Sunday, February 04, 2001

Michael Courlander
Public Affairs Officer
US Sentencing Commission

Dear Mr. Courlander,

As invited by your commission, I am writing in response to proposed legislation (Under the Ecstasy Anti-Proliferation Act of 2000 (section 3664 of Pub. L. 106-310)) that would make the punishment (federal sentencing) for MDMA (Ecstasy) offenses to be the same as that of heroin.

I am an Assistant Professor at the University of South Florida and I conduct both basic and clinical research in the area of neuropsychopharmacology. Please note that my scientific opinion with regard to the sentencing of MDMA in no way reflects the views or opinions of the University of South Florida or any of its affiliates. Moreover, I do not advocate the recreational use of MDMA or any other controlled substance for that matter and my primary reason for writing this letter is to support "harm reduction."

In my view, any legislation that will ultimately affect the lives of millions of adolescents and young adults must come about after thoughtful and objective consideration of the scientific evidence supporting the need for such legislation as well as the probable consequences of such legislation.

With regard to the scientific evidence, I am not aware of any evidence (other than chemical homology) suggesting that Ecstasy has psychological effects on the user similar to the hallucinogenic effects of mescaline. Over the past 15 years, it has become a well-established scientific fact that MDMA fits into a completely different therapeutic class, known as entactogens (Nichols 1986). Most human reports suggest that MDMA produces feelings of empathy towards others, but without the changes in perception in time and space that accompany most other hallucinogenic drugs. In fact, a recent scientific study by a well-respected laboratory reported that MDMA improved measures of sensory gating in humans, an effect essentially the opposite one sees with other classic hallucinogens (Vollenweider et al. 1999).

It is true that MDMA has some stimulant properties that resemble amphetamine, though it is unclear what this means in terms of comparable health risks. Moreover, the risk of addiction, either physical or psychological, appears less than that seen with other psychostimulants such as nicotine, cocaine, or amphetamine and considerably less than that seen with heroin. In fact, MDMA's lower abuse potential relative to other psychostimulants may be one of the few characteristics that it shares with classical hallucinogens.

In summary, it seems premature to conclude based on the available evidence that MDMA represents a societal or individual health risk equivalent to that of heroin. Thus, there is little or no scientific basis for the need of the proposed legislation.

What is more alarming to me is the apparent lack of consideration of probable consequences that the proposed legislation would have on the future manufacture, importation, and trafficking of Ecstasy. Based on the history of similar legislation aimed at reducing the proliferation of cocaine, heroin, and amphetamine, it is clear that such legislation will only make matters far worse (Ray and Ksir, 1999). That is, the consolidation of Ecstasy manufacturing, importation, and trafficking by larger more powerful organizations using methods already established for smuggling heroin, cocaine, and amphetamine will...
surely follow if the proposed legislation is passed. Need I remind the sentencing committee of its own report regarding the adverse impact of strict legislation on crack cocaine?

Based on my assessment of the literature, I would suggest that the penalty should be less than or comparable to that for mescaline (which would result in a marihuana equivalency for Ecstasy of 10 gm). It seems reasonable, that the Drug Quantity Table in §2D1.1 could be revised to provide additional incremental penalties (even exponential quantity increases) so as to punish more severely those offenders who traffic in large quantities (e.g. > than kg quantities) and market to children and adolescents.

The most important recommendation that I can make at this time is not to make a hasty decision based on emotion rather than logic and scientific fact.

Sincerely,

Doug Shytle, Ph.D.

References:


CURRICULUM VITAE

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Career Objective: Research and Teaching in Basic and Clinical Neuropsychopharmacology

Education: Ph.D. 1994, Experimental Psychology (Interdisciplinary Specialization in Neuroscience)
University of Wyoming, Laramie WY

B.A. 1990, Psychology
University of North Carolina, Wilmington, NC

Professional Experience: June 1996 - Present
Assistant Professor
Departments of Neurosurgery, Psychiatry and Behavioral Medicine,
Psychology and Neuroscience Program
University of South Florida, College of Medicine, Tampa, FL

July 1994 - May 1996
Post-doctoral Research Fellow
Division of Neurosurgery, Department of Surgery,
Department of Psychiatry and Behavioral Medicine &
University of South Florida, College of Medicine, Tampa, FL

August 1990 - June 1994
Graduate Research and Teaching Assistant
Departments of Psychology and Neuroscience Program

[83]
University of Wyoming, Laramie, Wyoming

January 1989 - May 1990
Research Assistant
Department of Psychology
University of North Carolina at Wilmington

Grant History:

October 2000 - October 2001 (Active)
Principal Investigator & Grant Writer
Archie A. Silver (Co-PI)
*Layton BioScience, Inc.*
Behavioral and Neuropharmacological Profiles of Novel Nicotine Antagonists for Neuropsychiatric Disorders

December 1999 - January 2001 (Active)
Principal Investigator
Roger Papke (Co-PI) at the University of Florida
*Layton BioScience, Inc.*
Analysis of Mecamylamine Congeners on Human Nicotinic Receptor Subtypes

May 2000 - May 2001
Principal Investigator
Stan Nazian (Co-PI)
*USF Creative Young Faculty Award*
Role of Nicotinic Receptors in the Hypothalamic CRH Response to Acetylcholine

August 2001 - November 2003 (under review)
Principal Investigator
David Sheehan (Co-PI) & Archie A. Silver (Co-PI)
*The Stanley Foundation*
Phase II Trial of Mecamylamine for Bipolar Disorder

December 2001 - November 2004 (under review)
Principal Investigator
David Sheehan (Co-PI) & Archie A. Silver (Co-PI)
*NIH: National Institutes of Mental Health*
Phase II Trial of Mecamylamine for Bipolar Disorder

February 1998 - 1999
Principal Investigator
*USF College of Medicine Equipment Grant*

May 1994 - May 1998 (completed)
Co-Investigator
Paul R. Sanberg (PI) & Archie A. Silver (Co-PI)
*NIH: National Institutes of Neurological Disorders and Stroke*
Nicotine/Haloperidol Therapy in Tourette Syndrome

Total Direct Cost: $150,000
Total Direct Cost: $40,000
Total Direct Cost: $7,500
Total Direct Cost: $150,000
Total Direct Cost: $375,000
Total Direct Cost: $7,000
Total Direct Cost: $337,592

NS32067-02

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May 1996 - May 1998 (completed)  
**Grant Writer**  
Paul R. Sanberg (PI) & Brian McConville (Co-PI)  
*Tourette Syndrome Association*  
Transdermal Nicotine and Haldol for Treatment of Tourette Syndrome  
Total Direct Cost: $24,300

July 1996 - May 1998 (completed)  
**Co-Investigator & Grant Writer**  
Paul R. Sanberg (Co-recipient of the 1996 Ove Ferno Grant Prize)  
*Collegium Internationale Neuro-Psychopharmacologicum*  
Transdermal Nicotine for the treatment of Attention-Deficit Hyperactivity Disorder  
Total Direct Cost: $18,000
May 1996 - May 1997 (completed)  
**Co-Investigator & Grant Writer**  
Paul R. Sanberg (PI) & Archie A. Silver (Co-PI)  
*NIH: National Institutes of Neurological Disorders and Stroke* NS32067  
Minority Supplement Grant for NS32067  
Total Direct Cost: $12,420

July 1997 - June 1998 (Approved but not funded)  
**Grant Writer**  
Paul R. Sanberg (PI) & Archie Silver (Co-PI)  
*Tourette Syndrome Association*  
Transdermal Nicotine Alone for Treatment of Tourette Syndrome  
Total Direct Cost: $40,000

May 1995 - May 1997 (Approved but not funded)  
**Principal Investigator** (Post-doctoral Fellowship)  
Paul R. Sanberg (Supervisor)  
*Tourette Syndrome Association*  
Nicotine Potentiation of Haloperidol: Preclinical Relevance to Tourette's Syndrome  
Total Direct Cost: $39,801

May 1989 - May 1990 (Completed)  
**Principal Investigator**  
*North Carolina Academy of Science*  
Effects of Dopamine Antagonists on Avoidance Behavior  
Total Direct Cost: $250

**Current Focus:**  
**Basic Research**

Supervising pre-clinical investigations of a new medication for the possible treatment of several neuropsychiatric disorders. Investigations involve evaluation of the racemic as well as the stereoisomers of medication in behavioral and neurochemical experiments conducted in rats.

**Clinical Research**

Clinical studies evaluating the therapeutic potential of a new medication for Tourette’s syndrome, ADHD, and Bipolar Disorder.

Both projects involve collaboration with seven USF employed investigators.

**Teaching Experience:**
- Psychobiology
- Drugs and Human Behavior
- General Psychology
- Physiological Psychology

**Peer Reviewer:**
- Pharmacology, Biochemistry and Behavior
- Psychopharmacology
- General Pharmacology
- Psychological Medicine
- Neuropsychopharmacology

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**Academic Committees:**
- 2000 - 2001 USF College of Medicine Research Committee
- 2000 - 2001 USF College of Medicine Space Committee
- 2000 - 2001 USF College of Medicine Academic Computer Committee
- 1999 NIH Brain Disorders & Clinical Neuroscience Review Committee
- 1997-Present Basic and Clinical Research Review Committee
- USF Department of Psychiatry and Behavioral Medicine
- 1995 USF Institute on Aging

**Non Academic Committees:**
- 2001-2002 Medical Advisory Board for the Florida Chapter of the Tourette Syndrome Association

**Professional Affiliations:**
- Society for Neuroscience
- International Behavioral Neuroscience Society
- Tourette’s Syndrome Association

**Awards:**
- 2000 USF Creative Young Faculty Research Award
- 1997 & 1996 Young Psychopharmacologist Award (Nominee)
  American Psychological Association, Section 28
- 1995 New Investigator Award (Nominee)
  NIH: New Clinical Drug Evaluation Unit Program (NCDEU)
- 1990 - 1994 University of Wyoming's Graduate Research and Teaching Fellowship
- 1993 University of Wyoming's Graduate Travel Assistance Award
- 1993 Lillian Porteneir Scholarship
- 1990 First Place Poster Award at the North Carolina Psychological Association
- 1989 Communication Workers Association Academic Scholarship
- 1985

[88]
Beta Sigma Phi Academic Scholarship

**Patents Issued:**

**Patents Applied:**


**Speaking Engagements:**
(1994) SCH23390 and Mecamylamine Prevent the Development of the Sensitized Locomotor Response to Nicotine. Graduate Seminar, Department of Pharmacology, Bowman Gray School of Medicine, Wake Forest, NC.


(1996) Evidence of the Neuroprotective Actions of Nicotine. Presented at the International Behavioral Neuroscience Society Conference, Cancun, Mexico


Peer Reviewed Publications:


**Reviews & Book Chpts:**


Abstracts:


Shytle RD, Silver AA, Sheehan DV, Sheehan KH, & Sanberg PR Potential mood stabilizing properties of mecamylamine (Inversine®) in children and adolescents with Tourette disorder. Society for Biological Psychiatry New Orleans, LA