How Do Blood Vessels Control Inflammation?

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- The endothelium plays a crucial role in regulating the inflammatory cascade to ensure definitive immune defence
- The NLRP3 inflammasome plays a key role in inflammatory processes in response to infections or tissue damage

Endothelial cell functions

Methods

Results – THP-1 and endothelial cells

Conclusions

- **THP-1** cells able to upregulate NLRP3 protein and active IL-1β and IL-18 suggesting the presence of both Signal 1 and Signal 2
- Both endothelial cell types showed Signal 1 activation
  - HUVEC – despite priming of inflammasome, no evidence for either IL-1β and IL-18 synthesis
  - EA.hy926 – low levels IL-1β

References