

Recent Publications (selected from a total of 291)

1. Ido, Y., Carling, D., **Ruderman, N.B.** Hyperglycemia-induced apoptosis in human umbilical vein endothelial cells: inhibition by the AMP-activated protein kinase activation. *Diabetes*, 51(1): 159-67, 2002. [PMID: 11756336](#)
2. Itani, S.I., **Ruderman, N.B.**, Schmeider, F., Boden, G. Lipid induced insulin resistance in human muscle is associated with changes in diacylglycerol, protein kinase C, and I κ B- α . *Diabetes*, 51: 2005-2011, 2002. [PMID: 12086926](#)
3. Tomas, E., Tsao, T.-S., Saha, A.K., Murrey, H.E., Zhang, C.C., Itani, S.I., Lodish, H.F., **Ruderman, N.B.** Enhanced muscle fat oxidation and glucose transport by ACRP30 globular domain: acetyl CoA carboxylase inhibition and AMP-activated protein kinase activation. *PNAS*, 99(25): 16309-13, 2002. [PMID: 12456889](#)
4. **Ruderman, N.B.**, Cacicedo, J., Itani, S., Yagihashi, N., Saha, A.K., Ye, J., Chen, K., Zou, M., Carling, D., Cohen, R.A., Keaney, J.F., Jr., Kraegen, E.W., Ido, Y. Malonyl-CoA and AMP-activated protein kinase (AMPK): possible links between insulin resistance in muscle and early endothelial cell damage in diabetes. *Biochem. Soc. Trans.* 31(Pt 1):202-6, 2003. [PMID: 12546685](#)
5. **Ruderman, N.B.**, Prentki, M. AMP Kinase and Malonyl-CoA: Targets for Therapy of the Metabolic Syndrome. *Nature: Drug Discovery* 3(4):340-51, 2004.
6. Cacicedo JM, Yagihashi N, Keaney JF Jr., **Ruderman NB**, Ido Y. AMPK inhibits fatty acid-induced increases in NF-kappaB transactivation in cultured human umbilical vein endothelial cells. *BBRC*. 324(4): 1204-9, 2004 [doi:10.1038/nrd1344](#)
7. Yu, X., McCorkle, S.K., Wang, M.Y., Lee, Y., Li, J., Saha, A.K., Unger, R.H. & **Ruderman, N.B.** Leptinomimetic effects of the AMP kinase activator AICAR in leptin-resistant rats: Prevention of diabetes and ectopic lipid deposition. *Diabetologia*, 47, 2012-2021, 2004. [PMID: 15578153](#)
8. Boden, G., She, P., Mazzoli, M., Cheung, P., Gummireddy, K., Reddy, P., Xiang, X., Luo, Z., **Ruderman, N.B.** Free fatty acids produce insulin resistance and activate the proinflammatory Nk κ B pathway in rat liver. *Diabetes*. 54:3458-3465, 2005. [PMID: 16306362](#)
9. Kraegen, E., Saha, A., Preston, E., Wilks, D., Hoy, A.J., Cooney, G., **Ruderman NB.**: Increased malonyl CoA and diacylglycerol content and reduced AMPK activity accompany insulin resistance induced by glucose infusion in muscle and liver of rats. *Am. J. Physiol.* 290:E471-479, 2006. [PMID: 16234268](#)
10. Gauthier MS, Miyoshi H, Souza SC, Cacicedo JM, Saha AK, Greenberg AS, **Ruderman NB.** (2008) AMP-activated protein kinase (AMPK) is activated as a consequence of lipolysis in the Adipocyte: Potential mechanism and physiological relevance. *J Biol Chem.* Jun 13;283(24):16514-24. [PMCID: 2423258](#)
11. Lan F., Cacicedo J.M., **Ruderman N.**, Ido Y.: SIRT1 modulation of the acetylation status, cytosolic localization and activity of LKB1; possible role in AMP-activated protein kinase activation. *J Biol Chem* 283(41): 27628-35, 2008. [PMCID: 2562073](#)
12. Suchankova, G., Nelson, L., Gerhart-Hines, Z., Kelly, M., Gauthier, M-S., Saha, A.K., Ido, Y., Puigserver, P., **Ruderman, N.B.** Concurrent regulation of AMP-activated protein kinase and SIRT1 in mammalian cells. *Biochem. Biophys. Res. Commun.*, 378: 836-841, 2009. [PMCID: 2764524](#)
13. Richter, E., **Ruderman, N.B.** AMPK and the biochemistry of exercise: Implications for human health and disease. *The Biochemical Journal*, 418(2): 261-75, 2009. [PMCID: 2779044](#)
14. **Ruderman, N.B.**, Shulman, G.I.: "The metabolic syndrome." Jamieson, J.L., In De Groot L.J. *Endocrinology*, 6th Ed. 822-835, 2010. Philadelphia, Elsevier, Saunders.
15. **Ruderman, N.B.**, Xu, X.J., Nelson, L., Cacicedo, J.M., Saha, A.K., Lan, F., Ido, Y. AMPK and SIRT1: A Longstanding Partnership? *AJP (Endo Metab)* 298:751-760, 2010. [PMCID: PMC2853213](#)

- 16.** Hirschey MD, Shimazu T, Goetzman E, Jing E, Schwer B, Lombard DB, Grueter CA, Harris C, Biddinger S, Ilkayeva OR, Stevens RD, Li Y, Saha AK, **Ruderman N.B.**, Bain JR, Newgard CB, Farese RV Jr, Alt FW, Kahn CR, Verdin E. SIRT3 regulated mitochondrial fatty-acid oxidation by reversible enzyme deacetylation. *Nature* 464(7285): 121-125, 2010 [doi:10.1038/nature08778](https://doi.org/10.1038/nature08778)
- 17.** Gauthier M-S., O'Brien EL, Bigornia S, Mott M, Cacicedo JM, Xu XJ, Gokce N, Apovian C, **Ruderman NB.** Decreased AMP-activated protein kinase activity is associated with increased inflammation in visceral adipose tissue and with whole-body insulin resistance in morbidly obese human. *Biochem Biophys Res Commun.* 404(1): 382-387, 2011 [PMCID: PMC3061625](https://pubmed.ncbi.nlm.nih.gov/21511111/)
- 18.** Xu X.J., Gauthier M.S., Hess D.T., Apovian C., Cacicedo J.M., Gokce N., Farb M.G., Valentine R.J., **Ruderman N.B.** Insulin sensitive and resistant obesity in humans: AMPK activity, oxidative stress, and depot-specific changes in gene expression in adipose tissue. *J Lipid Res.* 2012. In press. [PMCID: PMC3307656](https://pubmed.ncbi.nlm.nih.gov/22511111/)
- 19.** Xu, XJ, Pories W, Dohm CL, **Ruderman NB.** What distinguishes adipose tissue of massively obese individuals who are insulin sensitive and resistant. *Current Opinions in Lipidology (Invited review).* In Press. [PMCID: PMC3575680](https://pubmed.ncbi.nlm.nih.gov/23511111/)