

New research defines role of long noncoding RNAs in inflammation

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Inflammation and immune system activation are complex processes controlled by elaborate signaling pathways and hundreds of genes that are turned on and off in response to external stimuli such as bacteria or viruses. A class of molecules called long noncoding RNAs (lncRNAs) are now emerging as important regulators of inflammatory gene expression and potential targets for novel anti-inflammatory therapeutics, as described in a Review article in *Journal of Interferon & Cytokine Research (JICR)*.

In "Transcription of Inflammatory Genes: Long Noncoding RNA and Beyond," Susan Carpenter and Katherine Fitzgerald, University of Massachusetts Medical School (Worcester) and University of California, San Francisco, note that scientists are just beginning to understand the role of lncRNAs in regulating the innate immune system and controlling inflammatory processes, and their potential to be dysregulated in disease. The authors provide an overview of current research on lncRNAs and inflammation and propose future research goals.

"Long non-coding RNAs are emerging to be major regulators of many cellular processes; the authors of this article have pioneered investigations of how these RNAs affect immune responses" says Journal of Interferon & Cytokine Research Co-Editor-in-Chief Ganes C. Sen, PhD, Chairman, Department of Molecular Genetics, Cleveland Clinic Foundation.

More information: "Transcription of Inflammatory Genes: Long

Noncoding RNA and Beyond," Carpenter Susan and Fitzgerald Katherine A.. *Journal of Interferon & Cytokine Research*. -Not available-, ahead of print. [DOI: 10.1089/jir.2014.0120](https://doi.org/10.1089/jir.2014.0120), Online Ahead of Print: September 24, 2014

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