



Center for Medicinal Cannabis Research UC SAN DIEGO



Established in **2000**, the Center for Medicinal Cannabis Research (CMCR) has been at the forefront of advancing **science** and **policy** relating to the potential clinical benefits, and limitations, of **cannabis and cannabinoids as medicine**

Director: Igor Grant, MD

Co-Directors: J. Hampton Atkinson, MD;
Thomas Marcotte, PhD

A Cornerstone of Cannabis Research

- **Longest-running** clinical cannabis research center in the United States
- Founded in 2000 via California Senate Bill 847
- Completed 8 studies, numerous additional studies are underway
- A strong team of investigators with broad expertise plus integration with the larger UC San Diego research and clinical resource (see back)

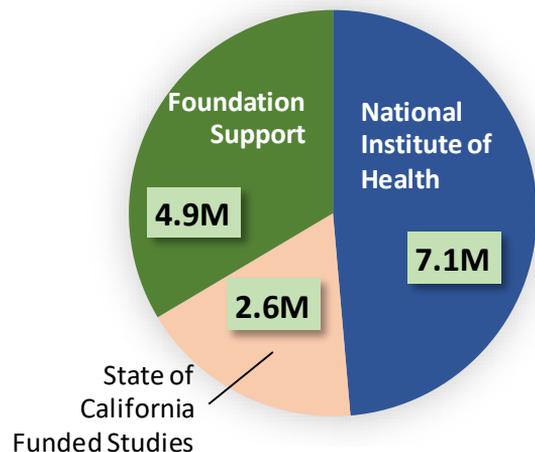
Policy Involvement

Advice to policy-makers at all levels:

- **International** (e.g., Canada, Mexico, Thailand)
- **Federal/National** (e.g., FDA hearing on CBD, House Veterans Affairs Committee, advising legislators proposing cannabis research bills, consultation with other States on medicinal cannabis issues)
- **State** (e.g., Blue Ribbon Commission on Marijuana Policy, Medical Board of California, Veterinary Board, California Highway Patrol, Office on Traffic Safety, Bureau of Cannabis Control, various Legislative offices)
- **Local** (e.g., county supervisors, mayors, councils, law enforcement)

Funding

CMCR receives over **\$15 million** in project specific support from a variety of sources



California Proposition 64 directs **\$2 million** per year to CMCR in long-term support, which includes funding for the CMCR Grants Program



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Original Studies

- Selected and funded at **5** UC campuses
- Completed **7** cannabis clinical trials; the first smoked in over 20 years
- Demonstrated short-term efficacy in neuropathic pain from several causes, and in muscle spasticity due to multiple sclerosis

Current Studies

- Clinical trials for low-back pain, severe autism, essential tremor
- Observational and mechanistic studies examining the effects of cannabis in persons with bipolar disorder, HIV-associated neuropathic pain
- Effects of cannabis, and cannabis plus alcohol, on driving ability, and methods for detecting impairment

See www.cmcrc.ucsd.edu for the latest listing of CMCR-related studies and publications

CMCR Grants Program

- ✓ Using funds provided by California Prop 64, CMCR will issue funds *annually* for studies in California to evaluate the efficacy and adverse effects of cannabis and cannabinoids
- ✓ Issued 1st request for applications in 2019: 66 letters of intent from 19 institutions; selected 26 applications for a full application
- ✓ Committed \$3 million in funding to 5 studies: insomnia, rheumatoid arthritis, early psychosis, anorexia nervosa, and alcohol dependence

CMCR Resources

Regulatory Expertise: Federal, State, institutional IRB (human subjects)

Clinical Research Expertise: Study design, statistical analysis, outcome selection, specimen collection, cross-study standardization enabling data aggregation

Study Participant Registry: A registry of individuals who are interested in participating in cannabis research, including healthy controls and individuals with a variety of health conditions

Data Management and Information Systems: Web-based data management and reporting, hardware/software resources, enabling of big data analysis

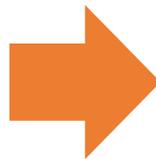
Specimen Collection, Processing and Storage: Blood, oral fluid, breath, spinal fluid, urine, stool; specimen repository (24-hour temperature monitoring), custom web-based inventory system

Toxicology Services: Mass-spectrometry to evaluate cannabis metabolites in human samples and tissues; plans to develop capability to evaluate plant and other products

Facilities and Equipment: Negative pressure rooms (inhaled cannabis), driving simulation rooms, clinical exam rooms, cognitive testing equipment

In-House Investigative Expertise

- ✓ Psychiatry
- ✓ Pain medicine
- ✓ Neurosciences
- ✓ Neurology
- ✓ Toxicology
- ✓ Neuropsychology
- ✓ Pharmacology
- ✓ Translational science
- ✓ Public health and safety (e.g. driving)



UC San Diego Extended Resources

*Nested within UC San Diego, one of the top research institutions in the country, CMCR has access to **additional experts and patient populations** across a broad range of disciplines*

UC San Diego

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