



ICR Announces Breakthrough in CBD Research: New 'Pink Pepper' Strain and Its Groundbreaking Genome Study

The Institute of Cannabis Research (ICR), in collaboration with Kangwon National University, South Korea, is excited to unveil the development of a new CBD-rich cannabis variety named "Pink Pepper." This project not only introduced the new strain but also successfully completed its entire genetic sequence (genome). This detailed genome map is now a valuable reference for future cannabis research and breeding efforts. Using advanced genetic sequencing technologies, the research team created a chromosome-level genome map for "Pink Pepper." This map shows how the plant's genes are arranged and includes important information about the plant's genetic makeup. The genome consists of 770 million base pairs and contains over 30,000 protein-coding genes. This new cannabis genome has been officially registered in a public database (NCBI) where researchers worldwide can access it.

Why This Matters:

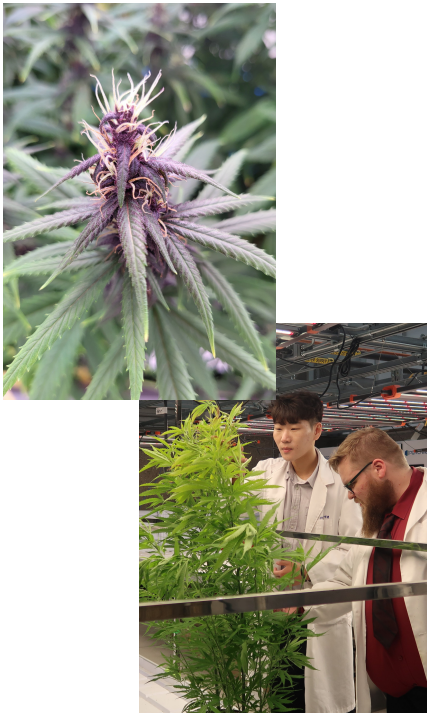
This breakthrough is a significant step forward in cannabis research. Having a complete, high-quality genome map provides scientists and breeders with a powerful tool to improve cannabis strains. The map gives detailed insight into how cannabinoids like CBD and THC, as well as terpenes are produced in the plant. This knowledge is crucial for medical cannabis, as it can lead to more precise control over how much CBD or THC a strain produces, allowing for better-tailored treatments for patients.

Implications for the Future:

The successful development of the "Pink Pepper" strain and its genome assembly marks a major achievement for cannabis science. It opens the door to new breeding possibilities, allowing for the development of cannabis varieties with specific traits like higher CBD content or better disease resistance. This genome also serves as a reference point for future studies in cannabis genetics, making it easier to understand and improve the plant. As cannabis research continues to grow, these advancements have the potential to revolutionize both the medical cannabis industry and cannabis agriculture, leading to more effective treatments and healthier plants. The ICR is proud to be at the forefront of this exciting research, setting the stage for future innovations that could shape the future of cannabis science and its applications in medicine, agriculture, and biotechnology.

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Utah's Center for Medical Cannabis Research Symposium 2025



2025 CMCR Symposium

The CMCR will be hosting its 2nd Annual Research Symposium on

January 21st, 2025

9:00 AM - 4:00 PM

The Cleone Peterson Eccles Alumni House

The CMCR is excited to host two exceptional researchers who have made lasting contributions to the national conversations surrounding cannabis research and the broader impact of cannabis policies.

If you are interested in presenting your cannabis related research at the CMCR symposium, please contact [Valerie Ahanonu \(valerie.ahanonu@hsc.utah.edu\)](mailto:Valerie.Ahanonu@hsc.utah.edu).

Please share this with any interested community members. More details, including an event registration link will be made available in the coming weeks. Our [symposium webpage](#) will be updated with the appropriate information as well.



Ryan Vandrey, PhD



Rosalie Pacula, PhD

Dr. Vandrey is currently a Professor at the Johns Hopkins University Behavioral Pharmacology Research Unit (BPRU) and helps run the Cannabis Science Lab (CSL). Dr. Vandrey's research focuses primarily on the impact of route of administration, dose, and chemical composition of cannabis products on resultant drug effects and pharmacokinetics. In addition, Dr. Vandrey has been involved with a broad range of studies related to the risks and benefits of medicinal cannabis use, cannabis-drug interactions, the effects of cannabis use on sleep, cannabis withdrawal, and the treatment of Cannabis Use Disorder, cannabis product testing, and developing measures of cannabis use behavior.

Dr. Pacula holds the Elizabeth Garrett Chair in Health Policy, Economics & Law at the Sol Price School of Public Policy, University of Southern California and is a Senior Fellow with the Leonard D. Schaeffer Center for Health Policy & Economics, where she co-directs the RAND-USC Schaeffer Opioid Policy Tools & Information Center of Excellence (OPTIC) in addition to leading numerous National Institute of Health funded studies examining the impact of federal, state and local laws on the supply, demand and access to treatment for intoxicating substances. Previously she spent 21 years at the RAND Corporation, serving as co-director of RAND's Drug Policy Research Center for 15 of those years, working on drug policy studies for the U.S. Office of National Drug Control Policy, U.S. Center's for Disease Control and Prevention, European Commission, and the U.K. Home Office.

ICR Funding Opportunity



The Institute of Cannabis Research (ICR) will be accepting Letters of Intent (LOI) for the 2025 *Request for Applications (RFA)* for cannabis research funding beginning November 16, 2024. More information and instructions can be found at: [LOI RFA 2025](#). This is the fifth year the Institute of Cannabis Research has offered this research funding award. The first step in applying for this funding opportunity is submission of the LOI. More information about submissions can be submitted through the [LOI Portal](#). The LOI is due on December 16, 2024, at 12pm (MST). Potential applicants are encouraged to review information about the [RFA 2025](#) application process.



Journal of Cannabis Research

The *Journal of Cannabis Research (JCR)* is the official publication of Institute of Cannabis Research. It is the only broadly multidisciplinary journal of cannabis research, encompassing not only clinical and scientific research, but also research into social, business, economic, legal, environmental, and ethical impacts of cannabis use and the changing legal status of cannabis. To learn more about the aims and scope of the journal as well as submission guidelines, please visit: [Journal of Cannabis Research](#)

Recent Articles:

[Attitudes toward driving after cannabis use: a systematic review](#)

[The attitudes, knowledge and confidence of healthcare professionals about cannabis-based products](#)

Upcoming Webinars



Kevin Boehnke , PhD

CANNABIS RESEARCH WEBINAR SERIES **November**

TITLE: Thoughtful approaches to chronic pain and cannabis research

DATE: November 14th, 1:00PM MST [REGISTER HERE:](#)

Kevin Boehnke is an Assistant Professor in the Department of Anesthesiology and the Chronic Pain and Fatigue Research Center. Kevin received his doctorate from the University of Michigan School of Public Health in Environmental Health Sciences in 2017. He is also a yoga instructor. His current research focuses on therapeutic applications of cannabis and psychedelics. His goal is to rigorously assess appropriate use of these substances and to help address the public health harms caused by their criminalization.



David Gorelick, MD, PhD

CANNABIS RESEARCH WEBINAR SERIES **December**

TITLE: Cannabis-related psychiatric disorders

DATE: December 12, 1:00PM MST [REGISTER HERE:](#)

Dr. David Gorelick earned his bachelor degree in psychology from Cornell University and his medical degree and PhD in pharmacology from Albert Einstein College of Medicine. After completing his psychiatry residency at UCLA, he remained on the faculty until 1989, when he moved to the NIDA Intramural Research Program in Baltimore. He retired from NIDA in 2013 and is now a part-time clinical professor of psychiatry at the University of Maryland School of Medicine. Dr. Gorelick currently serves as editor-in-chief of the Journal of Cannabis Research, which is sponsored by the ICR, and a member of the Maryland Cannabis Public Health Advisory Council. He has published more than 210 peer-reviewed scientific articles and 65 book chapters and writes the cannabis-related articles for the psychiatry section of UpToDate, a leading online clinical database.

Upcoming Webinars



Ken Frost, PhD

CANNABIS PLANT SCIENCE & CULTIVATION SERIES November

**TITLE: Recognizing diseases of hemp grown in the
U.S. Pacific Northwest**

DATE: November 20th, 11:00AM MST [REGISTER HERE:**](#)**

Ken Frost is an Associate Professor and Extension Plant Pathologist in the Department of Botany and Plant Pathology at Oregon State University. His research and extension program is located at the Hermiston Agricultural Research and Extension Center in Hermiston, Oregon, and focuses on the ecology, epidemiology, and management of pathogens that cause diseases of irrigated crops.

His research seeks to learn how variability in the environment affects pathogen growth, survival, and dispersal and influences disease intensity and pattern. His research group has examined how different crop management practices change the soil microbiome, and are associated with varying disease and yield outcomes. His research group also provides disease diagnostic services for farmers in the Columbia Basin of Oregon and Washington, which has led to several first reports of diseases affecting hemp in the Pacific Northwest. Recently, Dr. Frost's group has helped to document both hemp industry needs and the relative importance of different diseases affecting hemp production in Oregon.



**CANNABIS PLANT SCIENCE & CULTIVATION SERIES
No Webinar for December/January 2024-2025
These will resume February 2025**

A Deeper Look At Hemp

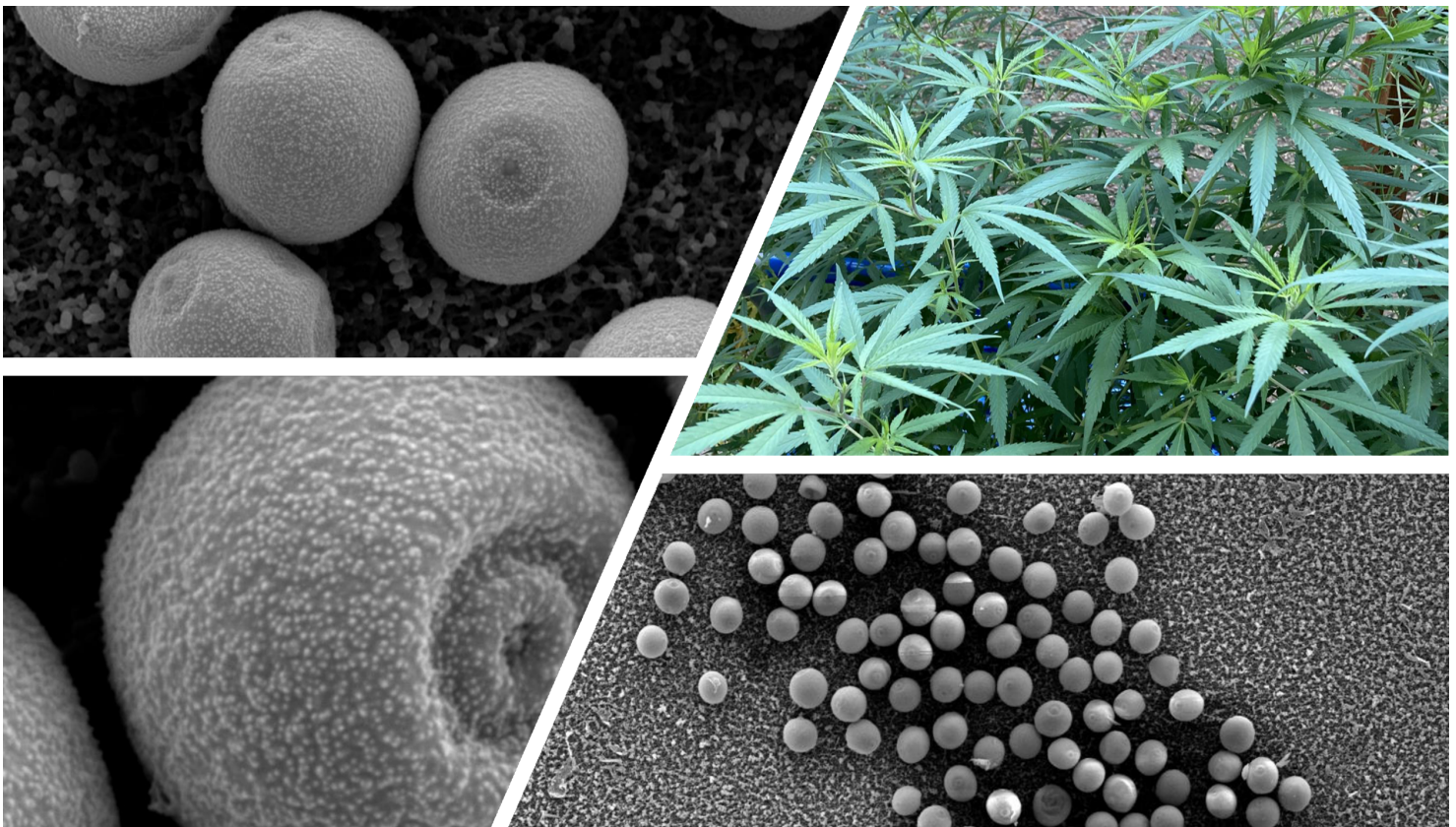
Photos by Dr. Eun-Soo Kim



Scanning electron micrographs of pollen grains of a hemp strain “Cherry Wine”

Hemp pollen possesses three apertures in the pollen wall which is classified as a granular type of surface. The spherical pollen grains are about 20 μm in diameter.

Image Curtesy of Dr. Eun-Soo Kim (Visiting Scientist-ICR)



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