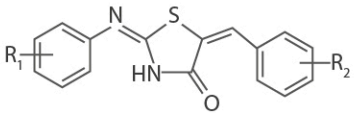
# Identification of three novel thiazolidinone compounds that ameliorate iron overload in hemochromatosis and β-thalassemia mice

Combinatorial library of **210** thiazolidinone compounds



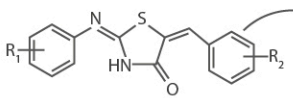

**Screening**

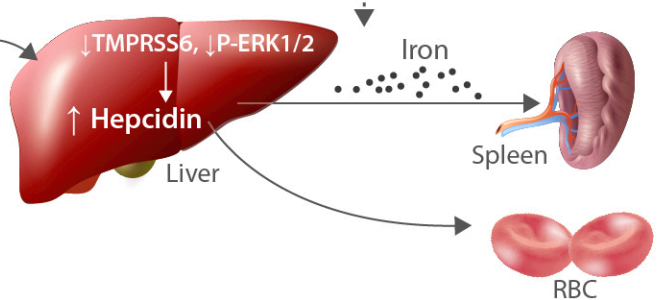
- Luciferase activity
- Hepcidin mRNA expression
- Hepcidin-stimulating activity in vivo
- Hepatic hepcidin expression in vivo

**3 thiazolidinones (93, 156 and 165) were selected for in vivo studies**

- Mouse model with hemochromatosis
- Mouse model of β-thalassemia

Thiazolidinones
**93**, **156** and **165**




- ameliorate iron overload
- elicite iron redistribution from the liver to the spleen
- mitigate ineffective erythropoiesis

**Thiazolidinone compounds stimulate the hepatic production of hepcidin and may provide a useful alternative for the treatment of iron overload disorders**

Liu *et al.* Haematologica, 2019