molecular interventions
pharmacological perspectives from biology, chemistry and genomics

October 2008 Volume 8, Issue 5
www.molinterv.org

DEPARTMENTS

Molecular Interventions (ISSN 1534-0384) is published by the American Society for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995. Published bimonthly in February, April, June, August, October, and December. Annual subscription rates: U.S.: $240 for institutions: and $78 for individuals. Outside the U.S.: $261 for institutions and $99 for individuals. The subscription price to ASPET members ($30) is included in membership dues. Single issue: $44. Subscriptions include access to the online version of *MI* at molinterv.org (ISSN 1543-2548). Indexed or abstracted by Biochemistry & Biophysics Citation Index, EMBASE/Excerpta Medica, Index to Scientific Reviews, ISI Alerting Services, ISI Web of Science, PubMed/Medline, and Science Citation Index-Expanded.

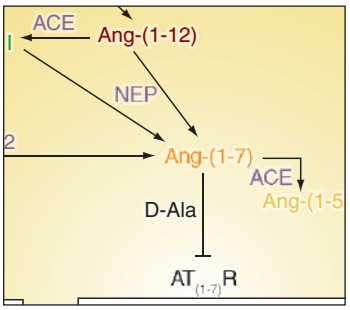
Advertising (FASEB AdNet): 301-634-7103; adnet@faseb.org. **Editorial:** 301-634-7790; mi@aspet.org. **Subscriptions:** 301-634-7099; staff@dues.faseb.org. **ASPET:** 301-634-7099; info@aspet.org.

Postmaster: Send address changes to *Molecular Interventions*, ASPET, 9650 Rockville Pike, Bethesda, MD 20814-3995.

aspet 100 YEARS 1908—2008

molecular interventions
pharmacological perspectives from biology, chemistry and genomics

VIEWPOINTS



page 222
Ang-(1-7) and the enzymes that process it

222 Improving Cardiovascular Health: New Targets in the Renin-Angiotensin System

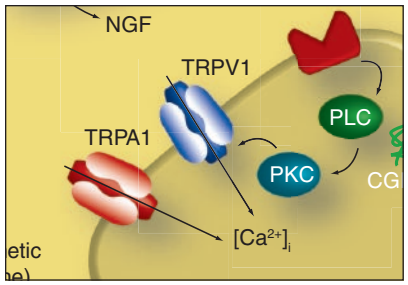
Advances in cardiovascular pharmacological research will be necessary to treat effectively the increasingly complex patient with disorders in multiple control systems. The constituents of the renin-angiotensin system, as a result of the widespread effects of angiotensin II to increase inflammation and promote oxidative stress, remain prime targets for overall improvements in cardiovascular health in patients with co-existing metabolic, renal and cardiac dysfunction. Additional research is required to determine whether additional benefits can be achieved with tissue-selective or intracellular blockade of angiotensin II versus targeting overexpression of Ang-(1-7) and the enzymes that promote its formation. Newly identified components including renin receptors and intermediates in the processing of angiotensinogen provide potential future molecular targets that might allow improved clinical benefits.

Debra I. Diz

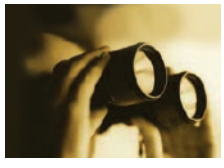
226 Slings and Arrows of Outrageous Fortune: When Anesthetics Cause Pain

General anesthetics produce a reversible loss of consciousness at low concentrations and also render patients immobile in response to surgical stimulation. Despite their widespread use for more than 150 years, the molecular mechanisms of most general anesthetics are poorly understood. Surprisingly, the sensitivity of the peripheral nociceptive neurons may be increased at clinically relevant concentrations of the same anesthetics that induce immobility. This article reviews two recent studies that propose activation of the nociceptive ion channels TRPA1 and TRPV1 as a mechanism by which certain irritant anesthetics might increase postoperative pain as well as produce airway irritation and burning pain during intravenous injection. Confirmation of the clinical relevance of this proposed mechanism through future studies might have important implications on the choice of anesthetic agents.

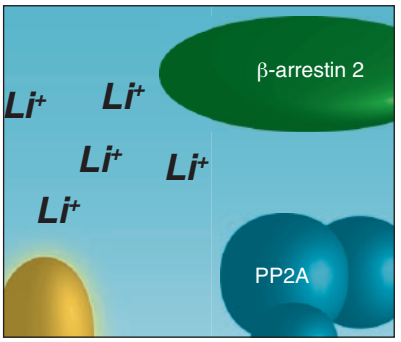
Helge Eilers



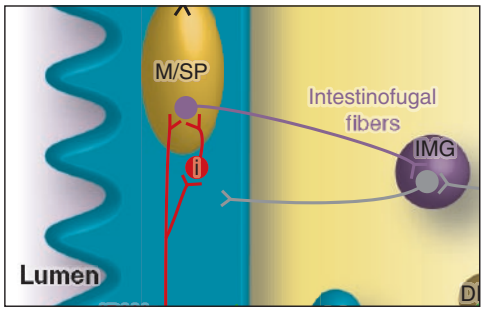
page 226
TRPA1 and TRPV1 collude in pain



REVIEWS



page 230
Lithium's targets



page 242
Gut feelings