

Supplementary Figure 1: CONSORT Flow Diagram

Table 1. Characteristics of study participants (N = 128)

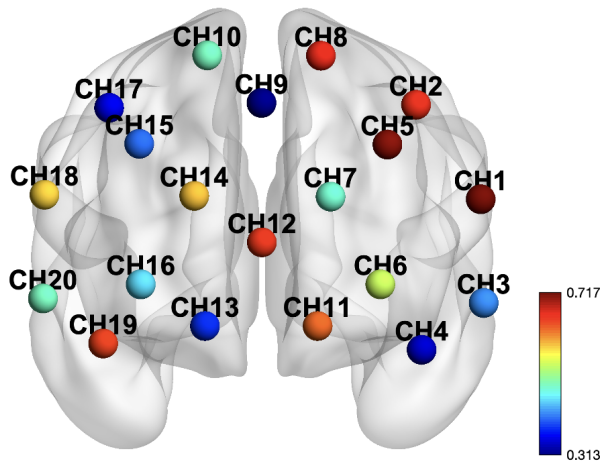
Characteristic	Mean (SD)
Age	25.4 (6.4)
Sex	
<i>Female</i>	48.4% (62.0)
Race	
<i>American Indian or Alaska Native</i>	0.8% (1.0)
<i>Asian</i>	7.3% (9.0)
<i>Black or African American</i>	8.1% (10.0)
<i>Native Hawaiian or Other Pacific Islander</i>	0.0% (0.0)
<i>White</i>	74.8% (92.0)
<i>More than one race</i>	8.9% (11.0)
Ethnicity	
<i>Hispanic</i>	22.4% (28.0)
<i>Non-Hispanic</i>	77.6% (97.0)
Years of Education	15.3 (2.1)
Age of First Regular Use	19.3 (4.1)
Cannabis Use Frequency	
<i>One or two days per week</i>	7.0% (9.0)
<i>Three to five days per week</i>	36.7% (47.0)
<i>Six days per week or more</i>	56.2% (72.0)
Cannabis Use Occasions Per Day	
<i>Multiple times per day</i>	63.1% (77.0)
<i>No more than once per day</i>	36.9% (45.0)
Urine THC-COOH Concentration (ng/mL)	238.5 (441.6)

Table 2. Channel Connections with Significant Effects in dRSFC Variability

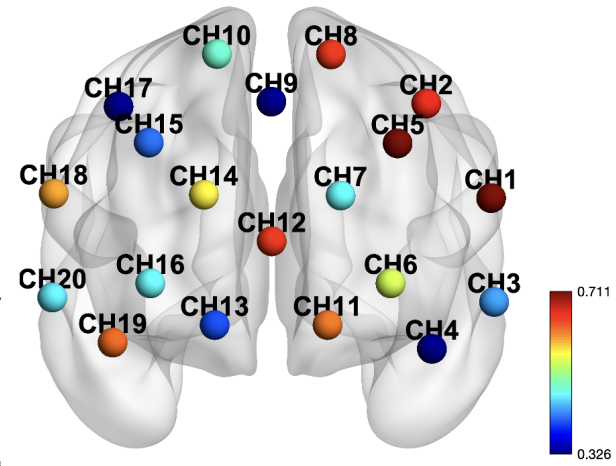
	Channel Connection	p-value	Partial η_p^2	95% CI of partial eta-squared
1	1-12	0.0006	0.089	[0.017,0.191]
2	6-10	0.0012	0.080	[0.013,0.180]
3	8-10	0.0006	0.088	[0.016,0.190]
4	8-14	0.0001	0.108	[0.027,0.215]
5	8-15	0.0003	0.098	[0.021,0.203]
6	15-19	0.0015	0.077	[0.012,0.177]

Summary of repeated measures ANOVA comparing dRSFC variability pre- and post- placebo and THC at FDR- $p < 0.05$. Uncorrected- p value, partial eta-squared and its 95% CI are provided for channels that survived FDR-based multiple correction at alpha of 0.05.

*Pre-Post Median HbO in THC
(Normalized to Placebo)*



*Pre-Post Median HbO in Placebo
(Normalized to Placebo)*



Supplementary Figure 2: Brain map of the median Δ HbO concentration before vs. after the drug (in %) normalized to the placebo data. No significant differences were observed between the placebo and THC conditions globally (all channels combined) nor at the individual channel level. We performed this by a) computing the median Δ HbO concentration over the 6-minute duration, b) calculating Δ (pre-post) for placebo and drug, c) normalizing placebo data to 0 to 100%, and (d) normalizing THC data to placebo data. As shown, the median Δ HbO concentration did not differ between post-placebo and post-THC states. The color bar represents the % of median group-level Δ HbO concentration across the various channels.