



## The Physiology and Pathophysiology of the Erythrocyte

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Deadline for manuscript  
submissions:

**closed (14 July 2023)**

### Message from the Guest Editors

In this conceptual Journal Series, we are interested in the following questions regarding erythrocyte physiology and pathophysiology at the molecular level:

- 1) How does the erythrocyte “sense” and respond to hypoxic environments?
- 2) How does the erythrocyte “sense” and respond to mechanical forces that impinge on it as it flows through the vasculature?
- 3) How does the erythrocyte protect itself from oxidative stresses and how are damaged RBCs processed and removed from the circulation?
- 4) How does the erythrocyte signal the vascular endothelium and what is its relationship with the microcirculation in terms of O<sub>2</sub> autoregulation?
- 5) What roles do erythrocytes play in the immune and inflammatory responses?
- 6) What effects do blood storage or a range of diseases such as sickle-cell disease, xerocytosis, sepsis, diabetes and COVID-19 have on erythrocyte physiology and function.

Keywords:

- erythrocyte
- hypoxia
- deoxyhemoglobin
- molecular switch
- metabolic shift
- mechanotransduction





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## Editor-in-Chief

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## Message from the Editor-in-Chief

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