

the Cannabis Scientist™

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The Innovation Awards 2020

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the
Cannabis Scientist
INNOVATION
AWARDS

WELCOME TO
OUR INAUGURAL
INNOVATION AWARDS
– CELEBRATING
INNOVATIVE
SOLUTIONS IN ALL
AREAS OF CANNABIS
SCIENCE

We launched the Innovation Awards to recognize the new products and processes driving cannabis science forward. Whether in testing, processing, medicine, or botany, innovation is bubbling over in this emerging field. We asked for nominations for the best innovations in two categories – tools and applications – released since January 2019. The entries were then reviewed and scored by an eight-strong panel of expert judges from analytical, extraction, formulation, and plant science. And so, without further ado, we count down the top five winners in each category!

JAMAICAN LION REFERENCE GENOME

A comprehensive cannabis reference genome

Created by Medicinal Genomics, in collaboration with DASH Cryptocurrency, New England Biolabs, Phase Genomics, and Pacific Bioscience

Why is it innovative?

Released in January 2019, the Jamaican Lion Reference Genome is the most comprehensive cannabis reference genome to date. Compared to previous reference genomes it is made up of fewer, longer pieces of genetic code (contigs), which can be more easily arranged, with fewer gaps, creating a more complete genome.

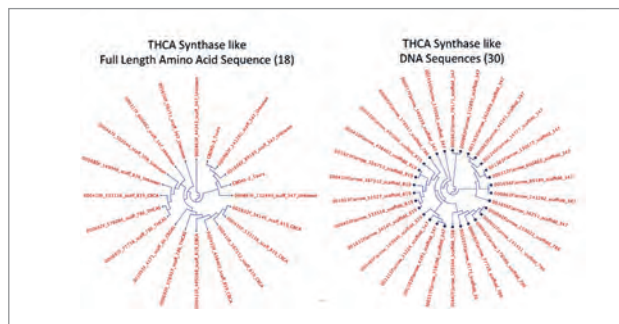
What is the potential impact?

The company says “The completeness of this genome and its publication on its blockchain ushers in a new era of intelligent breeding, with the potential to change the way cannabis is grown, sold, and consumed.” It also provides a foundation for others to build upon to fully characterize the genome and understand how it functions. Some of the discoveries made so far include identifying important locations for improved seed production and gene families that regulate the production of specific cannabinoids. In the long term, the company hopes to see a genomics-based approach to pest control that uses the cannabis plant’s natural defenses to reduce pesticide use and make farmers more profitable.

The judges said...

Extremely innovative. Having the opportunity to completely characterize cultivars makes personalized drugs a real future application.

This information is fundamental and could have far-reaching impacts in many areas, including medical product consistency.



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PULVERISETTE 19 PRECISION CUTTING MILL SYSTEM

Milling re-engineered for the cannabis industry

Created by Fritsch Milling & Sizing

Why is it innovative?

Efficient grinding of cannabis flower to a consistent particle size is important for producing a wide range of cannabis products, from pre-rolls to extracts. This easy-to-use homogenization system aims to make milling easy, with a variable-speed motor (300-3000 rpm) and adjustable, controlled particle size output. The Pulverisette 19 is suitable for large-scale operations, allowing continuous processing of 1-5lbs per minute on average, and is designed with GLP/GMP in mind.

What is the potential impact?

The judges saw this technology as another step towards standardization and efficiency in the industry, allowing greater product consistency and improved extraction yields at greater speeds. Plus, the speed of cutting allows no time for friction to generate heat, so cannabinoids and terpenes are preserved.

The judges said...

This is a fun tool and totally necessary for this industry since “one size fits all” particle size reduction is unacceptable for separate methods of extraction. The variable sizes, speeds, and GMP compliance make this an engaging tool.

Particle size and milling are vital to extraction optimization.