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UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON

UNITED STATES OF AMERICA,

Plaintiff,

v.

TRUNG DINH PHAN,

Defendant.

) CR10-00027-RSM
)
)
) DEFENDANT PHAN'S SUPPLEMENTAL
) SENTENCING MEMORANDUM
) ADDRESSING THE APPROPRIATE
) GUIDELINE
)
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PRELIMINARY STATEMENT

This Supplemental Sentencing Memorandum is respectfully submitted in advance of Defendant Trung Phan’s sentencing, currently scheduled for January 21, 2011. This Memorandum is not exhaustive in that it does not address Mr. Phan’s personal characteristics as they relate to 18 U.S.C. § 3553(a). Instead, it supplements the Sentencing Memorandum of co-counsel, the Federal Public Defender, by speaking to one particular issue of critical importance to Mr. Phan’s sentencing: the appropriateness of adhering to the empirically-flawed U.S. Sentencing Guideline for MDMA (hereinafter “MDMA Guideline”).

The MDMA Guideline was established nearly ten years ago in response to public panic and is based on faulty science that has since been repudiated. When the Sentencing Commission created the MDMA Guideline in 2001, it crafted a penalty structure based on the conclusion that MDMA was more harmful than cocaine and in light of what the Commission viewed as the pharmacological and physiological harms of the drug. Subsequent studies have substantially undercut scientific support for the Commission’s conclusion that MDMA is more harmful than cocaine, as well as the Commission’s assessment of the harms of MDMA. Cocaine use is not only much more prevalent in the United States population, but according to recent government data, it is thirteen times more likely to cause a user to visit an emergency room. As for the harms of MDMA itself, recent research reveals that the harms are relatively mild and reversible rather than severe and long-lasting. Scientists have discovered that most of the research from ten years ago was flawed. For example, animal studies overestimated the harms of MDMA

1 to humans because they gave animals doses several times higher than the average human
2 dose. Human studies failed to control for important variables such as the use of other
3 drugs and propensity toward mental illness.

4 Under *Kimbrough v. United States*, 552 U.S. 85 (2007), this Court has discretion
5 to vary from Guidelines that lack an empirical basis. Because the MDMA Guidelines are
6 seriously flawed, as discussed in detail below, this Court should exercise that discretion
7 here. Failure to do so would result in a grave injustice, adding unnecessary years onto a
8 sentence based on long-discredited myths about the harmfulness of the offense. When
9 the Supreme Court in *Kimbrough* recognized sentencing courts' power to depart from
10 Guidelines that lack an empirical basis, this is precisely the type of case the Court had in
11 mind. Like the crack cocaine Guideline at issue in *Kimbrough*, the MDMA Guideline is
12 scientifically unsupportable and, as a result, prescribes sentencing ranges that are unfairly
13 severe. This Court should exercise its sound discretion under *Kimbrough* to avoid blindly
14 following a Guideline that offers no legitimate guidance. Instead, it should look beyond
15 the faulty data that the Commission relied on in 2001, and determine an appropriate
16 initial sentencing range for Mr. Phan that is based on consideration of the scientifically-
17 documented properties and harms of MDMA.¹

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26 ¹ As the Court is aware, the Court's final task, after consideration of the applicable Guideline, is to make "an individualized assessment based on the facts presented" in light of the sentencing factors Congress has set forth in 18 U.S.C. § 3553(a). *Gall v. United States*, 552 U.S. 38, 49-50 (2007). The application of these factors is addressed as part of the defense's separate memorandum filed by co-counsel from the Federal Public Defender.

ARGUMENT

I. THIS COURT HAS DISCRETION TO VARY DOWNWARD FROM THE OTHERWISE-APPLICABLE GUIDELINE RANGE WHEN THE COMMISSION HAS ABANDONED ITS TRADITIONAL ROLE BY DEVELOPING GUIDELINES THAT LACK AN EMPIRICAL BASIS.

The Supreme Court has held that where a particular Guideline is not based on empirical evidence, it is not an abuse of discretion for a district court to impose an outside-of-Guidelines sentence based solely on broad policy concerns. *Kimbrough v. United States*, 552 U.S. 85, 108-10 (2007). Thus, for example, a district court is free to impose a significant downward variance even in a mine-run case (an average case with no distinguishing circumstances or offender characteristics bearing on sentencing) involving crack cocaine, based on the district court’s policy disagreement with the 100-to-1 crack-powder disparity embodied in the Guidelines. *See id.* at 110.

In *Kimbrough*, the Supreme Court noted that “Congress established the commission to formulate and *constantly refine* national sentencing standards.” *Id.* at 108 (citation and internal quotation marks omitted and emphasis added). The Court has elaborated that “[t]he Commission’s work is ongoing. The statutes and the Guidelines themselves foresee continuous evolution helped by the sentencing courts and courts of appeals in that process.” *Rita v. United States*, 551 U.S. 338, 350 (2007). Moreover, the Court left no doubt that the district courts are at the forefront of this evolutionary process, and may take initiative on sentencing matters well before the Sentencing Commission alters the guidelines themselves:

1 The sentencing courts, applying the Guidelines in individual cases may
2 depart (either pursuant to the Guidelines or, since *Booker*, by imposing a
3 non-guidelines sentence). The judges will set forth their reasons. The
4 Courts of Appeals will determine the reasonableness of the resulting
5 sentence. The Commission will collect and examine the results. In doing
6 so, it may obtain advice from prosecutors, defenders, law enforcement
7 groups, civil liberties associations, experts in penology, and others. And it
8 can revise the Guidelines accordingly.

9 *Id.* As our empirical understanding about the science of MDMA evolves, and as our
10 national experience changes, the MDMA Guideline should change with them.

11 *Kimbrough's* holding permitting judges to vary from Guideline ranges based on
12 policy disagreements extends beyond cases involving crack cocaine and permits
13 Guideline variances in other criminal matters involving non-empirically derived
14 Guidelines, including those involving other drugs. Federal courts have cited *Kimbrough*
15 as authority for policy-based departures from Guidelines for drugs other than crack. *See,*
16 *e.g., United States v. Valdez*, 268 Fed. App'x 293, 297 (5th Cir. 2008) (mem.)
17 (methamphetamine); *United States v. Goodman*, 556 F. Supp. 2d 1002, 1010-11, 1016
18 (D. Neb. 2008) (methamphetamine); *United States v. Thomas*, 595 F. Supp. 2d 949, 952
19 (E.D. Wis. 2009) (powder cocaine). In fact, the Supreme Court has implied that its
20 reasoning in *Kimbrough* could apply to *all* drug Guidelines, since “the Sentencing
21 Commission departed from the empirical approach when setting the Guidelines range for
22 drug offenses.” *Gall v. United States*, 552 U.S. 38, 46 n.2 (2007).

23 Federal courts even depart from Guidelines for other types of offenses entirely.
24 *See, e.g., United States v. Cavera*, 550 F.3d 180, 184 (2nd Cir. 2008) (en banc) (arms
25 trafficking); *United States v. Herrera-Zuniga*, 571 F.3d 568, 583, 586 (6th Cir. 2009)

1 (illegal reentry); *United States v. Vanvliet*, 542 F.3d 259, 271 (1st Cir. 2008) (interstate
2 travel with the intent to engage in an illicit sexual act); *United States v. Baird*, 580 F.
3 Supp. 2d 889, 894-95 (D. Neb. 2008) (child pornography). In these cases — and in many
4 more — appellate and sentencing courts have recognized that district courts have
5 authority to depart from any Guideline that was not based on reasoned, empirical
6 evidence.
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8 In an illuminating recent decision holding that the imposition of a 240-month
9 sentence for distributing child pornography, while procedurally correct under the
10 Guidelines, was substantively unreasonable, the Second Circuit discussed appropriate
11 considerations for determining how much credence to lend any particular Guideline:
12

13 The Sentencing Commission is, of course, an agency like any other. . . . [In
14 today’s advisory-Guideline regime,] deference to the Guidelines is not
15 absolute or even controlling; rather, like our review of many agency
16 determinations, “[t]he weight of such a judgment in a particular case will
17 depend upon the thoroughness evident in [the agency’s] consideration, the
18 validity of its reasoning, its consistency with earlier and later
19 pronouncements, and all those factors which give it power to persuade, if
20 lacking power to control.”

19 *United States v. Dorvee*, 616 F.3d 174, 187-88 (2nd Cir. 2010) (quoting *Skidmore v. Swift*
20 *& Co.*, 323 U.S. 134, 140 (1944)). The *Dorvee* court further instructed courts to take
21 account of the Commission’s ““*specialized experience* and broader investigations and
22 *information available to the agency*”” when determining the weight owed to a Guideline.
23 *See id.* at 188 (quoting *United States v. Mead Corp.*, 533 U.S. 218, 234 (2001)) (emphasis
24 added).
25
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1 Although the Commission heard statements from multiple scientists when revising
2 the MDMA Guideline in 2001, no one on the Commission had any greater expertise in
3 weighing that evidence than this Court does. During the 2001 public hearing on the
4 proposed MDMA Guideline, Commissioner Michael E. O'Neill observed that:

5
6 Part of the difficulty, I suppose, that we're having is, we've been able to
7 read and have had a lot of different scientific evidence presented to us. And
8 since none of us is a scientist that I'm aware of, it's sometimes difficult to
9 digest this information.²

10
11 Given the lack of scientific expertise of the Commission, it is evident that it did
12 not have the specialized experience that the *Dorvee* court indicated would add weight to
13 its findings. Additionally, the "information available to the agency," *Dorvee*, 616 F.3d at
14 188, regarding MDMA in 2001 was at best incomplete and at worst rife with inaccuracy
15 and myth. As discussed in detail in Part II below, years of additional scientific research
16 since the formulation of the current Guideline have undermined assumptions central to
17 the Commission's decisions in 2001 and provide this Court with access to far more
18 reliable data than was available to the Commission when it set the MDMA guideline
19 almost ten years ago. Accordingly, this Court should not defer to the findings of the
20 Commission, but instead should make its own determination as to the appropriate offense
21 level and sentence.
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24 The published information discussed in detail below should be more than
25 sufficient basis for this Court to conclude that the current MDMA Guideline is flawed
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² U.S. Sentencing Comm'n, *Tr. of U.S. Sentencing Comm'n 2001 Public Hearing 26* (Mar. 19, 2001).

1 and that another, lower range should be used as a baseline. However, if this Court would
2 like to hear directly from the leading experts in the field, we encourage the Court to hold
3 an evidentiary hearing to consider in greater detail the new scientific developments since
4 the Commission's actions in 2001. *See, e.g., United States v. Grober*, 624 F.3d 592, 595
5 (3d Cir. 2010) (affirming sentencing varying from child pornography guideline after
6 district court held extensive evidentiary hearing on the background and formulation of the
7 relevant guideline).

9 Another district court considering the scientific validity of the MDMA Guideline
10 has held just such a hearing. *See United States v. McCarthy*, No. 09 Cr. 1136 (WHP)
11 (S.D.N.Y.). In this hearing, the sentencing court took two days' worth of testimony from
12 expert witnesses, two from the government and two from the defense. Although that
13 court's decision whether to vary from the MDMA Guideline remains pending, the
14 transcript of that hearing (hereinafter referred to as the "New York hearing" and cited as
15 "N.Y. Hrg. Tr.") may be illuminating for this Court and therefore is attached as an
16 exhibit.³ The hearing is notable for the extent of agreement among the experts about the
17 actual harms of MDMA. Although the defense and government experts characterized the
18 state of the field differently, the substance of the two sides' key conclusions reflected
19 significant congruence. Therefore the New York transcript will be cited below where
20 relevant. Courtesy copies of all additional scientific, journalistic or government sources
21 cited in this memorandum and not easily accessible online will be provided to the Court.
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26 ³ *See* Ex. 1, *United States v. McCarthy*, No. 09 Cr. 1136 (WHP) (S.D.N.Y. Dec. 6-7) (transcript of evidentiary hearing) [hereinafter Ex. 1, N.Y. Hrg. Tr.].

1 **II. LIKE THE CRACK COCAINE GUIDELINE AT ISSUE IN *KIMBROUGH*,**
2 **THE MDMA GUIDELINE LACKS AN EMPIRICAL BASIS BECAUSE IT**
3 **IS BASED ON NOW-DISCREDITED SCIENCE.**

4 New studies have discredited the decade-old science underlying the Commission's
5 formulation of the Guideline for MDMA sentences. This Court should therefore place
6 the MDMA Guideline in the same category as the crack cocaine Guideline — namely,
7 instances in which the Commission was not acting in its traditional role. *Kimbrough*, 552
8 U.S. at 108-110. The Commission did not consider past sentencing practices when
9 formulating the current MDMA Guideline. Rather, as with the crack cocaine Guideline
10 that the Supreme Court considered in *Kimbrough*, the MDMA Guideline reflects the
11 Sentencing Commission's response to a congressional directive issued in the midst of an
12 uninformed panic about a supposed new drug scourge. With the benefit of hindsight, it is
13 clear that the Commission's conclusions about the harmfulness of MDMA — and in
14 particular the Commission's conclusion that MDMA is more harmful than cocaine — are
15 simply incorrect and do not comport with empirical evidence and national experience.

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18 There are strong parallels between the formulation of the MDMA Guideline and
19 the development of the crack cocaine Guidelines. The Commission set the Guidelines for
20 both substances in response to congressional directives, rather than empirical evidence
21 about past sentencing practices. *See Kimbrough*, 552 U.S. at 96-97 (describing
22 development of the crack cocaine Guidelines based on the notorious 100-to-1 crack-
23 powder disparity); MDMA Anti-Proliferation Act, Pub. L. No. 106-310 (2000) (ordering
24 increased penalties for MDMA). Just as crack cocaine in the 1980s became associated
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1 in the national consciousness with violence, addiction and overdose, the sudden
2 appearance of MDMA among teenagers and the development of a new “rave culture” in
3 the late 1990s sparked a similar panic.⁴ The potential harms from MDMA were so
4 drastically forecast that Congress directed the Commission to promulgate an “emergency
5 amendment” to the MDMA Guideline, and the Commission, in its haste to respond,
6 “shifted resources from other important policy development areas, such as implementing
7 other congressional directives regarding stalking and sexual offenses against children.”⁵

9 It was in this context that the Commission amended the Drug Equivalency Tables
10 in U.S.S.G. 2D1.1 to increase sentences for MDMA dramatically: as reflected in the
11 Sentencing Commission’s report to Congress explaining the 2001 MDMA amendment,
12 prior to the amendment, one gram of MDMA was treated as equivalent to 35 grams of
13 marijuana; the 2001 amendment set one gram of MDMA equal to 500 grams of
14 marijuana.⁶ As a result, the length of the average MDMA sentence more than doubled.⁷

17 This change was not the product of careful empirical investigation but rather
18 reliance on sloppy studies that dramatically overstated the harms of MDMA. In 2001,
19 little work had been done regarding MDMA’s effects on humans, and there were no well-
20 controlled studies that followed human users over time.⁸ In the absence of such empirical
21

22 ⁴ See Rosenbaum, *Ecstasy: America’s New “Reefer Madness,”* *Journal of Psychoactive Drugs* 3 (Apr.-Jun. 2002);
23 *Guidelines Stiffened for Selling MDMA*, Assoc. Press, Mar. 21, 2001 (quoting the acting director of the Office of
24 National Drug Control Policy: “We never again want another ‘crack epidemic’ to blindsides this nation.”).

25 ⁵ *Hearing on MDMA Abuse Before the S. Comm. On Int’l Narcotics Trafficking*, 107th Cong. (2001) (statement of
26 Diana E. Murphy, Chair of the U.S. Sentencing Commission), at 1.

⁶ U.S. Sentencing Comm’n, *Report to Congress: MDMA Drug Offenses, Explanation of Recent Guideline
Amendments 5-6* (2001) [hereinafter “MDMA Report”].

⁷ See *id.* at 6 (noting increase in average sentence from just under 3 years to just over 6 years).

⁸ See Ex. 1, N.Y. Hrg. Tr. at 23 (Curran, defense expert); *id.* at 376 (Hanson, government expert) (agreeing that “the
field is fairly new in terms of psychopharmacologists absolutely isolating the effects of MDMA alone”).

1 data, the Commission formulated the current MDMA Guideline by comparing MDMA to
2 two quite harmful drugs, heroin and cocaine, and deciding that MDMA fell in between
3 them in terms of harmfulness.⁹ As a result of the Commission’s conclusion that MDMA
4 is more harmful than cocaine, the Commission set one gram of MDMA equivalent to 2.5
5 grams of cocaine for purposes of sentencing.¹⁰
6

7 With the benefit of hindsight, we can conclude with confidence today that the
8 Commission’s comparison to cocaine was faulty on several levels. First, to the extent it
9 is possible to compare the drugs directly in terms of their harmfulness — by looking to
10 data about drug-related emergency room visits, and by looking to the opinions of
11 scientific experts — MDMA emerges as far less harmful than cocaine. Second, to the
12 extent the Commission’s findings were based on, in the Commission’s words, “the
13 unique pharmacological and physiological harms of ecstasy,”¹¹ recent studies have
14 undercut the scientific support for the Commission’s understanding of these harms. The
15 scientific data on MDMA ten years ago was rife with errors, such as mistranslating
16 human doses to animal doses and failure to control for key variables, and some of the
17 Commission’s scientific sources and conclusions are questionable even on their face.
18 More recent studies show that the harms of MDMA are far less serious than posited by
19 the Commission. Finally, to the extent the Commission relied on fears of a dramatic rise
20 in youth use of MDMA as compared with cocaine, the trends cited by the Commission
21 have not been borne out in the intervening decade.
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25 ⁹ MDMA Report, at 5.

26 ¹⁰ See *id.* (setting one gram of MDMA equivalent to 500 grams of marijuana, and noting one gram of cocaine is equivalent to 200 grams of marijuana).

¹¹ *Id.*

1 **A. Contrary To The Commission’s Central Conclusion, MDMA Is Not**
2 **More Harmful Than Cocaine.**

3 Whether judging by medical data or the views of scientific experts, the
4 Commission was clearly wrong to conclude that MDMA is more harmful than cocaine.

5 *i. Medical data*

6 The simplest way to compare the harms of drugs is to look at how frequently each
7 leads to serious medical consequences. Although emergency-room visits is not a perfect
8 proxy, this is a measure that does reflect serious harm; it is a measure for which there is
9 reliable government data; and it is a measure that the Commission itself thought relevant
10 enough to cite in its 2001 Report on MDMA.¹² In the New York hearing, experts for
11 both the defense and the government acknowledged the relevance of this data to an
12 assessment of the harms of MDMA.¹³

13
14
15 Each year, the Substance Abuse and Mental Health Services Administration of the
16 federal Department of Health and Human Services compiles data on drug-related
17 emergency room visits, and breaks down each drug-related visit by which drug or drugs
18 were involved according to medical records. The most recent years for which such data
19 are available are 2006 and 2007. The Department of Health and Human Services also
20 compiles data on overall national drug use rates.

21
22 From this data, two conclusions stand out starkly. First, on a yearly basis cocaine
23 is abused by two to three times as many Americans as is MDMA. Second, even
24 accounting for the differential rates of use in the population, cocaine far exceeds MDMA

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26 ¹² See *id.* at 11 n. 28.

¹³ See Ex. 1, N.Y. Hrg. Tr. at 125 (Halpern, defense expert); *id.* at 291 (Parrott, government expert); *id.* at 372-74 (Hanson, government expert).

1 as a cause of drug-related emergency-room visits: a cocaine user is approximately 13
2 times more likely to require drug-related emergency services than an MDMA user.

3 According to data from the Department of Health and Human Services' National
4 Survey on Drug Use and Health ("NSDUH"),¹⁴ in 2006 and 2007 (the years covered by
5 the latest emergency room data), fewer Americans used MDMA than cocaine. In 2006,
6 approximately 6.1 million people reported using cocaine within the previous year; the
7 number of people reporting using ecstasy during the same time period was approximately
8 2.1 million.¹⁵ In 2007, similarly, approximately 5.7 million people reported using
9 cocaine within the previous year; the number of people reporting using ecstasy during the
10 same time period was once again approximately 2.1 million.¹⁶

13 However, the difference in emergency room visits for each drug far outstrips the
14 difference in usage rates. The NSDUH statistics cited above reflect that two-and-a-half
15 to three times as many people used cocaine as used MDMA in 2006 and 2007. By
16 contrast, in 2006, cocaine was the cause of approximately *thirty-three* times as many
17 emergency room visits as MDMA.¹⁷ In 2007 (the most recent year for which data are
18 available), cocaine accounted for *forty-two* times as many emergency room visits as
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23 ¹⁴ Ex. 2, U.S. Dep't of Health & Human Servs., Substance Abuse & Mental Health Servs. Admin., *Nat'l Survey on*
24 *Drug Use and Health* [hereinafter "Ex. 2, NSDUH"], available at <http://www.oas.samhsa.gov/nsduh.htm>. The
25 website for this study is quite extensive and difficult to navigate, so the relevant tables are attached as Exhibit 2.

26 ¹⁵ See *id.*, tbl. 1.1A ("Types of Illicit Drug Use in Lifetime, Past Year, and Past Month among Persons Aged 12 or
Older: Numbers in Thousands, 2006 and 2007").

¹⁶ See *id.*

¹⁷ See U.S. Dep't of Health & Human Servs., Substance Abuse & Mental Health Services Admin., *Drug Abuse*
Warning Network 2006: Nat'l Estimates of Drug-Related Emergency Department Visits [hereinafter "DAWN
2006"] 20 (2008), available at <https://dawninfo.samhsa.gov/files/ED2006/DAWN2k6ED.pdf>.

1 MDMA.¹⁸ Thus, the emergency room statistics show that cocaine is far more harmful
2 than MDMA not only across the population as a whole but also among the respective
3 populations that use each drug.

4 Put in rough numerical terms, out of the approximately 5.9 million individuals
5 who used cocaine, on average, per year in 2006 and 2007, approximately 551,000
6 individuals, or approximately 9.3% ($551,000 \div 5,900,000$), on average, went to the
7 emergency room in connection with the drug.¹⁹ By contrast, out of the approximately 2.1
8 million individuals who used MDMA, on average, per year in 2006 and 2007,
9 approximately 15,000 individuals, or approximately 0.7% ($15,000 \div 2,100,000$), on
10 average, went to the emergency room in connection with the drug.²⁰ Therefore a cocaine
11 user was more than 13 times ($9.3 \div 0.7$) more likely than an MDMA user to require drug-
12 related emergency services.

13 Another simple way to put the two drugs in perspective is to note that cocaine,
14 which accounts for almost 30% of all drug-related visits to the emergency room
15 (including visits stemming from legal drugs as well as illegal drugs), is the leading cause
16 of drug-related visits to the emergency room, whereas MDMA leads to less than 1% of
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22 ¹⁸ See U.S. Dep't of Health & Human Servs., Substance Abuse and Mental Health Services Admin., *Drug Abuse*
23 *Warning Network 2007: Nat'l Estimates of Drug-Related Emergency Department Visits* 22 [hereinafter "DAWN
24 2007"] (2010), available at <https://dawninfo.samhsa.gov/files/ED2007/DAWN2k7ED.pdf>.

25 ¹⁹ For the number of users, see Ex. 2, NSDUH, tbl. 1.1A. The 5.9 million figure is an approximate average of the
26 2006 number, 6,069,000, and the 2007 number, 5,738,000. For the number of emergency room visits, see DAWN
2006, at 20, and DAWN 2007, at 22. The 551,000 figure is an approximate average of the 2006 number, 548,608,
and the 2007 number, 553,530.

²⁰ For the number of users, see Ex. 2, NSDUH, tbl. 1.1A. The 2.1 million figure is an approximate average of the
2006 number, 2,130,000, and the 2007 number, 2,132,000. For the number of emergency room visits, see DAWN
2006, at 20, and DAWN 2007, at 22. The 15,000 figure is an approximate average of the 2006 number, 16,749, and
the 2007 number, 12,748.

1 drug-related visits.²¹ In fact, more than twice as many people are hospitalized annually
2 because of adverse reactions to acetaminophen (the active ingredient in Tylenol) as
3 MDMA ingestion.²²

4 *ii. Expert opinion*

5 In the New York hearing, experts for both the government and the defense agreed
6 that cocaine was more harmful than MDMA.²³

7
8 Three European surveys of scientific and health-policy experts also support the
9 conclusion that MDMA is less harmful than cocaine. In two studies in the prominent
10 British medical journal *The Lancet* (including one just last year) that assessed the relative
11 harmfulness of twenty substances of abuse based on the harmfulness of the drug to the
12 individual user and to society, MDMA ranked among the bottom four out of twenty in
13 both studies, whereas cocaine ranked among the top five in both studies.²⁴ For two other
14 comparison points, marijuana and ketamine (which the Guidelines treat as equivalent to
15 marijuana for sentencing purposes²⁵) also ranked as more harmful than MDMA:
16
17 marijuana ranged between sixth and eighth, and ketamine ranked eleventh in both
18 studies.²⁶

21 ²¹ DAWN 2007, at 22.

22 ²² *Compare, Ban is Advised on Top Two Pills for Pain Relief*, N.Y. Times, Jul. 1, 2009, at A1 (42,000 hospitalized
for acetaminophen annually), with DAWN 2007, at 22 (12,748 hospitalized for MDMA in 2007), and DAWN 2006,
at 20 (16,749 hospitalized for MDMA in 2006).

23 ²³ See Ex. 1, N.Y. Hrg. Tr. at 127 (Halpern, defense expert); *id.* at 231-32 (Parrott, government expert). The
government's other expert, Glen Hanson, refused to compare the two drugs directly because they were in his view
"apples and oranges." *Id.* at 343 (Hanson); see also *id.* at 338. However, he did acknowledge that, by the metric of
emergency-room visits, MDMA is less harmful. See *id.* at 373-74.

24 ²⁴ See Nutt et al., *Development of a rational scale to assess the harm of drugs of potential misuse*, 369 *The Lancet*
1047, 1051 (2007); Nutt et al., *Drug harms in the UK: a multicriteria decision analysis*, 376 *The Lancet* 1558, 1561
(2010).

25 ²⁵ U.S.S.G. § 2D1.1, app. note 10(E), at 543 (2009).

26 ²⁶ See Nutt 2007, 369 *The Lancet* at 1049-50; Nutt 2010, 376 *The Lancet* at 1561.

1 A 2010 study conducted by prominent Dutch researchers arrived at results similar
2 to those published in *The Lancet*.²⁷ The Dutch study's aggregate harm scores for
3 cocaine's individual and social harm were almost twice those for MDMA.²⁸ Powder
4 cocaine was ranked sixth on its list of harmful drugs and MDMA was fourteenth.²⁹
5 Marijuana and ketamine were both ranked as more harmful than MDMA.³⁰
6

7 In sum, whether one looks at the emergency room data documenting the actual
8 consequences of MDMA use and cocaine user, or the consensus view among scientific
9 experts about the relative harmfulness of each drug, it is clear that the Commission was
10 incorrect in its central conclusion that MDMA is more harmful than cocaine. This faulty
11 assumption should not continue to drive the sentences of MDMA offenders long after it
12 has been disproved by medical data and abandoned by scientists.
13

14 **B. The Commission's 2001 Report Is Rife With Methodologically Suspect**
15 **Or Subsequently Disproved Research**

16 The Commission's scientific evidence exhibits many of the problems endemic to
17 the MDMA field ten years ago: inadequate controls, inappropriate doses, and non-
18 replicable studies. Specifically, when considering the guidelines for MDMA, the
19 Commission's "empirical data" included case studies of individuals who were heavy
20 users of other drugs; studies in which animals were administered doses that we now know
21 are exponentially larger relative to their size than doses human beings ingest; a website
22 that the Commission itself noted was not scientific; and the work of a researcher who
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25 ²⁷ van Amsterdam et al., *Ranking the Harm of Alcohol, Tobacco and Illicit Drugs for the Individual and the*
Population, 16 Eur. Addiction Research 202, 204 (2010).

26 ²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

1 subsequently retracted multiple MDMA studies because he was testing the wrong
2 chemical compound. These and other empirical shortcomings of the Commission’s work
3 should leave this Court profoundly skeptical of the resulting MDMA Guideline.

4 *i. Inadequate controls*

5 To document the purported fact that MDMA is “used compulsively by some” and
6 “may produce dysphoria” (i.e., depression)³¹ the Commission cited a paper documenting
7 three case studies. This paper is emblematic of problems that plagued the field of
8 MDMA science at that time, when many published papers failed to control for important
9 variables.³²

10
11
12 The subjects of the studies were, respectively, a heavy user of cocaine and
13 marijuana, a heroin user with a family history of schizophrenia, and a PTSD patient who
14 also consumed a bottle of Jack Daniels almost every night.³³ The failure to control for
15 the important variables of simultaneous use of drugs other than MDMA, preexisting
16 conditions, and family history, make it impossible to isolate the effects of MDMA in
17 these case studies.³⁴ The Commission’s reliance on this type of paper for its conclusions
18 illustrates both the underdeveloped state of MDMA research in 2001 and the use of
19 problematic source material by the Commission in setting the current Guideline.
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24 ³¹ MDMA Report, at 18.

25 ³² See Ex. 1, N.Y. Hrg. Tr. at 118-20 (Halpern, defense expert); *id.* at 178 (Parrott, government expert); *id.* at 331
(Hanson, government expert).

26 ³³ MDMA Report, at 18 n. 61 (citing Jansen, *Ecstasy (MDMA) Dependence*, 53 Drug & Alc. Dependence 121-24
(1999)).

³⁴ See Ex. 1, N.Y. Hrg. Tr. at 39-40 (Curran, defense expert); *id.* at 234-36, 239-41 (Parrott, government expert).

1 ii. *Inappropriate dosage levels*

2 Another major flaw in the MDMA research that dominated the scientific discourse
3 a decade ago is the use of inappropriately high doses in animal studies to predict
4 consequences for human users. Specifically, the Commission’s 2001 Report relies on
5 two papers that adhere to the view that monkeys and rats should be given multiples of a
6 normal human dose in order to determine how a human would react to a normal human
7 dose.³⁵ But the validity of this theory has been repudiated by newer studies that suggest
8 the doses used in early animal studies were far too high.³⁶ For example, the Commins
9 study cited by the Commission gave rats between 10 and 40 milligrams of MDMA per
10 kilogram of body weight (expressed in scientific terms as “mg/kg”),³⁷ whereas recent
11 research suggests an appropriate dose would be between 1 and 3 mg/kg.³⁸ Thus, the
12 Commission relied on a study giving rats a dose equivalent to between *three and forty*
13 *times* a normal human dose. More recent animal studies that have used more moderate
14 dosage or self-administration have found little or no evidence of harm.³⁹

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18 In the New York hearing, experts for both the defense and the government
19 acknowledged the importance of, and agreed with, recent scientific work calling into

20 ³⁵ See MDMA Report, at 9 n.16 (citing Ricaurte et al., (+/-) 3,4-methylenedioxymethamphetamine (‘Ecstasy’)-
21 induced neurotoxicity: studies in animals, 42 Neuropsychobiology 5-10 (2000), and Commins et al., *Biochemical
and histological evidence that methylenedioxymethamphetamine (MDMA) is toxic to neurons in the rat brain*, 241 J.
22 of Pharm. & Experimental Therapeutics 338-345 (1987)).

23 ³⁶ See, e.g., Baumann et al., *3,4-Methylenedioxymethamphetamine (MDMA) Neurotoxicity in Rats: A Reappraisal of
Past and Present Findings*, 189 Psychopharmacology (Berl.) 407, 411 (2007); Green et al., *MDMA: On the
24 Translation from Rodent to Human Dosing*, 204 Psychopharmacology 375, 375 (2009).

25 ³⁷ See Commins et al., *Biochemical and histological evidence that methylenedioxymethamphetamine (MDMA) is
toxic to neurons in the rat brain*, 241 J. of Pharm. & Experimental Therapeutics 338, 339 (1987).

26 ³⁸ See, e.g., Baumann, 189 Psychopharmacology (Berl.) at 411-13.

³⁹ See, e.g., Fantegrossi et al., *Behavioral and Neurochemical Consequences of Long-term Intravenous Self-
administration of MDMA and its Enantiomers by Rhesus Monkeys*, 29 Neuropsychopharmacology 1270, 1278-79
(2004); Wang et al., *Methylenedioxymethamphetamine Administration to Rats Does Not Decrease Levels of the
Serotonin Transporter Protein or Alter its Distribution Between Endosomes and the Plasma Membrane*, 314 J.
Pharmacol. Exp. Ther. 1002, 1011 (2005).

1 question the older principles of dose-conversion between species.⁴⁰ In fact, both of the
2 government’s experts acknowledged that 1-3 mg/kg represents the dose an average or
3 recreational user would consume,⁴¹ and that low to moderate use was “consistent with a
4 typical recreational ecstasy user”⁴² whereas heavy use was “rare.”⁴³ Obviously, a
5 substance that might have moderate effects at a low dose can have much more serious
6 effects at a higher dose.⁴⁴ The Commission’s reliance on old, inaccurate assumptions
7 about dosing levels undercuts the validity of its conclusions.
8

9 *iii. Non-replicable studies and dubious assumptions*

10 The Commission also relied on several studies that were not able to be replicated,
11 or scientists whose work was fraught with methodological problems. For instance, Dr.
12 George Ricaurte, cited and relied upon as “[a] leading researcher in MDMA toxicity
13 studies” in the Commission’s 2001 report to Congress,⁴⁵ had to retract multiple studies
14 after it was discovered that they had not been done with MDMA, but with mislabeled
15 vials of methamphetamine. After this error came to light, in 2003 the journal *Science*
16 retracted a Ricaurte study purporting to show that a single dose of MDMA could cause
17 brain injury.⁴⁶ The mislabeled vials corrupted several of Ricaurte’s other studies, as well,
18 and he was forced to withdraw four other papers.⁴⁷ Even scientists Ricaurte named in
19 defense of his work were quoted in the *New York Times* as saying that “some of his best-
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23 ⁴⁰ See Ex. 1, N.Y. Hrg. Tr. at 120 (Halpern, defense expert); *id.* at 355-57 (Hanson, government expert).

24 ⁴¹ See *id.* at 299-300 (Parrott, government expert); *id.* at 356 (Hanson, government expert).

25 ⁴² See *id.* at 352 (Hanson, government expert).

26 ⁴³ See *id.* at 272 (Parrott, government expert).

⁴⁴ See *id.* at 265-66 (Parrott, government expert).

⁴⁵ MDMA Report, at 8.

⁴⁶ See McNeil, *Research on Ecstasy Is Clouded By Errors*, N.Y. Times, Dec. 2, 2003 at F1.

⁴⁷ *Id.*

1 known work has nonetheless been ‘sloppy’ or ‘not as methodologically rigorous as you
2 might want.’”⁴⁸

3 In other areas, the Commission cited research that more recent studies with better
4 technology have called into question. For example, the Commission referred to a study
5 showing loss of serotonin transporters (an important neurotransmitter) “throughout the
6 brain,” and for this conclusion the Commission relied on a 1998 brain scan study by
7 McCann and colleagues.⁴⁹ But a 2010 article in the journal *Brain*, Kish and colleagues,
8 using more advanced technology developed over the past dozen years, found that loss of
9 serotonin transporters was much less prevalent than had been thought and, in explicit
10 contrast to the McCann study, noted that the new study “did not find a global, massive
11 reduction of brain [serotonin transporter] binding.”⁵⁰ A 2009 study suggested that what
12 reduction in serotonin transporters does occur is reversible after users abstain from use —
13 in other words, after users stop using, their brains return to normal.⁵¹

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17 And some of the Commissions’ authorities and claims are suspect on their very
18 face. For example, at one point in its Report to Congress, the Commission cited, as an
19 authority regarding purported MDMA harms, a website that the Commission itself noted
20 consisted of “a mix of science, pseudo-science and lore.”⁵² In another instance, the
21 Commission suggests that MDMA must be more harmful than cocaine because MDMA
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23 ⁴⁸ *Id.* at F2.

24 ⁴⁹ MDMA Report, at 9 & n.18 (citing Mathias, NIDA Notes, “*Ecstasy*” *Damages the Brain and Impairs Memory in Humans*, Pub. No. 99-3478 (Nov. 1999), in turn citing McCann et al., *Positron emission tomographic evidence of toxic effect of MDMA (“ecstasy”) on brain serotonin neurons in human beings*, 352 *The Lancet* 1433 (1998)).

25 ⁵⁰ Kish et al., *Decreased cerebral cortical serotonin transporter binding in ecstasy users: a positron emission tomography/[¹¹C]DASB and structural brain imaging study*, 133 *Brain* 1779, 1791 (2010).

26 ⁵¹ Selveraj et al., *Brain serotonin transporter binding in former users of MDMA (‘ecstasy’)*, 194 *Brit. J. of Psych.* 355, 357 (2009).

⁵² MDMA Report, at 7 n.9 (citing <https://www.erowid.org>).

1 is a stimulant and a hallucinogen whereas cocaine is merely a stimulant⁵³ — assuming
2 that harm to humans can be gauged by summing the number of properties a drug has
3 rather than measuring its actual effects. As experts for both the defense and the
4 government agreed at the New York hearing, simply counting the number of properties a
5 drug exhibits does not provide any information on its harmfulness.⁵⁴
6

7 **C. Recent Studies Reveal That The Commission’s Report Overstated The**
8 **Actual Harms of MDMA.**

9 Research since 2001 refutes the Commission’s conclusions regarding the harms of
10 MDMA. The Commission attributed a variety of harms to MDMA, including memory
11 impairment, increases in heart rate and body temperature, and even death.⁵⁵ In the years
12 since the Commission’s 2001 Report, memory effects among MDMA users have been
13 shown to be negligible or moderate, with users testing well within normal limits.⁵⁶
14 Experts for both the defense and the government at the New York hearing acknowledged
15 a particular 2009 meta-analysis by Rogers and colleagues as a helpful synthesis of
16 MDMA study data;⁵⁷ according to this meta-analysis, which synthesized the results of
17 hundreds of MDMA studies, the effects of MDMA on memory, though statistically
18 significant, were nonetheless “small,” with the mean scores of users falling within normal
19 ranges.⁵⁸ Even one of the government’s experts accepted the conclusions of Rogers and
20 others that MDMA users’ neurocognitive functioning, though impaired, nonetheless
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23 ⁵³ *Id.* at 5.

24 ⁵⁴ See Ex. 1, N.Y. Hrg. Tr. at 98-99 (Curran, defense expert); *id.* at 387 (Hanson, government expert).

25 ⁵⁵ MDMA Report, at 7, 9.

26 ⁵⁶ See, e.g., Jager et al., *Incidental Use of Ecstasy: No Evidence for Harmful Effects on Cognitive Brain Function in a Prospective fMRI Study*, 193(3) *Psychopharmacology* (Berl.) 403, 403 (2007).

⁵⁷ See Ex. 1, N.Y. Hrg. Tr. at 18-19 (Curran, defense expert); *id.* at 239, 263 (Parrott, government expert).

⁵⁸ Rogers et al., *The harmful health effects of recreational ecstasy: a systematic review of observational evidence*, *Health Tech. Assessment*, Jan. 2009, at xi.

1 remained “[w]ithin the normal range.”⁵⁹ The heart rate and temperature increases
2 associated with MDMA use are minor (unlike the cardiovascular effects of cocaine) and
3 are usually no greater than the increases associated with moderate exercise.⁶⁰ Controlled
4 administration of MDMA to human subjects in studies examining the therapeutic effects
5 of MDMA have resulted in no serious adverse reactions among study participants.⁶¹ The
6 most significant effects of MDMA are limited to the immediate rise in heart rate and
7 body temperature, and a short-term change in brain chemistry, but even the government’s
8 experts acknowledged that all of these effects generally wear off within a week.⁶² As the
9 2009 Rogers meta-analysis summarizes, what deficits do exist among MDMA users are
10 “unlikely” to “significantly impair the average ecstasy user’s everyday functional or
11 quality of life.”⁶³ Finally, deaths from MDMA are quite rare: one British study
12 examining deaths over a ten-year period found approximately 10 deaths per year
13 attributable to MDMA use alone;⁶⁴ this represents, on average, approximately 2 deaths
14 per 100,000 MDMA users from 2001-07, or two thousandths of 1%.⁶⁵ At the New York
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19 ⁵⁹ Ex. 1, N.Y. Hrg. Tr. at 264 (Parrott, government expert).

20 ⁶⁰ Jerome, (+/-)-3,4-methylenedioxymethamphetamine (MDMA, “Ecstasy”) *Investigator’s Brochure* 12 (2007).

21 ⁶¹ *Id.* at 17-20.

22 ⁶² See Ex. 1, N.Y. Hrg. Tr. at 243-44, 252 (Parrott, government expert); *id.* at 354 (Hanson, government expert).

23 ⁶³ Rogers et al., *The harmful health effects of recreational ecstasy: a systematic review of observational evidence*,
24 Health Tech. Assessment, Jan. 2009, at xii.

25 ⁶⁴ See Schifano et al., *Overview of Amphetamine-Type Stimulant Mortality Data — UK, 1997-2007*, 61
26 *Neuropsychobiology* 122, 125 tbl. 1 (2010). This table, which covers mortality data for a ten-year period, found 104
“deaths where MDMA was identified on its own” as the cause of death. *Id.* This category is to be distinguished
from the number at the top of the table, 605 deaths, which includes all individuals who had MDMA in their systems
at the time of death. Compare *id.* at 123 (explaining that the greater figure, “np-SAD” deaths, includes cases in
which coroners found the “presence of controlled drugs at post-mortem”), with *id.* at 124 (noting there were 104
cases out of the 605 in which ecstasy was “identified on its own” as the cause of death); see also Ex. 1, N.Y. Hrg.
Tr. at 87 (Curran, defense expert) (explaining this distinction).

⁶⁵ See Schifano, 61 *Neuropsychobiology* at 128 tbl. 6; see also Rogers et al., *The harmful health effects of
recreational ecstasy: a systematic review of observational evidence*, Health Tech. Assessment, Jan. 2009, at xii
 (“Ecstasy . . . remains a rare cause of death when reported as the sole drug associated with death related to drug
use.”).

1 hearing, experts for both the defense and the government noted that cocaine was a more
2 frequent cause of death than MDMA,⁶⁶ and that death from MDMA is rare.⁶⁷

3 As for the Commission’s concerns about the hallucinogenic properties of MDMA,
4 experts for both the defense and the government at the New York hearing cast doubt on
5 the notion that MDMA could even be properly classified as a hallucinogen at all.⁶⁸ Thus
6 the Commission seems to have in some sense misunderstood the very nature of the drug.
7

8 The Commission’s inaccurate conclusions about the harms of MDMA at the time
9 it devised the MDMA Guideline should not now form the basis for severe sentences for
10 MDMA offenders.
11

12 **D. The Commission’s Non-Scientific Justification For The MDMA**
13 **Guideline — The Fear Of Particular Harm To Youth — Has Not Been**
14 **Borne Out By National Experience.**

15 Although the Commission’s principal findings concerned the harmfulness of
16 MDMA, both in and of itself and relative to cocaine, the Commission’s major non-
17 scientific conclusion warrants brief discussion. Specifically, the Commission listed
18 among its justifications for the current MDMA Guideline the fact that MDMA was
19 heavily marketed to youth and that use began at an early age.⁶⁹ In this regard, as others,
20 the Commission compared MDMA unfavorably to cocaine: indeed, one of the
21 Commission’s reasons for concluding that MDMA is more harmful than cocaine was that
22 “powder cocaine is not as aggressively marketed to youth in the same manner as
23
24

25 ⁶⁶ See Ex. 1, N.Y. Hrg. Tr. at 11 (Curran, defense expert); *id.* at 366 (Hanson, defense expert).

26 ⁶⁷ See *id.* at 11 (Curran, defense expert); *id.* at 293 (Parrott, defense expert).

⁶⁸ See *id.* at 164 (Halpern, defense expert); *id.* at 289-90 (Parrott, government expert).

⁶⁹ MDMA Report, at 5, 12-14.

1 MDMA.”⁷⁰ But the Commission’s concern about youth use and youth harm has proved
2 unfounded and the comparison to cocaine inapt.

3 According to the federally-funded “Monitoring the Future” survey by the
4 University of Michigan, the percentage of 12th graders who use MDMA fell by more
5 than half from 2001 to 2009.⁷¹ At the New York hearing, a government expert who had
6 been the head of the National Institute on Drug Abuse embraced this data, hypothesizing
7 that young people became less open to trying MDMA because of their perception of its
8 risk (as opposed to, for instance, the federal penal structure).⁷² Thus the Commission’s
9 concerns over an impending MDMA epidemic among youth have not been realized.
10

11 Additionally, the national experience with MDMA has shown that MDMA does
12 not pose a greater threat to the nation’s youth than cocaine does. For example, in 2007
13 the number of cocaine-related emergency room visits was over four times the number of
14 MDMA-related visits for youths aged twelve to seventeen, and for 18- to 20-year-olds,
15 the number of cocaine-related visits was almost *nine* times the number than MDMA-
16 related visits⁷³ — even though the overall usage rate for cocaine among each population
17 was less than twice that of MDMA.⁷⁴
18

19 In sum, it is clear that, in formulating the current MDMA Guideline, the
20 Commission seriously overestimated the harmfulness of MDMA at a time when little was
21 known about the substance. Because the MDMA Guideline is not based on sound
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24 ⁷⁰ *Id.* at 5.

25 ⁷¹ See Univ. of Mich., *Monitoring the Future: A Continuing Study of American Youth* (2009), tbl. 2 at 2 (“Trends in
Annual Prevalence of Use of Various Drugs in Grades 8, 10, and 12”), available at
<http://monitoringthefuture.org/data/09data/pr09t2.pdf>.

26 ⁷² Ex. 1, N.Y. Hrg. Tr. at 382 (Hanson, government expert).

⁷³ See DAWN 2007, at 25.

⁷⁴ See Ex. 2, NSDUH, tbls. 1.2A, 1.3A, 1.4A & 1.5A.

1 empirical evidence, but is instead the product of unsubstantiated fears and flawed
2 research, the sentences recommended by the MDMA Guideline do not approximate
3 sentences that are tailored to achieve the sentencing objectives in 18 U.S.C. § 3553(a).
4 National experience and scientific research in the intervening decade demonstrate that
5 MDMA is less harmful than the Commission and Congress had predicted, and that the
6 current MDMA Guideline sentencing ranges are unduly severe. This Court should
7 therefore exercise its discretion under *Kimbrough v. United States*, 552 U.S. 85 (2007), to
8 vary from the scientifically-flawed and therefore unnecessarily harsh MDMA Guideline.
9

10 **III. THIS COURT SHOULD SELECT A SENTENCE BASED ON THE**
11 **ACTUAL HARMFULNESS OF MDMA RELATIVE TO OTHER DRUGS.**

12 As previously noted, the 2001 amendments to the MDMA Guideline increased
13 MDMA sentences by raising the ratio at which MDMA is converted to marijuana for
14 sentencing purposes from 35:1 to a staggering 500:1.⁷⁵ Since this ratio is unreasonably
15 high and devoid of an empirical basis, this Court must use its judgment to select the
16 proper ratio.
17

18 Two useful comparators for MDMA are the drugs marijuana and ketamine. Like
19 MDMA, both marijuana and ketamine appear in both the Drug Equivalency Tables, were
20 evaluated in the three above-cited studies comparing the relative harms of various drugs
21 based on expert assessments,⁷⁶ and were the subject of expert testimony and comparative
22 evaluation at the New York hearing. A comparison of MDMA with these two drugs
23 suggests that this Court should treat 1 gram of MDMA as equivalent to 1 gram of
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26 ⁷⁵ See MDMA Report, at 5-6; U.S.S.G. § 2D1.1, app. note 10(E), at 542 (2009).

⁷⁶ See *supra* Part II.A.ii.

1 marijuana (which is treated the same as 1 gram of ketamine) for the purpose of
2 sentencing. MDMA is no more harmful, and in some ways is substantially less harmful,
3 than marijuana and ketamine, each of which is treated as equivalent to marijuana for the
4 purpose of sentencing.

5
6 Marijuana and ketamine both appear in the Drug Equivalency Tables in U.S.S.G.
7 2D1.1. They are treated the same for federal sentencing purposes.⁷⁷ In the two *Lancet*
8 studies comparing the relative harmfulness of twenty drugs, based on experts'
9 assessments of each drug's harmfulness to the individual user and to society, MDMA was
10 ranked as seventeenth or eighteenth out of twenty — less harmful than ketamine (sixth or
11 eighth) or marijuana (eleventh in both studies).⁷⁸ The Dutch comparative study likewise
12 ranked MDMA (fourteenth) less harmful than ketamine (thirteenth) and marijuana
13 (twelfth).⁷⁹

14
15 The experts' decision to rank MDMA as less harmful than these two other drugs is
16 well-founded. A brief comparison of each drug with MDMA bears out the conclusion
17 that MDMA is no more harmful (and in many ways less harmful) than ketamine or
18 marijuana. Studies have shown that unlike MDMA, a single dose of ketamine can
19 produce schizophrenia-like symptoms, dissociative effects, and broad ranging cognitive
20 dysfunction.⁸⁰ Also in stark contrast to MDMA, ketamine use has been shown to cause
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25 ⁷⁷ U.S.S.G. § 2D1.1, app. note 10(E), at 543.

⁷⁸ See Nutt 2007, 369 *The Lancet* at 1049-50; Nutt 2010, 376 *The Lancet* at 1561.

⁷⁹ See van Amsterdam, 16 *Eur. Addiction Research* at 204.

⁸⁰ See Morgan et al., *Consequences of Chronic Ketamine Self-Administration Upon Neurocognitive Function and Psychological Wellbeing: A 1-year Longitudinal Study*, 105 *Soc. for the Study of Addiction* 121, 121 (2009).

1 destruction of the lower urinary tract, including ulcerative cystitis and blood in urine.⁸¹
2 Smoking marijuana increases health risks associated with smoking cigarettes, including
3 coughing, chronic bronchitis, shortness of breath, and lung damage.⁸² Citing many of
4 these same harms, plus the greater potential for addictiveness of marijuana in contrast to
5 MDMA, a defense expert who has worked with and published on all three substances —
6 MDMA, ketamine, and marijuana — gave unchallenged and unrefuted testimony at the
7 New York hearing that MDMA was no more harmful than ketamine or marijuana.⁸³

8
9 Since MDMA is no more harmful (and in many respects less harmful) than
10 ketamine or marijuana, MDMA should not be sentenced more harshly than either of these
11 drugs. Therefore, this Court should treat 1 gram of MDMA as equivalent to 1 gram of
12 marijuana (or 1 gram of ketamine, which the Guidelines treat as 1:1 with marijuana).

13
14 In the alternative, this Court should at the very least wipe out the effect of the
15 2001 amendments and their crumbling scientific foundation by returning to the pre-2001
16 ratio of 35:1 for converting MDMA to marijuana.⁸⁴

17 18 **IV. GUIDELINE CALCULATIONS**

19 Mr. Phan has pled guilty to conspiracy to distribute 160,000 pills of MDMA. Mr.
20 Phan submits that this Court should, after calculating the Guideline sentence, express a
21 policy disagreement with the MDMA Guideline and impose a sentence based on a 1:1
22 rather than a 500:1 conversion ratio to marijuana. The PSR uses a weight of 52 kg as the
23

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25 ⁸¹ See Shahani et al., *Ketamine-Associated Ulcerative Cystitis: A New Clinical Entity*, 69(5) *Urology* 810, 811 (2007).

26 ⁸² See U.S. Drug Enforcement Admin., *The DEA Position on Marijuana* (May 2006).

⁸³ See Ex. 1, N.Y. Hrg. Tr. at 7-8, 41-46 (Curran, defense expert).

⁸⁴ See MDMA Report, at 5-6.

1 corresponding weight of 160,000 pills. Under U.S.S.G. § 2D1.1(c)(10), the base offense
2 level for 52 kg of marijuana is 20. (In the alternative, if this Court expresses a policy
3 disagreement with the Guidelines but uses the 35:1 MDMA-to-marijuana conversion
4 ratio that governed prior to the flawed 2001 MDMA Guideline, the resulting base offense
5 level for 52 kg of MDMA would be that for 1,820 kg of marijuana, which is level 32.
6
7 *See* U.S.S.G. § 2D1.1(c)(4).

8 If the Court uses a marijuana-MDMA ratio of 1:1, the resulting level, starting at 20
9 and accounting for the adjustments advised in the PSR, is 22. Since Mr. Phan is in
10 Criminal History Category I, the appropriate sentencing range would be 41 to 51 months.
11

12 If the Court uses a marijuana-MDMA ratio of 35:1, the resulting level, starting at
13 32 and accounting for the adjustments advised in the PSR, is 34. Since Mr. Phan is in
14 Criminal History Category I, the appropriate sentencing range would be 151 to 188
15 months.
16

17 The Court should begin with one of the above ranges before making its
18 “individualized assessment based on the facts presented” in light of the sentencing factors
19 Congress has set forth in 18 U.S.C. § 3553(a). *Gall*, 552 U.S. at 49-50; *see also United*
20 *States v. Lewis*, 623 F. Supp. 2d 42, 47 (D.D.C. 2009) (stating that categorical policy
21 disagreements should be applied before individual considerations); *United States v.*
22 *Beiermann*, 599 F. Supp. 2d 1087, 1107-08 (N.D. Iowa 2009) (applying categorical
23 policy disagreement before adjusting for individual circumstances); *accord, United States*
24 *v. Greer*, 699 F. Supp. 2d 876, 880 (E.D. Tex. 2010); *United States v. Edwards*, 693 F.
25 *Supp. 2d 575, 582-84* (S.D. W. Va. 2010); *United States v. Williams*, No. 09-CR-30099,
26

1 2010 WL 1325229, at *8 (S.D. Ill. Mar. 30, 2010); *Henderson v. United States*, 660 F.
2 Supp. 2d 751, 753-54 (E.D. La. 2009); *United States v. Dozier*, No. S1 08 Cr. 08-02,
3 2009 WL 1286486, at *6-7 (S.D.N.Y. May 8, 2009).

4 The application of the 3553(a) factors to Mr. Phan is addressed in the separate
5 sentencing memorandum submitted by co-counsel from the Federal Public Defender.

7 CONCLUSION

8 Because the MDMA Guideline promulgated in 2001 and still on the books today
9 was the product of fear and sloppy science rather than empirically sound study, this Court
10 has discretion to vary from the prescribed Guideline offense levels and should do so —
11 either at this time, or if the Court would prefer, after an evidentiary hearing at which the
12 Court may hear from scientific experts about the actual harmfulness of MDMA and the
13 research that has undermined the Commission’s 2001 conclusions.

14
15 Taking into account the actual harms of MDMA, in comparison to the ranges
16 prescribed for marijuana and ketamine, this Court should begin with a sentencing range
17 of 41 to 51 months before considering Mr. Phan’s individual circumstances under 18
18 U.S.C. § 3553(a). Alternatively, if this Court wishes to do no more than reverse the
19 effects of the flawed 2001 Guideline, it should begin with a sentencing range of 151-188
20 months. Either way, it is vital that this Court exercise its independent judgment to
21 preserve fairness and ensure that the resulting sentence for Mr. Phan is “sufficient but not
22 greater than necessary” to serve the goals of sentencing. 18 U.S.C. § 3553(a). Once this
23 Court has identified a fair and realistic Guideline range, it should address Mr. Phan’s
24
25
26

1 individualized circumstances as discussed in the sentencing memorandum from co-
2 counsel and as required under § 3553(a).

3 DATED this 4th day of January, 2011.

4 Respectfully submitted,

5 /s/ Jay Rorty, Cal. Bar No. 135097*

6 /s/ Scott Michelman, Cal. Bar No. 236574*

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CERTIFICATE OF SERVICE

I hereby certify that on January 4, 2011, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system which will send notification of such filing to Assistant United States Attorney Susan M. Roe.

I further certify that I have emailed the above document to non CM/ECF participant United States Probation Officer Lisa L. Combs.

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