

Selected Peer-reviewed Publications (Selected from 322 publications)

- 1.K. N. Papanicolaou, G. Ngoh, E. R. Dabkowski, K. A. O'Connell, R. F. Ribeiro, W. C. Stanley, **K. Walsh** (2012). Cardiomyocyte deletion of mitofusin-1 leads to mitochondrial fragmentation and improves tolerance to ROS-induced mitochondrial dysfunction and cell death. *Am. J. Physiol. Heart Circ. Physiol.* 302:H167-H179. [PMCID: PMC3334239](#).
- 2.K. N. Papanicolaou, R. Kikuchi, G. A. Ngoh, K. A. Coughlan, I. Dominguez, W. C. Stanley, K. Walsh (2012). Mitofusins 1 and 2 are essential for postnatal metabolic remodeling in heart. *Circ. Res.* 111:1012-1026. **Editor's pick/Selected for journal cover.** [PMCID: PMC3518037](#).
- 3.M. Shimano, N. Ouchi, K. Nakamura, B. van Wijk, K. Ohashi, Y. Asaumi, A. Higuchi, D.R. Pimentel, F. Sam, T. Murohara, M.J. van den Hoff, **K. Walsh** (2011). Cardiac myocyte follistatin-like 1 functions to attenuate hypertrophy following pressure overload. *Proc. Natl. Acad. Sci. USA.* 108:E899-E906. [PMCID: PMC3203781](#).
- 4.A. El-Armouche, N. Ouchi, K. Tanaka, G. Doros, K. Wittköpper, T. Schulze, T. Eschenhagen, **K. Walsh**, F. Sam (2011). Follistatin-like 1 in chronic systolic heart failure – a marker of left ventricular remodeling. *Circ. Heart Fail.* 4:621-627. [PMCID: PMC3178753](#).
- 5.K.N. Papanicolaou, R.J. Khairallah, G.A. Ngoh, A. Chikando, I. Luptak, K.M. O'Shea, D.D. Riley, J.J. Lugus, W.S. Colucci, W.J. Lederer, W.C. Stanley, **K. Walsh** (2011). Mitofusin-2 maintains mitochondrial structure and contributes to stress-induced permeability transition in cardiac myocytes. *Mol. Cell. Biol.* 31:1309-1328. [PMCID: PMC3067905](#).
- 6.M. Shimano, N. Ouchi, K. Nakamura, Y. Oshima, A. Higuchi, D.R. Pimentel, K.D. Panse, E. Lara-Pezzi, S.J. Lee, F. Sam, **K. Walsh** (2011). Cardiac myocyte-specific ablation of Follistatin-like 3 attenuates stress-induced myocardial hypertrophy. *J. Biol. Chem.* 286:9840-9848. **Editor's Choice feature in Science Signaling.** [PMCID: PMC3203781](#).
- 7.N. Ouchi, A. Higuchi, K. Ohashi, Y. Oshima, N. Gokce, R. Shibata, Y. Akasaki, A. Shimono, **K. Walsh** (2010). Sfrp5 is an anti-inflammatory adipokine that modulates metabolic dysfunction in obesity. *Science.* 329:454-457. **Accompanied by editorial.** [PMCID: PMC3132938](#).
- 8.N. Ouchi, Y. Asaumi, K. Ohashi, A. Higuchi, S. Sono-Romanelli, Y. Oshima, **K. Walsh** (2010) DIP2A functions as a FSTL1 receptor. *J. Biol. Chem.* 285:7127-7134. [PMCID: PMC2844162](#)
- 9.K. Ohashi, N. Ouchi, A. Higuchi, R.J. Shaw, **K. Walsh** (2010). LKB1-deficiency in Tie2-Cre-expressing cells impairs ischemia-induced angiogenesis. *J. Biol. Chem.* 285:22291-22298. [PMCID: PMC2903404](#).
- 10.N. Ouchi, Y. Asaumi, K. Ohashi, A. Higuchi, S. Sono-Romanelli, Y. Oshima, **K. Walsh** (2010) DIP2A functions as a FSTL1 receptor. *J. Biol. Chem.* 285:7127-7134. [PMCID: PMC2844162](#).
- 11.K. Ohashi, J.L. Parker, N. Ouchi, A. Higuchi, J.A. Vita, N. Gokce, A.A. Pedersen, C. Kalthoff, S. Tullin, A. Sams, R. Summer, **K. Walsh** (2010). Adiponectin promotes macrophage polarization toward an anti-inflammatory phenotype. *J Biol Chem.* 285:6153-6160. [PMCID: PMC2825410](#).
- 12.Y. Ikeda, K. Sato, D.R. Pimental, F. Sam, R.J. Shaw, J.R. Dyck, **K. Walsh** (2009). Cardiac-specific deletion of LKB1 leads to hypertrophy and dysfunction. *J. Biol. Chem.* 284:35839-35849. [PMCID: PMC2791013](#).
- 13.Y. Oshima, N. Ouchi, M. Shimano, D.R. Pimentel, K.N. Papanicolaou, K.D. Panse, K. Tsuchida, E. Lara-Pezzi, S.J. Lee, **K. Walsh** (2009). Activin A and follistatin-like 3 determine the susceptibility of heart to ischemic injury. *Circulation.* 120:1606-1615. [PMCID: PMC2764796](#).

- 14.A. Higuchi, K. Ohashi, S. Kihara, **K. Walsh**, N. Ouchi (2009). Adiponectin suppresses pathological microvessel formation in retina through modulation of tumor necrosis factor- α expression. *Circ. Res.* 104:1058-1065. [PMCID: PMC2740643](#).
- 15.C.Y. Wang, H.H. Kim, Y. Hiroi, N. Sawada, S. Salomone, L.E. Benjamin, **K. Walsh**, M.A. Moskowitz, J.K. Liao (2009). Obesity increases vascular senescence and susceptibility to ischemic injury through chronic activation of Akt and mTOR. *Science Signal.* 2:ra11. [PMCID: PMC2667954](#).
- 16.A.K. Peter, C.Y. Ko, M.H. Kim, N. Hsu, N. Ouchi, S. Rhie, Y. Izumiya, L. Zeng, **K. Walsh**, R.H. Crosbie (2009). Myogenic Akt signaling upregulates the utrophin-glycoprotein complex and promotes sarcolemma stability in muscular dystrophy. *Hum. Mol. Genet.* 18:318-327. [PMCID: PMC2638781](#).
- 17.N. Ouchi, Y. Oshima, K. Ohashi, A. Higuchi, C. Ikegami, Y. Izumiya, **K. Walsh** (2008). Follistatin-like 1, a secreted muscle protein, promotes endothelial cell function and revascularization in ischemic tissue through a nitric oxide synthesis-dependent mechanism. *J. Biol. Chem.* 283:32802-32811. [PMCID: PMC2583310](#).
- 18.Y. Oshima, N. Ouchi, K. Sato, Y. Izumiya, D.R. Pimentel, **K. Walsh** (2008). Follistatin-like 1 is an Akt-regulated cardioprotective factor that is secreted by the heart. *Circulation.* 117:3099-3108. [PMCID: PMC2679251](#).
- 19.Y. Izumiya, T. Hopkins, C. Morris, K. Sato, L. Zeng, J. Viereck, J.A. Hamilton, N. Ouchi, N.K. LeBrasseur, **K. Walsh** (2008). Fast/glycolytic muscle fiber growth reduces fat mass and improves metabolic parameters in obese mice. *Cell Metab.* 7:159-172. **Accompanied by editorial.** [PMCID: PMC2828690](#).
- 20.R. Summer, F.F. Little, N. Ouchi, Y. Takemura, T. Aprahamian, D. Dwyer, K. Fitzsimmons, B. Suki, H. Parameswaran, A. Fine, **K. Walsh** (2008). Alveolar macrophage activation and an emphysema-like phenotype in adiponectin deficient mice. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 294:L1035-L1042. **Accompanied by editorial.** NIHMSID: NIHMS438296. [PMCID: PMC3575679](#)
- 21.Y. Takemura, N. Ouchi, R. Shibata, T. Aprahamian, M.T. Kirber, R.S. Summer, S. Kihara, K. Walsh (2007). Adiponectin modulates inflammatory reactions via calreticulin receptor-dependent clearance of early apoptotic bodies. *J. Clin. Invest.* 117:375-386. [PMCID: PMC1770947](#).
- 22.T.L. Phung, K. Ziv, D. Dabydeen, G. Eyiah-Mensah, M. Riveros, C. Perruzzi, J. Sun, R.A. Monahan-Earley, I. Shiojima, J.A. Nagy, M.I. Lin, **K. Walsh**, A.M. Dvorak, D.M. Briscoe, M. Neeman, W.C. Sessa, H.F. Dvorak, L.E. Benjamin (2006). Pathological angiogenesis is induced by sustained Akt signaling and inhibited by rapamycin. *Cancer Cell.* 10: 159-170. [PMCID: PMC2531257](#). **Accompanied by editorial.**
- 23.Shiojima, K. Sato, Y. Izumiya, S. Schiekofer, M. Ito, R. Liao, W.S. Colucci, **K. Walsh** (2005). Disruption of coordinated cardiac hypertrophy and angiogenesis contributes to the transition to heart failure. *J. Clin. Invest.* 115:2108-2118. [PMCID: PMC1180541](#). **Accompanied by editorial.**
- 24.R. Shibata, K. Sato, D.R. Pimentel, Y. Takemura, S. Kihara, K. Ohashi, T. Funahashi, N. Ouchi, **K. Walsh** (2005). Adiponectin protects against myocardial ischemia-reperfusion injury through AMPK- and COX-2- dependent mechanisms. *Nat. Med.* 10: 1096-1103. [PMCID: PMC2828682](#). **Accompanied by editorial.**
- 25.E. Ackah, J. Yu, S. Zoellner, Y. Iwakiri, C. Skurk, R. Shibata, N. Ouchi, R.M. Easton, G. Galasso, M.J. Birnbaum, **K. Walsh**, W.C. Sessa (2005).Akt1/protein kinase B α is critical for ischemic and VEGF-mediated angiogenesis. *J. Clin. Invest.* 115:2119-2127. [PMCID: PMC1180542](#). **Accompanied by editorial.**
- 26.I. Shiojima, K. Sato, Y. Izumiya, S. Schiekofer, M. Ito, R. Liao, W.S. Colucci, **K. Walsh** (2005). Disruption of coordinated cardiac hypertrophy and angiogenesis contributes to the transition to heart failure. *J. Clin. Invest.* 115:2108-2118. [PMCID: PMC1180541](#). **Accompanied by editorial.**

- 27.C. Skurk, Y. Izumiya, H. Maatz, P. Razeghi, I. Shiojima, M. Sandri, K. Sato, L. Zeng, S. Schiekofer, D. Pimentel, S. Lecker, H. Taegtmeier, A.L. Goldberg, **K. Walsh** (2005). The FOXO3a transcription factor regulates cardiac myocyte size downstream of Akt signaling. *J. Biol. Chem.* 280:20814-20823. [PMCID: PMC3632436](#)
- 28.J.F. Sun, T. Phung, I. Shiojima, T. Felske, J.N. Upalalalin, D. Feng, T. Kornaga, T. Dor, A.M. Dvorak, **K. Walsh**, L.E. Benjamin (2005). Microvascular patterning is controlled by fine-tuning the Akt signal. *Proc. Natl. Acad. Sci. USA.* 102:128-133 [PMCID: PMC538747](#).
- 29.R. Shibata, N. Ouchi, M. Ito, S. Kihara, I. Shiojima, D.R. Pimentel, M. Kumada, K. Sato, S. Schiekofer, K. Ohashi, T. Funahashi, W.S. Colucci, **K. Walsh** (2004). Adiponectin-mediated modulation of hypertrophic signals in the heart. *Nat. Med.* 10:1384-1389. [PMCID: PMC2828675](#).
- 30.T. Aprahamian, I. Rifkin, B. Hugel, J.-M. Freyssinet, K. Sato, J.J. Castellot, Jr., **K. Walsh** (2004). Impaired clearance of apoptotic cells promotes synergy between atherogenesis and autoimmune disease. *J. Exp. Med.* 199:1121-1131. [PMCID: PMC2211887](#).
- 31.M. Sandri, C. Sandri, A. Gilbert, C. Skurk, E. Calabria, A. Picard, **K. Walsh**, S. Schiaffino, S.H. Lecker, A.L. Goldberg (2004). Foxo transcription factors induce the atrophy-related ubiquitin ligase atrogin-1 and cause skeletal muscle atrophy. *Cell.* 117:399-412. [PMCID: PMC3619734](#)
- 32.A. Takahashi, Y. Kureishi, J. Yang, Z. Luo, K. Guo, D. Mukhopadhyay, Y. Ivashchenko, D. Branellec, **K. Walsh** (2002). Myogenic Akt signaling regulates blood vessel recruitment during myofiber growth. *Mol. Cell. Biol.* 22:4803-4814. [PMCID: PMC133891](#).
- 33.Y. Kureishi, Z. Luo, I. Shiojima, A. Bialik, D. Fulton, D.J. Lefer, W.C. Sessa, **K. Walsh** (2000) The HMG-CoA reductase inhibitor simvastatin activates the protein kinase Akt and promotes angiogenesis in normocholesterolemic animals. *Nat. Med.* 6:1004-1010. **Accompanied by editorial.** [PMCID: PMC2828689](#).
- 34.Z. Luo, Y. Fujio, Y. Kureishi, R.D. Rudic, G. Daumerie, D. Fulton, W.C. Sessa, **K. Walsh** (2000) Acute modulation of endothelial Akt/PKB activity alters nitric oxide-dependent vasomotor activity *in vivo*. *J. Clin. Invest.* 106:493-499. [PMCID: PMC380252](#).
- 35.Y. Fujio, T. Nguyen, D. Wencker, R.N. Kitsis, **K. Walsh** (2000). Akt promotes survival of cardiomyocytes *in vitro* and protects against ischemia-reperfusion injury in mouse heart. *Circulation.* 101:660-667. [PMCID: PMC3627349](#)
- 36.D. Fulton, J.P. Gratton, T. McCabe, J. Fontana, Y. Fujio, **K. Walsh**, T. Franke, A. Papapetropoulos, W.C. Sessa (1999). Regulation of endothelium-derived nitric oxide production by the protein kinase Akt. *Nature.* 399:597-601. [PMID: 10376602](#)
- 37.Y. Fujio and **K. Walsh** (1999). Akt mediates cytoprotection of endothelial cells by vascular endothelial growth factor in an anchorage-dependent manner. *J. Biol. Chem.* 274:16349-16354. [PMCID: PMC3624707](#)
- 38.M. Sata and **K. Walsh** (1998). Oxidized LDL activates Fas-mediated endothelial cell apoptosis. *J. Clin. Invest.* 102:1682-1689. <http://www.jci.org/articles/view/3531>
- 39.M. Sata and **K. Walsh** (1998). TNF α -regulation of Fas ligand expression on the vascular endothelium modulates leukocyte extravasation. *Nat. Med.* 4:415-420. [PMCID: PMC2828686](#)
- 40.J. Wang and **K. Walsh** (1996). Resistance to apoptosis conferred by Cdk inhibitors during myocyte differentiation. *Science* 273:359-361. <http://www.sciencemag.org/content/273/5273/359.abstract>

