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PUBLICATIONS IN PEER-REVIEWED JOURNALS:

- 1) Moolman, J.A., Genade, S., Tromp, E., Lochner, A. Ischaemic preconditioning: interaction with anti-adrenergic interventions. *J Mol Cell Cardiol* 27(6): A161, June 1995
- 2) Lochner, A., Mouton, R., Tromp, E. "Cross-talk" between second messengers during myocardial ischaemia and reperfusion. *J Mol Cell Cardiol* 27(6), June 1995
- 3) Lochner, A., Pentz, A., Williams, K., Tromp, E., Harper, I.S. Substrate effects on sarcolemmal permeability in the normoxic and hypoxic perfused rat heart. *Basic Res Cardiol* 91: 64-78, 1996. (cited 6)
- 4) Moolman, J.A., Genade, S., Tromp, E., Lochner, A. No evidence for ischaemic preconditioning by alpha1-adrenergic signal transduction pathway or protein kinase C in the isolated rat heart. *Cardiovasc Drugs and Therapy* 10: 125-136, 1996. (cited 26)
- 5) Moolman, J.A., Genade, S., Tromp, E., Lochner, A. A comparison between ischaemic preconditioning and anti-adrenergic interventions: cAMP, energy metabolism and functional recovery. *Basic Res Cardiol* 91: 219-233, 1996. (cited 12)
- 6) Lochner, A., Tromp, E., Mouton, R. Signal transduction in myocardial ischaemia and reperfusion. *Mol Cell Biochem.*, 160/161: 129-136, 1996. (cited 4)
- 7) Moolman, J.A., Genade, S., Tromp, E., Opie, L.H., Lochner, A. Ischaemic preconditioning does not protect hypertrophic myocardium against ischaemia. *SAMJ* 87 (Supplement 3): C151-156, 1997 (cited 21)
- 8) Lochner, A., Genade, S., Tromp, E., Opie, L.H., Moolman, J.A., Thomas, S., Podzuweit, T. Reduction of cAMP by ischaemic preconditioning (IP): upstream and downstream mechanisms. *J Mol Cell Cardiol* 29:A66, 1997
- 9) Genade, S., Tromp, E., Lochner, R.C., Lochner, A. Effects of halothane on postcardioplegic functional recovery: Role of cardioplegic solution. *SAMJ* 88 (Suppl. 2):C96-C98, 1998
- 10) Lochner, A., Genade, S., Tromp, E., Theron, S., Trollip, G. Postcardioplegic myocardial recovery: Effects of halothane, nifedipine, HOE 694 and quinacrine. *Cardiovasc Drugs Ther.* 12: 267-277, 1998 (cited 8; Impact factor = 3.098)
- 11) Lochner, A., Genade, S., Tromp, E., Page, C., Moolman, J.A., Thomas, S., Podzuweit, T. Role of cyclic nucleotide phosphodiesterases in ischaemic preconditioning. *Mol Cell Biochem*, 186: 169-175, 1998 (cited 32; Impact factor = 2.168)
- 12) Lochner, A., Genade, S., Tromp, E., Podzuweit, T., Moolman, J.A. Ischemic preconditioning and the beta-adrenergic signal transduction pathway. *Circulation* 1999; 100: 958-966 (cited 99; Impact factor = 14.429)
- 13) Lochner A, Marais E, Genade S, Moolman JA. Nitric oxide: a trigger for classic preconditioning. *Am J Physiol* 2000; 279: H2752 – H2765 (cited 96; Impact factor = 3.710)

- 14) Huisamen B., Marais E, Genade S, Lochner A. Serial changes in myocardial beta-adrenergic signalling system in two models of non-insulin dependent diabetes mellitus. *Mol Cell Biochem* 2001; 219(1-2): 73-82. (cited 3; Impact factor = 2.168)
- 15) Marais E, Genade S, Huisamen B, Strijdom JG, Moolman JA, Lochner A. Activation of p38 MAPK induced by a multi-cycle ischaemic preconditioning protocol is associated with attenuated p38 MAPK activity during sustained ischaemia and reperfusion. *J Mol Cell Cardiol* 2001; 33: 769-778 (cited 68; Impact factor = 5.499)
- 16) Marais, E., Genade, S., Strijdom, J.G., Moolman, J.A., Lochner, A. p38 MAPK activation triggers pharmacologically-induced beta-adrenergic preconditioning, but not ischaemic preconditioning. *J Mol Cell Cardiol* 2001; 33: 2157-77 (cited 29; Impact factor = 5.499)
- 17) Lochner, A., Marais, E., du Toit, E.F., Moolman, J.A. Nitric oxide triggers classic ischaemic preconditioning. *Ann NY Acad Sci* 2002; 962 (34): 402-414 (cited 53; Impact factor = 2.847).
- 18) Lochner, A., Genade, S., Hattingh, S., Marais, E., Huisamen, B., Moolman, J.A. Comparison between ischaemic and anisomycin-induced preconditioning: role of p38 MAPK. *J Cardiovasc Drugs & Therapy* 2003; 17(3): 217-230 (cited 30; Impact factor = 3.098)
- 19) Marais, E., Genade, S., Salie R., Huisamen B., Maritz S., J., Moolman, J.A., Lochner, A. The temporal relationship between p38 MAPK and HSP27 activation in pharmacological and ischaemic preconditioning. *Basic Res Cardiol* 2005; 100: 35-47 (cited 24; Impact factor = 6.128)
- 20) Moolman, J.A., Hartley S., Van Wyk, J., Marais, E., Lochner, A. Inhibition of myocardial apoptosis by ischaemic and beta-adrenergic preconditioning is dependent on p38 MAPK. *Cardiovasc Drugs Ther.* 2006 Feb;20(1):13-25 (cited 28; Impact factor = 3.098)
- 21) Marais, E., Genade, S., Lochner, A. CREB Activation and Ischaemic Preconditioning. *Cardiovasc Drugs Ther.* 2008 Feb;22(1):3-17 (cited 23; Impact factor = 3.098)
- 22) Lochner A, Marais E, Genade S, Huisamen B, du Toit EF, Moolman JA. Protection of the ischaemic heart: investigations into the phenomenon of ischaemic preconditioning. *Cardiovasc J Afr.* 2009 Jan-Feb;20(1):43-51 (cited 35; Impact factor =)
- 23) Huisamen B., Genis A, Marais E, Lochner A. Pre-treatment with a DPP-4 Inhibitor is Infarct Sparing in Hearts from Obese, Pre-diabetic Rats. *Cardiovasc Drugs Ther* 2011; 25:13–20 (cited 57; Impact factor = 3.130)
- 24) Maarman G, Marais E, Lochner A, du Toit EF. Effect of Chronic CPT-1 Inhibition on Myocardial Susceptibility to Ischemic-Reperfusion Injury in a Model of Diet-Induced Obesity. *Cardiovasc Drugs Ther* 2012; 26 (3): 205-216.
<http://www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s10557-012-6377-1>
(Editorial to this article: *Cardiovasc Drugs Ther* 2012, DOI 10.1007/s10557-012-6383-3) (cited 6; Impact factor = 3.130)
- 25) Govender J, Loos B, Marais E, Engelbrecht A-M. Mitochondrial catastrophe during doxorubicin-induced cardiotoxicity: A review of the protective role of melatonin. *Journal of Pineal Research*, 2014; 57:367–380, Doi:10.1111/jpi.12176.. (Impact factor = 7.812)
- 26) Van Vuuren D, Marais, E., Genade, S., Lochner, A. The differential effects of FTY720 on functional recovery and infarct size following myocardial ischaemia/reperfusion. *Cardiovasc J Afr* 2016; 27: 375–386, DOI: 10.5830/CVJA-2016-039. (cited 2; Impact factor = 1.022)
- 27) Webster I., Salie R., Marais E., Fan W-J Maarman G., Huisamen B., Lochner A. Myocardial susceptibility to ischaemia/reperfusion injury on obesity: a re-evaluation of the effects of age. *BMC Physiology* 2017; 17:3 DOI 10.1186/s12899-017-0030-y. (cited 1; Impact factor = 0.965)
- 28) Lochner A, Marais E, Huisamen B. Melatonin and cardioprotection against ischaemia/reperfusion injury: what's new? *J Pineal Res.* 2018;e12490; DOI - 10.1111/jpi.12490 (Impact factor = 7.812)
- 29) Govender J, Loos B, Marais E, Engelbrecht A-M. Melatonin improves cardiac and mitochondrial function during doxorubicin-induced cardiotoxicity: A possible role for peroxisome proliferator-activated receptor gamma coactivator 1-alpha and sirtuin activity? *Toxicology and Applied Pharmacology.* 2018;358, 86-101 doi:10.1016/j.taap.2018.06.031 (Impact factor = 3.75)
- 30) Salie R., Alsalhin A.K.H., Marais E, Lochner A. Cardioprotective effects of Beta3-Adrenergic Receptor (β 3-AR) pre-, per- and post-treatment in ischaemia-reperfusion, *Cardiovascular Drugs and Therapy*, 2019; 1 -15; DOI 10.1007/s10557-019-06861-5 (Impact factor = 4.181)
- 31) Lochner A, Genade S, Genis A, Marais E, Salie R. Long-chain free fatty acids inhibit ischaemic preconditioning of the isolated rat heart. *Molecular and Cellular Biochemistry*, June 2020.
<https://doi.org/10.1007/s11010-020-03812-9>