

Hyperglycemia

Pathways
Polyol Diacylglycerol Advanced glycation endproducts

↑ uncouplet eNOS ↑ mitochondria respiratory chain ↑ xanthine oxidoreductase ↑ NAD(P) H oxidase

⊕ Ang II

↓ iNOS - eNOS

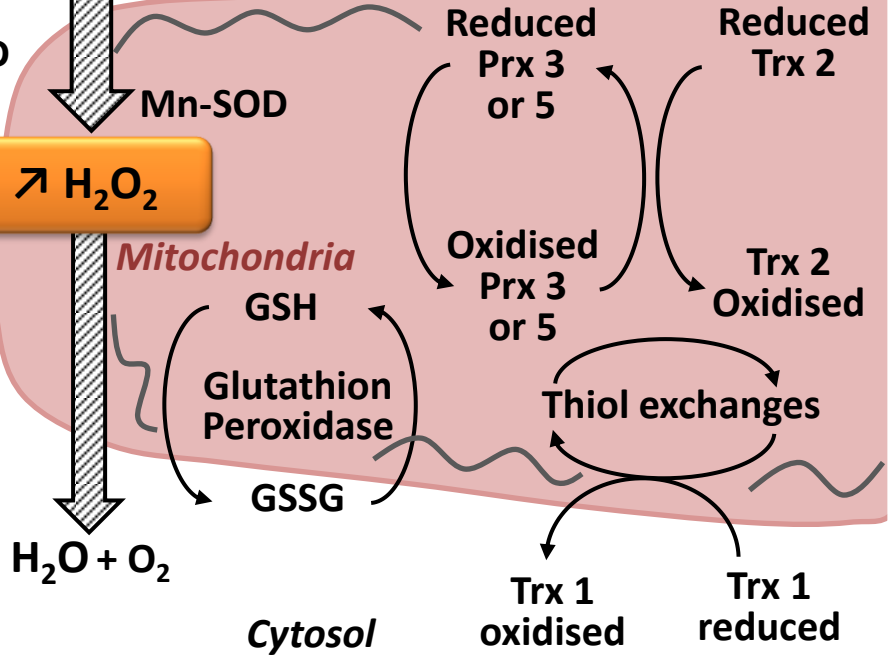
↓ •NO

$O_2^{\bullet -}$

ONOO⁻

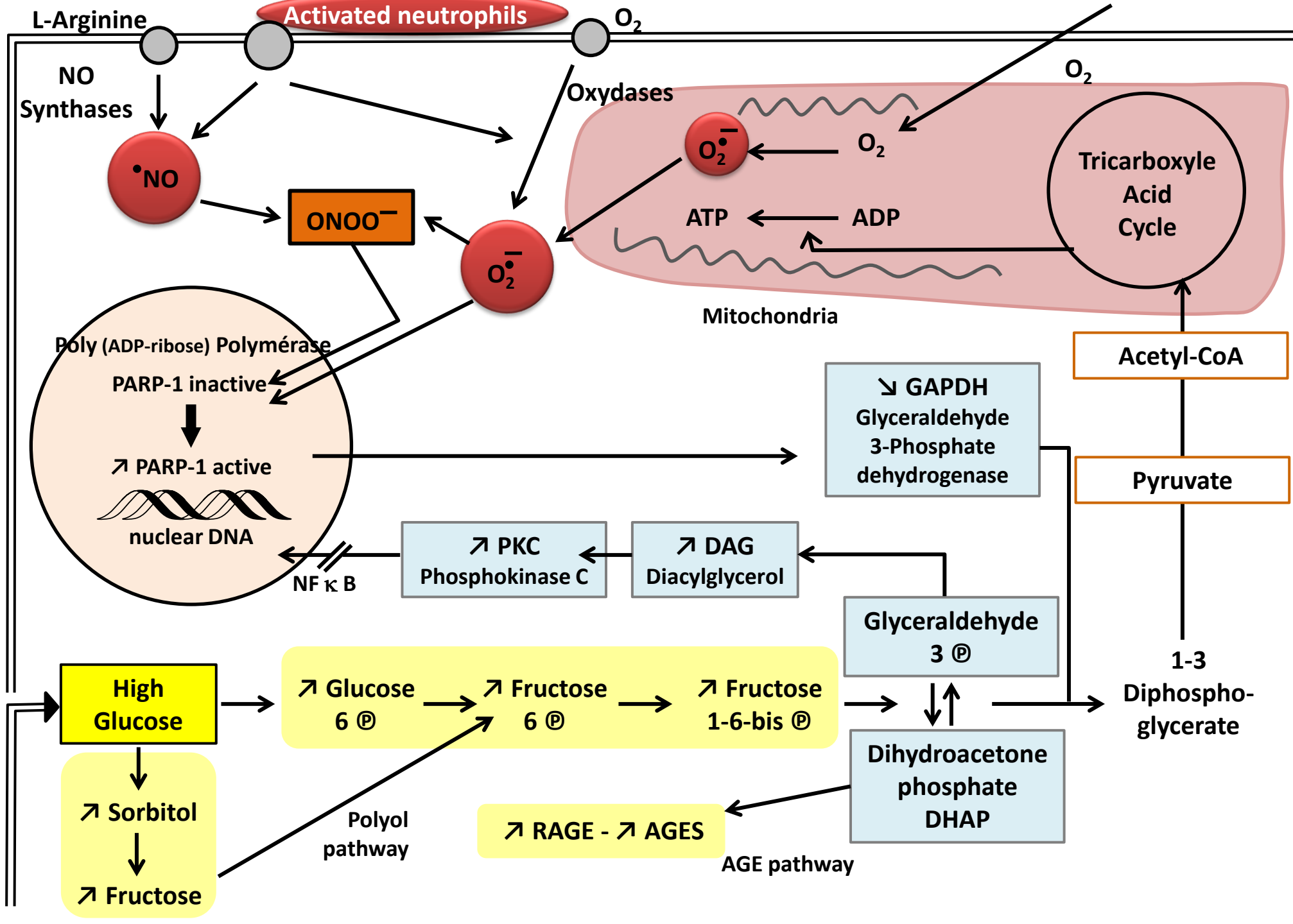
Peroxynitrite ONOOH

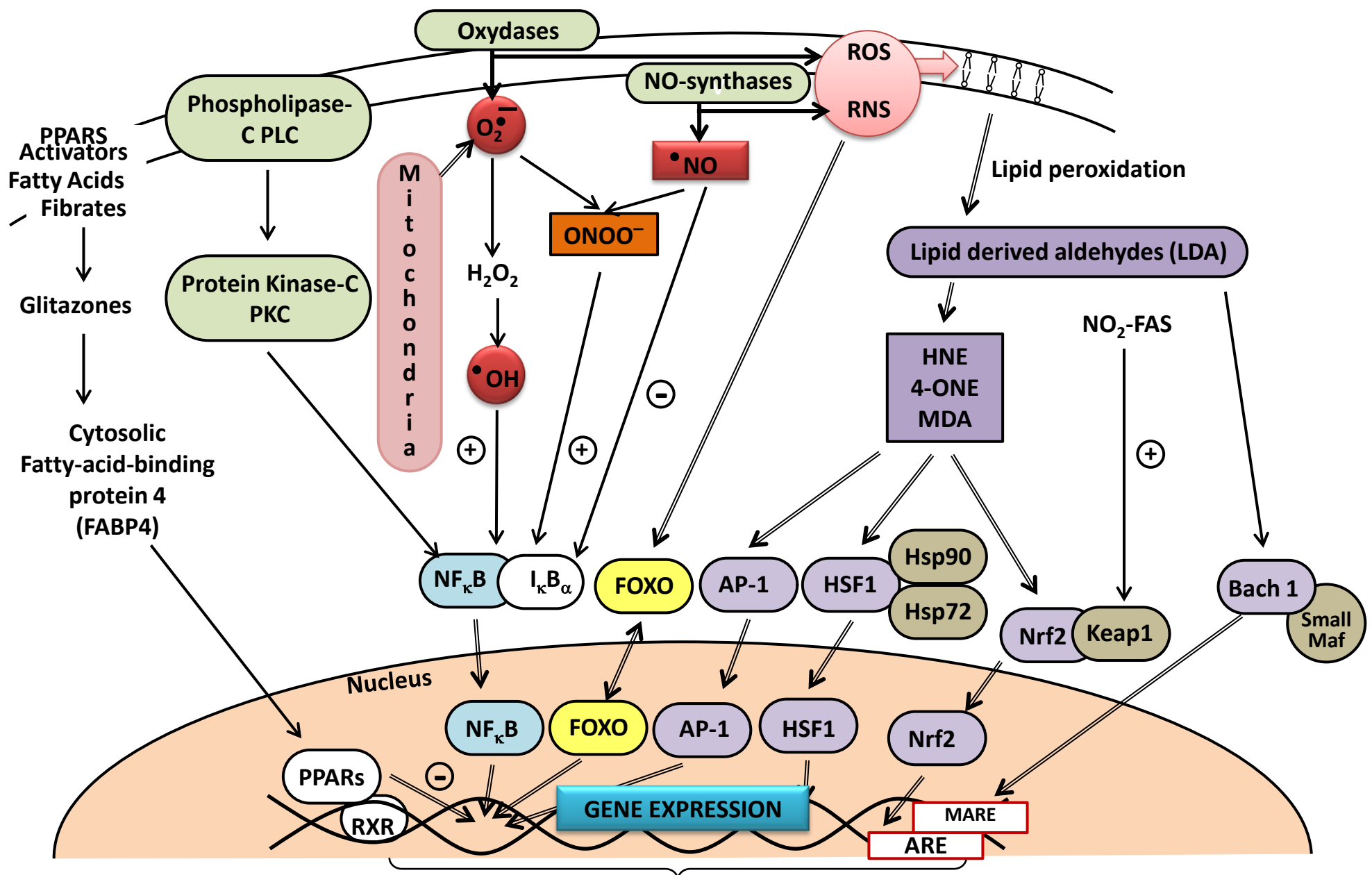
↑ H₂O₂



•OH

DNA Lipids Oxidative damages Proteins Enzymes





- Up-regulated environmental (inflammation)
- Stress response
- Cell survival

