A new target for controlling inflammation? Long non-coding RNAs fine-tune the immune system

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Regulation of the human immune system's response to infection involves an elaborate network of complex signaling pathways that turn on and off multiple genes. The emerging importance of long noncoding RNAs and

their ability to promote, fine-tune, and restrain the body's inflammatory response by regulating gene expression is described in a Review article in *Journal of Interferon & Cytokine Research* (*JICR*).

In the Review article "Transcription of Inflammatory Genes; Long Non-Coding RNA and Beyond," Susan Carpenter and Katherine Fitzgerald, University of Massachusetts Medical School, Worcester, MA, and University of California, San Francisco, CA, provide a detailed overview of the multi-layered gene regulation systems that are activated when the immune system recognizes a pathogen or other external danger signal. The growing understanding of the role that long noncoding RNAs play in regulating this complex circuitry could lead to their use as drug targets for developing selective antimicrobial therapeutics that do not cause damaging inflammation.

"This is a cutting-edge review from authors who are conducting pioneering research on the role of long non-coding RNAs in innate immune signaling," says *Journal of Interferon & Cytokine Research* Co-Editor-in-Chief Ganes C. Sen, PhD, Chairman, Department of Molecular Genetics, Cleveland Clinic Foundation, Ohio.

More information: The article is available free on the *JICR* website.

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