"Democracy needs the facts."
—George Seldes

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O'Shaughnessy's

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Hearing Set for September

Mikuriya Asks Medical Board to Drop Charges and Clarify Practice Standards re Cannabis

Lawyers for Tod Mikuriya, MD, filed a motion April 24 to dismiss the Accusation against him brought by the Medical Board of California.

On May 1 the state Attorney General's office, as counsel for the MBC, requested a delay in the Mikuriya case, presumably to prepare a response. There will be a hearing on the motion to dismiss July 11 in Oakland. If it is denied, the Berkeley-based psychiatrist says he's prepared to defend his handling of 17 cases in which MBC investigators claim he departed from a "standard of care." The file-by-file hearing is scheduled to begin in Oakland Sept. 3.

Mikuriya, 69, is a leading authority on the medicinal use of cannabis, having edited an anthology of pre-prohibition scientific papers and reported extensively on his own clinical observations. Since Prop 215 passed in 1996, legalizing marijuana for medical use in California, Mikuriya has approved and monitored its use by some 7,500 patients, many of them seen at ad hoc clinics arranged by cannabis clubs in rural counties.

Many California doctors have been afraid or otherwise reluctant to approve cannabis use by patients whose conditions are not terminal. Mikuriya has been willing to approve its use in the treatment of chronic pain, depression, and a wide range of other medical conditions.

The MBC, which is under the Department of Consumer Affairs, issues licenses to physicians and surgeons —and can suspend or revoke them. The Board has 19 members, appointed by the governor, 12 of whom are physicians. MBC staff Investigators (not MDs, although they can consult "physician experts"), look into complaints and forward cases to the Attorney General for legal action.

No Harm to Patients Alleged

Mikuriya says that not one of the Board's investigations into cases he allegedly mishandled stemmed from a complaint by a patient or a patient's loved one. "Nor were any of the complaints from other physicians or healthcare providers," he adds. "They came from cops and sheriffs and deputy DAs in rural counties who couldn't accept that a certain individual had the right to use marijuana for medical reasons. And not one of their complaints alleges harm to a patient."

Mikuriya is represented by his longtime attorney, Susan Lea; Bill Simpich and Ben Rosenfeld —members of the team that sued the FBI on behalf of Darryl Cherney and Judi Bari; and John Fleer, who is retained by Norcal Insurance, Mikuriya's malpractice carrier.

"We helped him review his files, case by case," says Fleer. "I've been doing this for 20 years and I have a feel for whether a doctor has a detailed understanding of a case. Mikuriya not only had understanding, he had an unusual level of sympathy for his patients... I'm afraid the Board is holding him to an artificially high standard."

The primary basis for dismissal, according to Mikuriya's motion, is the section of state law established by Prop 215 (Health & Safety Code section 11362.5) which reads: "Notwithstanding any other provision of law, no physician in this state shall be punished, or denied any right or privilege, for having recommended marijuana to a patient for medical purposes."

Although the MBC investigation is ostensibly about departures from the

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TOD MIKURIYA, MD, tacking up a poster at the 2002 meeting of the International Cannabinoid Research Society, held at Asilomar. ICRS members are mainly university- and drug-company researchers. Mikuriya's paper "Cannabis as a Substitute for Alcohol" appears on page 5.

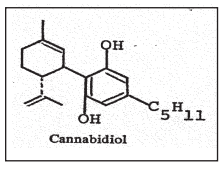
What Every Doctor Should Know About Cannabinoids

What scientists really know about how marijuana exerts its effects is updated every summer at the International Cannabinoid Society's annual meeting.

The ICRS was organized in 1990. Originally the "C" stood for "cannabis," but so few members were working with the plant itself that in '95 it was decided to change the C-word to "Cannabinoid," which refers to chemicals synthesized in the lab and produced by the body as well as those found in the plant.

The 2002 ICRS meeting was held at Asilomar. Twenty-six nations were represented. A dozen corporate sponsors, including Eli Lilly, Johnson & Johnson, Merck, Pfizer, and Schering Plough provided scholarships enabling 40 graduate students to attend. Also taking part were several California physicians whose patients have been using marijuana medicinally.

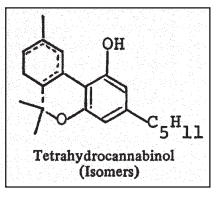
Although chemists have studied cannabis since the mid-1800s, the first plant cannabinoids were identified in the early 1940s by Dr. Roger Adams, a University of Illinois researcher. Adams identified cannabinol (CBN) and cannabidol (CBD), which tend to be the predominant cannabinoids in strains grown for fiber, a.k.a. hemp (which had been a significant crop in Illinois). The distillation techniques available to Adams did not enable him to fully isolate and identify tetrahydrocannabinol (THC).



Cannabidiol

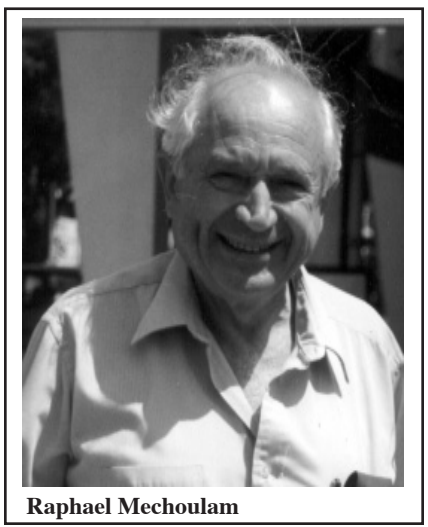
To date some 66 cannabindoids have been found, most of them chemically in-active when inhaled or ingested into the body. The cannabis plant also contains hundreds of chemical substances that are not unique to it, including terpenes and flavinoids known to exert biological effects.

In 1964 the precise structure of the main psychoactive cannabinoid, delta-9 THC, was described in a paper by Raphael Mechoulam and Y. Gaoni of the Weissmann Institute of Science in Rehovoth, Israel. (Chromatography had enabled them to isolate it.)



Tetrahydrocannabinol (Isomers)

There followed a long search in Mechoulam's lab and elsewhere for synthetics that would have the therapeutic effects of THC without the psychoactivity. (A drug was defined as a cannabinoid if it reduced pain and body temperature, and induced spontaneous activity in low doses and catalepsy at high doses in test animals.)



Raphael Mechoulam

In 1974 Pfizer produced a synthetic cannabinoid, CP-55,940, which is about 40 times stronger than delta-9 THC. Although its psychoactivity kept it from being marketed as a medicine, CP-55,940 became a widely used research tool. Unlike THC, which exerts a rapidly fleeting effect, a synthetic "supercannabinoid" binds strongly enough to the cannabinoid receptors so that, when labeled radioactively, it can reveal their locations in various tissues of the body.

Researchers were surprised to find that these receptors are much more prevalent in the brain than the opioid receptors.

Cannabinoid Receptors

In the late '80s, Alynn Howlett and William Devane at the University of Washington in St. Louis reported finding cannabinoid receptors in the brain proteins on the outside of certain cells

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Glossary

Cannabis is the Latin name of the plant known as **hemp** when bred for fiber and known as **marijuana** when bred for psychoactive effects.

A receptor is a protein on the outside of a cell that recognizes and responds to a chemical signal, such as a hormone or a drug, to initiate events within the cell, leading to a response by the cell.

An **agonist** is a molecule that activates a receptor. Think of the receptor as a lock, the agonist as a key, and the door opening as the physiological response. Morphine is an agonist which acts at opioid receptors to decrease pain. More than one agonist can act at a given receptor.

An **antagonist** is the opposite of an agonist —it thwarts the activity of the receptor, either by binding to it directly and blocking the agonist, or by other means that cancel out the agonist effect. For example, the opioid antagonist naloxone prevents morphine from relieving pain.

Neurons are nerve cells that transmit signals to other nerve cells by chemicals called **neurotransmitters.** The gap between a neuron sending a signal and the neuron receiving it is called a **synapse,** and the two neurons are called "presynaptic" and "postsynaptic," respectively. More than 100 different neurotransmitters have been identified to date.

Cannabinoids are chemicals that activate the cannabinoid receptors. There are three types. First to be discovered were certain active ingredients of the cannabis plant —hence the name. Sixty-six different plant cannabinoids have been identified to date. Plant cannabinoids have 21 carbon atoms in ring structures, with hydrogen and oxygen molecules attached at different points.

Endogenous cannabinoids are chemicals occuring naturally in the body that have effects similar to those of the plant cannabinoids.

Synthetic cannabinoids are made in the laboratory and have effects similar to the plant cannabinoids. At least 10 are currently in use by researchers. The synthetics and the endogenous cannabinoids look nothing like the 21-carbon plant cannabinoids; but they have "active sites" that bind to the cannabinoid receptors and produce similar effects.