



Cardiologist Wins Avenir Award to Study Cannabis and Heart Health in People with HIV

Claudia Martinez, M.D., associate professor of clinical medicine in the Cardiovascular Division at the University of Miami Miller School of Medicine, has been awarded the prestigious Avenir Award from the National Institute on Drug Abuse (NIDA), part of the National Institutes of Health. The Avenir Award, which recognizes unique approaches to medical research and aims to create new avenues of investigation, will support her research study on the effects of cannabis use on cardiovascular health among people living with HIV.

The four-year, \$2.3 million Avenir Award supports Dr. Martinez's study titled the Cannabis-Heart and HIV study, or CannHeart. It is the first of its kind to research the risks and benefits of cannabis for heart health in people with HIV.



“We need an answer now. We cannot wait for years to understand this,” said Claudia Martinez, M.D., associate professor of clinical medicine in the Division of Cardiovascular Medicine at the Miller School.

“We know that people with HIV have a higher risk of heart disease, but don't know what happens when they use cannabis, which for them is legal to use for medical reasons,” Dr. Martinez said. “So, they are getting the cannabis for health benefits, yet we may be increasing their cardiovascular risk,” she added. “We don't know.”



Dr. Martinez plans to learn more by studying people with HIV who are regular cannabis users and have no heart disease at baseline. She will measure the amounts of tetrahydrocannabinol (THC), the most potent compound in cannabis, and cannabidiol (CBD), the beneficial compound in cannabis, in blood and urine samples.

Another aim is to evaluate heart risks in the same participants, including any inflammation or changes in heart function or structure seen on an MRI. Innovative MRI software will allow detection of earlier changes to the heart that might otherwise go unnoticed. Those results will be aligned with how much cannabis each participant uses and their levels of THC and CBD.

Unique and Innovative Research

The NIDA gives the Avenir Award to researchers specifically evaluating the intersection of drug use, people with HIV, and comorbidities.

“Dr. Martinez’s research highlights the Miller School’s commitment to unique and innovative research with real-world implications,” Miller School Dean Henri R. Ford, M.D., M.H.A., said. “This national award demonstrates the value of that work on patients across the nation. We congratulate Dr. Martinez on this accomplishment.”

The cannabis research builds on Dr. Martinez’s previous research into the interplay between the epigenetics of cocaine use in people with HIV, as well as the heart effects of antiretroviral therapy. She also examined how feminizing hormones could affect heart disease in transgender women with HIV.



Dr. Martinez is the Miller School's third recipient of the prestigious award. Previous Avenir awardees include Hansel Tookes, M.D., M.P.H., assistant professor of clinical medicine in the Division of Infectious Diseases, who is leading an HIV intervention program looking into telehealth to reach people who inject drugs, and Luis M. Testa, Ph.D., assistant professor of psychiatry and behavioral sciences, who is studying opioid addiction research.

Collaboration and Teamwork



Dr. Martinez is collaborating with co-investigator Denise Vidot, Ph.D., an epidemiologist and assistant professor at the University of Miami School of Nursing and Health Studies, whose work focuses on the biological, psychosocial, and societal implications of cannabis use.

For her award, Dr. Martinez also credits the team of mentors who provided guidance and support when she applied and interviewed for the award.

“Working at UM and the Miller School of Medicine has allowed me to network with experts in cannabis, experts in HIV, and that is the main reason why I'm able to receive this Avenir Award,” she said.



Dr. Martinez said the research project is timely given the widespread use of cannabis nationwide and higher risks among those with HIV.

“We need an answer now. We cannot wait for years to understand this,” she said.

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