

# Gfi1b controls integrin signaling-dependent cytoskeleton dynamics and organization in megakaryocytes

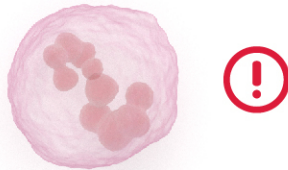
## Mice with megakaryocyte-specific *Gfi1b* deletion



- macrothrombocytopenic phenotype
- megakaryocytic dysplasia reminiscent of *GFI1B*-related thrombocytopenias

## Gfi1b-null megakaryocytes

### Early stages of Mk maturation

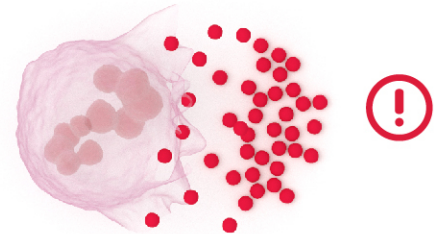


- megakaryocyte proliferation ↑
- affected ploidy
- no responsiveness towards integrin signaling
- no ability to spread and reorganize their cytoskeleton



**Gfi1b controls Mk polyploidization and motility through the inhibition of PAK activity**

### Later stages of Mk maturation



- unable to form proplatelets (independent of integrin)
- microtubule defect due to an almost complete absence of  $\alpha$ -tubulin



**Gfi1b controls Mk cytoskeleton organization and platelet formation via the loss of  $\alpha$ -tubulin**