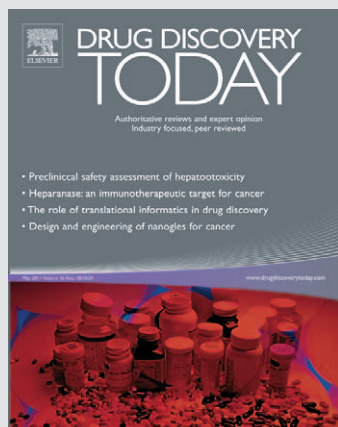




**May 2011**

Volume 16 · Numbers 9/10

pp. 369–464



#### Cover Story

The leading story of this issue of Drug Discovery Today, by Shibashish Giri and Augustinus Bader explains how bioartificial livers could reduce the millions of animals used in drug testing and prove to be a reliable tool for hepatotoxicity assessment in preclinical drug development research

# DRUG DISCOVERY TODAY

## REVIEWS

### FOUNDATION

- 382 Improved preclinical safety assessment using micro-BAL devices: the potential impact on human discovery and drug attrition**

*Shibashish Giri and Augustinus Bader*

### KEYNOTE

- 398 Learning lessons from drugs that have recently entered the market**

*Simon J. Teague*

### GENE TO SCREEN

- 412 Heparanase: a universal immunotherapeutic target in human cancers**

*Ya-Fei Zhang, Xu-Dong Tang, Jin-Hua Gao, Dian-Chun Fang and Shi-Ming Yang*

### INFORMATICS

- 418 Advances in the computational development of DNA methyltransferase inhibitors**

*José L. Medina-Franco and Thomas Caulfield*

- 426 The role of translational bioinformatics in drug discovery**

*Natalie S. Buchan, Deepak K. Rajpal, Yue Webster, Carlos Alatorre, Ranga Chandra Gudivada, Chengyi Zheng, Philippe Sanseau and Jacob Koehler*

### POST SCREEN

- 435 The effect of inflammation on drug metabolism: a focus on pediatrics**

*Nienke J. Vet, Matthijs de Hoog, Dick Tibboel and Saskia N. de Wildt*

- 443 Recent progress toward biomarker identification in osteoarthritis**

*Frédéric De Ceuninck, Massimo Sabatini and Philippe Pastoureau*

- 450 Clusters in the biopharmaceutical industry: toward a new method of analysis**

*Zeynep Erden and Georg von Krogh*

- 457 Design and engineering of nanogels for cancer treatment**

*Murali Mohan Yallapu, Meena Jaggi and Subhash C. Chauhan*