**Succinate as intercellular communicator**

Early sensor of homeostasis perturbations in:

- Cardiomyocytes
- Adipocytes
- Renal cells
- Blood cells

**Succinate in hematopoiesis**

- Proliferation of erythroid and megakaryocyte progenitors

  *In vitro*

- Stimulation of multilineage blood cell recovery

  *In vivo*

**Succinate as inflammatory signal**

- Pro-inflammatory signal
  - M1 macrophage
  - LPS
  - TLR
  - PHD
  - HIF1α
  - VHL
  - Succinate
  - IL-1β
  - Autocrine positive feedback
  - GPR91
  - Pseudohypoxia due to succinate accumulation

- Anti-inflammatory signal
  - GPR91
  - SLC13A5
  - SLC14A1
  - PGE2
  - Shift towards anti-inflammatory phenotype

*Grimolizzi and Arraz, Haematologica, 2018*