

- role of calsequestrin, triadin, and junctin in conferring cardiac ryanodine receptor responsiveness to luminal calcium[J]. *Biophys J*, 2004, 86: 2121-2128.
- [26] CHENG Y S, DAI D Z, DAI Y, ZHU D D, LIU B C. Exogenous hydrogen sulphide ameliorates diabetic cardiomyopathy in rats by reversing disordered calcium-handling system in sarcoplasmic reticulum[J]. *J Pharm Pharmacol*, 2016, 68: 379-388.
- [27] ABDI A, MAZZOCCO C, LÉGERON F P, YVERT B, MACREZ N, MOREL J L. TRPP2 modulates ryanodine- and inositol-1,4,5-trisphosphate receptors-dependent Ca^{2+} signals in opposite ways in cerebral arteries[J]. *Cell Calcium*, 2015, 58: 467-475.
- [28] BEAVERS D L, WANG W, ATHER S, VOIGT N, GARBINO A, DIXIT S S, et al. Mutation E169K in junctophilin-2 causes atrial fibrillation due to impaired RyR2 stabilization[J]. *J Am Coll Cardiol*, 2013, 62: 2010-2019.
- [29] WU X, BERS D M. Free and bound intracellular calmodulin measurements in cardiac myocytes[J]. *Cell Calcium*, 2007, 41: 353-364.
- [30] GUO T, CORNEA R L, HUKU S, CAMORS E, YANG Y, PICTH E, et al. Kinetics of FKBP12.6 binding to ryanodine receptors in permeabilized cardiac myocytes and effects on Ca sparks[J]. *Circ Res*, 2010, 106: 1743-1752.
- [31] AI X, CURRAN J W, SHANNON T R, BERS D M, POGWIZD S M. Ca^{2+} /calmodulin-dependent protein kinase modulates cardiac ryanodine receptor phosphorylation and sarcoplasmic reticulum Ca^{2+} leak in heart failure[J]. *Circ Res*, 2005, 97: 1314-1322.
- [32] UEHARA A, MURAYAMA T, YASUKOCHI M, FILL M, HORIE M, OKAMOTO T, et al. Extensive Ca^{2+} leak through K4750Q cardiac ryanodine receptors caused by cytosolic and luminal Ca^{2+} hypersensitivity[J]. *J Gen Physiol*, 2017, 149: 199-218.
- [33] VOIGT N, HEIJMAN J, WANG Q, CHIANG D Y, LI N, KARCK M, et al. Cellular and molecular mechanisms of atrial arrhythmogenesis in patients with paroxysmal atrial fibrillation[J]. *Circulation*, 2014, 129: 145-156.
- [34] NEEF S, DYBKOVA N, SOSSALLA S, ORT K R, FLUSCHNIK N, NEUMANN K, et al. CaMK II - dependent diastolic SR Ca^{2+} leak and elevated diastolic Ca^{2+} levels in right atrial myocardium of patients with atrial fibrillation[J]. *Circ Res*, 2010, 106: 1134-1144.
- [35] CHIANG D Y, LEBESGUE N, BEAVERS D L, ALSINA K M, DAMEN J M, VOIGT N, et al. Alterations in the interactome of serine/threonine protein phosphatase type-1 in atrial fibrillation patients[J]. *J Am Coll Cardiol*, 2015, 65: 163-173.
- [36] JOSEPH L C, SUBRAMANYAM P, RADLICZ C, TRENT C M, IYER V, COLECRAFT H M, et al. Mitochondrial oxidative stress during cardiac lipid overload causes intracellular calcium leak and arrhythmia[J]. *Heart Rhythm*, 2016, 13: 1699-1706.

[本文编辑] 曾奇峰