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### The Need for Ibogaine in Drug and Alcohol Addiction Treatment

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## THE NEED FOR IBOGAIN IN DRUG AND ALCOHOL ADDICTION TREATMENT

Jennifer R. Donnelly\*

Clearly, in a world devastated by addictions to alcohol, cocaine, heroin, amphetamines, methadone, and nicotine, with all the accompanying death, disease and crime, in a society where dysfunctional behavior is the rule rather than the exception, in a humanity hungering to reconnect with God, ibogaine has profound implications.<sup>1</sup>

### INTRODUCTION

Samantha Jones graduated valedictorian of her high school class. She had big dreams of becoming a surgeon and had even been offered a full scholarship at an Ivy League university. Something, however, went terribly wrong. At 20 years old, Samantha has been disowned by her family, fired by her employer, evicted by her landlord, and has lost her daughter to foster care. She is living on the streets, selling her body for sex to get enough money to feed her \$200-a-day addiction to heroin. On a good day, Samantha wakes up and immediately shoots heroin to “get well.” On a bad day, she is forced to go out on the street and beg for money or sell her body just to come up with enough money to shoot up.

Samantha has been in and out of rehab facilities and has spent time in jail for prostitution and possession of a controlled substance. Each time, she relapses within days of her release. She is currently on methadone maintenance in an effort to ward off heroin withdrawal symptoms, but instead of taking the methadone, Samantha is selling it on the streets for money to buy the heroin

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<sup>1</sup> Eric Taub, *Ibogaine: I Begin Again*, in *I BEGIN AGAIN TREATMENT CENTERS* (2003), [http://www.ibeginagain.org/articles/eric\\_taub.shtml](http://www.ibeginagain.org/articles/eric_taub.shtml).

she desperately craves. She knows that she has lost all control and realizes that her addiction may soon take her life, but up against a wall with nowhere to turn, Samantha needs a miracle.

What Samantha does not know is that there is a drug that could interrupt her dependency on heroin for long enough that she could get the therapy that she needs. Unfortunately, this miracle drug, ibogaine, is illegal in the United States and while it is legally available in other countries, travel and treatment are expensive. Samantha, like thousands of others in her position, simply cannot afford the treatment, as every penny she manages to scrounge goes to feed her addiction.<sup>2</sup>

Section I of this commentary discusses the economic and societal costs of drug abuse in the United States, as well as the current treatment methods available for drug addiction. Section II examines the history of ibogaine, including the available studies on its use for addiction and the importance of aftercare. Section III analyzes the common arguments against legalizing ibogaine. Section IV concludes with suggestions for the future of ibogaine in the United States.

## I. DRUG ADDICTION IN THE UNITED STATES

John Belushi, Chris Farley, Janis Joplin, Jimmy Hendrix, Judy Garland, Billie Holiday, River Phoenix, Elvis Presley, Tim Hardin, Sid Vicious, and Jim Morrison: these are only a few in the long list of celebrities who died in the prime of their lives as a result of their drug and alcohol addictions.<sup>3</sup> Drug abuse and addiction have no boundaries; they affect people of all races, cultures, and socio-economic backgrounds. The results from the 2009 National Survey on Drug Use and Health, conducted by the Department of Health and Human Services, indicates the rate of substance abuse or dependence by class/ethnicity as “15.5 percent for American Indians or Alaska Natives, 13.2 percent for persons reporting two or more races, 10.1 percent for Hispanics, 9.0 percent for whites, . . . 8.8 percent for blacks” and 3.5% for Asians.<sup>4</sup> Additionally, college graduates typically had lower abuse and dependence

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<sup>2</sup> Although Ms. Jones is a fictional character, her plight is not unique, as the 2004 National Survey on Drug Use and Health reported that “an estimated 3.7 million people had used heroin at some time in their lives” and “from 1995 through 2002, the annual number of new heroin users ranged from 121,000 to 164,000.” See NAT’L INST. DRUG ABUSE RESEARCH REPORT SERIES, HEROIN ABUSE AND ADDICTION 1-2 (Rev. May 2005), <http://www.drugabuse.gov/PDF/RRHeroin.pdf>.

<sup>3</sup> See, e.g., Casa Palmera, *Top 20 Drug Induced Celebrity Deaths*, <http://www.casapalmera.com/articles/how-20-prominent-people-died-as-a-result-of-drug-use/> (last visited Nov. 25, 2010).

<sup>4</sup> SUBSTANCE ABUSE & MENTAL HEALTH SERVICES ADMIN., U.S. DEP’T HEALTH & HUMAN SERVICES, PUB. NO. SMA 10-4586 FINDINGS, RESULTS FROM THE 2009 NATIONAL SURVEY ON DRUG USE AND HEALTH 78 (2010), <http://oas.samhsa.gov/NSDUH/2k9NSDUH/2k9ResultsP.pdf>.

rates (7.5%) than college dropouts (9.9%), high school graduates (8.9%), and high school dropouts (11.6%).<sup>5</sup>

In the United States, however, drug addiction is treated as a crime, rather than the disease that it is.<sup>6</sup> The United States spends billions of dollars each year to imprison addicts or force them into treatment programs that have low success rates.<sup>7</sup>

### A. Costs of Drug Addiction on Society

Americans spend approximately \$64.8 billion every year to purchase illicit drugs, including \$36 billion for cocaine, \$11 billion for marijuana, \$10 billion for heroin, \$5.4 billion on methamphetamine, and \$2.4 billion on other illegal drugs.<sup>8</sup> Roughly 22.2 million Americans experience a substance abuse problem each year, while only 3.9 million of those receive any kind of treatment for their addiction.<sup>9</sup>

The Office of National Drug Control Policy estimates that drug abuse in the United States costs society approximately \$181 billion a year, \$107 billion of which is directly attributable to drug-related crime.<sup>10</sup> Moreover, this cost is rising sharply, despite the “War on Drugs,”<sup>11</sup> evidenced by the fact that the societal cost of illicit drug addiction has risen \$64 billion between 1997 and 2002.<sup>12</sup> Alcohol abuse, meanwhile, costs society an additional \$185 billion per year.<sup>13</sup> These costs are felt by all of society through higher insurance premiums and health care expenses, as well as higher incidence of crime throughout the nation.<sup>14</sup>

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<sup>5</sup> *Id.*

<sup>6</sup> NAT'L INST. DRUG ABUSE, U.S. DEP'T OF HEALTH & HUMAN SERVICES, UNDERSTANDING DRUG ABUSE AND ADDICTION 1 (JUNE 2008), <http://www.drugabuse.gov/PDF/InfoFacts/Understanding08.pdf>.

<sup>7</sup> See Dave Bewley-Taylor et al., The Beckley Foundation Drug Policy Programme, *The Incarceration of Drug Offenders: An Overview* 12 (Mar. 2009), [http://www.idpc.net/php-bin/documents/Beckley\\_Report\\_16.2\\_FINAL\\_EN.pdf](http://www.idpc.net/php-bin/documents/Beckley_Report_16.2_FINAL_EN.pdf) (estimating that the United States spends \$12.3 billion to keep state and federal drug offenders incarcerated); see also SUBSTANCE ABUSE POLICY RESEARCH PROGRAM, POLICY BRIEF: SUBSTANCE ABUSE TREATMENT BENEFITS AND COSTS, [http://www.saprp.org/knowledgeassets/knowledge\\_brief.cfm?KAID=1](http://www.saprp.org/knowledgeassets/knowledge_brief.cfm?KAID=1) (last visited Nov. 18, 2010) (finding that nearly \$18 million is spent annually on drug and alcohol treatment, mostly with public funds).

<sup>8</sup> OFFICE OF NAT'L DRUG CONTROL POL'Y: DRUG POLICY INFORMATION CLEARINGHOUSE FACT SHEET, DRUG DATA SUMMARY 2 (Mar. 2003), [http://www.whitehousedrugpolicy.gov/pdf/drug\\_datasum.pdf](http://www.whitehousedrugpolicy.gov/pdf/drug_datasum.pdf) (last visited Mar. 1, 2010).

<sup>9</sup> KATHARINE R. LEVIT ET AL., PROJECTIONS OF NATIONAL EXPENDITURES FOR MENTAL HEALTH SERVICES AND SUBSTANCE ABUSE TREATMENT 2004-2014, U.S. DEP'T HEALTH & MENTAL SERVICES, SAMHSA PUB. NO. SMA 08-4326, at 27 (2008).

<sup>10</sup> *Id.*

<sup>11</sup> See Claire Suddath, *The War on Drugs*, TIME MAG., Mar. 25, 2009, at 74.

<sup>12</sup> Brian Vastag, *Addiction Treatment Strives for Legitimacy*, 288 J.A.M.A. 3096, 3100 (2002).

<sup>13</sup> LEVIT, *supra* note 9.

<sup>14</sup> *Id.*

Addiction's effects on crime in the United States are profound. While possessing and consuming an illicit drug are crimes themselves, substance abuse contributes substantially to property damage and violent crime. According to a 1997 National Household Survey on Drug Abuse (NHSDA) conducted by the United States Department of Health and Human Services (HHS), individuals who reported using an illicit drug during the previous year were: 16 times more likely to be arrested for property crimes, such as larceny and theft; 14 times more likely to be arrested for driving under the influence; and nine times more likely to be arrested for assault.<sup>15</sup> In 1991, 21% of state inmates and 59% of federal inmates were incarcerated specifically for drug-related crimes.<sup>16</sup> By 1997, 22.4% of federal prison inmates and 32.6% of state prison inmates reported that they had been under the influence of drugs at the time of the crime for which they were incarcerated.<sup>17</sup> Drug use continues to be a major contributor in violent offenses, with 29.4% of federal and 26.8% of state inmates convicted of murder having been under the influence of drugs at the time of their crime.<sup>18</sup> Additionally, 7.9% of federal and 21.5% of state inmates reported being under the influence of drugs when they committed a sexual assault; 27.8% and 39.9% for robbery; and 13.8% and 24.2% for assault.<sup>19</sup> Moreover, 19% of state inmates and 15% of federal inmates reported that they had committed the offense they were incarcerated for in an effort to obtain money for drugs.<sup>20</sup>

## B. Current Treatment Methods Available

Currently, pharmaceutical treatment for substance abuse addiction in the United States is limited to two basic types: (1) replacement therapy; and (2) aversion therapy.<sup>21</sup> Replacement therapy is characterized by substituting or replacing the drug that the person is addicted to with a "safer drug" under the theory that the individual can be weaned off the replacement drug over time.<sup>22</sup> The most prominent examples of this are methadone maintenance for heroin addiction and nicotine replacement drugs for smokers.<sup>23</sup> Unfortunately,

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<sup>15</sup> OFFICE OF NAT'L DRUG CONTROL POL'Y: DRUG POL'Y INFO. CLEARINGHOUSE FACT SHEET, DRUG-RELATED CRIME 1-2 (2000), <http://www.whitehousedrugpolicy.gov/publications/pdf/ncj181056.pdf>.

<sup>16</sup> OFFICE OF NAT'L DRUG CONTROL POL'Y: DRUG POL'Y INFO. CLEARINGHOUSE FACT SHEET, DRUG TREATMENT IN THE CRIMINAL JUSTICE SYSTEM 1 (2001), <http://www.whitehousedrugpolicy.gov/publications/pdf/94406.pdf>.

<sup>17</sup> OFFICE OF NAT'L DRUG CONTROL POL'Y, *supra* note 8, at 3.

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> Jonathon Freedlander, *Ibogaine: A Novel Anti-Addictive Compound*, *A Comprehensive Literature Review*, 1 J. DRUG EDUC. & AWARENESS 79, 88-90 (2003).

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

there are no “safer drugs” available for individuals with addictions to cocaine, crack, or methamphetamine.<sup>24</sup>

Aversion therapy, on the other hand, involves the use of drugs that interact negatively with the drug of addiction, such as disulfiram, which is used to treat alcoholism.<sup>25</sup> This treatment choice posits that the individual will be deterred from using the drug to which they are addicted because, when combined with aversion drugs, it induces nausea, vomiting, and physical pain.<sup>26</sup>

The problems associated with these treatment methods, however, are numerous. Both require long-term treatment, which greatly increases the chance that an addict will quit treatment and return to using.<sup>27</sup> Replacement therapy simply replaces one drug with another, and, as is the case with methadone, the “safer drug” is itself addictive. In fact, both the illegal use of methadone and the deaths caused by the drug are on the rise.<sup>28</sup> The Centers for Disease Control and Prevention (CDC) reported at least 786 deaths caused by methadone in 1999.<sup>29</sup> Five years later, the number of deaths had jumped to 3,839.<sup>30</sup> The unpleasant side effects associated with aversion therapy, however, result in many patients stopping treatment and relapsing.<sup>31</sup>

Fortunately, there is a natural plant whose roots may be the answer to many substance addictions, including addictions to heroin, cocaine, crack, methamphetamines, alcohol, and even nicotine. Unfortunately, this vehicle for treatment is unavailable in the United States because it has hallucinogenic qualities and is, therefore, illegal.<sup>32</sup>

## II. IBOGAINE—AN ADDICTION INTERRUPTER

### A. Ibogaine’s History

Ibogaine is a naturally occurring psychoactive substance derived from the roots of the *Tabernanthe iboga* shrub and other West African plant species generally found in rain forests.<sup>33</sup> It has been used for centuries by the

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<sup>24</sup> NAT’L INST. DRUG ABUSE, U.S. DEP’T HEALTH & HUMAN SERVICES, TREATMENT APPROACHES FOR DRUG ADDICTION 3 (Sept. 2009), [http://www.nida.nih.gov/PDF/InfoFacts/IF\\_Treatment\\_Approaches\\_2009\\_to\\_NIDA\\_92209.pdf](http://www.nida.nih.gov/PDF/InfoFacts/IF_Treatment_Approaches_2009_to_NIDA_92209.pdf).

<sup>25</sup> Freedlander, *supra* note 21.

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> Rich Daly, *Government Undertakes Effort to Cut Methadone-Related Deaths*, 42 PSYCH. NEWS 13, 13 (2007).

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> Freedlander, *supra* note 21.

<sup>32</sup> 21 U.S.C. § 812 (2009).

<sup>33</sup> See, e.g., MAPS, *Ibogaine: Treatment Outcomes and Observations*, 13 MAPS 16, 16 (2003), <http://www.maps.org/news-letters/v13n2/13216two.pdf>; Howard S. Lotsof et al., *Ibogaine in the Treatment*

indigenous peoples of Western Africa, mainly for use as a sacrament in spiritual initiation ceremonies.<sup>34</sup> It has also been used in traditional medicine, however, to combat such things as fatigue, hunger, and thirst.<sup>35</sup> Additionally, ibogaine was used as a mental and physical stimulant in France, under the name Lambarene, until 1970 and was popular with post-World War II athletes before being banned by the Olympic Committee as a potential doping agent.<sup>36</sup>

In the 1950s and early 1960s, American psychologist Leo Zeff and Chilean psychiatrist Claudio Naranjo used ibogaine in their psychotherapy practices.<sup>37</sup> Naranjo conducted several studies to determine the psychotherapeutic effects ibogaine had on patients seeking closure for unresolved emotional issues.<sup>38</sup> These studies illustrated that ibogaine allowed patients to revisit their past experiences objectively and without the negative emotions experienced during the actual incident, which, in turn, enabled them to confront and resolve deep personal conflicts.<sup>39</sup> During the same time, the CIBA Corporation was also evaluating ibogaine's usefulness as an anti-anxiety drug.<sup>40</sup>

When taken at low doses, ibogaine causes a stimulant effect eliciting increased alertness, and reducing fatigue, hunger, and thirst.<sup>41</sup> Within three hours after ingesting a higher dose of ibogaine, the user will enter into the "acute phase," typically lasting four to eight hours.<sup>42</sup> It is during this phase that the user experiences ibogaine's most intense effects, characterized as the "panoramic recall of a large amount of material relating to prior life events from long-term memory, primarily in the visual modality," or the "waking dream" state.<sup>43</sup> If the user is an addict, he or she will usually be taken back to the place and time where the underlying issue leading to the addiction arose,

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*of Chemical Dependence Disorders: Clinical Perspectives*, 3 MAPS BULL. 5, 5 (1995), [http://www.ibogaine.org/ibogaine\\_trauma.html](http://www.ibogaine.org/ibogaine_trauma.html); Freedlander, *supra* note 21, at 79; Piotr Popik & Phil Skolnick, *Pharmacology of Ibogaine and Ibogaine-Related Alkaloids*, in *THE ALKALOIDS* 197 (Geoffrey A. Cordell ed., 1998).

<sup>34</sup> Freedlander, *supra* note 21, at 79.

<sup>35</sup> See, e.g., MAPS, *supra* note 33, at 16; Lotsof, *supra* note 33, at 5; Freedlander, *supra* note 21; see also Popik & Skolnick, *supra* note 33.

<sup>36</sup> Vince Beiser, *One Pill Makes You Better*, NEWS REVIEW, Jan. 6, 2005, <http://www.newsreview.com/sacramento/content?oid=33181>; Freedlander, *supra* note 21, at 2; Romaldas Mačiulaitis et al., *Ibogaine, An Anti-Addictive Drug: Pharmacology and Time to Go Further in Development, A Narrative Review*, 27 HUMAN & EXPERIMENTAL TECHN. 181, 188 (2008); MAPS, *supra* note 33, at 16.

<sup>37</sup> Simon Witter, *Ibogaine*, in *I BEGIN AGAIN TREATMENT CENTERS* (2003), <http://www.ibeginagain.org/articles/times.shtml>.

<sup>38</sup> Freedlander, *supra* note 21, at 79-82.

<sup>39</sup> *Id.* at 3.

<sup>40</sup> Witter, *supra* note 37.

<sup>41</sup> Freedlander, *supra* note 21, at 79.

<sup>42</sup> Kenneth R. Alper et al., *Treatment of Acute Opioid Withdrawal with Ibogaine*, 8 AM. J. ADDICTIONS 234, 236 (1999).

<sup>43</sup> *Id.*; see also Freedlander, *supra* note 21.

allowing the addict to gain critical insight into the reasons why he or she abuses.<sup>44</sup>

The user, however, remains in control during the entire ordeal and can terminate negative visions by simply opening his or her eyes.<sup>45</sup> After the acute phase has ended, the user then enters a reflective and neutral state that lasts 8 to 20 hours.<sup>46</sup> The experiences during this stage may vary individual to individual, with some using this time to reflect on what they learned in the first stage.<sup>47</sup> In the majority of cases, the user will be unable to sleep, unless assisted by sleep medication, as ibogaine can cause insomnia for up to 72 hours.<sup>48</sup> In the third and final stage, which can last for an additional 24 hours, the person will be functional, albeit slower and more open or vulnerable.<sup>49</sup>

Following ibogaine treatment, “former addicts” will have two months to one year, free of drug cravings, giving them a “window of opportunity” to seek therapy and support for their addictions.<sup>50</sup> Follow-up therapy is extremely important, as addicts who do not receive the assistance needed to sustain drug-free lives during the window of opportunity often relapse when the psychological issues originally turning them on to drugs return.<sup>51</sup> The larger window of opportunity after taking ibogaine, however, allows patients to “get a head start in their recovery,” while patients treated in traditional clinics must “learn very basic and concrete ways to stay clean[,] as taught in self-help meetings, and emphasized in psychotherapy.”<sup>52</sup>

Ibogaine’s physical effects include ataxia,<sup>53</sup> dystonia,<sup>54</sup> nausea and vomiting, tremors, and light sensitivity.<sup>55</sup> The many physical side effects, the duration of these side effects, and the fact that ibogaine is not necessarily hallucinogenic in the same sense as LSD, make ibogaine an unpopular choice for recreational drug use.<sup>56</sup> Moreover, it is highly improbable that ibogaine is addictive, evidenced by the many people who have experienced its effects and related it to a “rough trip,” an unpleasant experience many do not wish to repeat.<sup>57</sup>

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<sup>44</sup> Taub, *supra* note 1.

<sup>45</sup> IBOGAINE: RITE OF PASSAGE (Lunart Productions 2003) (Dutch documentary film about Ibogaine; DVD copies are available at [www.ibogainefilm.com](http://www.ibogainefilm.com)).

<sup>46</sup> Alper, *supra* note 42.

<sup>47</sup> Taub, *supra* note 1.

<sup>48</sup> Alper, *supra* note 42, at 236; Taub, *supra* note 1.

<sup>49</sup> Taub, *supra* note 1.

<sup>50</sup> *Id.*; Witter, *supra* note 37.

<sup>51</sup> Taub, *supra* note 1; Witter, *supra* note 37.

<sup>52</sup> Witter, *supra* note 37.

<sup>53</sup> WEBSTER’S NEW WORLD MEDICAL DICTIONARY 34 (3d ed. 2008) (defining ataxia as the loss of muscle coordination).

<sup>54</sup> *Id.* at 130 (defining dystonia as “involuntary movements and prolonged muscle contraction”).

<sup>55</sup> Freedlander, *supra* note 21, at 79-82.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

In 1962, the anti-addictive property of ibogaine was inadvertently discovered by 19-year-old heroin addict Howard Lotsof.<sup>58</sup> Lotsof was part of an experimental group of mostly 20-something Caucasians attending college.<sup>59</sup> The group, which included seven heroin addicts, shared a common interest in experimenting and subjectively evaluating their experiences with various psychoactive drugs, including Mescaline, LSD, DMT, and psilocybin,<sup>60</sup> in an effort to determine the psychotherapeutic value of hallucinogenic drugs.<sup>61</sup> As psychedelic drugs were not illegal at the time, Lotsof had access to many of these drugs through his company, S & L Laboratories.<sup>62</sup> Rather than simply providing the hallucinogenic, euphoriant high the group anticipated, the heroin addicts noticed that ibogaine actually alleviated their craving for heroin.<sup>63</sup> Lotsof ceased using heroin, cocaine, and all other drugs during the six months following his initial dose of ibogaine, an effect most members of the group shared.<sup>64</sup>

In 1966, many of the psychedelic drugs which Lotsof possessed were classified as Schedule I narcotics: drugs that have no acceptable medical value and a high potential for abuse.<sup>65</sup> As Lotsof had already drawn the attention of the Food and Drug Administration (FDA) several years earlier, the government was highly aware of Lotsof's activities and had him arrested and charged with drug conspiracy.<sup>66</sup> During his trial, Lotsof tried to speak out about ibogaine's anti-addictive property, but his testimony was stricken from the record, and he was sentenced to 14 months in jail.<sup>67</sup>

Ibogaine enjoyed a relatively brief stint in the drug market during the 1960s, first appearing in a small number of cases in New York and California.<sup>68</sup> Shortly after these reported cases, however, ibogaine disappeared from the drug market completely.<sup>69</sup> This short visit is likely explained by the fact that there was no profit for drug dealers in selling a product that, because of its anti-addictive effect, actually decreased their clientele.<sup>70</sup>

<sup>58</sup> *Id.*; see also Nick Sandberg, *Ibogaine*, <http://www.ibogaine.co.uk/index.htm> (noting that Lotsof passed away on Jan. 31, 2010).

<sup>59</sup> Howard S. Lotsof & Norma E. Alexander, *Case Studies of Ibogaine Treatment: Implications for Patient Management Strategies*, in *THE ALKALOIDS*, *supra* note 33, at 293-94.

<sup>60</sup> See NAT'L INST. DRUG ABUSE, U.S. DEP'T HEALTH & HUMAN SERVICES, PUB. NO. 01-4209, *HALLUCINOGENS AND DISSOCIATIVE DRUGS 1-2* (Mar. 2001) (noting that mescaline, lysergic acid diethylamide, dimethyltryptamine, and psilocybin are drugs which have hallucinogenic qualities).

<sup>61</sup> *Id.*; Witter, *supra* note 37.

<sup>62</sup> Freedlander, *supra* note 21, at 82-84.

<sup>63</sup> Witter, *supra* note 37.

<sup>64</sup> *Id.*

<sup>65</sup> Freedlander, *supra* note 21, at 82-84.

<sup>66</sup> *Id.*

<sup>67</sup> *Id.*

<sup>68</sup> *Id.* at 2.

<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

Despite ibogaine's known anti-addictive properties, in 1967, the federal government classified the drug as a Schedule I controlled substance, where it remains today.<sup>71</sup> Ironically, ibogaine is classified in the same category as the very drugs it can counteract.<sup>72</sup> Throughout most of the world, ibogaine remains legal,<sup>73</sup> albeit somewhat restricted in Australia, Belgium, Sweden, and Switzerland.<sup>74</sup>

## B. Formal and Informal Studies

In 1986, more than two decades after his initial discovery, Lotsof: founded NDA International (NDA); obtained patents for the use of ibogaine in treating opiate, cocaine, amphetamines, and alcohol addictions under the name Endabuse; and started unofficially distributing ibogaine to addicts in Holland.<sup>75</sup> In 1991, impressed with the positive results ibogaine had on substance addiction in animals, the United States National Institute for Drug Abuse (NIDA) began studying the anti-addictive drug to determine its relative safety and to develop treatment protocols for human use.<sup>76</sup> In 1993, the FDA approved the first clinical trial, which was to be conducted by Dr. Deborah Mash of the University of Miami on behalf of NDA.<sup>77</sup> The future looked bright for ibogaine and the drug addicts who would benefit from its use, but the death of a young woman in Holland taking ibogaine for her heroin addiction abruptly halted promising ibogaine research.<sup>78</sup> This death ended the Holland trials, though it was believed that the woman had died as the result of a heroin overdose while under the effects of ibogaine.<sup>79</sup>

Then, in 1993, a 24-year-old woman was pronounced dead 19 hours after her initial ibogaine dose was administered.<sup>80</sup> The autopsy did not produce a definite cause of death, but the forensic pathologist suspected the cause was related to the lack of information in administering the proper dose of ibogaine.<sup>81</sup> A piece of charred tin foil, however, was found among her effects, and it is likely that she smoked heroin shortly after ingesting ibogaine without realizing that its toxicity would be increased, which may have caused a heroin overdose.<sup>82</sup>

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<sup>71</sup> Mačiulaitis, *supra* note 36.

<sup>72</sup> Witter, *supra* note 37.

<sup>73</sup> Sandberg, *supra* note 58.

<sup>74</sup> See I BEGIN AGAIN, <http://www.ibeginagain.org/faqs.shtml> (last visited Nov. 26, 2010) (noting that in Australia, it is illegal to import ibogaine without a license and in Belgium, Switzerland, and Sweden, the purified alkaloid (salt) ibogaine-hydrochloride, is a restricted substance).

<sup>75</sup> Ed Platt, *The Dreaming*, THE INDEPENDENT ON SUNDAY, Mar. 29, 1999, at 1.

<sup>76</sup> Sandberg, *supra* note 58.

<sup>77</sup> *Id.*

<sup>78</sup> *Id.*

<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> *Id.*

Dr. Mash's clinical trials technically commenced, despite the Holland death, but disputes between the NIDA and the University of Miami over funding issues brought the trial to a close before it really even began.<sup>83</sup> Shortly thereafter, the NIDA suspended all further activity involving ibogaine, citing the death of the Holland patient as a concern, but political factors and criticism from the pharmaceutical industry likely played a role.<sup>84</sup>

In 1995, the results of 33 patients treated with ibogaine between 1962 and 1993 were presented at the Ibogaine Review Meeting in Rockville, Maryland.<sup>85</sup> Seven of these treatments were conducted in the United States prior to 1963, and the remaining 26 occurred in the Netherlands between 1989 and 1993.<sup>86</sup> The 33 subjects were selected for inclusion because they were heroin dependent and had been directly observed by Lotsof or Frenken for at least 48 continuous hours after treatment began.<sup>87</sup> The patients were also observed between 48 and 72 hours by Lotsof, Frenken, or other trusted observers.<sup>88</sup> Ibogaine treatment was provided to these patients in either a hotel or an apartment setting.<sup>89</sup>

The patients did not eat, drink, ingest, or consume any drugs for eight hours prior to the administration of ibogaine, and patients on methadone received their last methadone dose approximately 24 hours before treatment.<sup>90</sup> Lotsof and Frenken recorded their observations of patient behaviors, including any physical signs of opioid withdrawal.<sup>91</sup> Both researchers had extensive knowledge with opioid withdrawal symptoms and detailed signs, such as "midriasis, sweating, elevated pulse rate, shivering, piloerection, and diarrhea," as well as subjective symptoms, including "chills, muscle pain, abdominal pain, and nausea" in their journals.<sup>92</sup> Because vomiting is a common side effect of taking ibogaine, the researchers did not record it as a withdrawal symptom unless the vomiting and nausea lasted for more than two hours.<sup>93</sup>

Most of the patients included in this study had begun experiencing opioid withdrawal symptoms because they had not used heroin the night before, yet they experienced relief of opioid withdrawal symptoms within one to three hours of ingesting ibogaine.<sup>94</sup> Additionally, 76% of the patients had no outward

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<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> Alper, *supra* 42, at 236.

<sup>86</sup> *Id.*

<sup>87</sup> *Id.*

<sup>88</sup> *Id.*

<sup>89</sup> *Id.*

<sup>90</sup> *Id.* at 237.

<sup>91</sup> *Id.*

<sup>92</sup> *Id.*

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

signs of withdrawal, nor any subjective complaints of withdrawal, within the 48 hours after taking ibogaine, and none of these 25 patients attempted to obtain heroin or another opioid for at least 72 hours following the initial dose of ibogaine.<sup>95</sup> One patient had documented sweating at 24 hours, but this had been alleviated by 48 hours, and he did not use drugs within 72 hours of treatment.<sup>96</sup> Another experienced chills through the first 48 hours but did not use drugs within 72 hours of treatment.<sup>97</sup> Four other patients who did not experience any subjective or objective withdrawal symptoms within 48 hours returned to heroin use within 72 hours, with two patients explicitly acknowledging that they wished to continue using heroin despite the loss of physical craving.<sup>98</sup> Only one patient, a 27-year-old woman who used approximately 0.4 grams of heroin<sup>99</sup> a day and received a low dose of ibogaine did not experience relief from opioid withdrawal and returned to heroin use within eight hours of her initial ibogaine dose.<sup>100</sup> The researchers believed that treatment failed in this case because an inadequate dose of ibogaine was given to treat her level of opioid dependence.<sup>101</sup>

In 1996, Dr. Mash opened a state-of-the-art ibogaine treatment clinic in the Caribbean.<sup>102</sup> There, drug addicts are properly screened to ensure that they are healthy enough to be treated with ibogaine, are hooked up to heart monitors and continually monitored by a staff of nurses during treatment, and are given an individualized rehabilitation plan drawn up by a Harvard Professor.<sup>103</sup>

Between 1996 and 2000, Dr. Mash treated approximately 70 addicts at her clinic.<sup>104</sup> At an ibogaine conference in New York in November of 1999, she announced that 83% of the drug addicts she treated with ibogaine at her clinic experienced no withdrawal symptoms or cravings after 24 hours.<sup>105</sup> While she admits that ibogaine does not work for every addict, she believes that "it is a hell of a lot better than anything else we've got."<sup>106</sup> Although still in operation, the cost of treatment at this facility is approximately \$10,000.<sup>107</sup> This high

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<sup>95</sup> *Id.*

<sup>96</sup> *Id.*

<sup>97</sup> *Id.*

<sup>98</sup> *Id.*

<sup>99</sup> See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., DRUGS & HUMAN PERFORMANCE FACT SHEETS: MORPHINE & HEROIN, <http://www.nhtsa.gov/people/injury/research/job185drugs/morphine.htm> (noting that the average daily dosage for heroin users is between 0.3 and 0.5 grams).

<sup>100</sup> Alper, *supra* note 42, at 238.

<sup>101</sup> *Id.*

<sup>102</sup> Freedlander, *supra* note 21, at 82-85.

<sup>103</sup> Jerome Burne, *One-Step Cure for Addiction?*, originally in FOCUS MAG., July 2000, <http://www.ibogaine-therapy.net/index408b.html?Page=42>.

<sup>104</sup> *Id.*

<sup>105</sup> *Id.*

<sup>106</sup> *Id.*

<sup>107</sup> *Id.*

price effectively precludes treatment for a large portion of drug addicts, as most cannot afford such expensive therapy.

Another study, conducted in 2001 and 2002, treated a number of individuals for substance abuse addiction in the United Kingdom.<sup>108</sup> With the exception of two patients treated in their own homes, these individuals were treated in a facility in West Sussex.<sup>109</sup> To be included in the study, the individual was required to meet a number of criteria.

1. Subject participation must be voluntary and informed.
2. Subject must sign an informed consent indicating their understanding of the possible risks and potential benefits of ibogaine.
3. Subject must have done some research and investigation into ibogaine and given some thought to the process.
4. Subject must obtain an ECG and report.
5. Subject must provide reports from a liver function test and blood work.
6. Subject must sign a form stating that they have not taken any narcotic analgesics, cocaine, amphetamines or alcohol for the last 12 hours before arriving and that they have none of these substances in their possession.
7. Subject must provide a next of kin in case of emergency.<sup>110</sup>

Additionally, the individual was denied treatment, although there were some negotiations and compromises, if they had any of the following.

1. Significantly impaired liver function.
2. Any signs of abnormalities on the ECG or any previous heart problems.
3. Severe mental health problems such as schizophrenia or bipolar disorder.
4. HIV positive or HEP C symptomatic.
5. Presently taking antipsychotic medication.
6. On long-term medication for which there is no prior data available regarding possible interactions with ibogaine or psychoactive compounds.<sup>111</sup>

Patients taking ibogaine for substance addiction received a dose ranging from 15 to 20 mg/kg of body weight, with the most effective dose appearing to be between 17 mg/kg and 19 mg/kg.<sup>112</sup> Of the 18 individuals who received ibogaine to interrupt their addiction, six remained clean and sober during the entire two year follow-up.<sup>113</sup> Two remained clean for approximately one year and went back to using drugs to self-medicate for pain, while another two

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<sup>108</sup> MAPS, *Ibogaine: Treatment Outcomes and Observations*, 13 MAPS 16, 17 (2003), <http://www.maps.org/news-letters/v13n2/13216two.pdf>.

<sup>109</sup> *Id.*

<sup>110</sup> *Id.*

<sup>111</sup> *Id.* at 18.

<sup>112</sup> *Id.*

<sup>113</sup> *Id.*

remained clean for three to six months following their initial dose of ibogaine, but ultimately returned to intermittent drug use.<sup>114</sup> One individual died of a heroin overdose six months after treatment, and five patients returned to drugs within one month of treatment.<sup>115</sup> The last two patients did not remain in contact with the researchers, but remained sober for at least one week following treatment.<sup>116</sup> In contrast, approximately 70% to 90% of addicts who receive traditional substance abuse treatment relapse within the first year.<sup>117</sup>

Between 2000 and 2005, researchers Patrick Kroupa and Hattie Wells treated 45 drug addicts with ibogaine.<sup>118</sup> While they reported that only four of these individuals were so impacted by their first dose of ibogaine that they were immediately cured of their addiction, Kroupa and Wells found that retreatment with ibogaine greatly increased one's chances of success.<sup>119</sup> For example, they found that booster doses of ibogaine, given shortly after the initial dose, greatly benefited individuals with a long history of drug dependence and may be the difference between success and relapse.<sup>120</sup> Additionally, they found that tune-ups given several weeks and months later to those who have maintained sobriety, but may be slipping, or to those that have already returned to drug use, are beneficial.<sup>121</sup>

### C. Aftercare—The Difference Between Success and Relapse

As these researchers point out, and those most familiar with the treatment will testify, ibogaine is not, in general, a “cure” for drug addiction.<sup>122</sup> In the majority of cases, however, it does eliminate or substantially decrease signs and symptoms of withdrawal and the individual typically emerges some 36 hours later without physical dependence on the drug.<sup>123</sup> “Ibogaine doesn't eradicate the underlying causes of addiction, which for many people may take years to understand and come to terms with. Ibogaine is more than a detox, but it's a catalyst, not a ‘cure.’”<sup>124</sup> Ibogaine creates a “window of opportunity” where the individual can cognitively choose to take back control of his or her life.<sup>125</sup> It is during this window of opportunity that a drug addict can be

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<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

<sup>116</sup> *Id.*

<sup>117</sup> Addiction Solutions, *Relapse—Is It Possible to Stay Clean?*, <http://www.alcohol-drug-treatment.net/relapse.html>.

<sup>118</sup> Patrick K. Kroupa & Hattie Wells, *Ibogaine in the 21st Century: Boosters, Tune-ups and Maintenance* 15 MAPS 21, 22 (2005), <http://www.maps.org/news-letters/v15n1/iboga21.pdf>.

<sup>119</sup> *Id.*

<sup>120</sup> *Id.*

<sup>121</sup> *Id.*

<sup>122</sup> MAPS, *supra* note 108, at 18; Kroupa & Wells, *supra* note 118, at 22.

<sup>123</sup> MAPS, *supra* note 108, at 18.

<sup>124</sup> Kroupa & Wells, *supra* note 118, at 24.

<sup>125</sup> MAPS, *supra* note 108, at 19.

reached, and that is why aftercare and therapy are so important to ibogaine's success.<sup>126</sup>

Because ibogaine is illegal in the United States, individuals who have or are able to secure the resources to travel to Mexico, Canada, or the Caribbean for treatment often return home with no support waiting for them.<sup>127</sup> Although they are no longer physically dependent, the memories elicited during treatment may begin weighing them down and many turn back to drugs in the absence of any real therapy to help them deal with these underlying issues positively.<sup>128</sup> While many clinics offer short after-care programs, even those that can afford treatment likely cannot afford an extended stay in a foreign country.

### III. ARGUMENTS AGAINST THE LEGALIZATION OF IBOGAINE

There are a number of reasons typically given in opposition to the use of ibogaine as a treatment for drug and alcohol addiction. Some argue that ibogaine is a hallucinogenic drug with no medicinal value and serious safety concerns.<sup>129</sup> Others explain that pharmaceutical companies are unwilling to invest in ibogaine because it potentially increases their liability, given the greater fatality rate among drug users in general.<sup>130</sup> Finally, some explain that there is simply no profit to be made on a drug that need be taken only once or twice, which eliminates the incentive to study, develop, and mass-produce the drug.<sup>131</sup>

#### A. Ibogaine's Status as a Schedule I Controlled Substance

One of the main arguments against the use of ibogaine for drug and alcohol treatment is that it has hallucinogenic qualities and, therefore, is addictive.<sup>132</sup> Having been discovered by a drug addict, rather than by scientists in a laboratory, ibogaine has been condemned from the very beginning.<sup>133</sup> Classified as a Schedule I controlled substance, ibogaine is listed in the same category with the very drugs it counteracts because its hallucinogenic properties arguably outweigh its medicinal value.

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<sup>126</sup> *Id.*

<sup>127</sup> Taub, *supra* note 1.

<sup>128</sup> *Id.*

<sup>129</sup> Vince Beiser, *One Pill Makes You Better*, NEWSREVIEW.COM, Jan. 6, 2005, <http://www.newsreview.com/sacramento/content?oid=33181>.

<sup>130</sup> Derek Williams, *Drug Addiction Treatments: Is There Hope for the Future*, DISABLED WORLD, June 28, 2010, <http://www.disabled-world.com/medical/pharmaceutical/addiction/addict-Ibogaine.php>.

<sup>131</sup> Vastag, *supra* note 12, at 3096-101.

<sup>132</sup> Beiser, *supra* note 129.

<sup>133</sup> *Id.*

Although ibogaine is a psychoactive drug, it does not share the same hallucinogenic qualities as other psychoactive drugs.<sup>134</sup> Those who have taken ibogaine relate its effects to more of a “waking dream,” as such visions may be avoided by opening one’s eyes.<sup>135</sup> While in this “altered state of consciousness,” users typically “relive [their] childhood experiences,” so as to “get to the root of [their] addictions.”<sup>136</sup> Furthermore, ibogaine users find it “too emotionally unsettling, mentally exhausting, and physically stressful to be any kind of party drug.”<sup>137</sup>

Many researchers have lost all hope that ibogaine will ever be legalized in the United States. As a result, some researchers have begun work on developing ibogaine derivatives with the same anti-addictive effect as ibogaine without the negative side effects and hallucinations.<sup>138</sup> Dr. Mash, for example, has isolated the molecule noribogaine, which she believes is the key agent that blocks an addicts’ cravings, and Dr. Stanley Glick has synthesized a chemical form of ibogaine, which he calls 18-MC.<sup>139</sup> Both derivatives may be the answer to effectively treating drug addiction in jurisdictions where ibogaine may never be legalized because these derivatives do not cause hallucinations, which both Dr. Mash and Dr. Glick believe to be a necessary factor for FDA approval.<sup>140</sup> Mash points out, however, that eliminating the psychedelic effects may diminish the effectiveness for treating addiction.<sup>141</sup> Many believe that this state of waking dreams allows the addict to gain insight into the reasons for taking drugs in the first place, which ultimately helps address those issues in therapy, thus increasing the chance for continued sobriety.

## B. Safety Concerns

Some cite safety concerns for opposing ibogaine’s use to treat addiction, as several deaths have been linked to ibogaine use.<sup>142</sup> The first documented ibogaine-related death occurred in France in 1990, when a 44-year-old woman died four hours after ingesting ibogaine.<sup>143</sup> Her cause of death was acute heart failure, and the autopsy showed that she had a prior myocardial infarction of the left ventricle, severe atherosclerotic changes, 70% to 80% stenosis of all three major coronary artery branches, a history of hypertension, and may have

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<sup>134</sup> Nina L. Diamond, *Does One Trip Equal 30 Years on a Therapist’s Couch?*, 16 OMNI 16 (1994).

<sup>135</sup> See, e.g., Mara Shalhoup, *Ibogaine’s Long Strange Trip*, CREATIVE LOAFING, <http://atlanta.creativeleafing.com/gyrobase/Content?oid=oid%3A5355>.

<sup>136</sup> Diamond, *supra* note 134.

<sup>137</sup> Beiser, *supra* note 129.

<sup>138</sup> *Id.*

<sup>139</sup> *Id.*

<sup>140</sup> *Id.*

<sup>141</sup> *Id.*

<sup>142</sup> *Id.*; see also Myeboga Essentials, *Ibogaine Related Fatalities*, <http://www.myeboga.com/fatalities.html>.

<sup>143</sup> Myeboga Essentials, *supra* note 142.

taken other drugs while on ibogaine.<sup>144</sup> This was followed by the death of the 24-year-old Holland woman mentioned above, who died of respiratory arrest 19 hours after taking ibogaine.<sup>145</sup> No definite cause of death was found in the autopsy, but it was noted that she may have taken opiates while on ibogaine.<sup>146</sup> In 1994, a woman treated in Panama died shortly after a follow-up visit at the University of Miami.<sup>147</sup> Her cause of death was later revealed to be unrelated to ibogaine use, caused by “mesenteric artery thrombosis associated with small bowel infarction (blockage), complicated by a general ‘hypercoagulable state’ of the blood due to chronic infection in the thigh.”<sup>148</sup>

In 2000, a 40-year-old man died 40 hours after treatment, after asphyxiating on his own vomit.<sup>149</sup> The coroner reported that his death “need not necessarily be laid at the feet of ibogaine,” as he also had hepatitis C.<sup>150</sup> In 2002, a 35-year-old woman died of unknown causes a half hour after taking a small dose of ibogaine for psychospiritual reasons.<sup>151</sup> She had taken ibogaine before with no problem, despite health issues with her heart, breasts, and uterus, including a history of congenital heart defects.<sup>152</sup> In 2005, a patient died of natural causes during a period of low-dose ibogaine treatment.<sup>153</sup> The autopsy found that he had acute myocardial infarction, acute coronary syndrome, fibromyalgia, and chronic opiate dependency.<sup>154</sup> Later that year, a 43-year-old heroin addict died in Las Vegas three days after taking ibogaine.<sup>155</sup> His cause of death was determined to be vascular heart disease.<sup>156</sup> In 2006, a 38-year-old Santa Barbara man died at an ibogaine clinic in Tijuana.<sup>157</sup> His cause of death was pulmonary thrombosis.<sup>158</sup> Later that year, a 48-year-old man died of massive pulmonary edema with hemorrhagic alveolitis and vascular congestion, consistent with a drug overdose, after receiving ibogaine treatment.<sup>159</sup>

Although these nine deaths occurred after the patients used ibogaine, none have been directly attributable to ibogaine use. Most of these patients would have been denied ibogaine treatment had their medical histories been

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<sup>144</sup> *Id.*

<sup>145</sup> *Id.*

<sup>146</sup> *Id.*

<sup>147</sup> *Id.*

<sup>148</sup> *Id.*

<sup>149</sup> *Id.*

<sup>150</sup> *Id.*

<sup>151</sup> *Id.*

<sup>152</sup> *Id.*

<sup>153</sup> *Id.*

<sup>154</sup> *Id.*

<sup>155</sup> *Id.*

<sup>156</sup> *Id.*

<sup>157</sup> *Id.*

<sup>158</sup> *Id.*

<sup>159</sup> *Id.*

known. Even if the assumption were to be made that ibogaine was to blame for these deaths, every drug, legal or not, has negative side effects, many of which can be serious, if not fatal. Methadone, for example, a legal, synthetic opiate primarily thought to be a “safer drug” used in replacement therapy for heroin and opiate addicts, was associated with nearly 10,000 deaths spanning a two-year period, not including vehicle fatalities caused by those under the influence of methadone.<sup>160</sup> The federal Drug Abuse Warning Network (DAWN) reported in 2001 that an estimated 10,725 people were seen in hospital emergencies rooms for methadone abuse.<sup>161</sup> James McDonough, director of the Florida Office of Drug Control, believes that methadone is “the fastest rising killer drug.”<sup>162</sup> Prescription drugs alone kill an estimated 106,000 people every year in the United States,<sup>163</sup> and adverse drug reactions to prescription drugs is the fourth leading cause of death in the United States.<sup>164</sup>

Although ibogaine has potential side effects, including ataxia, tremors, photosensitivity, nausea, vomiting, slight changes in blood pressure, and hallucinations, all of these side effects dissipate within 48 hours of treatment.<sup>165</sup> Degeneration of cerebellar Purkinje cells<sup>166</sup> has also been reported after receiving high doses of ibogaine.<sup>167</sup> While these safety concerns are valid, they also show how desperately the United States needs ibogaine clinics and physicians who are able to legally and safely administer ibogaine to drug addicts, ensuring that it is administered under medical supervision and only to those individuals who do not have prior medical histories that may react negatively to the treatment. Every drug has risks, but those risks must always be weighed against potential and actual benefits. In the case of ibogaine, the benefits far outweigh the risks for most (otherwise healthy) addicts.

### C. Pharmaceutical Hesitance in Funding Ibogaine Studies

Perhaps the most prominent reason ibogaine has not been legalized for medical use in the United States is the lack of financial incentives to produce the drug. Pharmaceutical companies feign resistance to the drug’s potential

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<sup>160</sup> See Helping America Reduce Methadone Deaths, *Methadone History and Facts*, <http://www.harnd.org> (reporting nearly 4,000 methadone-related deaths in 2004 and over 4,700 in 2005).

<sup>161</sup> Pam Belluck, *Methadone, Once the Way Out, Suddenly Grows as a Killer Drug*, N.Y. TIMES, Feb. 9, 2003, at 11.

<sup>162</sup> *Id.*

<sup>163</sup> Jessica Fraser, *Statistics Prove Prescription Drugs Are 16,400% More Deadly than Terrorists*, NATURALNEWS.COM (July 5, 2005), <http://www.naturalnews.com/009278.html>.

<sup>164</sup> See, e.g., Jason Lazarou et al., *Incidence of Adverse Drug Reactions in Hospitalized Patients*, 279 J.A.M.A. 1200, 1205 (1998).

<sup>165</sup> Iboga Therapy House, *Frequently Asked Questions*, <http://www.ibogatherapyhouse.net/cms/content/view/19/32/>.

<sup>166</sup> See DALE PURVES ET AL., NEUROSCIENCE 432-34 (4th ed. 2007) (explaining that Purkinje cells are some of the largest neurons in the cerebellum of the brain and control motor movement).

<sup>167</sup> Dao-Yao He et al., *Glial Cell Line-Derived Neurotrophic Factor Mediates the Desirable Actions of the Anti-Addiction Drug Ibogaine Against Alcohol Consumption*, 25 J. NEUROSCI. 619, 619 & 624 (2005).

increases in pharmaceutical liability caused by larger fatality rates of drug and alcohol addicts.<sup>168</sup> While drug and alcohol users may have a higher risk of death, the more likely reason for such resistance is the lack of profit to be made from an anti-addictive drug.

In 1999, the Pharmaceutical Research and Manufacturers of America (PhRMA) reported that there were only 10 anti-addiction agents in clinical trials, while more than 400 cancer drugs were in clinical development.<sup>169</sup> While a spokesperson for PhRMA could not explain the disparity, the most likely reason is that pharmaceutical companies cannot profit from a drug that could treat an addict with only one or two doses.<sup>170</sup> Pharmaceutical companies, after all, are in the business to study, develop, and market drugs that are going to be profitable. Many prescription drugs are taken over long periods of time, while ibogaine treatment can succeed with very few administrations. This is one reason methadone is so popular: once a heroin addict stops using methadone, he or she experiences withdrawal symptoms.<sup>171</sup> Methadone is addictive, and the continued need for methadone keeps the addict going back and spending money on the drug.<sup>172</sup> Even over-the-counter drugs like aspirin have a larger repeat-customer base than ibogaine ever will.

#### IV. SUGGESTIONS FOR THE FUTURE OF IBOGAINE

Ibogaine can play an important role in United States society—to aid in treating the costly, deadly, and overly abundant problems associated with drug and alcohol addiction. The best way to enable ibogaine to provide the relief that it is capable of is for the legislature to remove the drug from the list of Schedule I controlled substances. By doing so, formal studies and treatments under medically supervised conditions may be conducted. As pharmaceutical companies are unlikely to fund these clinical studies, trillions of dollars could be saved in the long run if these studies were funded by taxpayers. Another option available is for states to decriminalize the use and possession of ibogaine, such as many have done for medical marijuana.

##### A. Removing Ibogaine from Schedule I

Ibogaine is wrongly classified as a Schedule I controlled substance under the guise that it has a high potential for abuse, it has no accepted medical

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<sup>168</sup> Williams, *supra* note 130.

<sup>169</sup> Vastag, *supra* note 12, at 3101.

<sup>170</sup> *Id.*

<sup>171</sup> NARCONON ARROWHEAD, METHADONE & METHADONE ADDICTION, <http://www.heroinaddiction.com/heroin.methadone.html#ht=498>

<sup>172</sup> *Id.*

use, and it has serious safety concerns that cannot be addressed by medical supervision of treatment.<sup>173</sup> In truth, ibogaine is not a “fun” drug to use: it is 36 hours of one’s life that most wish to never experience again.<sup>174</sup> As a result of ibogaine’s anti-addictive qualities and the physical effects it elicits, it is unlikely that anyone would choose to take ibogaine as a recreational drug, and, therefore, the potential for abuse is extremely low. Moreover, the fact that there are no legal ibogaine clinics in the United States does not establish that there is no accepted medical use for the drug. Several researchers have conducted clinical ibogaine studies and have opened treatment clinics outside of the United States. Ibogaine has an accepted medical use, and the only obstacle keeping ibogaine clinics from resurrecting in the United States is politics. Further, while there are safety concerns associated with ibogaine, as there are with any drug, these concerns can be addressed by making ibogaine available under the direct supervision of trained medical professionals.

Ibogaine should be redesignated a Schedule II controlled substance, at a minimum, so that formal clinical trials can be conducted in the United States.<sup>175</sup> Removal to Schedule II would allow physicians to prescribe ibogaine to their patients to be used under medical supervision. This would greatly reduce, if not eliminate, its adverse effects, as the patients would be thoroughly screened prior to treatment to ensure that they are good candidates for ibogaine. Moreover, by allowing physicians to prescribe and supervise ibogaine treatment, more formal research on ibogaine can be conducted.

## B. Taxpayer Funding of Clinical Studies

If the pharmaceutical companies are unwilling to fund controlled clinical studies of ibogaine, perhaps taxpayers should. As discussed above, Americans spend \$181 billion on drug abuse and drug related crime and \$185 billion on alcohol abuse each year.<sup>176</sup> The amount of money necessary to fund a controlled clinical study on ibogaine would be much less costly than the current costs of alcohol and drug abuse. By funding these studies and actually treating drug and alcohol addicts, billions of dollars spent on the incarceration of drug and alcohol addicts could be directed elsewhere and, likely, reduced. These studies should ultimately lead to the broad legalization of ibogaine for

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<sup>173</sup> 21 U.S.C. § 812(b)(1) (2009).

<sup>174</sup> Chip Carter, *Ibogaine—The Magic Plant that Could Cure Addiction, Still Banned in the U.S.*, <http://www.asylum.com/2010/04/27/we-investigate-ibogaine-iboga-howard-lotsof-addiction-cure>.

<sup>175</sup> See 21 U.S.C. § 812(b)(2) (2010) (classifying a drug as a Schedule II Controlled Substance if it has a high potential for abuse, has a currently accepted medical use, and abuse of the drug may lead to severe psychological or physical dependence).

<sup>176</sup> LEVIT, *supra* note 11.

medical purposes, lowering the overall crime rate and making the nation a safer place.

### C. Decriminalizing Use, Possession, and Distribution

In December 2005, a Wyoming couple was arrested for conspiracy to import ibogaine, after Drug Enforcement Agency (DEA) agents raided their home and learned of their plans to smuggle ibogaine from Switzerland to Wyoming.<sup>177</sup> The couple was attempting to import ibogaine to treat their drug addictions; they faced up to 20 years in prison for trying to cure their ailments.<sup>178</sup> If the federal government is unwilling to act, perhaps it is time for the states to do for ibogaine what many have done for medical marijuana. Twelve states, including Alaska,<sup>179</sup> California,<sup>180</sup> Colorado,<sup>181</sup> Maine,<sup>182</sup> Massachusetts,<sup>183</sup> Minnesota,<sup>184</sup> Mississippi,<sup>185</sup> Nebraska,<sup>186</sup> Nevada,<sup>187</sup> New York,<sup>188</sup> Ohio,<sup>189</sup> and Oregon,<sup>190</sup> have decriminalized the use of marijuana for recreational use, making the possession of small amounts of marijuana punishable only by fine. Moreover,

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<sup>177</sup> Aina Hunter, Health Watch Editorial, *Busted for Iboga: Ibogaine Enthusiasts Are Getting Bad Vibes from Conspiracy Arrests*, THE VILLAGE VOICE, Dec. 21, 2005, at 14.

<sup>178</sup> *Id.*

<sup>179</sup> *Raven v. Alaska*, 537 P.2d 494, 511-12 (Alaska 1975) (holding possession of marijuana at one's home for personal use is protected by the privacy guaranty in the Alaska Constitution); *Noy v. Alaska*, 83 P.3d 538, 545 (Alaska App. 2003) (limiting prohibitions on marijuana possession to possession of four or more ounces).

<sup>180</sup> CAL. HEALTH & SAFETY CODE § 11357 (b) (2007) (limiting the penalty for possession of 28.5 grams or less of marijuana to a fine of not more than \$100).

<sup>181</sup> COLO. REV. STAT. § 18-18-406 (2004) (limiting the penalty for possession of two ounces or less of marijuana to a fine of not more than \$100).

<sup>182</sup> 22 ME. REV. STAT. § 2383 (2004) (limiting the penalty for possession of 1.25 ounces or less of marijuana to a fine of not more than \$600 and limiting the penalty for possession of 2.5 ounces or less of marijuana to a fine of not more than \$1,000).

<sup>183</sup> MASS. GEN. LAWS 94C § 32L (2010) (limiting the penalty for possession of one ounce or less of marijuana by an adult to a fine of \$100 and forfeiture of the marijuana).

<sup>184</sup> MINN. STAT. § 152.027(a) (2005) (limiting the penalty for possession of a "small amount of marijuana" to a petty misdemeanor conviction and participation in a drug education program).

<sup>185</sup> MISS. CODE § 41-29-139 (2010) (limiting the penalty for possession of 30 grams or less of marijuana to a fine not less than \$100 and not more than \$250).

<sup>186</sup> NEB. REV. STAT. § 28-416(13) (2009) (limiting the penalty for possession of one ounce or less of marijuana to a fine of \$300 and attendance in a drug education course).

<sup>187</sup> NEV. REV. STAT. § 453.336(4) (2009) (limiting the penalty for possession of one ounce or less of marijuana to a misdemeanor, a fine of not more than \$600, and an examination by a drug abuse treatment facility for determination of drug dependency status).

<sup>188</sup> N.Y. PENAL LAW § 221.05 (2008) (limiting the penalty for possession of marijuana to a fine of not more than \$100).

<sup>189</sup> OHIO REV. CODE § 2925.11 (2008) (limiting the penalty for possession of less than 100 grams of marijuana to a minor misdemeanor, not to constitute a criminal record).

<sup>190</sup> OR. REV. STAT. § 475.864(3) (2005) (limiting the penalty for possession of less than one ounce of marijuana to a fine of not more than \$1,000).

16 states, including Alaska,<sup>191</sup> Arizona,<sup>192</sup> California,<sup>193</sup> Colorado,<sup>194</sup> Hawaii,<sup>195</sup> Maine,<sup>196</sup> Maryland,<sup>197</sup> Michigan,<sup>198</sup> Montana,<sup>199</sup> New Jersey,<sup>200</sup> Nevada,<sup>201</sup> New Mexico,<sup>202</sup> Oregon,<sup>203</sup> Rhode Island,<sup>204</sup> Vermont,<sup>205</sup> and Washington,<sup>206</sup> as well as the District of Columbia,<sup>207</sup> permit the use of marijuana for medicinal purposes. By decriminalizing ibogaine, physicians and psychiatrists would be more likely to administer ibogaine to treat drug addiction, because the penalties, if any, would be small enough to justify the risk of prosecution.

<sup>191</sup> ALASKA STAT. § 17.37.030(a) (2009) (creating an affirmative defense against criminal prosecution related to marijuana for registered patients, primary caregivers, and alternate caregivers); *Id.* § 17.37.030(c) (immunizing physicians for advising patients about medicinal marijuana use).

<sup>192</sup> ARIZ. REV. STAT. § 36-2812 (2010) (creating an affirmative defense against criminal prosecution related to marijuana for qualifying patients and caregivers).

<sup>193</sup> CAL. HEALTH & SAFETY CODE § 11362.5(d) (2007) (immunizing patients and caregivers from prosecution for possession and cultivation of marijuana); *Id.* § 11362.5(c) (immunizing physicians for recommending medicinal marijuana use).

<sup>194</sup> COLO. CONST., art. 18, § 14(2)(a) (2010) (creating an affirmative defense against criminal prosecution related to marijuana for qualifying patients and caregivers); *Id.* § 14(2)(b) (immunizing physicians for advising patients about medicinal marijuana use).

<sup>195</sup> HAW. REV. STAT. § 329-125 (2000) (creating an affirmative defense against criminal prosecution related to marijuana for qualifying patients and caregivers); *Id.* § 329-125 (2000) (immunizing physicians for certifying the medical use of marijuana for qualifying patients).

<sup>196</sup> 22 ME. REV. STAT. § 2427(1) (2010) (creating an affirmative defense against criminal prosecution related to marijuana for qualified patients and caregivers).

<sup>197</sup> MD. CODE ANN., CRIM. LAW § 5-601 (c)(3) (2003) (authorizing “medical necessity” as a mitigating factor in prosecution for marijuana use or possession and limiting the penalty for such use or possession to a fine of not more than \$100).

<sup>198</sup> MICH. COMP. LAWS § 333.26428 (2008) (creating an affirmative defense against criminal prosecution related to marijuana for qualified patients and caregivers).

<sup>199</sup> MONT. CODE ANN. § 50-46-206 (2009) (creating an affirmative defense against criminal prosecution related to marijuana for qualified patients and caregivers).

<sup>200</sup> N.J. REV. STAT. § 24:6I-6 (2010) (creating an exemption from criminal liability for the acquisition, possession, transport, or use of marijuana by qualified patients, caregivers, alternative treatment centers, and physicians).

<sup>201</sup> NEV. REV. STAT. § 435A.310(1)(a) (2009) (creating an affirmative defense against criminal prosecution for possession, delivery, or production of marijuana for patients and those assisting patients); *Id.* § 435A.500 (prohibiting disciplinary action against physicians for advising patients about medicinal marijuana use).

<sup>202</sup> N.M. STAT. § 26-2B-1 (2007) (exempting qualified patients and caregivers from criminal liability for possession and use of medical marijuana).

<sup>203</sup> OR. REV. STAT. §§ 475.324 (2003) (creating an affirmative defense against criminal prosecution for possession or production of marijuana for qualified patients and caregivers).

<sup>204</sup> R.I. GEN. LAWS § 21-28.6-8 (2007) (creating an affirmative defense against criminal prosecution related to marijuana for qualified patients and caregivers).

<sup>205</sup> 18 VT. STAT. § 4474b(a) (2003) (exempting registered patients and caregivers from criminal liability for possession and use of medical marijuana); *Id.* § 4474b(b) (immunizing physicians for assisting patients with the registration process for medicinal marijuana use).

<sup>206</sup> WASH. REV. CODE § 69.51A.040 (2007) (creating an affirmative defense against criminal prosecution related to marijuana for qualified patients); *Id.* § 69.51A.030 (immunizing health care professionals for advising patients about medicinal marijuana use).

<sup>207</sup> D.C. CODE § 7-1671.02 (2010) (permitting qualifying patients and caregivers to possess and administer medical marijuana).

## CONCLUSION

The rate of drug and alcohol addiction in the United States is alarming, and it costs society billions of dollars every year with no end in sight. Treating drug and alcohol addicts with ibogaine promises the real possibility of substantially lowering the costs shifted to society by drug and alcohol abuse. In a world where drug addiction is treated as a crime, addicts like Samantha, who have been in and out of rehab and prison, have no chance of overcoming their addictions or living a functional life. If society is ever to make progress in addressing the substance abuse issues that currently run rampant, it must begin treating drug addiction as the illness it is.

Punishing drug addicts has not worked, as evidenced by the high recidivism rate of drug offenders, and the current treatment models available for substance abusers, which either replace one drug with another or demand abstinence from drug use altogether, are rarely effective, as again proven by the high rate of relapse. Ibogaine may well be a viable answer to substance abuse problems in the United States, but, as the law currently stands, it is barred from being a viable option. Society must be willing to at least seriously explore a treatment that could solve these issues.

Ibogaine has great potential and could be one of the answers to winning the War on Drugs. As ibogaine is not addictive and has great medical value, it should be removed from the list of Schedule I controlled substances and reclassified as a Schedule II controlled substance. If, after the controlled substance schedule classification issue is addressed, pharmaceutical companies are unwilling to fund clinical studies on ibogaine, society should demand public funding of these much needed studies. These clinical studies could inevitably lead to the legalization of ibogaine for medical use, which could, in turn, substantially decrease the cost of drug treatments, as well the costs of drug-related crime and incarceration costs associated with substance abuse. If the federal government shirks this responsibility, the states should decriminalize ibogaine and allow physicians and psychiatrists to treat addicts without fear of incarceration or loss of their medical license.

Although ibogaine is not a cure for drug and alcohol addiction, the available studies and patient accounts establish that it opens a window of opportunity that would not otherwise exist with regard to treating addiction. This window of opportunity allows an addict to begin psychotherapy without physical dependence, greatly increasing the chances of continued sobriety. For many addicts, ibogaine may be the only hope of recovery. If the law does not change, these addicts may never have the opportunity to regain control of their lives, custody of their children, or even a warm place to call home.