

August 2012

Volume 17 Numbers 15/16 pp. 807–922



Cover Story

The leading story of this issue of *Drug Discovery Today*, by Francesca Milletti presents a classification scheme for cell-penetrating peptides based on their physical-chemical properties and origin. The author also provides a general framework for understanding and discovering new cell-penetrating peptides.

REVIEWS

FOUNDATION

828 Progressing preclinical drug candidates: strategies on preclinical safety studies and the quest for adequate exposure

John Higgins, Mark E. Cartwright and Allen C. Templeton

KEYNOTE

837 Translation of drug effects from experimental models of neuropathic pain and analgesia to humans

Amit Taneja, Vincenzo Luca Di Iorio, Meindert Danhof and Oscar Della Pasqua

850 Cell-penetrating peptides: classes, origin, and current landscape
Francesca Milletti

GENE TO SCREEN

861 Targeting mTOR as a novel therapeutic strategy for traumatic CNS injuries

Aruni S. Arachchige Don, Chi Kwan Tsang, Tatiana M. Kazdoba, Gabriella D'Arcangelo, Wise Young and X.F. Steven Zheng

INFORMATICS

869 Network analysis has diverse roles in drug discovery

Samiul Hasan, Bhushan K. Bonde, Natalie S. Buchan and Matthew D. Hall

POST SCREEN

875 Biologics: the next generation of analgesic drugs?

Iain P. Chessell, Amanda Dudley and Andy Billinton

880 Physiological, pathological and potential therapeutic roles of adipokines

Inês Falcão-Pires, Paulo Castro-Chaves, Daniela Miranda-Silva, André P. Lourenço and Adelino F. Leite-Moreira

890 Fluorine local environment: from screening to drug design

Anna Vulpetti and Claudio Dalvit

898 Characteristics of rare disease marketing applications associated with FDA product approvals 2006–2010

Anne R. Pariser, Daniel J. Slack, Larry J. Bauer, Catherine A. Warner and LaRee A. Tracy

905 Evidence-based approach to assess passive diffusion and carrier-mediated drug transport

Li Di, Per Artursson, Alex Avdeef, Gerhard F. Ecker, Bernard Faller, Holger Fischer, J. Brian Houston, Manfred Kansy, Edward H. Kerns, Stefanie D. Krämer, Hans Lennernäs and Kiyohiko Sugano

913 DNA polymerase beta (pol β) inhibitors: A comprehensive overview Khaled H. Barakat, Melissa M. Gajewski and Jack A. Tuszynski