



April 2012

Volume 17 Numbers 7/8

pp. 279–406



Cover Story

The leading story of this issue of *Drug Discovery Today*, by Erasmia Broussalis, Monika Killer, Mark McCoy, Andrea Harrer, Eugen Trinkla and Jörg Kraus provides an overview on recent developments in acute stroke treatment and prevention. The authors discuss treatment for acute stroke, primary and secondary stroke prevention. They also discuss new drugs that are on the horizon.

DRUG DISCOVERY TODAY

REVIEWS

FOUNDATION

296 **Current therapies in ischemic stroke. Part A. Recent developments in acute stroke treatment and in stroke prevention**

Erasmia Broussalis, Monika Killer, Mark McCoy, Andrea Harrer, Eugen Trinkla and Jörg Kraus

KEYNOTE

310 **Classification of scaffold-hopping approaches**

Hongmao Sun, Gregory Tawa and Anders Wallqvist

325 **Can we discover pharmacological promiscuity early in the drug discovery process?**

Jens-Uwe Peters, Jérôme Hert, Caterina Bissantz, Alexander Hillebrecht, Grégori Gerebtzoff, Stefanie Bendels, Fabien Tillier, Jacques Migeon, Holger Fischer, Wolfgang Guba and Manfred Kansy

GENE TO SCREEN

336 **Stem cell technology for drug discovery and development**

Lilian A. Hook

INFORMATICS

343 **Computational models for predicting substrates or inhibitors of P-glycoprotein**

Lei Chen, Youyong Li, Huidong Yu, Liling Zhang and Tingjun Hou

POST SCREEN

352 **Determinants for successful marketing authorisation of orphan medicinal products in the EU**

Michelle Putzeist, Harald E. Heemstra, Jordi Llinars Garcia, Aukje K. Mantel-Teeuwisse, Christine C. Gispen-De Wied, Arno W. Hoes and Hubert G.M. Leufkens

359 **Pharmacological and therapeutic effects of A₃ adenosine receptor agonists**

Pnina Fishman, Sara Bar-Yehuda, Bruce T. Liang and Kenneth A. Jacobson

367 **Is there a clinical future for polymeric nanoparticles as brain-targeting drug delivery agents?**

Luca Costantino and Diana Boraschi

379 **Diverse roles of the scaffolding protein RanBPM**

Bharathi Suresh, Suresh Ramakrishna and Kwang-Hyun Baek

388 **Can biochemistry drive drug discovery beyond simple potency measurements?**

Patrick Chène

396 **Capillary electrophoresis and small molecule drug discovery: a perfect match?**

Alfonso Espada and Manuel Molina-Martin