



Press Release

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Finding cannabinoids in hair does not prove cannabis consumption

THC is not incorporated into human hair in relevant amounts after systemic uptake / THC metabolites may be transferred to other persons via sweat and sebum during close body contact / Scientists of the Medical Center – University of Freiburg publish a groundbreaking study in *Scientific Reports*

According to the common doctrine detection of THC metabolites in hair is regarded as an incontestable proof of cannabis consumption. Experimental studies conducted by the group of Prof. **Volker Auwärter**, forensic toxicologist at the Institute of Forensic Medicine in Freiburg, Germany, now showed that this conclusion is not correct. The results were published in the renowned scientific journal *Scientific Reports* of the *Nature Publishing Group*.

Detection of THC in hair is extensively used for abstinence control in workplace drug testing and in child protection cases. The new data prove that incorporation of THC does not occur via the blood stream after systemic uptake. In cases of doubt, a THC metabolite was used to unequivocally prove cannabis consumption. However, this metabolite may be transferred to non-consuming persons by sebum and sweat. In order to confirm this, two of the authors conducted a self-administration study with daily ingestion of THC over 30 days and comprehensive analytical investigations.

“Our findings are of particular importance for hair analysis in the context of child custody because transfer of cannabinoids is very likely during close body contact and may lead to wrong conclusions with severe consequences”, Prof. Auwärter emphasizes. In countries with workplace drug testing programs or pre-employment drug screenings false interpretations could result in job loss or exclusion from the application process, says the expert. In earlier studies, the scientists from Freiburg have shown that passive cannabis smoke exposition leads to a persistent THC contamination of the

hair not removable by multiple hair washes. Furthermore, even sole handling of cannabis material results in transfer of relevant amounts of cannabinoids onto the hair.

Title of the original paper: Finding cannabinoids in hair does not prove cannabis consumption

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