“Non-coding RNA based therapeutics and their future perspectives in chronic pain”

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Bio sketch: Dr. Bali is a senior scientist at the Pharmacology Institute of the Heidelberg University. After initial research training in India, he moved to Germany to obtain his doctoral degree in Pharmacology from the Heidelberg University. The focus of his career to date has been on the mechanisms and molecular aspects of pain and sensory systems with special emphasis on RNA-mediated pathways in preclinical mouse models. Over the course of his career, he offered key contributions through ongoing research, leading publications, peer reviewing and supervision of students. His future research interests include genetic and epigenetic mechanisms behind chronic pain and the development of novel therapeutic approaches.

Presentation summary: The advent of sensitive technologies enabled discovery of several novel classes of non-coding RNAs (ncRNA), including microRNAs (miRNA). Over last decade, increasing number of studies reinforce the gene regulatory functions of each ncRNA species in health and disease. While the mechanism and function for miRNAs are relatively well understood, such knowledge on other ncRNAs is emerging. Dr. Bali’s current presentation will illustrate the functional characterization of key miRNAs with functional relevance in chronic pain associated with cancer, neuropathy or diabetes. Potentiality and future perspectives of other ncRNAs as viable therapeutic targets for the treatment of chronic pain will also be discussed.