



## Introducing Jerry Kieran, Segra's New Executive Chairman



Segra is thrilled to welcome Jerry Kieran, who joined the team in January as Segra's Executive Chairman. For many who follow the cannabis industry, Jerry is a familiar face – as one of the partners behind Fluence Bioengineering, Jerry was at the forefront of providing cannabis growers around the world with best-in-class photonic platforms to augment their financial performance and mitigate risk.

The sale of Fluence Bioengineering to Osram Group in 2018 was a wonderful outcome for the Fluence team that positioned the company on a global scale, and allowed Jerry to extend his involvement in the cannabis industry in new ways. In his previous role with Fluence, as an owner of a multi-layered indoor cannabis garden in Denver, and in his concurrent role as Executive Chairman of [Catalyst BC](#), Jerry has developed a deep understanding for the nuance of the industry and fostered relationships with top industry professionals across the entire cannabis ecosystem, from seed to sale.

Jerry's relationship with Segra began at PhotoX Summit in 2017, an invite-only industry event hosted by Fluence Bioengineering that brings together the premiere scientists, producers, and executives working across the commercial agriculture and cannabis industries. A like-minded belief that tissue culture will be a major element in next-generation, large scale cannabis production facilities made collaboration between both parties inevitable, and Segra is proud to have Jerry's talents and experience brought into the fold as the new Executive Chairman.

## Note from the CEO



Welcome back to our Segra newsletter, the first of 2019 – and what a year it's shaping up to be! Whether showcasing our technology at North America's largest industry shows or opening relations with South America's most forward-thinking cannabis markets, industry experts and investors were always excited to learn how Segra is addressing the issues facing legal cannabis, both in Canada and abroad.

Our partner mini-labs have proven out the application of tissue culture for cannabis growing; our licensing with Health Canada has advanced in the approval process; and our genetics research lab is performing strain sequencing faster and more efficiently than ever. The cannabis market is only going to get bigger in the months ahead, and Segra will soon be equipped to deliver the quality of cannabis -at scale- the world is already demanding.

Regards,

Todd McMurray, President and CEO  
[todd@segra-intl.com](mailto:todd@segra-intl.com)



## Arcview Investor Meetup, Vancouver!

We're just weeks away from one of 2019's most exciting cannabis investor forums – and it's right here in Vancouver, B.C.! **Segra CMO Ian Davidson** will be speaking on the **Investing in Plant Genetics: The Cutting Edge** panel April 25th. Request your invitations now at [Arcview's website](#), forum dates **April 23-25, 2019**



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## Segra's Cannabis Nursery License Application Advances to "Confirmation of Readiness" Stage

In February, Segra was notified by the Licensing and Medical Access Directorate of Health Canada that the company's Nursery subclass license application passed another crucial milestone: advancement to the "confirmation of readiness" stage under the Cannabis Act. The license, if granted, will allow the company to begin cannabis cultivation at its 4,300 sq. ft. facility in New Westminster, British Columbia.

Once the company provides Health Canada with proof the facility is compliant with relevant provisions and passes required security clearance checks, it is anticipated that the site will receive the production license required to commence operations as a legal cannabis nursery. With construction fully funded and well under way, the Company expects to begin tissue culture operations from this new facility later this year.

## Development of U.S. Hemp Market Entry Underway

Following the passage of the US Hemp Farming Act last December, Segra is now taking swift action to expand its plant tissue culture operations into the United States. A clear legal framework for hemp plant production operations has been developed by Segra's legal team, and Segra has established corporate entities in both Nevada and Oregon. It is anticipated that operations in the U.S. can begin as early as Q3 of this year; further information on the proposed expansion will be forthcoming.

"The recent legalization of hemp on a federal level in the United States has opened up an entirely new and highly lucrative market for Segra," said Chief Marketing Officer Ian Davidson. "The primary focus in this emerging US hemp market is production of high CBD flowers with only traces of THC permitted under federal law. The standardised nature of tissue culture plants will provide massive value and risk mitigation to the emerging hemp farmer, and we look forward to supporting the propagation needs of hemp farmers across the U.S. in the very near future."



## Genomics Lab Deploys New DNA Sequencing Platform and Investigates Possible Labeling Discrepancies in the Cannabis Industry



Last month, Segra announced that its Genotyping and Molecular Lab Services Division (GMLSD) has installed and operationally qualified a new, Nanopore-based Next Generation Sequencing (NGS) platform. The GMLSD has developed assays and associated bioinformatics and databases for genetic identification and analysis of cannabis samples. The addition of NGS technologies will provide powerful tools for more in-depth identification and analysis of genetic markers, such as those for desirable cannabis traits and resistance to cannabis pathogens.

Segra's GMLSD also continues to actively employ its DNA fingerprinting technology for the identification and tracking of cannabis cultivars. In addition to applying this technology in-house for confirming cultivar identities in plant tissue culture propagation, the GMLSD is continuing to acquire novel cannabis DNA samples for its ever-expanding cannabis variety fingerprint reference library.

Additionally, the GMLSD is currently conducting research into the accuracy and consistency of cultivar names used by cannabis businesses to market their products, a major concern for cannabis consumers globally. Segra is currently assessing cannabis material from Canada's government-operated cannabis supply system in order to establish whether labelling discrepancies exist, such as genetically diverse cultivars being sold by multiple LPs under the same common name, or single clones being marketed under multiple discrepant names. The GMLSD expects to present results from this study within the year.





## Meet the Team

### Director of Tissue Culture - Sma Zobayed, Ph.D.

Most people couldn't imagine being responsible for millions of baby plants, but for Dr. Sma Zobayed, Segra's Director of Tissue Culture, it's just another day at the office. Trained by Dr. Toyoki Kozai, considered by many to be the "father of tissue culture," Dr. Zobayed oversees the implementation of Segra's tissue culture programs. Before joining the company, Dr. Zobayed's previous work required management of multiple industrial-scale nurseries for JRT Nurseries, where more than 12 million plantlets were produced annually using plant tissue culture.

While Dr. Zobayed's experience in the commercial agriculture space is outstanding on its own, it was his successful application of this technique to cannabis, under license from the Canadian government, that made him the clear choice for spearheading Segra's ambitious tissue culture program. Conservative estimates of global cannabis plantlet demand exceed half a billion per year by 2022 – a tall order for such a tiny product. Meeting this demand is a challenge only a handful of people are qualified to take on, requiring equal parts creativity and consistency – the kind that can turn just one of Segra's tissue culture-initiated cannabis plantlets into more than 1,000,000 in one year, using protocols established by Dr. Zobayed.

It's an impressive figure, but should come as no surprise to anyone familiar with Dr. Zobayed's work. Having already successfully established plant tissue culture protocols for numerous curative plants, like echinacea and ginkgo biloba, he's no stranger to growing medicinal plants en masse. With over 500 unique cultivars micropropagated under his watch, and over 50 scientific papers published on his research, there's not much in the world of industrial nursery operations that Dr. Zobayed would be a stranger to.

The unique challenge presented by cannabis is what drew Dr. Zobayed to Segra, where he recognized early on that the arms race unfolding in the cannabis industry towards having the biggest facilities and the most land was only half the battle. "The production coming for the cannabis industry is in the billions of dollars. I know a lot of companies are building a lot of greenhouses, a lot of space for cultivation and flowering, but where will the plants come from? Obviously, it will have to depend on plant tissue culture," said Dr. Zobayed in a recent interview with Cannabis & Tech today.

With Segra's first Plant Tissue Culture Production Facility scheduled to commence production later this year, Tissue Culture Technicians will soon be hard at work ensuring that LPs across Canada are filled with pathogen-free, true-to-type plantlets. It's because of the groundbreaking work of Dr. Zobayed

and his team that a crucial but unheralded science in commercial agriculture is poised to turn the world of legal cannabis on its head. Like multiplying cannabis plantlets, all it takes is one standout individual to make a huge impact.

To read the full interview with Dr. Zobayed in Cannabis & Tech today, download the article [HERE](#).

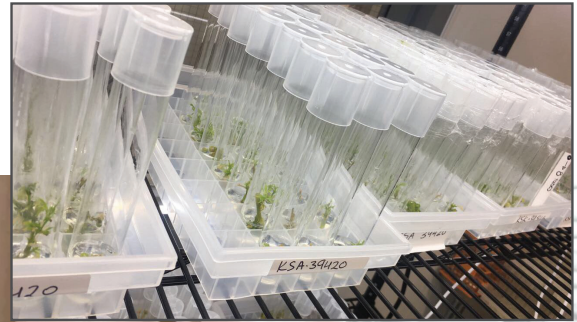
cannabis & tech  
today



# Interview with Todd McMurray on CFN

Watch: Cannabis Financial News interviews Segra CEO Todd McMurray

<http://www.cannabisfn.com/segra-pioneering-plant-tissue-culture-sciences-for-the-cannabis-industry-plus-exclusive-interview/>



Todd McMurray, CEO  
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## Forward-looking information

This document includes statements containing certain "forward-looking information" within the meaning of applicable securities law ("forward-looking statements"). Forward-looking statements are frequently characterized by words such as "plan", "continue", "expect", "project", "intend", "believe", "anticipate", "estimate", "may", "will", "potential", "proposed" and other similar words, or statements that certain events or conditions "may" or "will" occur. These statements are only predictions. Various assumptions were used in drawing the conclusions or making the projections contained in the forward-looking statements throughout this document. Forward-looking statements are based on the opinions and estimates of management at the date the statements are made and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements. The Company is under no obligation, and expressly disclaims any intention or obligation, to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by applicable law.

