
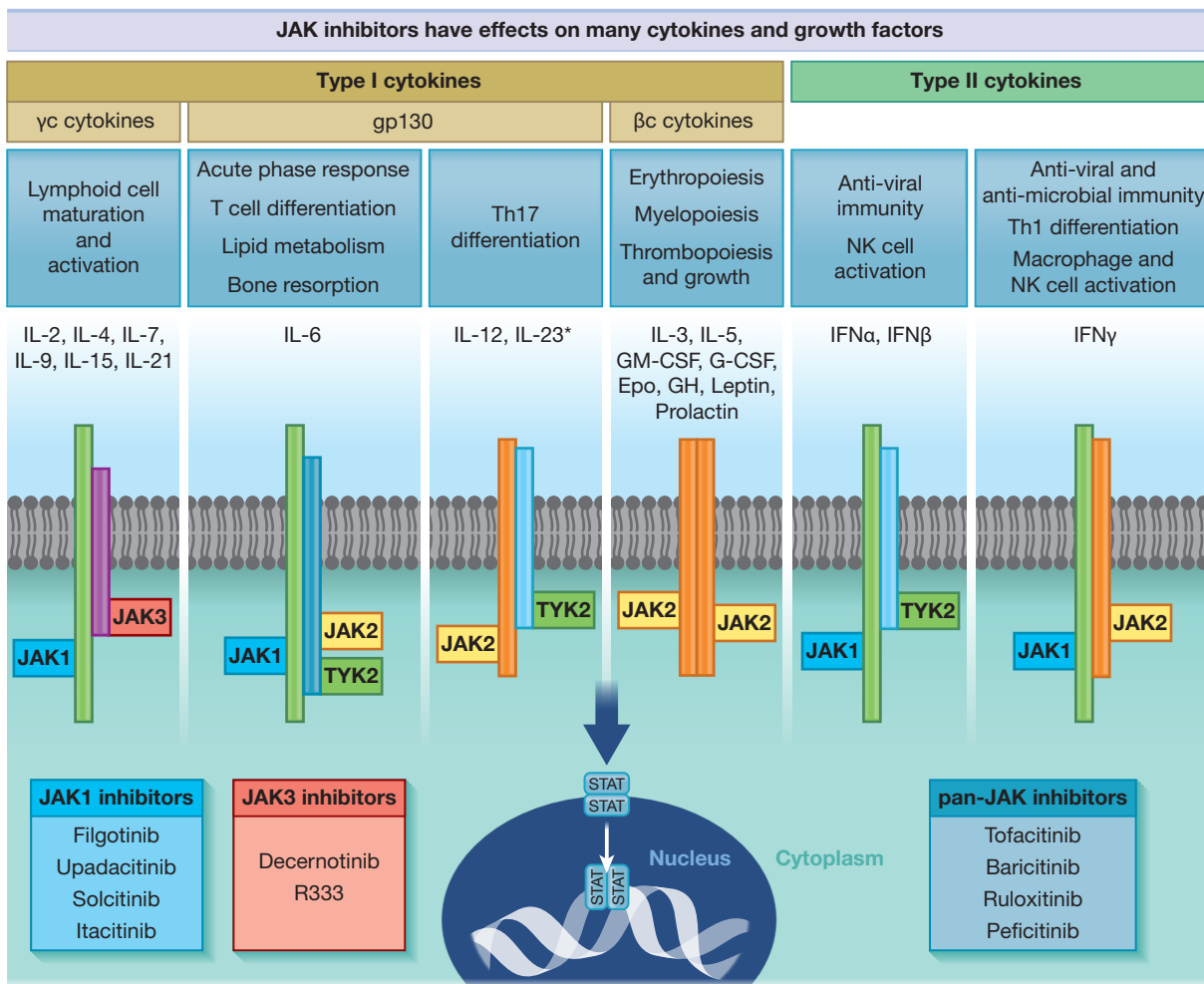


JAK1 Selective inhibitors

Christopher Edwards

Janus Kinase inhibitors (JAKi) JAKs are tyrosine kinases that regulate signaling pathways 	JAK1 selective inhibition Different JAK inhibitors are currently licensed or in development for the treatment of RA and block different JAK's to different degrees.	More JAK1 selective Upadacitinib Filgotinib	Less JAK1 selective Tofacitinib Baracitinib
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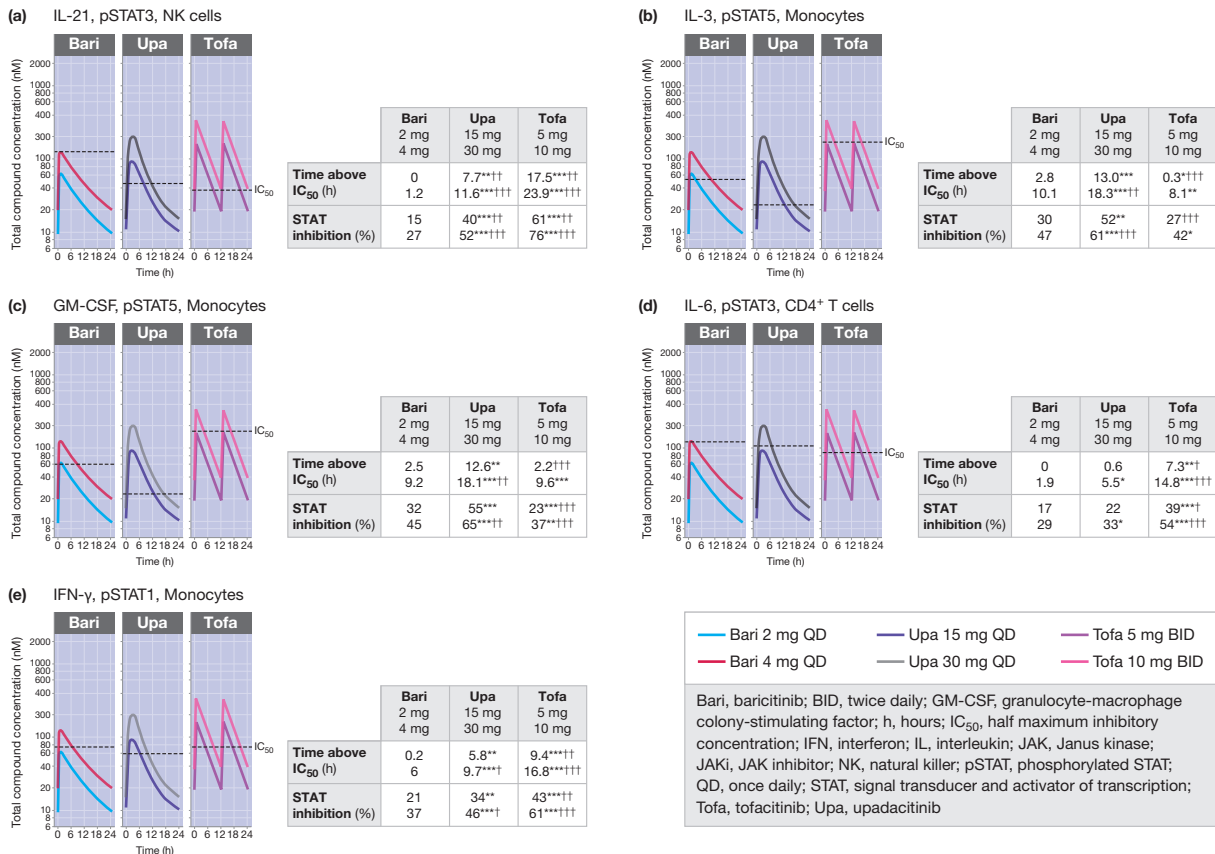
Consequences of JAK1 selectivity

Different selectivity for JAK1 may result in differential effects on efficacy or adverse events including Herpes Zoster infections

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Adapted from Lina Serhal & Christopher J. Edwards (2019) Upadacitinib for the treatment of rheumatoid arthritis, *Expert Review of Clinical Immunology*, 15:1, 1-25, doi: 10.1080/1744666X.2019.1544892

Measuring JAK selectivity



The number of hours per day JAKi concentrations are above IC₅₀ values is shown for IL-21/pSTAT3 in NK cells (a), IL-3/pSTAT5 in monocytes (b), GM-CSF/pSTAT5 in monocytes (c), IL-6/pSTAT3 in CD4⁺ T cells (d), and IFN-γ/pSTAT1 in monocytes (e).

Panels a–e include the average daily percent STAT inhibition. *p < 0.01, **p < 0.001, ***p < 0.0001 compared to baricitinib 2 mg; †p < 0.01, ††p < 0.001, †††p < 0.0001 compared to baricitinib 4 mg.

Adapted from McInnes IB, et al. *Arthritis Res Ther*. 2019 Aug 2;21(1):183. doi: 10.1186/s13075-019-1964-1. PMID: 31375130; PMCID: PMC6679539.

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References and notes

1 Lina Serhal & Christopher J. Edwards (2019) Upadacitinib for the treatment of rheumatoid arthritis, *Expert Review of Clinical Immunology*, 15:1, 13-25, DOI: 10.1080/1744666X.2019.1544892

2 McInnes IB, et al. *Arthritis Res Ther*. 2019 Aug 2;21(1):183. DOI: 10.1186/s13075-019-1964-1. PMID: 31375130; PMCID: PMC6679539.

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