



A worker collects cuttings from a marijuana plant at the Canopy Growth Corporation facility in Smiths Falls, Ontario, Canada, January 4, 2018.

REUTERS/CHRIS WATTIE

## Pot Pharm

*Unlike the U.S., Canada has created a fertile environment for marijuana producers based in the country to thrive. Now, those firms want to branch out and start challenging big pharma for market share.*

**BY NICHOLA SAMINATHER**  
CONTRIBUTING WRITER

Canopy Growth Corp, one of the world's biggest medical marijuana producers, now wants to take on the world's pharmaceutical giants.

The Canadian firm launched Canopy Health Innovation in late 2016 to build a portfolio of patented and federally approved cannabinoid-based medicines. The venture is one of a small but growing number of companies aiming to compete with established drugs treating diseases ranging from anxiety and chronic pain to multiple sclerosis and childhood epilepsy.

They're developing research-backed formulations to be sold as pills, inhalers, solutions and creams, with the goal of convincing doctors and insurers to embrace marijuana as a mainstream medicine.

"You'll see a lot of companies like Canopy Health starting to form, and they're basically going to create medical cannabis 2.0," Canopy Health Chief Executive Marc Wayne said in an interview. "There is a gold rush for cannabis intellectual property, and it's accelerating."

Canada's relaxed regulations, mature marijuana industry and free-flowing capital offer such firms a unique opportunity to advance research without the legal and political risks that bog down cannabis firms in the United States and elsewhere.

While U.S. federal law continues to ban weed in all forms, Canada approved medical pot in 2001 and will legalize recreational use

this year. Its government welcomes and even finances the research and clinical trials needed to fully legitimize medical cannabis.

Canada is also one of only two nations - along with the Netherlands - that currently exports marijuana, allowing firms here to take immediate advantage of recent medical pot legalizations in more than 20 countries. Research firm Brightfield Group last year forecast the global medical cannabis market would quadruple to \$31.4 billion by 2021.

Offerings in today's Canada medical marijuana market differ little from those used recreationally - the smokable plant and, more recently, oil extracts. More than 70 companies have licenses from the federal drug regulator, Health Canada, to cultivate, produce and sell medical marijuana, with more than half those licenses granted in 2017 or 2018.

Canopy Health and other firms now aim to craft new formulations with varying cannabinoid levels; to find the best dosage delivery systems, such as rapid-release or long-acting tablets or metered-dose inhalers; or to combine cannabinoids with other drugs or supplements to improve effectiveness.

Canada opened the door to serious medical research in 2015 with the approval of cannabinoid extract sales, allowing for the isolation of cannabis components that could form the basis of more sophisticated medicines.

The pace of research - and investment - quickened last year after the government

introduced legislation to legalize recreational use. Equity offerings by Canadian marijuana firms tripled to nearly \$1 billion in 2017.

Canopy Health raised C\$16 million (\$12.77 million) last year to finance medical trials alongside other institutions and researchers, Wayne said. It has filed 27 patents for treatment of insomnia relief and is now working on remedies for anxiety. The firm expects to have its first federal approval by about 2020.

Canopy Growth, a publicly listed firm valued at C\$5.3 billion, retains a 46 percent stake in the new private company.

Canopy Health's competitors include CanniMed, which last month agreed to be acquired by Aurora Cannabis to form what would be a C\$6 billion firm, the world's biggest marijuana producer by market value.

CanniMed has partnered with universities including McGill University in Montreal and the University of Manitoba on research into managing symptoms of multiple sclerosis, osteoarthritis and pediatric epilepsy.

"Canadian companies are taking the lead because we've more freedom to operate and can actually afford it now," said Chief Executive Officer Brent Zettl.

Other players forging ahead with medical research include MedReleaf, Emerald Health Therapeutics, Emblem Corp and Tilray, an unlisted company owned by private equity firm Privateer Holdings.

See POT, page 11