ELECTRONIC SCIENTIST

Covering Pharmaceutical Science and Research on the Internet

March 2000

Spearheading the efforts are Editor-in-Chief Dr. Wolfgang Sadée and Themes Editor Dr. Gordon Amidon. "Epithelial Cell Permeability and Drug Absorption" and "Pharmacogenetics – Pharmacogenomics" serve as the topics for the two issues. To maximize the impact of accepted papers, articles will be published in both the theme issue and regular issue of AAPS PharmSci. Details are available at www.pharmsci.org.

Millennium Launch

The American Association of Pharmaceutical Scientists (AAPS) proudly announces the arrival of a new electroniconly journal, AAPS PharmSciTech. Available to the world at www.pharmscitech.com, it focuses on the applied research on pharmaceutical dosage forms, both traditional and novel, including the emerging area of biopharmaceuticals.

The Call for Papers (available online) seeks manuscripts in all areas of pharmaceutical product development and manufacture, including pharmaceutical excipient evaluation, with a focus on practical (industrial) applications to research-based efforts.

AAPS PharmSciTech covers specialty areas including (but not limited to):

- Preformulation Studies
- Formulation Strategies and Stability Assessment
- Design and Evaluation of Novel Drug Delivery Systems
- Pharmaceutical Engineering and Technology Transfer
- Standardization and Quality Improvement of Pharmaceutical Dosage Forms

The high quality and timely relevance of research articles have made the first issue a success.



Theme Issues

The first online pharmaceutical research journal published by AAPS introduces two Calls for Papers for Theme Issues planned for the year 2000.

Research Articles of Interest

Publication within AAPS PharmSci is singularly unique in scientific publishing. The current issue is literally alive in the sense that the moment a research article is ready – it is published and able to be viewed by the public instantly. The average publication time is three months from date of submission and is expected to decrease further with more efficient manuscript tracking. Below are two articles in Volume 1 Issue 4, the last issue of 1999.

Monoamine Oxidase Inhibitor Properties of Some Benzazoles: Structure-activity relationships.

Teresa Grandi, Fabio Sparatore, Carmela Gnerre, Patrizia Crivori, Pierre-Alain Carrupt, Bernard Testa

✓ Benzazoles containing two or three nitrogen atoms were screened for their inhibitory activity toward monoamine oxidases MAO-A and MAO-B. Their electronic structure was calculated at the ab initio level and the influence of lipophilicity on activity was investigated.

Kinetic Modeling of Plasmid DNA Degradation in Rat Plasma

Brett Houk, Gunther Hochhaus, Jeffrey Hughes

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✓ Features a complete kinetic model to describe the degradation of all three topoforms (supercoiled, open circular, and linear) of pDNA in a rat plasma model.

Visibility Skyrockets

AAPS PharmSci recorded a record number of hits. In four weeks, more than 5,000 unique individuals viewed the journal online. The number of hits has increased substantially each month since the launching of the journal in January 1999. AAPS PharmSci has been recently featured on numerous popular search engines (such as AltaVista and Lycos) as a premier resource for pharmaceutical science and research.

This volume of readership reflects a strong acceptance by scientists of the electronic format. "Scientific publishing has reached a crossroads," explains Editor-in-Chief Dr. Wolfgang Sadéc, "Profound changes in information technology have ushered in a new era of global communication."

Both AAPS PharmSci and AAPS PharmSciTech take advantage of this extraordinary technology by publishing articles that utilize full-color graphics, 3-Dimensional images, interactive images, and unlimited pages and tables.

Multimedia Articles

One typical interactive research article is described below.

The Venus Flytrap of Periplasmic Binding Proteins: An Ancient Protein Module Present in Multiple Drug Receptors.

Christian Felder, Richard Graul, Alan Lee, Hans Merkle, Wolfgang Sadée

✓ From Volume 1 Issue 2, features mouseovers to show gi number, name and P value of receptors and a glutamate periplasmic binding protein.

Other scientists have taken exceptional advantage of all 256 colors in the color palette. Some examples are listed below:

Function and Immunolocalization of Overexpressed Human Intestinal H+/Peptide Cotransporter in Adenovirustransduced Caco-2 Cells

Cheng-Pang Hsu, Elke Walter, Hans Merkle, Barbara Rothen-Rutishauser, Heidi Wunderli-Allenspach, John Hilfinger, Gordon Amidon

✓ From Volume 1 Issue 4, figures show immunocytochemical localization of hPepT1 in transduced Caco-2 cells juxtaposed with control cells.

Design and Synthesis of the CB1 Selective Cannabinoid Antagonist AM281: A Potential Human SPECT Ligand

Ruoxi Lan, John Gatley, Qian Liu, Pusheng Fan, Susanthi Fernando, Nora Volkow, Roger Pertwee, Alexandros Makriyannis

- ✓ In Volume 1 Issue 3, the authors use Phosphor imaging autoradiograms of a sagittal rat brain section after incubation in [123] AM281, washing and drying.
- ✓ A Visualization of cannabinoid CB1 receptors is also included. A "rainbow" color scale (black>red>yellow>green>blue>white) was used.

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