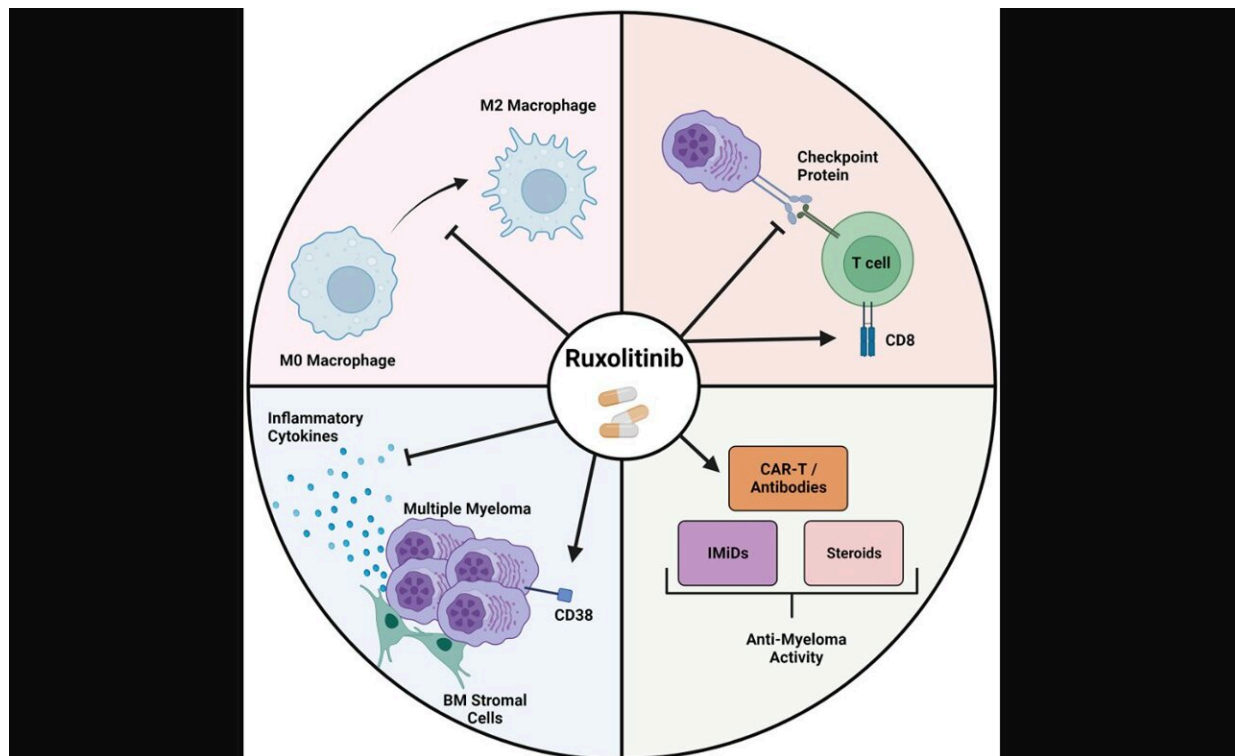


# Evaluation of ruxolitinib, a JAK inhibitor, in multiple myeloma

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Ruxolitinib exerts its anti-myeloma effects through several mechanisms. Credit: *Oncotarget* (2024). DOI: 10.18632/oncotarget.28547

A new research perspective titled "Preclinical and clinical evaluation of the Janus Kinase inhibitor ruxolitinib in multiple myeloma" has been [published](#) in *Oncotarget*.

In this new paper, researchers Ashley Del Dosso, Elizabeth Tadevosyan, and James R. Berenson from ONCOtherapeutics, Berenson Cancer Center, and Institute for Myeloma and Bone Cancer Research have discussed multiple myeloma (MM)—the most common primary malignancy of the bone marrow. No established curative treatment is currently available for patients diagnosed with MM.

In recent years, new and more effective drugs have become available for the treatment of this B-cell malignancy. These [new drugs](#) have often been evaluated together and in combination with older agents. However, even these novel combinations eventually become ineffective; and, thus, novel therapeutic approaches are necessary to help overcome resistance to these treatments.

Recently, the Janus Kinase (JAK) family of tyrosine kinases, specifically JAK1 and JAK2, has been shown to have a role in the pathogenesis of MM. Preclinical studies have demonstrated a role for JAK signaling in direct and indirect growth of MM and downregulation of anti-tumor immune responses in these patients.

Also, inhibition of JAK proteins enhances the anti-MM effects of other drugs used to treat MM. These findings have been confirmed in [clinical studies](#) which have further demonstrated the [safety](#) and efficacy of JAK inhibition as a means to overcome resistance to currently available anti-MM therapies. Additional studies will provide further support for this promising new therapeutic approach for treating patients with MM.

The researchers note that "...sections of this article will be focused on studies of RUX [Ruxolitinib] in the preclinical and clinical settings focused on the treatment of relapsed/refractory (RR) MM."

**More information:** Ashley Del Dosso et al, Preclinical and clinical evaluation of the Janus Kinase inhibitor ruxolitinib in multiple myeloma,

*Oncotarget* (2024). [DOI: 10.18632/oncotarget.28547](https://doi.org/10.18632/oncotarget.28547)

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