PURDUE
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COLLEGE OF PHARMACY

October 20, 2015

The Honorable Fred Upton, Chairman
House Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

The Honorable Frank Pallone
Ranking Member
House Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Chairman Upton and Ranking Member Pallone:

I believe that H.R. 3537 will have serious unintended damaging consequences for scientific research. As a research scientist who held a DEA schedule 1 license for most of my career at Purdue University, I can attest to the hurdles that obtaining a schedule 1 license entails. Further, significant research often can be conducted (e.g. in mice, rats, or biochemical experiments) with less than one human dose of many psychoactive drugs, yet a license is required to work with even miniscule amounts of schedule 1 substances. Many colleagues over the years have told me that they didn't work with these substances because of the need to obtain a schedule 1 license.

Further, I do not believe sufficient research was done before deciding which substances should be included in this bill. For example, compounds listed as BBBBB (N-benzylphenethylamine) and CCCCC (N,N-dimethylphenethylamine) are not, to my knowledge, biologically active. Phenethylamine is a natural chemical that is produced in the body, and neither it, nor its N-methylated derivatives are active. Has 6-chloro-aminotetralin (DDDDD) ever been seen as an abused chemical? Is it a 1-amino, 2-amino, 3-amino, or a 4-aminotetralin? The name is ambiguous. EEEE is a compound we discovered in my laboratory named MMAI. Although it briefly appeared as a "research chemical," it does not have reinforcing properties and thus has no abuse potential. In the tryptamines, S is an inactive compound known as bufotenin, and W is simply bufotenin acetate. There are other examples. My point is that no apparent logic has been used in selecting many of the compounds proposed for scheduling, and in fact from a scientific perspective it appears that the list was carelessly created. I believe there should be a clear and compelling rationale for listing each new compound for scheduling.

Will scheduling all these compounds hinder scientific research? I can point to one compound in particular and state unequivocally that if it is included it will greatly hinder scientific research. That compound is phenethylamine SSSS commonly known as DOI. DOI is the only unscheduled compound of this type that has been available to scientists for research and indeed its commercial availability allowed the recent remarkable discovery that it has unprecedented anti-inflammatory and anti-asthma properties, now leading to its development as a medicine. There are literally many hundreds of scientific reports that utilized DOI, and if DOI is placed into schedule 1, research with this compound will virtually cease. The so-called hallucinogens, including DOI, activate a brain receptor known as the 5-HT_{2A} receptor. This receptor is extremely important in brain function, and is known to be implicated in depression, schizophrenia, and anxiety, among others. Further, several recent clinical studies with psilocybin, currently a schedule 1 compound, have now shown efficacy in treating anxiety, depression, and alcohol and nicotine addiction. How will scientists study the role of this receptor in health and disease if all of the molecular tools that activate it are controlled substances?

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I believe the current Federal analogues act has sufficient breadth to allow prosecution of new research chemicals, and there is no reason to create a new list of controlled substances that will prevent any possibility of scientific study of their potential. In my opinion, there is no need for this legislation, and it will cause problems for scientists who wish to study them.

Sincerely,

David E. Nichols, Ph.D.
Distinguished Professor Emeritus
Former Robert C. and Charlote P. Anderson Chair in Pharmacology
Adjunct Professor, UNC Chapel Hill