

Selected peer-reviewed publications (in chronological order)

The following are representative of over 140 original peer-reviewed research publications by Dr. Cohen:

1. Xu S, Ying J, Jiang B, Guo W, Adachi T, Sharov V, Lazar H, Menzoian J, Knyushko TV, Bigelow D, Schoneich C, Cohen RA. Detection of sequence-specific Tyrosine Nitration of Manganese SOD and SERCA in Cardiovascular Disease and Aging. *Am J Physiol Heart Circ Physiol*. 2006 Jun;290(6):H2220-7. [PMID: 16399855](#)
2. Xu S, Jiang B, Maitland KA, Bayat H, Gu J, Nadler JL, Corda S, Lavielle G, Verbeuren TJ, Zuccollo A, Cohen RA. The thromboxane receptor antagonist S18886 attenuates renal oxidant stress and proteinuria in diabetic apolipoprotein E-deficient mice. *Diabetes*. 2006 Jan;55(1):110-9. [PMID: 16380483](#)
3. Clavreul N, Adachi T, Pimental DR, Ido Y, Schöneich C, Cohen RA. S-glutathiolation by peroxynitrite of p21ras at cysteine-118 mediates its direct activation and downstream signaling in endothelial cells. *FASEB J*. January 12, 2006;10.1096/fj.05-4875fje [PMID: 16415107](#)
4. Pimentel DR, Adachi T, Ido Y, Heibeck T, Jiang B, Lee Y, Melendez JA, Cohen RA, Colucci WS. Strain-stimulated hypertrophy in cardiac myocytes is mediated by reactive oxygen species-dependent Ras S-glutathiolation. *J Mol Cell Cardiol*. 2006 Oct; 41(4):613-22. [PMID: 16806262](#)
5. Clavreul N, Bachschmid MM, Hou X, Shi C, Idrizovic A, Ido Y, Pimentel D, Cohen RA. S-glutathiolation of p21ras by peroxynitrite mediates endothelial insulin resistance caused by oxidized low-density lipoprotein. *Arterioscler Thromb Vasc Biol*. 2006 Nov;26(11):2454-61. [PMID: 16931794](#)
6. Ying J, Tong XY, Pimental DR, Weisbrod RM, Trucillo MP, Adachi T, Cohen RA. Cysteine-674 of the sarco/endoplasmic reticulum calcium ATPase is required for the inhibition of cell migration by nitric oxide. *Arterioscler Thromb Vasc Biol*. 2007 Apr;27(4):783-90. Epub 2007 Jan 18. [PMID: 17234728](#).
7. Tong XY, Ying J, Pimentel DR, Trucillo M, Adachi T, Cohen RA. High glucose oxidizes SERCA cysteine-674 and prevents inhibition by nitric oxide of smooth muscle cell migration. *J. Mol. Cell Cardiol*. 2008 Feb;44(2):361-9. Epub 2007 Nov 12. [PMID: 18164028](#).
8. Sethuraman M, Clavreul N, Huang H, McComb ME, Costello CE, Cohen RA. Quantification of oxidative posttranslational modifications of cysteine thiols of p21ras associated with redox modulation of activity using isotope-coded affinity tags and mass spectrometry. *Free Radic Biol Med*. 2007 Mar 15;42(6):823-9. [PMID: 17320764](#)
9. Schildknecht S, Daiber A, Ghisla S, Cohen RA, Bachschmid MM. Acetaminophen inhibits prostanoid synthesis by scavenging the PGHS-activator peroxynitrite. *FASEB J*. 2008 Jan;22(1):215-24. [PMID: 17724253](#)
10. Randriamboavonjy V, Pistrosch F, Böck B, Schwinger RHG, Dixit M, Badenhop K, Cohen RA, Busse R, Fleming I. Platelet SERCA-2 and μ -calpain activity are altered in type 2 diabetes and restored by rosiglitazone. *Circulation*, 2008 117(1):52-60. [PMID: 18071073](#)
11. Bayat H, Xu S, Pimentel D, Cohen RA, Jiang B. Activation of thromboxane receptor upregulates interleukin (IL)-1 β -induced VCAM-1 expression through JNK signaling. *Arterioscler Thromb Vasc Biol*. 2008 Jan;28(1):127-34. [PMID: 18032781](#)
12. Hou X, Xu S, Maitland-Toolan KA, Sato K, Jiang B, Ido Y, Lan F, Walsh K, Wierzbicki M, Verbeuren TJ, Cohen RA, Zang M. SIRT1 regulates hepatocyte lipid metabolism through activating AMP-activated protein kinase. *J Biol Chem*. 2008 Jul 18;283(29):20015-26. [PMID: 18482975](#)
13. Ying J, Sharov V, Xu S, Jiang B, Gerrity R, Schöneich C, Cohen RA. Cysteine-674 oxidation and degradation of sarcoplasmic reticulum Ca(2+) ATPase in diabetic pig aorta. *Free Radic Biol Med*. 2008 Sep 15;45(6):756-62. [PMID: 18590812](#)

14. Lancel S, Zhang J, Evangelista A, Trucillo MP, Tong X, Siwik DA, Cohen RA, Colucci WS. Nitroxyl activates SERCA in cardiac myocytes via glutathiolation of cysteine 674. *Circ Res*. 2009 Mar 27;104(6):720-3. [PMID: 19265039](#).
15. Lancel S, Qin F, Lennon SL, Zhang J, Tong X, Mazzini MJ, Kang YJ, Siwik DA, Cohen RA, Colucci WS. Oxidative posttranslational modifications mediate decreased SERCA activity and myocyte dysfunction in Galphaq-overexpressing mice. *Circ Res*. 2010 Jul 23;107(2):228-32. [PMCID: PMC2909347](#).
16. Kuster GM, Lancel S, Zhang J, Communal C, Trucillo MP, Lim CC, Pfister O, Weinberg EO, Cohen RA, Liao R, Siwik DA, Colucci WS. Redox-mediated reciprocal regulation of SERCA and Na⁺-Ca²⁺ exchanger contributes to sarcoplasmic reticulum Ca²⁺ depletion in cardiac myocytes. *Free Radic Biol Med*. 2010 May 1;48(9):1182-7. [PMCID: PMC2847633](#).
17. Tong X, Hou X, Jourdain D, Weisbrod RM, Cohen RA. Upregulation of Nox4 by TGF{beta}1 Oxidizes SERCA and Inhibits NO in Arterial Smooth Muscle of the Prediabetic Zucker Rat. *Circ Res*. 2010 ;107(8):975-83. [PMID: 20724704](#)
18. Xu S, Jiang B, Hou X, Shi C, Bachschmid MM, Zang M, Verbeuren TJ, Cohen RA. High-fat diet increases and the polyphenol, S17834, decreases acetylation of the sirtuin-1-dependent lysine-382 on p53 and apoptotic signaling in atherosclerotic lesion-prone aortic endothelium of normal mice. *J Cardiovasc Pharmacol*. 2011;263-71. [PMCID: PMC3168693](#).
19. Burgoyne JR, Haeussler DJ, Kumar V, Ji Y, Pimental DR, Zee RS, Costello CE, Lin C, McComb ME, Cohen RA, Bachschmid MM. Oxidation of HRas cysteine thiols by metabolic stress prevents palmitoylation in vivo and contributes to endothelial cell apoptosis. *FASEB J*. 2012 Feb;26(2):832-41. Epub 2011 Nov 15. PubMed [PMID: 22085642](#).