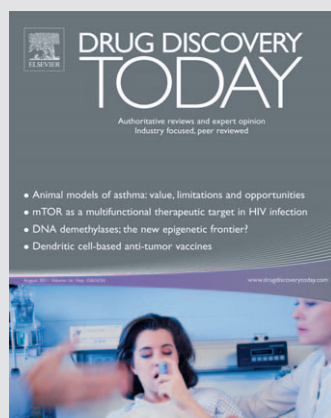


**August 2011**

Volume 16 · Numbers 15/16

pp. 643–746

**Cover Story**

The leading story of this issue of *Drug Discovery Today*, by Anthony M. Holmes, Roberto Solari and Stephen T. Holgate discusses the disease modeling framework designed to understand human asthma better. Despite positive preclinical animal data, many novel compounds fail owing to lack of safety and/or efficacy in humans. This has resulted in relatively few drugs making it to the market in the last 50 years. This review discusses the relevant approaches to accelerate the development of safe and efficacious new asthma drugs that go beyond symptomatic relief.

DRUG DISCOVERY TODAY

REVIEWS

KEYNOTE

659 Animal models of asthma: value, limitations and opportunities for alternative approaches

Anthony M. Holmes, Roberto Solari and Stephen T. Holgate

671 A procedural framework for good imaging practice in pharmacological fMRI studies applied to drug development #2: protocol optimization and best practices

Adam J. Schwarz, Lino Becerra, Jaymin Upadhyay, Julie Anderson, Richard Baumgartner, Alexander Coimbra, Jeff Evelhoch, Richard Hargreaves, Brigitte Robertson, Smriti Iyengar, Johannes Tauscher, David Bleakman and David Borsook

GENE TO SCREEN

683 DNA demethylases: a new epigenetic frontier in drug discovery

Nessa Carey, C. Joana Marques and Wolf Reik

INFORMATICS

691 ROCK: the Roche medicinal chemistry knowledge application – design, use and impact

Alexander Mayweg, Urs Hofer, Patrick Schnider, Fausto Agnetti, Guido Galley, Patrizio Mattei, Matthew Lucas and Hans-Joachim Boehm

POST SCREEN

697 FDA-approved drug labeling for the study of drug-induced liver injury

Minjun Chen, Vikrant Vijay, Qiang Shi, Zhichao Liu, Hong Fang and Weida Tong

704 Pharmaceutical drug transport: the issues and the implications that it is essentially carrier-mediated only

Douglas B. Kell, Paul D. Dobson and Stephen G. Oliver

715 mTOR as a multifunctional therapeutic target in HIV infection

Ferdinando Nicoletti, Paolo Fagone, PierLuigi Meroni, James McCubrey and Klaus Bendtzen

722 Follow-on drugs: How far should chemists look?

Fabrizio Giordanetto, Jonas Boström and Christian Tyrchan

733 Potentiation strategies of dendritic cell-based antitumor vaccines: combinational therapy takes the front seat

Monireh Torabi-Rahvar, Mahmood Bozorgmehr, Mahmood Jeddi-Tehrani and Amir Hassan Zarnani