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Dr. Luo's main research interests lie in the study of understanding the mechanisms leading to the pathogenesis of viral myocarditis. The focus of Dr. Luo's research program is to define the pathogenetic determinants of virus-host interactions in enterovirus-induced heart disease. The ongoing research projects include: 1) Protein degradation pathways, including the ubiquitin/proteasome pathway and the autophagy, in virus-induced myocarditis and dilated cardiomyopathy; and 2) The molecular mechanisms of impaired cardiac function in viral myocarditis. Dr. Luo has published 82 refereed papers and 7 book chapters. Most of these publications have been appeared in leading journals, including *Circulation*, *Journal of Virology*, *Cell Death and Differentiation*, *Cell Host and Microbe*, *Diabetes*, *Journal of Biological Chemistry*, *American Journal of Pathology*, and *Circulation Research*.

Dr. Luo was a Canadian Institutes of Health Research/St. Paul's Hospital Foundation New Investigator and a Mich Smith Foundation for Health Research Scholar. Dr. Luo was awarded a Canada Foundation for Innovation New Opportunities grant in acquiring cutting-edge infrastructure. Her work on the roles of protein degradation system & host signaling in virus-mediated myocarditis were supported by the Canadian Institutes of Health Research, the Heart & Stroke Foundation of Canada, and the Hospital for Sick Kids Foundation.

Education and Training

- West China University of Medical Sciences MS, Hemodynamics, 1989
- Chongqing Medical University MD, Medicine, 1986
- University of Washington Postdoc, Pathology, 1997-2000

Area of Interest

Antivirals, Cardiomyopathy, Cell Signaling, Heart Failure, Protein Quality Control, Viral Infections

Selected Publications

[Shi J, Fung G, Piesik P, Zhang J, Luo H. Dominant-negative function of the C-terminal fragments of NBR1 and SQSTM1 generated during enteroviral infection. Cell Death Differ. 2014 ;21\(9\):1432-41.](#)

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- Choi AGoEun, Wong J, Marchant D, Luo H. **The ubiquitin-proteasome system in positive-strand RNA virus infection.** *Rev Med Virol*. 2013 ;23(2):85-96.
- Wong J, Si X, Angeles A, Zhang J, Shi J, Fung G, et al.. **Cytoplasmic redistribution and cleavage of AUF1 during coxsackievirus infection enhance the stability of its viral genome.** *FASEB J*. 2013 ;27(7):2777-87.
- Jensen KJ, Garmaroudi FS, Zhang J, Lin J, Boroomand S, Zhang M, et al.. **An ERK-p38 subnetwork coordinates cell apoptosis and necrosis during coxsackievirus B3 infection.** *Cell Host Microbe*. 2013 ;13(1):67-76.
- Wong J, Zhang J, Yanagawa B, Luo Z, Yang X, Chang J, et al.. **Cleavage of serum response factor mediated by enteroviral protease 2A contributes to impaired cardiac function.** *Cell Res*. 2012 ;22(2):360-71.
- Zhang J, Wong J, Gao G, Luo H. **Tripeptidyl peptidase II serves as an alternative to impaired proteasome to maintain viral growth in the host cells.** *FEBS Lett*. 2011 ;585(1):261-5.
- Gao G, Wong J, Zhang J, Mao I, Shrivah J, Wu Y, et al.. **Proteasome activator REGgamma enhances coxsackie infection by facilitating p53 degradation.** *J Virol*. 2010 ;84(21):11056-66.
- Luo H, Wong J, Wong B. **Protein degradation systems in viral myocarditis leading to dilated cardiomyopathy.** *Cardiovasc Res*. 2010 ;85(2):347-56.
- Liu J, Yu G, Zhao Y, Zhao D, Wang Y, Wang L, et al.. **REGgamma modulates p53 activity by regulating its cellular localization.** *J Cell Sci*. 2010 ;123(Pt 23):4076-84.
- Marchant D, Dou Y, Luo H, Garmaroudi FS, McDonough JE, Si X, et al.. **Bosentan enhances viral load via endothelin 1 receptor type-A-mediated p38 mitogen-activated protein kinase activation while improving cardiac function during coxsackievirus-induced myocarditis.** *Circ Res*. 2009 ;104(6):813-21.
- Wong J, Zhang J, Si X, Gao G, Mao I, McManus BM, et al.. **Autophagosome supports coxsackievirus B3 replication in host cells.** *J Virol*. 2008 ;82(18):9143-53.
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- Gao G, Zhang J, Si X, Wong J, Cheung C, McManus B, et al.. **Proteasome inhibition attenuates coxsackievirus-induced myocardial damage in mice.** *Am J Physiol Heart Circ Physiol*. 2008 ;295(1):H401-8.
- Si X, Wang Y, Wong J, Zhang J, McManus BM, Luo H. **Dysregulation of the ubiquitin-proteasome system by curcumin suppresses coxsackievirus B3 replication.** *J Virol*. 2007 ;81(7):3142-50.