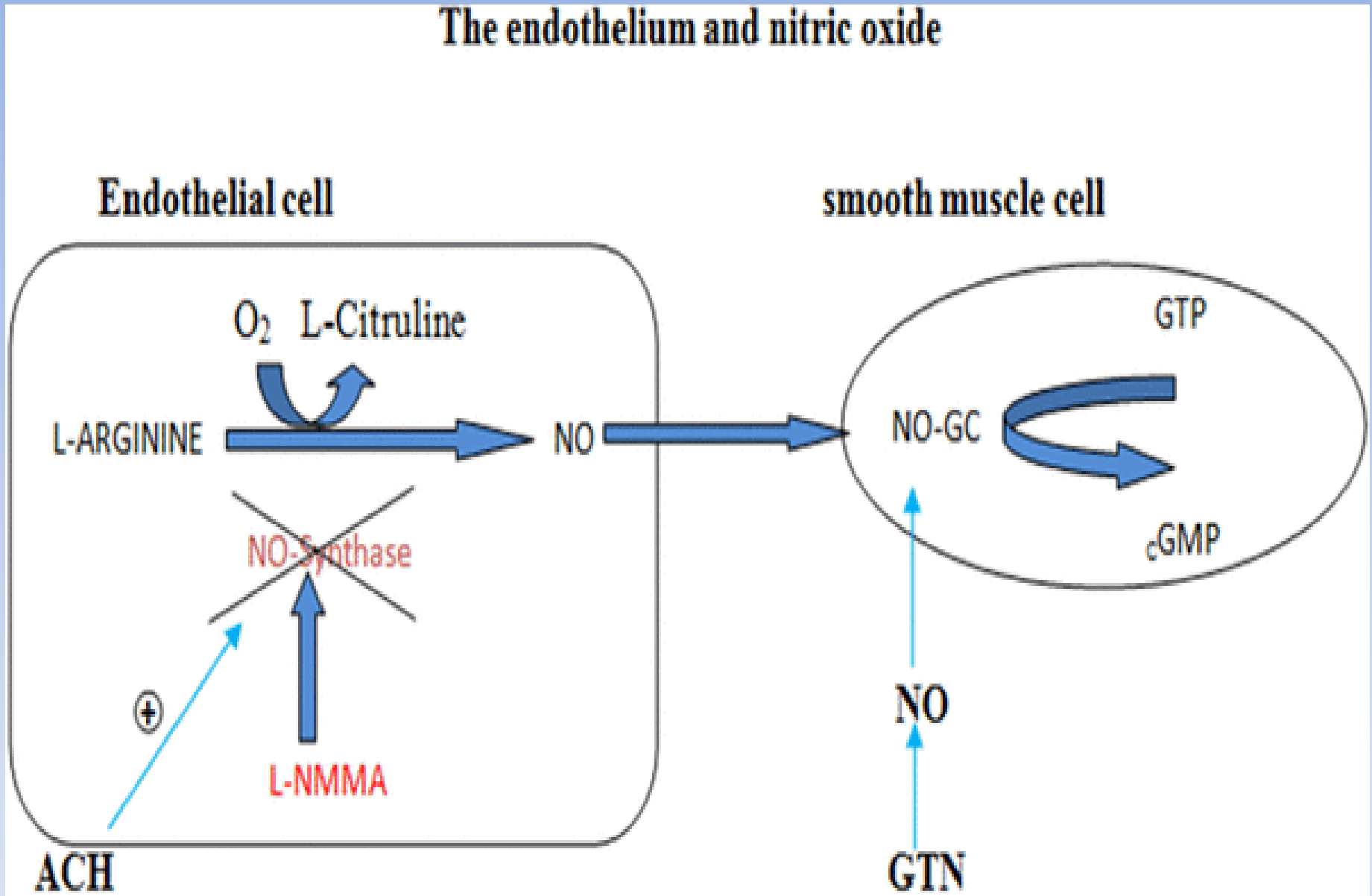
DIABETES and NITRIC OXIDE

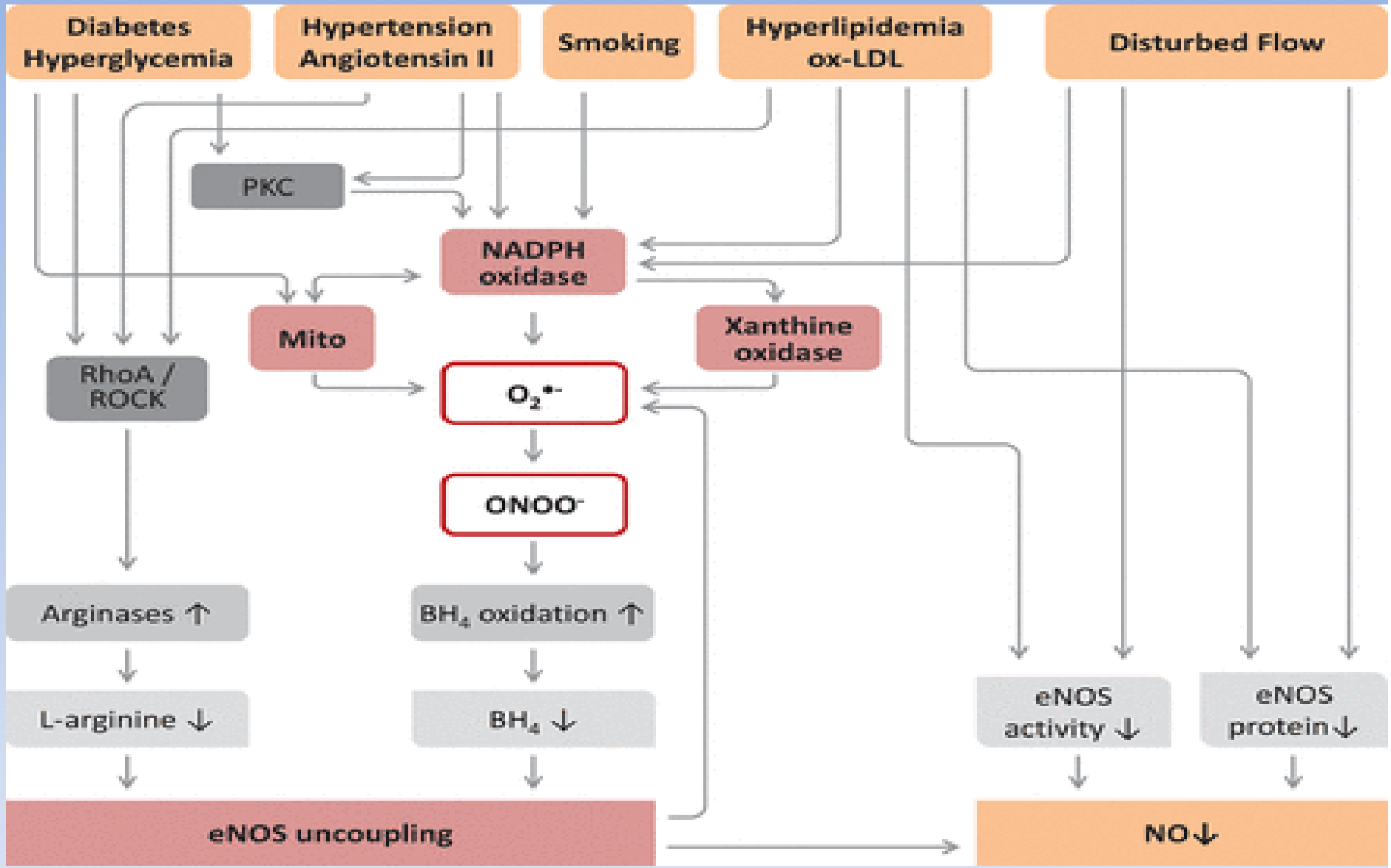
Prof.Dr.Nuray ARI, 2018

Endothelial Dysfunction



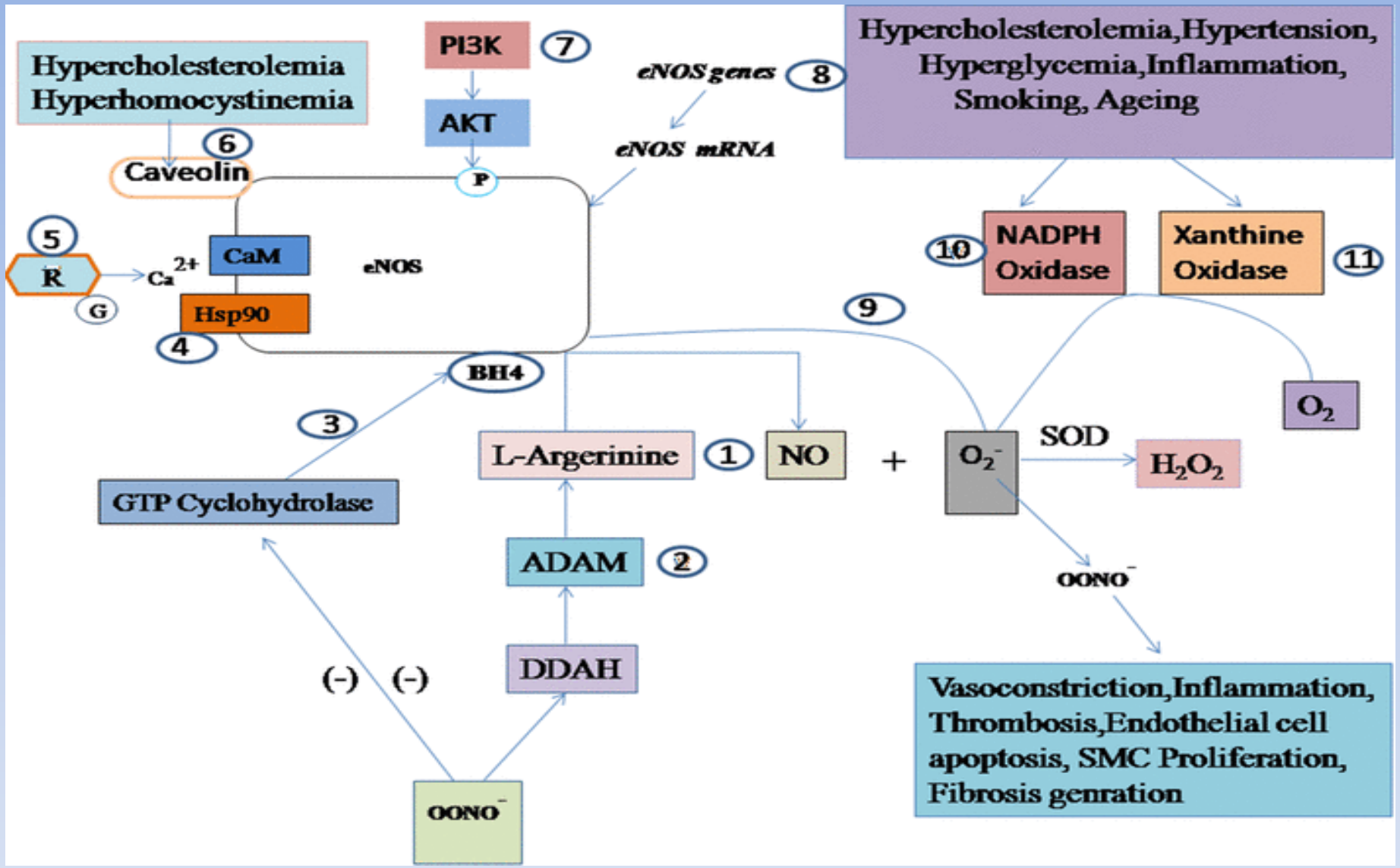
Vascular endothelium and nitric oxide production

Vascular endothelium dysfunction: a conservative target in metabolic disorders. . Inflamm Res. 2018 doi: 10.1007/s00011-018-1129-8. [Epub ahead of print]. Jamwal S and Sharma S.



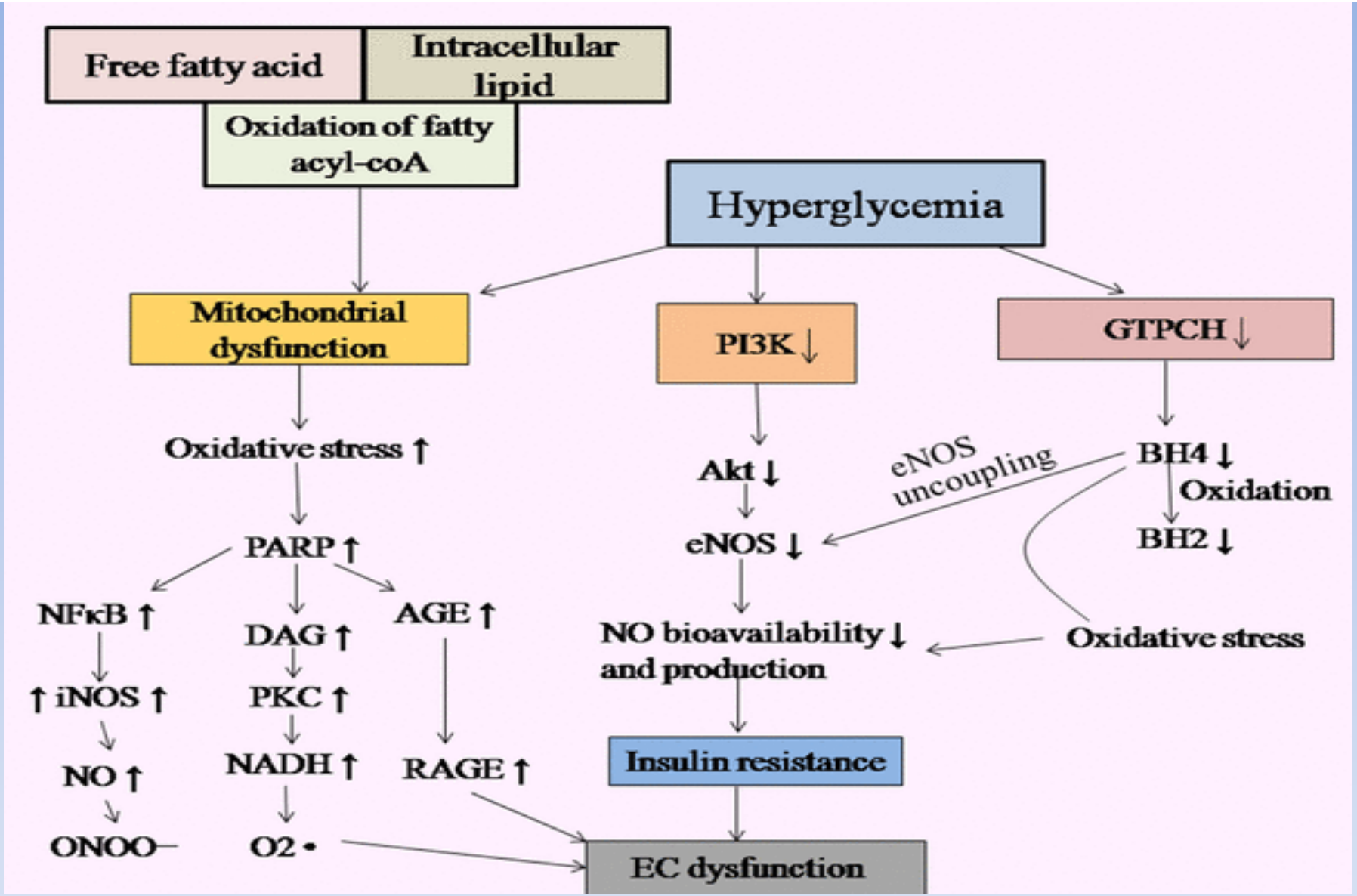
Cardiovascular risk factors induce vascular oxidative stress and reduce endothelial nitric oxide production

Roles of Vascular Oxidative Stress and Nitric Oxide in the Pathogenesis of Atherosclerosis. Circ Res. 2017 17;120(4):713-735Förstermann U et al.

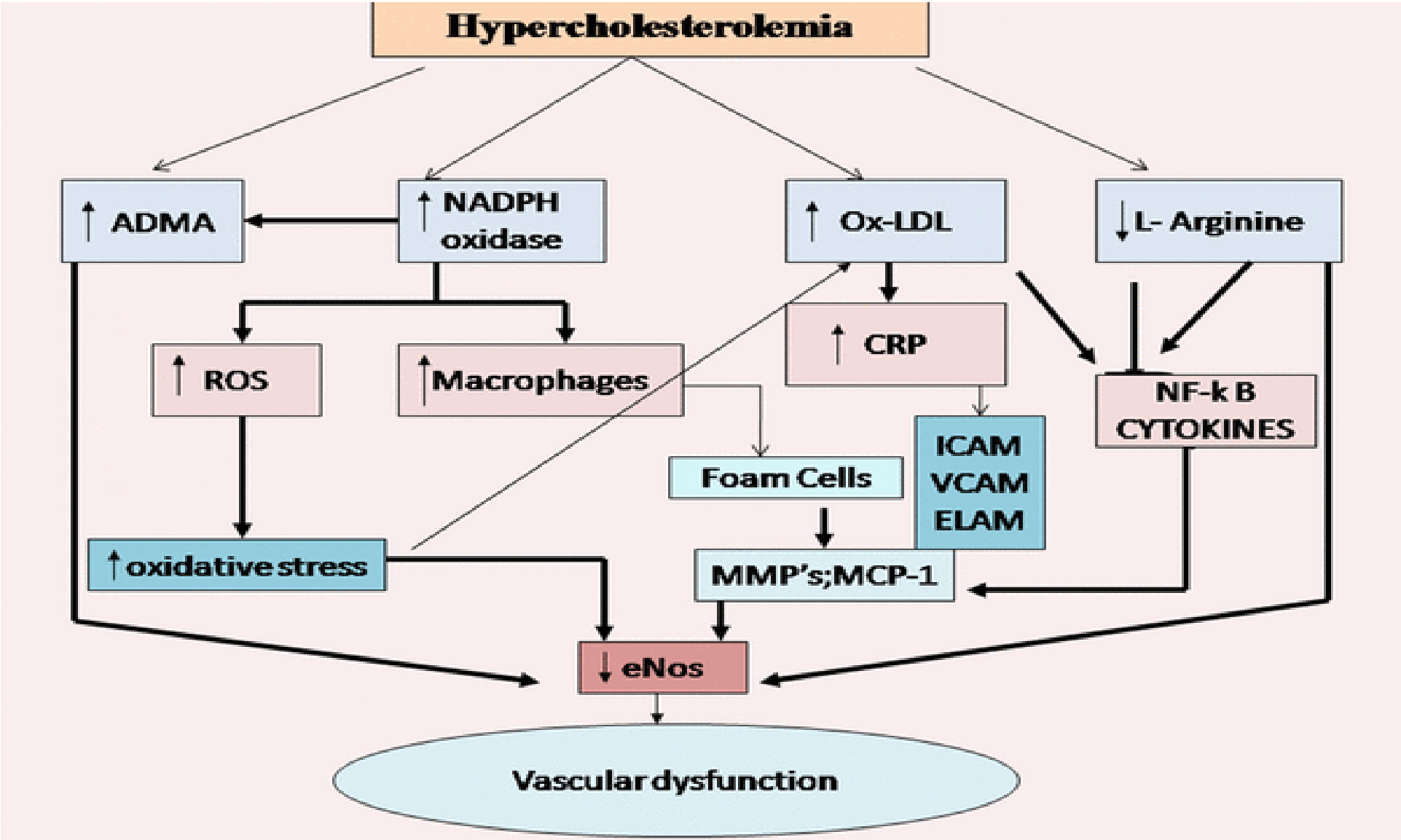


Risk factors for vascular endothelial dysfunction.

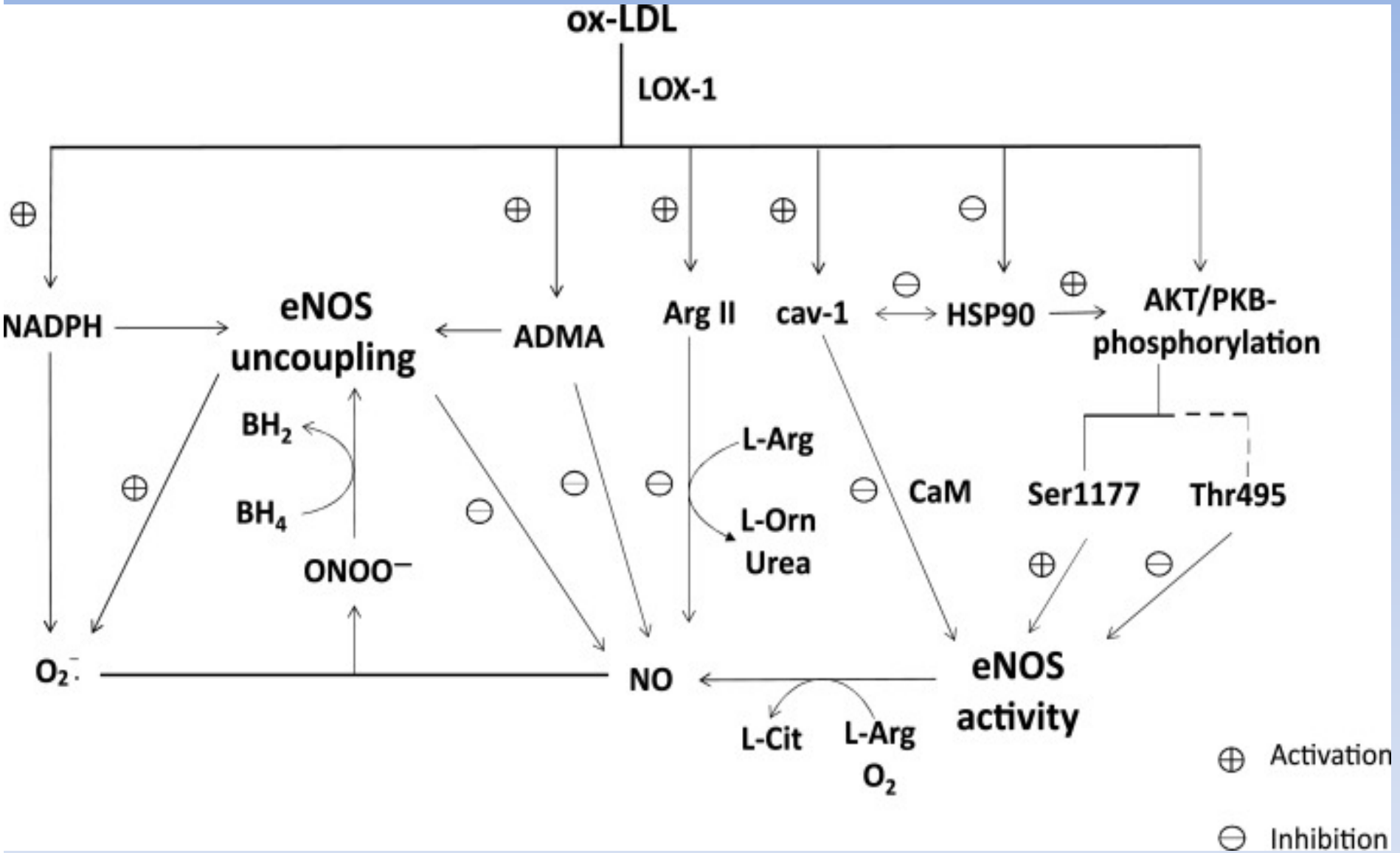
Vascular endothelium dysfunction: a conservative target in metabolic disorders. Jamwal S and Sharma S. Inflamm Res. 2018 doi: 10.1007/s00011-018-1129-8. [Epub ahead of print].



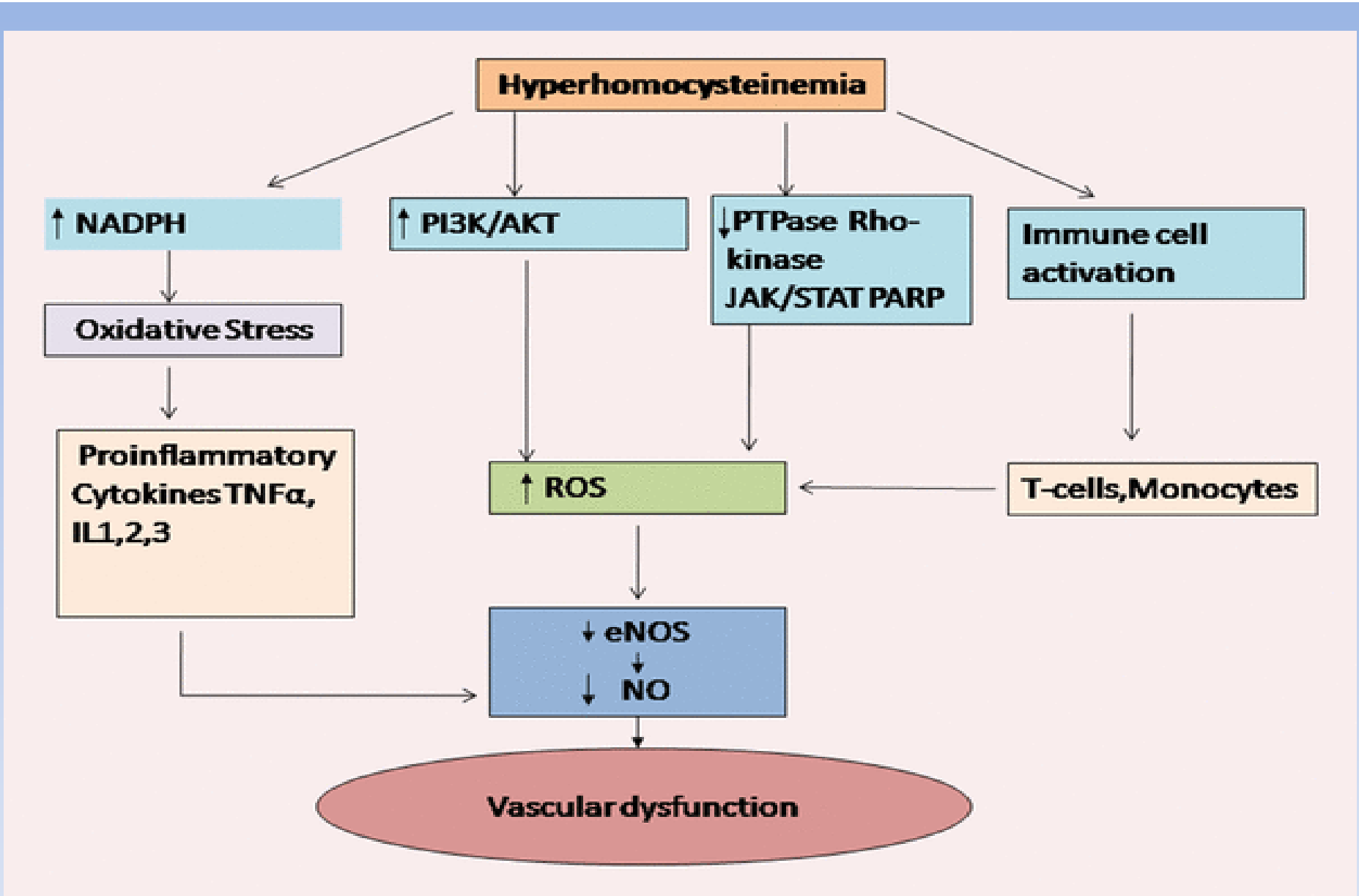
Vascular endothelium dysfunction in diabetes *Inflamm Res. 2018 doi: 10.1007/s00011-018-1129-8. [Epub ahead of print].Vascular endothelium dysfunction: a conservative target in metabolic disorders. Jamwal S and Sharma S.*



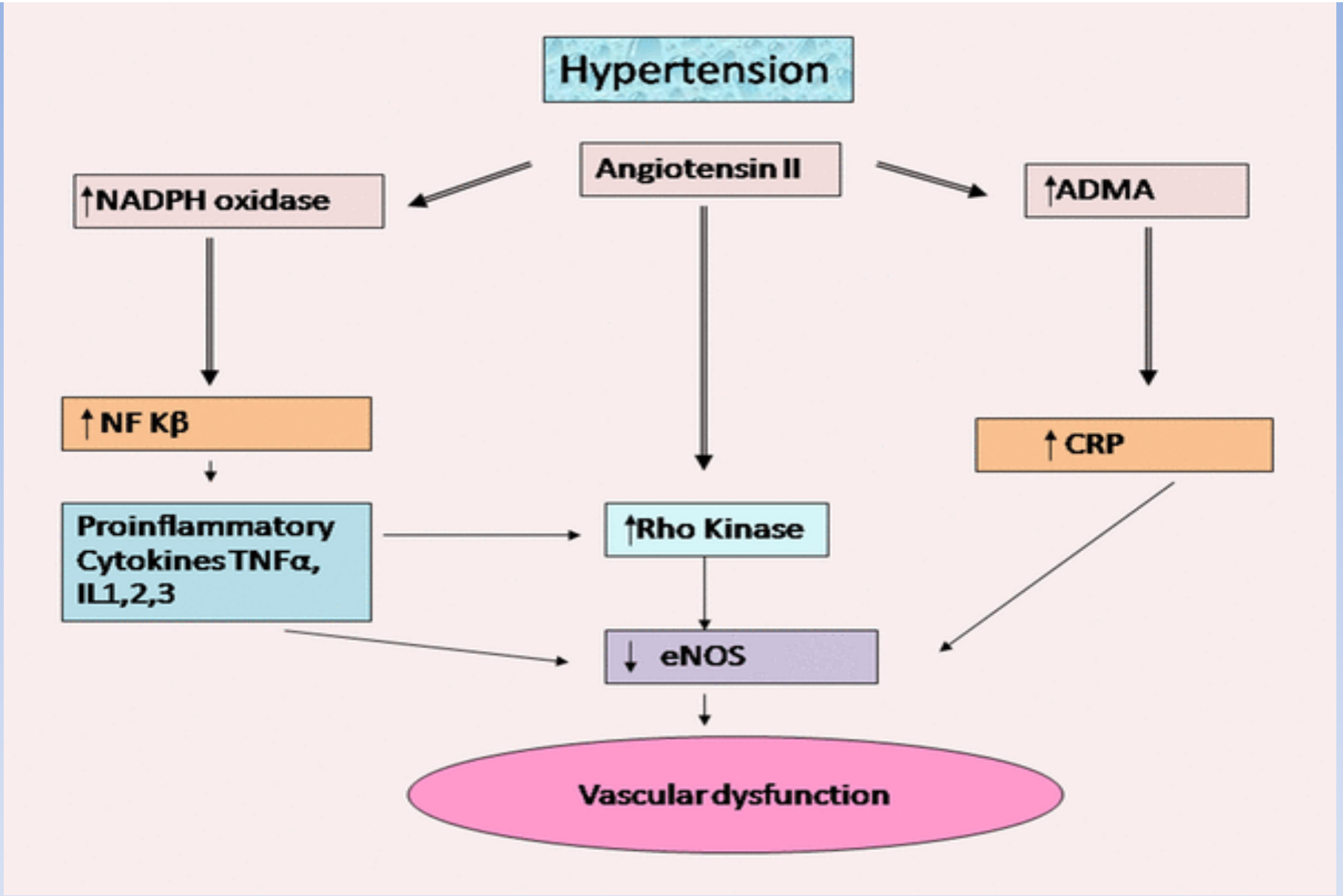
Hypercholesterolemia and vascular endothelium dysfunction *Inflamm Res. 2018 doi: 10.1007/s00011-018-1129-8. [Epub ahead of print].Vascular endothelium dysfunction: a conservative target in metabolic disorders. Jamwal S and Sharma S.*



Ox-LDL reduces NO bioavailability to trigger AS by influencing eNOS activity and eNOS uncoupling. Biomed Pharmacother. 2018,97:423-428. doi: 10.1016/j.biopha.2017.10.122. Epub 2017 Nov 6. **Nitric oxide bioavailability dysfunction involves in atherosclerosis.** Chen JY

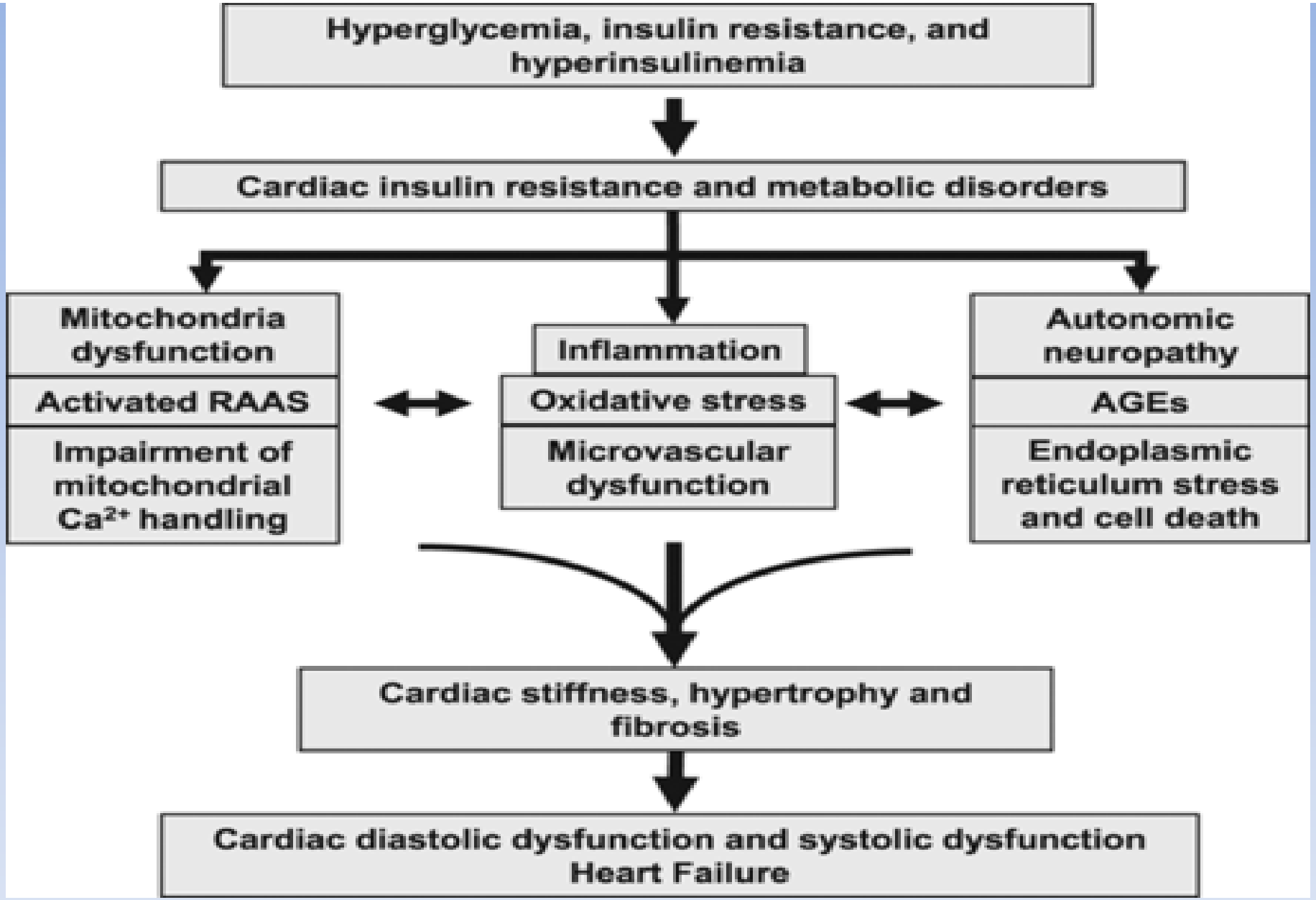


Hyperhomocysteinemia and vascular endothelium dysfunction *Inflamm Res.* 2018 doi: 10.1007/s00011-018-1129-8. [Epub ahead of print].Vascular endothelium dysfunction: a conservative target in metabolic disorders. Jamwal S and Sharma S.

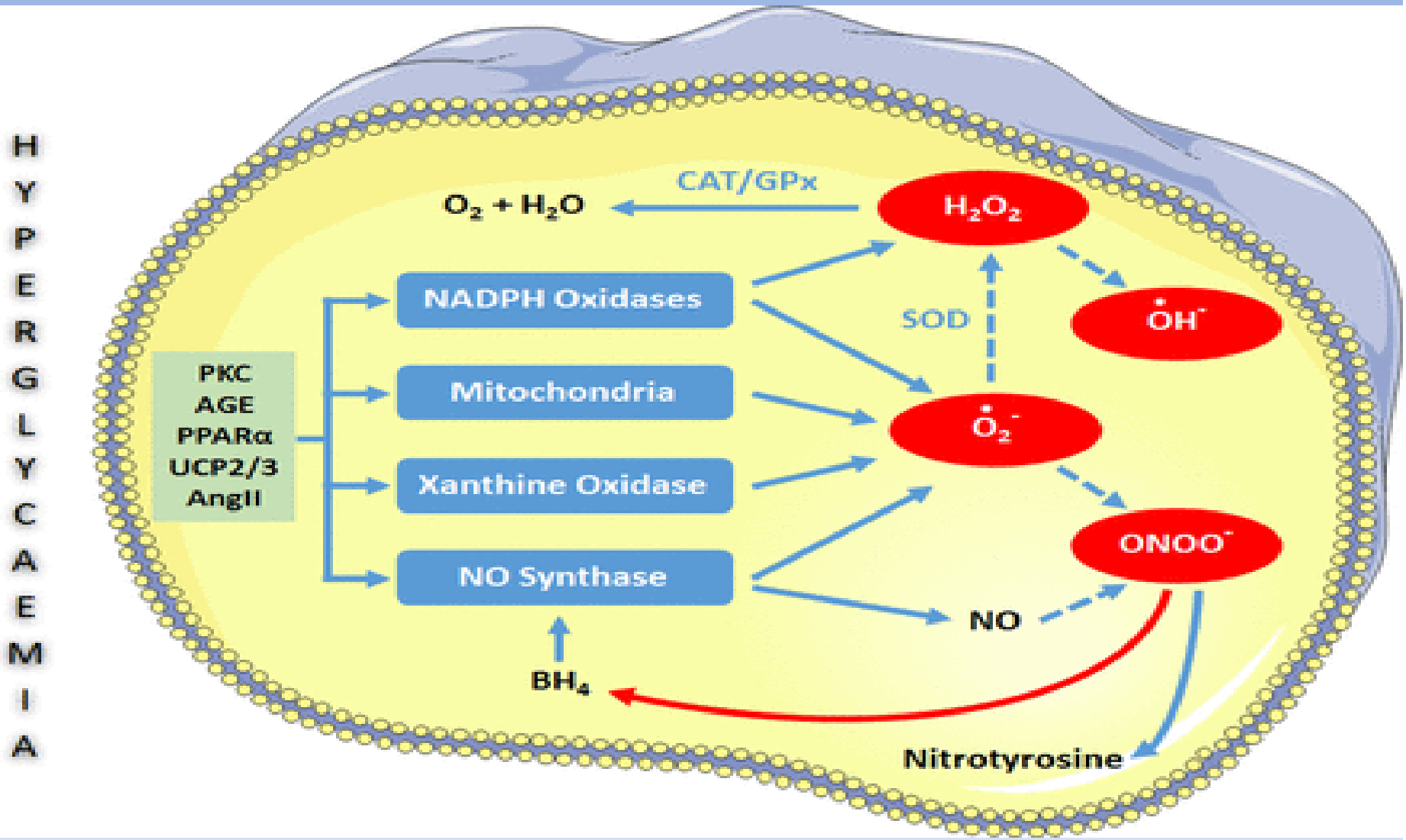


Hypertension and vascular endothelium dysfunction *Inflamm Res.* 2018 doi: 10.1007/s00011-018-1129-8. [Epub ahead of print].Vascular endothelium dysfunction: a conservative target in metabolic disorders. Jamwal S and Sharma S.

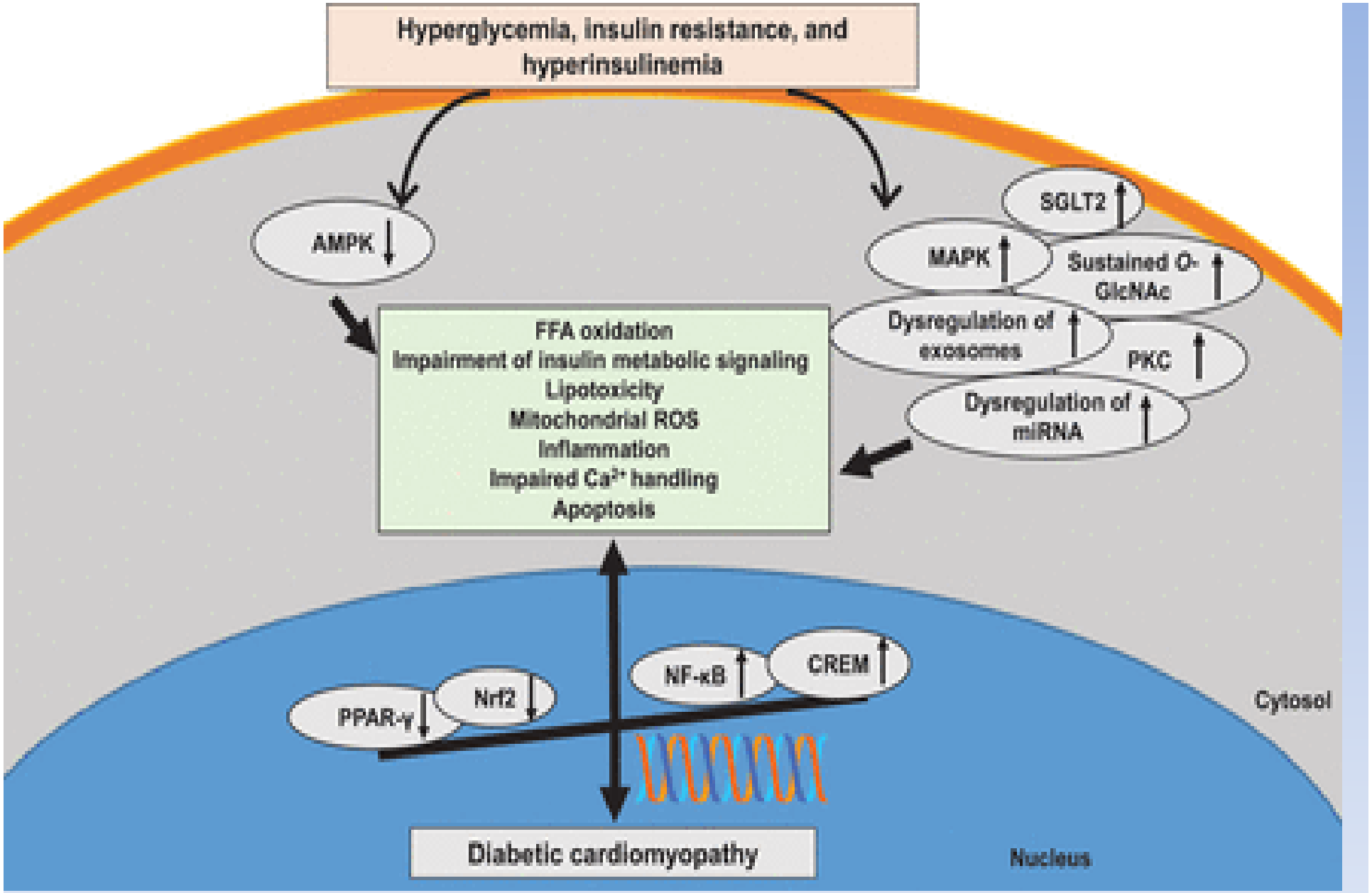
Diabetic Cardiomyopathy



Pathophysiological mechanisms of diabetic cardiomyopathy. *Circ Res. 2018 Feb 16;122(4):624-638.* ***Diabetic Cardiomyopathy: An Update of Mechanisms Contributing to This Clinical Entity.*** *Jia G et al.*



Reactive oxygen species production in diabetes. **Various stimuli, primarily hyperglycaemia, activate major ROS sources, NADPH oxidases, mitochondria, xanthine oxidase and NO synthase, to generate superoxide prior to rapid dismutation to hydrogen peroxide. Under physiological conditions, hydrogen peroxide is degraded by endogenous scavengers, although when formed at increased concentrations it generates highly reactive hydroxyl radicals via the Fenton or Haber-Weiss reactions. Similarly, superoxide may combine with NO to form peroxynitrite, which may generate either cytotoxic nitrotyrosine or oxidise tetrahydrobiopterin, thereby reducing NO generation. Increases in activity/expression indicated by blue arrows, reductions indicated by red arrows.** Heart. 2018,104(4):293-299. **Reactive oxygen species signalling in the diabetic heart: emerging prospect for therapeutic targeting.** Wilson AJ et al.



Pathophysiological mechanisms of diabetic cardiomyopathy. *Circ Res. 2018 Feb 16;122(4):624-638.* ***Diabetic Cardiomyopathy: An Update of Mechanisms Contributing to This Clinical Entity.*** *Jia G. et al.*