## STATEMENT OF PATRICK M. BEARDSLEY, PH.D. PROFESSOR, DEPARTMENT OF PHARMACOLOGY & TOXICOLOGY VIRGINIA COMMONWEALTH UNIVERSITY RICHMOND, VA

BEFORE THE SUBCOMMITTEE ON HEALTH OF THE COMMITTEE ON ENERGY AND COMMERCE U.S. HOUSE OF REPRESENTATIVES

п

"COMBATTING THE OPIOID CRISIS: HELPING COMMUNITIES BALANCE ENFORCEMENT AND PATIENT SAFETY" FEBRUARY 28, 2018 Mr. Chairman and Members of the Health Subcommittee, I am Dr. Patrick Beardsley, a professor of Pharmacology and Toxicology at the Virginia Commonwealth University. In addition to my faculty appointment, I am a member of the Expert Committee on Drug Dependence for the World Health Organization, a committee that is the first step for processing drugs for their international control. Thank you for the opportunity to be here today to discuss SITSA, H.R. 2851.

We are all dedicated to finding paths to take us away from our present opioid crisis. I believe one path will be through research. There is a perpetual need to strike a balance between the regulatory control of drugs to insure public safety, and the necessity for researchers to have access to controlled drugs to further science. The Controlled Substances Act explicitly recognizes both those needs, and I am personally sympathetic to both needs. As a researcher of the drugs of abuse, however, I have concerns that SITSA upsets that balance. I would like to take the next few minutes of your time to identify my concerns. I would also like to end my statement by identifying a few ways that would enable research with synthetic opioids, and drugs of abuse more generally, to be more efficient, far

less costly, and bring much relief from the bureaucratic burden of conducting research with them.

It is my opinion that the Attorney General has been able to effectively regulate all synthetic opioids that are known to be a current problem via the historical process identified by the Controlled Substances Act (the CSA). Effective February 6, 2018, the DEA issued a scheduling order that included all fentanyl-related substances that are not currently scheduled, to be included in Schedule I. Fentanyls constitute the greatest portion of all synthetic opioids abused. The few non-fentanyl synthetic opioids that have been identified as abused in recent years have been previously included in Schedule I. Because most, if not all currently abused synthetic opioids are currently scheduled under the CSA, it is unclear how the introduction of Schedule A will help address the *current* problems with abused synthetic opioids.

Regarding the fentanyls that have now all been included in Schedule I, it is unclear whether they will be transferred into Schedule A if SITSA is passed. Considering 13 fentanyls are explicitly identified in SITSA to be included in Schedule A, this appears to be the likely outcome. How would public health be enhanced transferring these compounds from Schedule I conditions to Schedule A conditions?

SITSA also adds yet another level of bureaucracy to researchers who work with drugs of abuse by the addition of yet another category of drugs, Schedule A, and the associated requirements in order to study them. SITSA indicates that a separate registration for engaging in research with a Schedule A substance shall not be required for researchers who hold Schedule I registrations. Registrants with only a schedule II-V registration will have to obtain a Schedule A registration. All registrants, whether they hold a Schedule I or a Schedule A registration, will have to submit protocols to the Attorney General for his approval to justify the use of *each* Schedule A substance. Functionally, this arrangement is very similar to how research with Schedule I drugs are now handled. It can take a year or longer to obtain a Schedule I registration, and it can require many months to have a new drug added to one's existing Schedule I registration. If similar delays that are now impeding research with Schedule I drugs transfer to Schedule A drugs, SITSA provides nothing to the researcher

that will hasten our understanding of synthetic opioids through science, and will likely only impede that progress.

Under SITSA, the Attorney General also has the power to place a compound in Schedule A based only upon a drug's structure, and in the absence of pharmacological information commonly provided by HHS and NIDA. This can result in misclassifications of drugs and missed opportunities for discovering medications we need for confronting the opioid crisis. Determining scheduling solely by chemical structure can be misleading. For example, the chemical structures of morphine and naloxone are very similar, yet one is highly abused, and the other is an antagonist, that is an antidote, to the effects of the other. Banning a compound just based upon structural similarity to an abused compound may inadvertently ban an antidote to the abused compound.

Injudicious scheduling could be particularly counter-productive in the discovery of treatments for over-dose. There have been numerous reports that overdose with some fentanyls can be refractive to the ability of naloxone to revive respiration often requiring multiple initial and subsequent naloxone treatments. Just as naloxone is a particularly effective antagonist to morphine's

effects, perhaps an antagonist based upon fentanyl's structure would be more effective than naloxone. Research directed at that possibility will be chilled if potential antagonists are preemptively classified in Schedule A as *abused drugs* just based on structure. This problem is compounded by an absence of a mechanism in SITSA for removing a drug from Schedule A once it is scheduled.

Several ways would make conducting research with synthetic opioids, and controlled substances in general, more efficient, far less costly, and bring much relief from the bureaucratic burden of conducting research with them.

Requiring only one registration per researcher would greatly facilitate the research process with Schedule I drugs. In my district, multiple DEA registrations are now required for a researcher if he conducts research in more than one laboratory if the laboratories are in different buildings. This requirement only became policy about five years ago, and before then only a single registration was required. I conduct controlled substance research in four buildings that are close to each other on my campus. I am required to have separate controlled substance registrations for each building. That means I am

required to have four Schedule I, four Schedule II-V, and four Commonwealth of Virginia controlled substance registrations. The bureaucratic burden of maintaining location-specific records for one set of registrations is challenging, for four it makes research untenable.

Allowing one registrant to supply controlled substances to an entire unit would maximize efficiency, minimize costs, and still insure public safety. For decades prior to 2013, it had been permitted that one person, the chair of my department, was allowed to dispense controlled substances to other faculty within the department. Requirements changed in 2013 that required all faculty that conducted research with controlled substances to obtain their own sets of registrations. In my department that meant over 20 faculty now had to obtain their own registrations, and for anyone who had multiple laboratories in different buildings, it required that they individually obtain multiple sets of registrations. This change involved an enormous cost of time and money, and it is elusive how public safety had been enhanced by it.

Clarifying the registration application process, and setting limits to the duration of an application's review would facilitate and encourage more research with the drugs of abuse. The process for applying for a registration can be

confusing. In my state, the Commonwealth of Virginia, an applicant is instructed that he or she needs a federal registration before applying for a state registration, but DEA instructions indicate a state registration is needed before applying for a federal registration. It's only by trial-and-error that one learns that a state registration is needed before applying for a federal registration to conduct research with Schedule II-V drugs, but a federal registration is needed before applying for a state registration to conduct research with Schedule I drugs. Once a proper federal application is submitted, it can take a year or longer to obtain an approved registration. This confusion in the application process, and the delay in obtaining an approved registration, inhibits researchers, especially younger researchers, from commencing research with the drugs of abuse and from dedicating careers to their study. If law dictated a reasonable and maximal amount of time provided the DEA for the review process, timelier drug abuse research would be conducted and more researchers would be conducting drug abuse research.

Shortening the delay between application and approval for adding a new drug to an existing Schedule I registration would eliminate the most inhibiting factor associated with conducting research with Schedule I drugs. It can take

over four months to add a new compound to a Schedule I registration. A protocol has to be written and submitted detailing the dose and number of doses to be administered and the quantity of drug needed. Drug needs are often impossible for a researcher to estimate. For instance, I conduct what is called drug self-administration research in which laboratory animals are allowed to self-dose themselves with a test substance. This procedure is the major procedure for pre-clinically assessing the abuse potential of a drug, and for evaluating medications for treating drug abuse disorders. The researcher doesn't know beforehand if the laboratory subject will self-administer the test drug or not, that is the objective of the test procedure. Consequentially, the researcher finds it impossible to estimate drug needs, proving extremely difficult to prepare the needed protocol. After the application and protocol is submitted, months can go by before being approved to use the drug. In one instance, it took over four months to get cannabidiol added to my Schedule I registration, and this drug has no abuse potential and no street value.

Being able to add an entire class of drugs to a Schedule I registration would greatly benefit timely research, and minimize the costs and the unnecessary bureaucratic burden associated with adding individual drugs. I

thought this was going to be the case when all fentanyls (except those previously scheduled) were added to Schedule I on February 6, 2018. However, when I went to apply to add that category to my Schedule I registration, I was instructed that if I wanted to conduct research with any fentanyl previously scheduled, or one individually scheduled in the future, I had to go through the typical process of adding it to my registration as well. Therefore, adding fentanyls as a class would only give me rights to conduct research with unscheduled fentanyls, and I could be prosecuted if I conducted research with a fentanyl that had been individually listed, even if I had been approved for a "group fentanyl" category. If a researcher could be approved to conduct research with a class of compounds, especially considering that the DEA has now shown it can schedule entire classes of compounds, this would save thousands of dollars exhausted in the bureaucratic processing of individual drug applications, and more importantly, would inspire spontaneous and creative research.

I have tried to identify a few concerns I have with SITSA as a researcher, and concluded with a few suggestions of how research with the synthetic opioids, and drugs of abuse more generally, can be facilitated. Thank you and I welcome your questions.

Sincerely,

Internet MI. Landeley

Patrick M. Beardsley, Ph.D.

Professor, Dept of Pharmacology & Toxicology, Institute for Drug and Alcohol Studies, & Center for Biomarker Research and Personalized Medicine
Virginia Commonwealth University
410 N. 12th. St.; Smith Bld. Rm. #756
Richmond, VA 23298-0613
tel: 804 8285185