



Transient Receptor Potential (TRP) Channels in Drug Discovery: Old Concepts & New Thoughts

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The year 2017 marks the 20th anniversary of the molecular cloning of the long sought-after capsaicin receptor, now known as TRPV1 (Transient Receptor Potential Vanilloid 1). This seminal discovery has opened up a “hot” new field of basic research and launched drug discovery efforts into the large family (by the latest count, 28 mammalian members and 27 in humans) of TRP ion channels. Indeed, it took less than a decade for the first potent, small molecule TRPV1 antagonists to enter phase 1 clinical trials, closely followed by TRPA1 and TRPM8 antagonists.

The literature on TRP channels is immense. TRPV1 alone is a keyword in over 5000 publications searchable in PubMed. Clearly, it is not possible to capture the entire literature in a single thematic issue. Consequently, the selection of articles presented in this book represents a sampling of the literature, and is admittedly subjective. We tried to survey the wide range of human diseases in which TRP channels have been implicated, ranging from chronic pain through asthma and diabetes to cancer, and highlight the channels that appear to hold the greatest promise for therapeutic targeting. With this book, we hope to convince readers that TRP channels constitute a formidable family of potential therapeutic targets that will likely continue to demand attention.



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