

Institute of Cannabis Research

COLORADO STATE UNIVERSITY PUEBLO



The 8th Annual Cannabis Research Conference (CRC) Program is now available!!!



[Program Link Here:](#)

The Cannabis Research Conference (CRC) program is available to view on [the conference website](#). The CRC has become a cornerstone on the cannabis research calendar, allowing attendees to explore recent advances and future possibilities in cannabis science. The conference program includes a variety of presentations, posters and panel discussions, covering topics from medical applications of cannabis to the impact of cannabis legislation. The CRC promises to be a dynamic and informative event, reflecting the rapid evolution and growing importance of cannabis research.

IN THIS ISSUE

- 8th Annual Cannabis Research Conference August 7-9, 2024 Program
- Journal of Cannabis Research - Recent Publications
- Outcomes and Findings from Research Funded in 2021
- Industrial Hemp Research Foundation
- Upcoming Webinar Information for July - Cannabis Research and Cannabis Cultivation Series
- A Deeper Look at Hemp - Electron Microscopy Photos by Dr. Eun-Soo Kim

[Conference Website](#)

This conference allows you to connect with the brightest innovators addressing unique and timely topics and will feature:

- More than 130 Live Presentations
- Exhibit Hall
- Poster Hall
- Student Poster Contest and More!

There is no better time or place to connect with cannabis experts actively conducting new research and business ventures in a wide variety of topics including: Business, Education, Quality Control and Assurance, Public Health, Social Impacts, Economic Development, Biology, Chemistry, Genetics, Physiology, Cultivation, Material Manufacturing and Industrial use.



Journal of Cannabis Research



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:

- [Cannabis and cancer: unveiling the potential of a green ally in breast, colorectal, and prostate cancer](#)
- [Selected cannabis cultivars modulate glial activation: in vitro and in vivo studies](#)



ICR Funded Research



Outcomes of the research funded as part of the RFA 2021: "Quantification of Endo- and Phytocannabinoids with Comparison to Pain Medication"

Camille Stewart, MD and Ana Gleisner, MD

Patients with cancer have a particular interest in the potential therapeutic effects of cannabis. The effect of cannabis on outcomes after surgery, such as complications and pain control, is poorly understood. We hypothesized that frequent cannabis users undergoing abdominal surgery for the treatment of cancer would have increased post-operative pain, but similar rates of complications compared to non-cannabis users.

We conducted a prospective clinical study of adult patients undergoing an abdominal cancer operation comparing non-users (no cannabis use in the last year) or frequent cannabis users ($\geq 1x/week$ for the



Camille Stewart, MD and Ana Gleisner, MD

last 3 months) from 9/2021-3/2023. Blood cannabis metabolites were measured pre-operatively. Pain scores, pain medication requirements, and surgical complications were assessed.

Results:

- There were 220 patients screened, and 58 patients enrolled during the study period (19 (33%) frequent users, 39 (66%) non-users).
- In frequent users, positive THC and CBD metabolites were present preoperatively in 18/19 (95%) and 3/19 (16%) patients, respectively. There were 3/39 (8%) non-users positive for cannabis metabolites.
- Frequent cannabis users had higher pain scores at discharge compared to non-users.
- Frequent cannabis users had significantly more pain medication prescribed and taken after discharge compared to non-users.
- Frequent cannabis users had similar complication rates after abdominal surgery for the treatment of cancer compared to non-users.

Conclusions:

Most, but not all, frequent cannabis users had detectable cannabinoid metabolites, and most, but not all, non-users did not have cannabinoid metabolites in their blood. This may be due to poor labeling of cannabis products or poor patient understanding of what products contain cannabis.

Frequent cannabis use significantly increases pain medication use and pain perception after abdominal surgery for the treatment of cancer but does not increase rates of complications. This information may impact decision making for patients who are considering frequent cannabis use prior to surgery.



The Industrial Hemp Research Foundation is offering an exciting new opportunity for students to innovate with hemp textiles! The IHRF is a nonprofit organization that is dedicated to promoting hemp education and research at institutions of higher learning. The Denver, Colorado organization has strategic partnerships with universities all over the country.

The latest strategic, university partnership is with LIM College. Based in Manhattan, New York they are the first university in the country to offer Bachelor's and Masters degrees in the business of cannabis. Starting in the fall semester of 2024, any student enrolled at LIM College will have the chance to develop their own innovative approach to the design, production, and marketing of a hemp-based textile.

The Foundation will offer a generous, cash prize for the student who comes forward with the best proposal for innovation in the hemp textile industry. The five categories available to students are Social Justice and Corporate Responsibility; Fashion; Marketing and Merchandising; Supply Chain Management and; Economics and Finance.

The hemp textile industry is almost non-existent in the United States. This competition hopes to change that by looking to the next generation of leaders for their ideas. This presents a significant opportunity to hemp textile companies as well. "We're looking for partners and sponsors for this endeavor. Becoming a sponsor is a fantastic way for a company to promote their brand and make a difference in the lives of young people," said President Bethany Niebauer. Companies interested in learning more about sponsorship packages should reach out through the Foundation's website at industrialhempresearch.org.

The competition will conclude with a symposium at LIM College in December. Any student who participated in the contest will have the option to share their research or



Bethany Niebauer

their idea with a wider audience. If students participate in this competition, they'll be able to publish their work; they can put that on their resume and hopefully impress future employers. The winner will be announced at that event.

Bethany Niebauer has been in the legal cannabis industry for almost a decade. She is the President of the Industrial Hemp Research Foundation, and the Founder of Axial Compliance Consulting. She is an adjunct faculty member at Colorado State University at Pueblo where she teaches about cannabis regulation. She lives in Denver, Colorado.

Upcoming Webinars



Elise Weerts, PhD

CANNABIS RESEARCH WEBINAR SERIES

TITLE: Interactions of Delta-9 Tetrahydrocannabinol

DATE: July 11, 1:00PM MST [REGISTER HERE:](#)

Dr. Elise Weerts is a Professor in the Department of Psychiatry and Behavioral Sciences at the Johns Hopkins University School of Medicine, and core faculty in the preclinical Division of Behavioral Biology (DBB) the Behavioral Pharmacology Research Unit (BPRU) for human clinical and laboratory research. She has over 25 years of experience conducting behavioral pharmacology, drug pharmacokinetics and neuroimaging research in both laboratory animals and human volunteers. Dr. Weerts has served on multiple study sections for NIH institutes (NIDA, NIAAA and CSR) as a section member and as Chair., and also serves on the Editorial Boards for several journals including Addiction Biology, Pharmacology Biochemistry and behavior, and Experimental and Clinical Psychopharmacology.



Dr. Dmitry Kurouski

CANNABIS PLANT SCIENCE & CULTIVATION SERIES

TITLE: Raman spectroscopy-assisted diagnosis of cannabis physiological differences.

DATE: July 17th, 11:00AM MST [REGISTER HERE:](#)

Dmitry Kurouski earned his MS in Biochemistry from Belarusian State University, Belarus and PhD (Distinguished Dissertation) in Analytical Chemistry from SUNY Albany, NY, USA. After a Postdoc in the laboratory of Professor Richard P. Van Duyne at Northwestern University, Dr Kurouski joined BoehringerIngelheim Pharmaceuticals, where he worked as Senior Research Scientist. In 2017, Dr Kurouski joined Biochemistry and Biophysics Department of Texas A&M University as Assistant Professor. His research interests are focused on nanoscale characterization of biological and photocatalytic systems using TERS and AFM-IR.

