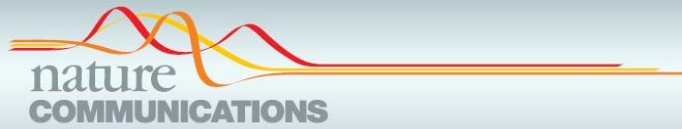




## High-Resolution Fluorescence Respirometry and inherited diseases



### ARTICLE

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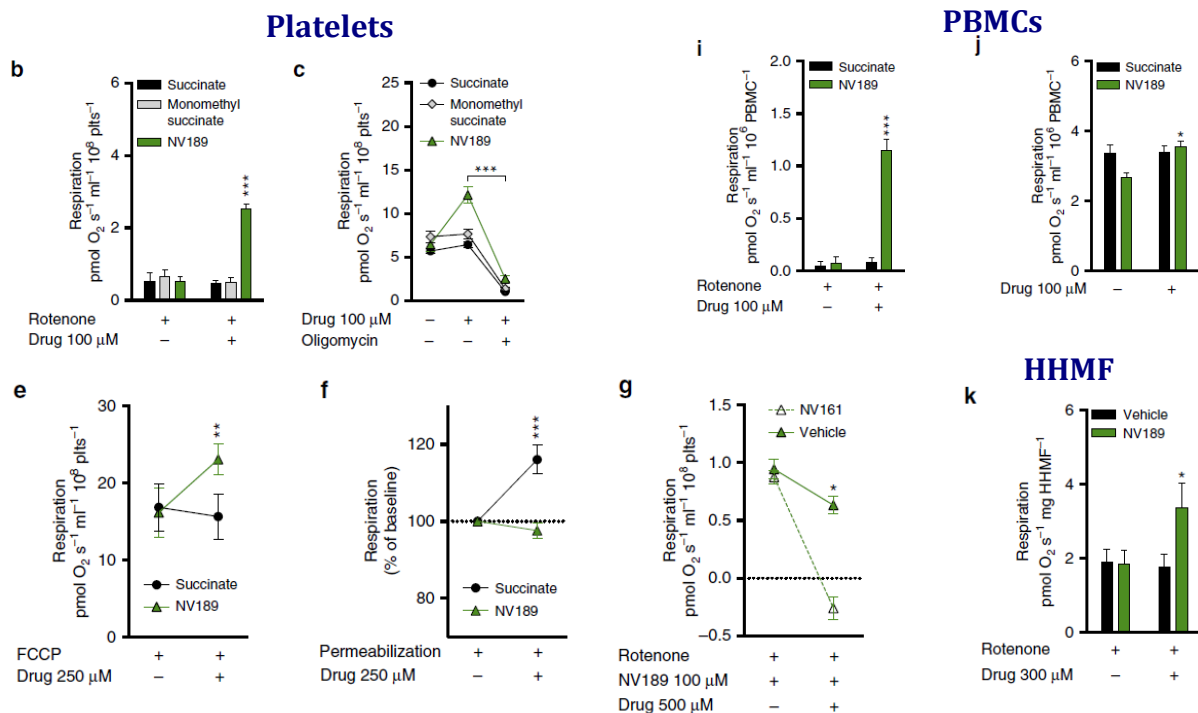
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# Cell-permeable succinate prodrugs bypass mitochondrial complex I deficiency

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## Prodrug-delivered succinate can alleviate metabolic decompensation due to CI-related mitochondrial dysfunction

### Respiration in platelets, PBMCs and human heart muscle fibres



(b) Rotenone-induced mitochondrial complex I (CI) inhibition. (c) ATP-generating respiration. (e) FCCP-induced uncoupling. (f) Digitonin-permeabilized platelets. (g) Effect on respiration in platelets with addition of the cell-permeable complex II inhibitor NV161. (i) Respiration in peripheral blood mononuclear cells (PBMCs) with rotenone-induced CI inhibition. (j) Convergent respiration in PBMCs (k) Respiration in human heart muscle fibres (HHMFs).

Reference: Ehinger JK, Piel S, Ford R, Karlsson M, Sjövall F, Frostner EÅ, Morota S, Taylor RW, Turnbull DM, Cornell C, Moss SJ, Metzsch C, Hansson MJ, Fliri H, Elmér E (2016) Cell-permeable succinate prodrugs bypass mitochondrial complex I deficiency. Nat Commun 7:12317