among small and mid-sized businesses, of whom only about nine per cent seek loans or grants from government sources.

Gerry Fung, group manager, business services at NorthBridge Consultants, a Cambridge, Ontario consulting firm that helps companies access government funding, says many government loans and grants are targeted to established, cash-flowing companies with a track record of growth and success. But there are federal and provincial funding programs for small and start-up businesses, particularly those with innovative products or services.

Many small businesses fail to take advantage of these funding programs either because they don't know they exist or they think they're ineligible, says Mr. Fung. Most entrepreneurs are also busy running their business and they lack the knowledge and support to go through the entire application and review process.

"Securing government funding can be time-consuming," says Mr. Fung. But the effort can be worth it, he adds. In addition to providing funding, government grant programs often support recipients with other benefits.

"They give you exposure because the government announces grant awards in the press," says Mr. Fung. "They also give you access to government consultation and business experts, because once they invest in you they want you to succeed."

That was certainly the case with Intellijoint. The young entrepreneur competition that it won in 2010 connected Mr. Bakirtzian and his partners with a doctor who opened doors for them at Mount Sinai Hospital. The same doctor is now a member of Intellijoint's advisory board.

"We really benefited not just financially from government funding, but also by meeting people who supported us and by gaining validation with angel investors," says Mr. Bakirtzian, whose company has now raised about \$7-million in financing. "Applying for government and non-profit funding is a lot of work, but I don't think people should be discouraged from doing it."

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## CIBC Tips: Start Strong

- 1. Do the research** The first step in starting a new business is taking the time to research your product / service, industry and the opportunities and threats within the marketplace. Before committing upfront investment, you need to understand who your competition is and test the feasibility of your business concept to get a clear picture of what your business needs to succeed.
- 2. Create your business plan** Next, putting together a detailed business plan, based on your research, is vital to implementing your vision and securing financing from banks, governments or other investors. Incorporate the financial and operational objectives of your new business, including a marketing plan, industry and competitive analysis, budget and timelines. This will serve as a road map to guide your business to success and will ensure that you pay attention to unforeseen problems as your business becomes established.
- 3. Find your niche** Market-test your idea/service in different platforms and listen to your customers' feedback to identify their unmet needs. This process will provide you with an opportunity to identify the target market that will respond best to your offering. Choosing to identify a narrowly defined market will help you to differentiate your business from competitors and keep you focused on the needs of your selected group of customers, while building your client base.

For more business tips from CIBC, please visit [cibc.com/startstrong](http://cibc.com/startstrong)



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