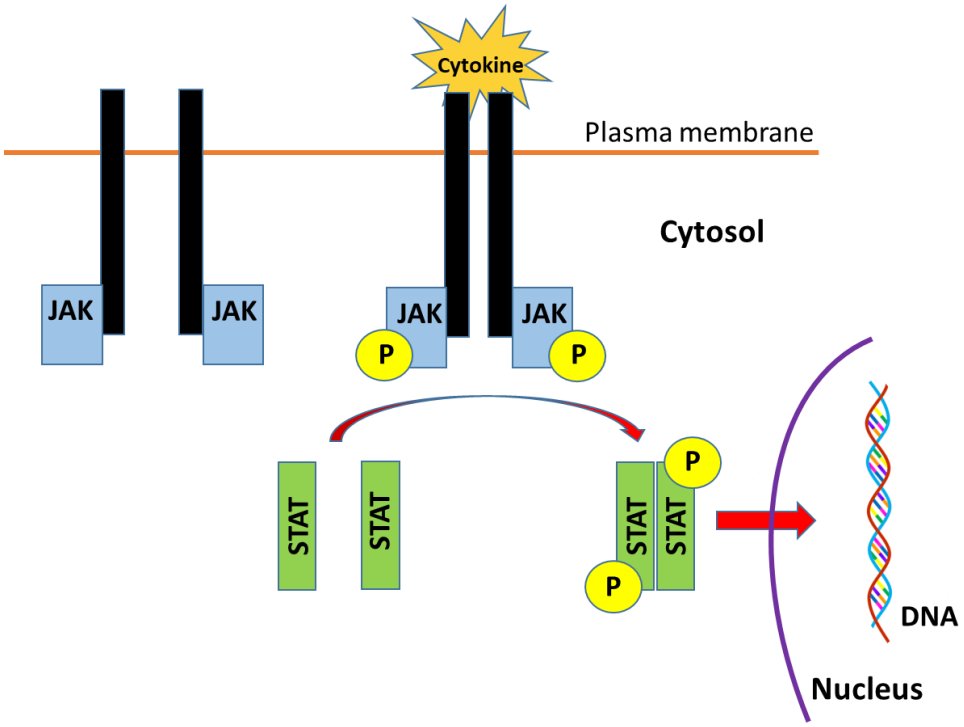
Supplemental material

Interactions of Janus kinase inhibitors with drug transporters and consequences for pharmacokinetics and toxicity

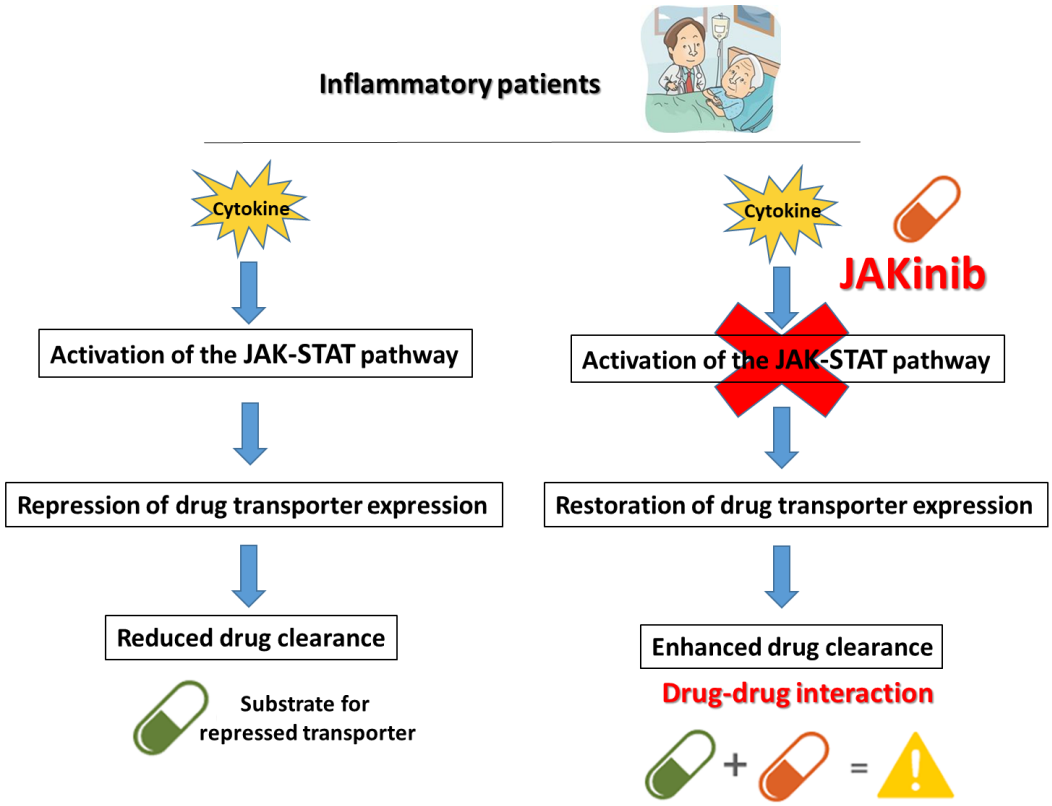
Supplemental Table 1. Main cytokines, growth factors and hormones signaling through the JAK-STAT pathway (mainly adapted from Roskoski, 2016[a])

Cytokine/Growth factors/Hormones	Receptor type	Downstream JAK	Downstream STATs
IL-2	Type I	JAK1/3	STAT3/5a/5b
IL-3	Type I	JAK2	STAT3/5a/5b/6
IL-4	Type I	JAK1/3	STAT6
IL-5	Type I	JAK2	STAT3/5a/5b/6
IL-6	Type I	JAK1/2/TYK2	STAT1/3
IL-7	Type I	JAK1/3	STAT3/5a/5b
IL-9	Type I	JAK1/JAK3	STAT1/3/5a/5b
IL-10	Type II	JAK2/TYK2	STAT3
IL-11	Type I	JAK1/2/TYK2	STAT3
IL-12	Type I	JAK1/TYK2	STAT4
IL-13	Type I	JAK1/2/3/TYK2	STAT6
IL-15	Type I	JAK1/3	STAT3/5
IL-19	Type II	JAK1/2/TYK2	STAT3
IL-20	Type II	JAK1/2/TYK2	STAT3
IL-21	Type I	JAK1/3	STAT1/3/5a/5b
IL-22	Type II	JAK1/2/TYK2	STAT1/3/5a/5b
IL-23	Type I	JAK1/TYK2	STAT3/4
IL-24	Type II	JAK1/2/TYK2	STAT1/3
IL-26	Type II	JAK1/2/TYK2	STAT1/3
IL-27	Type I	JAK1/2/TYK2	STAT1/2/3/4/5a/5b
IL-28	Type II	JAK1/TYK2	STAT1/2/3/4/5a/5b
IL-29	Type II	JAK1/TYK2	STAT1/2/3/4/5a/5b
IL-31	Type I	JAK1/2	STAT1/3/5a/5b
Interferon α/β	Type II	JAK1/TYK2	STAT1/2/4
Interferon γ	Type II	JAK1/TYK2	STAT1
Erythropoietin	Type I	JAK2	STAT5
G-CSF	Type I	JAK2	STAT5
GM-CSF	Type I	JAK2	STAT3/5
Growth hormone	Type I	JAK2	STAT3/5a
Leptin	Type 1	JAK2	STAT3/5a
Thrombopoietin	Type 1	JAK2	STAT1/3/5

[a]Roskoski R, Jr. Janus kinase (JAK) inhibitors in the treatment of inflammatory and neoplastic diseases. Pharmacol Res. 2016 Sep;111:784-803.



Supplemental Figure 1. Schematic overview of the JAK-STAT signaling pathway.



Supplemental Figure 2. Schematic overview of inflammatory disease-related drug-drug interactions potentially caused by JAKinibs.