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Our First Electronic Newsletter!

Greetings and welcome to the latest installment of the SSPD newsletter. It has taken a little longer than planned, but here is the first SSPD Newsletter sent via email. Hopefully this will improve communications for the Society by speeding up the dissemination of information, and it will certainly save the costs associated with copying and mailing the newsletter out to all of the members and it will make it easier to reach our international colleagues. With this new format we should be able to include more information and new features (see the two summaries of new research presented in this issue). Any items of interest that you have for future newsletters may be submitted to the Secretary/Treasurer Joe Porter (jporter@vcu.edu). Please feel free to forward this newsletter to any colleagues that may be interested in the stimulus properties of drugs!

SSPD Meeting at Society for Neuroscience

This year, as in previous years, SSPD will host an evening paper session at the Society for Neuroscience in Orlando, FL. The Society for Neurosciences will meet from November 2 to 7, 2002. Further information about SFN can be obtained from their website: <http://www.sfn.org>. Recent SSPD meetings at SFN have been held on Wednesday evenings to allow interested members to attend both SSPD and the American Society Pharmacology and Experimental Therapeutics (ASPET) social (ASPET meets on Monday night this year). However, informal discussions amongst the membership indicate that Tuesday evenings are the preferred meeting day. Indeed, attendance at Wednesday evening SSPD meetings would also indicate that members prefer Tuesday evenings. Therefore, this year, SSPD will meet Tuesday evening:

Title of Event: Society for the Stimulus Properties of Drugs

Date: Tuesday, November 5, 2002

Time: 5:30 pm - 8:30 pm

Location: Orange County Convention Center

Room: 204 ABC

Call For Abstracts

If you or your students are interested in presenting a 15-20 min informal paper on your research on the stimulus properties of drugs, please submit an abstract to our Secretary/Treasurer Joe Porter (jporter@vcu.edu) by **October 18, 2002**. We look forward to hearing about your latest research findings!

SSPD WEBSITE:

<http://www.sspd.org.uk/>

DRUG DISCRIMINATION DATABASE:

<http://www.dd-database.org/>

Change in SSPD Bylaws

The proposed changes in the SSPD Bylaws, proposed by the Executive Committee, were approved by mail-in ballot at the time of the last election. The relevant sections of the bylaws have been changed to read as follows:

ARTICLE IV. Officers

IV.1 The SSPD shall have four officers: President, President-elect, Immediate past-president, and Secretary/Treasurer. These four officers shall comprise the Executive Committee of the SSPD.

IV.2 The president shall serve for two years, beginning in an odd-numbered year (e.g., 2003-2004). The tenure will overlap the two-year term of the Treasurer/Secretary, which will begin in an even-numbered year (e.g., 2002). During this term, the president will have primary responsibility for the scientific meetings and other activities of the society. Notwithstanding, all substantive actions of the president should be approved by at least three members of the Executive Committee before they are implemented. The president shall schedule, announce, and make arrangements for all SSPD meetings and plan the program of these meetings in cooperation with the President-elect. The president will also represent SSPD to the scientific public and to government agencies.

IV.3 The President-elect shall serve in this office for one year before becoming president. During this year the president-elect shall develop advance plans for SSPD meetings to be held during the following year. The president-elect shall assist the president to develop and implement the current meetings of the society; to as great a degree as requested. Arrangements for meeting rooms shall be the responsibility of the president-elect. The president-elect also will act as editor of any newsletter issues and will be responsible for bulk mailings to the membership.

IV.4 The secretary/treasurer shall serve for two years, beginning in an even numbered year (e.g., 2002-2003). The tenure will overlap the two-year term of the resident, beginning in an odd numbered year (e.g., 2003-2004). The secretary/treasurer shall keep financial records and minutes of SSPD's actions, shall keep SSPD membership records, shall act as membership chairman, shall supervise the nomination and election of new officers, shall collect membership dues, and shall be responsible for any property of the society.

As these current bylaws read, every other year both the President and Secretary/Treasurer of the organization are replaced. By alternating the two-year tenure for both positions there will be more continuity and experience for a smoother organization of meetings.

SSPD DATABASE NEWS AND DEVELOPMENTS

First the good news: NIDA has funded the application for renewal of the drug discrimination database for 5 years from July 2002. Therefore the functionality of the database should be safe until 2008. For those of you who can remember that far back, I first published a database in 1982; NIDA support began a couple of years later, and so it now in the 16th year of grant-supported activity. Jonathan Kamien will continue to maintain the website and my assistant Lisa de Smet will continue in post.

Now the less good news: the database indicates that the number of publications fell in 2001, the third successive year that the number declined. Although there have always been substantial annual fluctuations, this is unusual. Perhaps you can help to suggest reasons for this situation (please email to i.stolerman@iop.kcl.ac.uk). I don't believe it is due to a failure on our part to identify publications as we use the same methods as before. However, we may have missed some, especially book chapters and abstracts that are hard to find by systematic searches. Papers where DD plays a small role are also difficult to find, but should be in the database. Therefore, it would be very helpful if you could take a few moments to search the online database (www.dd-database.org) and check that all your publications for 2001 are listed. If any are missing please email me details, or just send the relevant pages from your c.v. and we will check that everything is included.

As well as updating the database we have some changes planned. The most obvious will be a redesign of the cosmetics of the website to give it a more up-to-date look that will also be in greater harmony with the SSPD site. We have not changed the cosmetics significantly since the site was introduced around 1995. Jonathan has been developing the new site and we hope to have it available for public access by the time you receive this newsletter, or soon afterwards. As well as cosmetic improvements, we plan some important changes in functionality. The major one will be an increased ability to do complex searches combining AND, OR and NOT operators in one search statement. Then you would be able to search for citations in the following format: (Kamien OR Stolerman) AND (nicotine training OR cocaine training), to give a not-too-complex example. At the moment this would require two separate searches. There will also be a simple search option on the Home Page of the site (and lots, lots more, as PR people would say).

Some little-used features of the website will most likely be dropped. Among these is the provision of database files for downloading in old Reference Manager formats. We use Reference Manager to maintain the master database and it is now up to version 10. On the present website we offer downloads in formats going back as far as version 5. In future we intend to provide only for version 8 and higher. The main reason is that the older versions are no longer supported and are not fully compatible with Windows XP. Our intention is to introduce this change early in 2003. If this will cause a major problem for you, please let us know (i.stolerman@iop.kcl.ac.uk). Most users of downloads may wish to keep their version of Reference Manager up to date.

Another notion under consideration is to expand the database to include studies of the reinstatement of drug self-administration because such drug effects are often interpreted as due to discriminative stimulus properties. We know this is a speculative and arguable position, and we would be interested in knowing if you would welcome the idea or not. Such citations would of course have a unique key word.

That seems to be all for now. Please do let us know of any problems with the database and any extra features you would like to see included (but falling short of a button to generate grants).

Ian Stolerman
Institute of Psychiatry, King's College London

Treasurer's Report

As of October 8, 2002 the balance in our checking account is \$3,577.90. A complete report will be presented at the SSPD Business meeting in November.

DUES - Thanks to the members who have sent in dues payments. Most of the membership is (or was) one to two years behind in paying dues. As you can see from the checking balance, we need all members to catch up with dues in order to infuse some cash into our checking account. If you have questions about how much you owe in dues, please contact the Secretary/Treasurer Joe Porter (jporter@vcu.edu).

Featured Article

Drug discrimination studies in knockout mice shed light on the molecular basis of nicotine dependence

This first full report of drug discrimination research in genetically modified mice illustrates the power of this approach for linking drug effects in the living organism to their actions at the molecular level. Thus, studies in knockout mice lacking all beta-2 containing nicotinic receptors have helped to define the role of such receptors in nicotine dependence. The twelve known subunits of neuronal nicotinic receptors form complex structures associated with many physiological and pharmacological functions. The most common subtype of nicotinic receptor in the brain contains the alpha-4 and beta-2 subunits, but the precise receptor subtypes at which the dependence process originates are not known. Wild-type (control) and knockout mice were trained in a two-lever nicotine discrimination procedure with food reinforcers. Baseline rates of lever-pressing of control and knockout mice did not differ. Control mice acquired discrimination of nicotine rapidly and exhibited steep nicotine dose-response curves. In striking contrast, mutant mice failed to acquire nicotine discrimination and exhibited flat dose-response curves that did not deviate from the control level, indicating the abolition of stimulus control by the training doses of nicotine. Both control and knockout mice acquired discrimination of a very large dose of nicotine although discrimination performance was weak in the knockouts. Nicotine initially reduced response rates in all mice, and tolerance developed to this effect in both control and knockout animals. Both genotypes acquired the discrimination of morphine with similar degrees of accuracy, and dose-response curves for morphine discrimination were indistinguishable. The ability of nicotine to produce conditioned taste aversions was also weakened in the knockout mice. It is concluded that nicotinic receptors containing the beta-2 subunit play a major role in the stimulus properties of nicotine that are thought to reflect psychological aspects of tobacco dependence. However, beta-2 containing receptors appear to have a less crucial role in nicotine

tolerance. Recognition that different receptor mechanism may underlie different aspects of nicotine dependence may aid the development of pharmacotherapies for smoking cessation.

Based on: Shoaib M, Gommans J, Morley A, Stolerman IP, Grailhe R, Changeux J-P (2002) The role of nicotinic receptor beta-2 subunits in nicotine discrimination and conditioned taste aversion. *Neuropharmacology* 42: 530-539.

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