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Professor Owen Bowden-Jones
Chair, Advisory Council on the Misuse of Drugs
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Dear Professor Bowden-Jones,

I am writing in response to the recent letter to the ACMD from the Minister of State for Crime and Policing, dated January 11th 2021, which requested advice on consumer cannabidiol (CBD) products. The Conservative Drug Policy Reform Group (CDPRG) has been closely following regulatory issues relating to CBD consumer goods and has made recommendations to the Home Office to urgently clarify and adapt existing policy to ensure that it reflects the available scientific evidence and is fit for purpose. Accordingly, the CDPRG welcomes the Minister's recent request to the ACMD for advice and we believe that recent work we have conducted may be of some service to you in making your assessment on this issue.

Attached to this letter is our newly published policy report, *Steps toward Evidence-Based Regulation of Controlled Cannabinoids in Non-Medicinal CBD Products*. The report identifies a number of serious shortcomings in the existing regulatory approach, as well as gaps in the evidence base relating to long-term safety of polycannabinoid preparations. We briefly discuss key findings germane to the recent ACMD commission later in this letter.

The policy issues of principle relevance to the Minister's recent letter are as follows:

1. The Home Office currently has no working definition of the uncontrolled element pure CBD. In recognition of the variable purity profiles of CBD consumer goods that have been available for retail sale in the UK, and the fact that pure CBD is difficult (though not impossible) to isolate from *Cannabis* plant materials without traces of other cannabinoids being present, the Home Office have made the presumption that all CBD products are controlled products by default.

In response to a Parliamentary Question issued by the chair of the CDPRG, Crispin Blunt MP, on 18 May 2020, the Minister of State for Crime and Policing confirmed that “the Department has made no assessment of limits of detection in relation to testing for the presence of controlled cannabinoids in CBD products”. In the absence of an assessment of limits of detection, the presumption of control is absolute, unfalsifiable, and thus inconsistent with scientific convention. We found that this policy position was also inconsistent with UK case law pertaining to the definition of the physical element of the offence of possession of a controlled drug.

To illustrate this point, the presumption of control has been upheld by the Home Office even when CBD manufacturers provide serial impurity testing data conducted by independent analytic laboratories that consistently show no detectable controlled cannabinoids at the most sensitive limit of detection (LOD) achievable. CDPRG was presented evidence by one company that showed that no THC was detected in their end-product in more than a dozen random samples at an LOD of 0.000006%, equivalent to one part in seventeen million. Equivalent data was also provided for other potential controlled contaminants, showing no detectable traces at the LOD for those compounds. In total, testing data from multiple independent laboratories was provided for more than a hundred batches, with no controlled contaminants identified at a range of reporting thresholds. Nonetheless, the Home Office presumption of control was upheld on the basis that traces of THC below the LOD of 0.000006% were still theoretically possible. The company in question was informed by the Home Office that their end-product would still be controlled under Schedule 1 unless it met the definition of either a Schedule 2 CBPM or an exempt product.

As you will know, the exempt product provision was introduced in 1999 to exclude from control products with low levels of controlled drugs for use in diagnostic equipment or for scientific research. It was not intended, and is not appropriate, for products designed for human consumption and there is substantial ambiguity and disagreement between stakeholders in regard to the conditions under which the three limbs of the criteria would be met. We are encouraged that the Minister is intending to address this issue by clarifying the scope of the provision.

As the Home Office issues controlled drug licences, but is not itself an enforcement body, the absolute presumption of control has uniquely affected companies that apply for controlled drug licences for the importation, possession, manufacture, supply and exportation of CBD goods derived from crude starting materials that contain low, but detectable, levels of controlled drugs. Such licenses have not, to our knowledge, been granted for any CBD products other than those designed for scientific research or medicinal use. In effect, this policy discriminates against manufacturers of CBD consumer goods that make the most robust efforts to ensure high quality production in full compliance with regulations and with Government oversight. There are substantial issues with this policy approach on grounds of rationality, equal opportunity and public health.

There has been no known legal action taken against CBD manufacturers by the criminal justice system, presumably because there is limited public interest and because UK case law on possession of controlled drugs does not indicate a legitimate legal basis for prosecution. The CDPRG strongly supports this position and urges against criminal proceedings being taken against manufacturers and suppliers of CBD products, particularly in light of the longstanding ambiguity in control status.

We welcome the ACMD assessment of trace percentages for impurities because this is absolutely necessary to establish a definition of pure, uncontrolled CBD. This will be a significant step in the right direction, but we caution that this action alone will not eliminate the serious regulatory issues facing the UK CBD market unless additional steps are also taken to regulate the supply and sale of non-pure 'full-spectrum' CBD-based consumer goods which contain low levels of controlled elements at concentrations that do not pose appreciable risks of abuse, dependence or diversion (see below).

2. Some CBD consumer goods on the UK market are advertised as pure CBD isolates, typically containing traces of THC at <0.05% by weight, but other product ranges are full-spectrum extracts, containing THC at <0.5%. The Home Office currently has no regulations on maximum permitted levels for THC and other controlled cannabinoids in full-spectrum CBD extracts.

We are aware that many full-spectrum CBD manufacturers have invested considerable sums of money in preparing novel food applications to the FSA, on the basis that the legal context was ambiguous and that no maximum permitted levels for THC and other controlled cannabinoids had yet been published by the Government. This also remains the case in regard to non-novel hemp-based food products, which can also contain traces of controlled cannabinoids. The recent Home Office request to the ACMD for advice is much welcomed, but it was issued rather too late to reassure those full-spectrum manufacturers that have made substantial efforts over the past eighteen months to prepare the safety data required for novel food submissions.

We urgently recommend that, in addition to advising the Home Office on suitable trace levels for defining pure CBD, the ACMD also assess the risk of abuse, dependence and diversion of full-spectrum CBD consumer goods containing THC at marginally higher concentrations than pure CBD isolates. If the risk to public health associated with full-spectrum products is low, we urge the ACMD to make clear recommendations to the Home Office on maximum permitted levels of controlled cannabinoids in full-spectrum end-products for consumer sale.

We note that the Misuse of Drugs Act makes reference to the duties of the ACMD "with respect to drugs which are being or appear to them likely to be misused and of which the misuse is having or appears to them capable of having harmful effects sufficient to constitute a social problem". Accordingly, we ask you to consider whether the potential misuse of full-spectrum CBD goods, at maximum concentrations of approximately 0.5% THC, is likely to

constitute a social problem in the UK. If your assessment does not identify evidence to suggest that a social problem might plausibly result from their availability, we urge you to make recommendations to the Minister that directly reflect that evidence. We suggest that a similar assessment will be appropriate in regard to the flowers and leaves of low-THC hemp plants, which are currently controlled in the UK, limiting their use as the highest-yield source material for the production of CBD extracts.

We highlight the recommendation made to the UN by the WHO Expert Committee on Drug Dependence to exclude full-spectrum CBD extracts containing 0.2% THC or less from international control, based on an assessment of abuse potential. We also note that this motion was not passed at the December meeting of the CND, partly because several Member States were in preference of this threshold being set at a level greater than 0.2%.

It is extremely important that these two distinct issues summarised above are not conflated, nor that the setting of trace concentrations to define pure CBD has the effect of precluding or delaying subsequent regulatory consideration of low-THC full-spectrum CBD products. It is imperative that these distinct regulatory decisions are made strictly on the basis of the available scientific evidence.

The report attached to this letter primarily concerns the first policy issue: impurity levels (“zero-levels”) for use in defining pure, uncontrolled CBD. We conducted a review of previous health safety assessments published by regulators around the world on exposure to trace THC in food products. We validated the most robust of these assessments, published by the EFSA Panel on Contaminants in the Food Chain (2015), by reviewing adverse event data in human studies published since 2015 at oral doses equal to or lower than the lowest-observed effect level (LOEL) of 2.5mg used as a reference point by the EFSA panel. We found no new data that would indicate a LOEL below 2.5mg. Based on a gap review of the available literature, we then applied additional uncertainty factors to account for issues specific to the CBD consumer market (i.e., unknown polypharmacological interactions in products containing multiple cannabinoids; and variations in daily consumption above the recommended daily allowance). We concluded that chronic daily exposure to 21 micrograms of THC (approximately 300 nanograms per kilogram of body weight), would be extremely unlikely to produce any discernible dangerous or otherwise harmful effects in humans compared to placebo, including false-positive urine drug tests. We recommend that 0.03% would be an appropriate impurity threshold for controlled compounds in pure CBD preparations advertised at maximum daily doses of 70mg CBD.

To put this into context, a consumer would need to ingest at least 8,400mg (120 times the FSA-recommended maximum daily dose) of a pure-CBD substance containing 0.03% THC in order to consume a dose of THC equivalent to the LOEL of 2.5mg. Conservatively, we make the recommendation that the 0.03% limit covers the total amount of Δ^9 -THC, Δ^8 -THC and CBN, equivalent to 0.01% per cannabinoid, and that 0.01% would also be an appropriate threshold for any other controlled cannabinoid of concern as a contaminant. This approach is justified by the use of the Cramer Classification system to derive Thresholds of Toxicological Concern (TTC) for compounds with unknown safety data. At the impurity threshold of 0.01%, a

consumer would need to ingest in excess of 25,000 mg of a pure CBD product (approximately a yearly-exposure consumed in a single instance) in order to consume a dose of THC equal to the LOEL. At such doses, it is likely that exposure to any controlled contaminants would be of less concern to public health than would the large volumes of CBD.

We note that the Minister has asked the ACMD to advise on trace percentages within the range of 0.01% and 0.0001% by weight. We strongly advise that there is no appreciable additive benefit to public health or safety in establishing trace percentages for impurities in pure-CBD at levels lower than 0.01%. Indeed, this figure already errs strongly on the side of caution and derives from a total uncertainty factor of 360 applied to the LOEL of THC in humans to account for unknowns in the available data. It is also substantially more conservative than the thresholds recommended by regulators overseas. This figure is based on safety and toxicology data and is expected to be appropriate in the context of lifetime daily exposure, in line with the findings of the EFSA Panel in 2015. We recommend that the ACMD does not advise on setting trace percentages below 0.01%, unless you identify robust evidence to support doing so.

Furthermore, we strongly recommend that the ACMD also consider the distinct regulatory issue of setting maximum permitted levels for full-spectrum CBD-based products in the UK, for which a separate assessment of risk of abuse potential, dependency and diversion will be appropriate. The attached report does not include an assessment of this nature. It may be appropriate to place full-spectrum CBD-based products alongside Epidyolex in Schedule 5, or to make a new assessment that might remove all low-THC full-spectrum products below a defined limit from control under UK drug law.

Naturally, we do not seek to direct the work of the ACMD and it is imperative that your output is entirely free of political or otherwise external influence. Nonetheless, we believe that the points raised above, and in the attached report, may be germane in your evaluation of the matter at hand.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'DKG', with a stylized flourish at the end.

David King

Director of Research, Conservative Drug Policy Reform Group

cc Minister of State for Crime and Policing

cc ACMD membership