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| February 01, 2020  | <a href="#">Speckle tracking echocardiography could detect the difference of pressure overload-induced myocardial remodelling between young and adult rats</a>     | The assessment by speckle tracking echocardiography (STE) provides useful information on regional and global left ventricular (LV) functions.          |
| January 01, 2020   | <a href="#">Multimodal and multiscale optical imaging of nanomedicine delivery across the blood-brain barrier upon sonopermeation</a>                              | Rationale: The blood-brain barrier (BBB) is a major obstacle for drug delivery to the brain.   |
| January 01, 2019   | <a href="#">B-mode ultrasound for the assessment of hepatic fibrosis: a quantitative multiparametric analysis for a radiomics approach</a>                         | Hepatic fibrosis and cirrhosis are a growing global health problem with increasing mortality rates.  |
| January 01, 2019   | <a href="#">Pharmacological inhibition of Notch signaling regresses pre-established abdominal aortic aneurysm</a>  | Abdominal aortic aneurysm (AAA) is characterized by transmural infiltration of myeloid cells at the vascular injury site.                              |
| January 01, 2018   | <a href="#">Improving the quality of preclinical research echocardiography: observations, training, and guidelines for measurement</a>                             | Informal training in preclinical research may be a contributor to the poor reproducibility of preclinical cardiology research and low rates of transla |
| December 31, 2020  | <a href="#">Preclinical development of a miR-132 inhibitor for heart failure treatment</a>   | Despite proven efficacy of pharmacotherapies targeting primarily global neurohormonal dysregulation, heart failure (HF) is a growing pandemic with inc |
| September 01, 2020 | <a href="#">Photochemical Tissue Passivation of Arteriovenous Grafts Prevents Long-term Development of Intimal Hyperplasia in a Swine Model</a>                    | Background: The autologous vein remains the standard conduit for lower extremity and coronary artery bypass grafting despite a 30%-50% 5-y failure rat |
| August 01, 2020    | <a href="#">Mst1 knockdown alleviates cardiac lipotoxicity and inhibits the development of diabetic cardiomyopathy in db/db mice</a>                               | Diabetic cardiomyopathy (DCM) accounts for increasing deaths of diabetic patients, and effective therapeutic targets are urgently needed.              |
| August 01, 2020    | <a href="#">MEIS1 regulated proliferation and migration of pulmonary artery smooth muscle cells in hypoxia-induced pulmonary hypertension</a>                      | Aim: Proliferation and migration of pulmonary artery smooth muscle cells (PASMCs) are regarded as the pri- mary factors resulting in pulmonary arteria |
| August 01, 2020    | <a href="#">Effects of single-dose protons or oxygen ions on function and structure of the cardiovascular system in male Long Evans rats</a>                       | Purpose: Studies are required to determine whether exposures to radiation encountered during manned missions in deep space may have adverse effects on |
| July 01, 2020      | <a href="#">Deterministic paracrine repair of injured myocardium using microfluidic-based cocooning of heart explant-derived cells</a>                             | While encapsulation of cells within protective nanoporous gel cocoons increases cell retention and pro-survival integrin signaling, the influence of c |
| July 01, 2020      | <a href="#">Si-Miao-Yong-An decoction attenuates cardiac fibrosis via suppressing TGF-β1 pathway and interfering with MMP-TIMPs expression</a>                     | Background: Myocardial fibrosis is an important pathological feature of pressure overload cardiac remodeling.  |
| July 01, 2020      | <a href="#">miR-374b-5p is increased in deep vein thrombosis and negatively targets IL-10</a>  | Background: Deep venous thrombosis (DVT) is one of the most common venous thromboembolic (VTE) disorders and the third leading cardiovascular complica |
| July 01, 2020      | <a href="#">Mitophagy inhibitor liensinine suppresses doxorubicin-induced cardiotoxicity through inhibition of Drp1-mediated maladaptive mitochondrial fission</a> | Doxorubicin (DOX) is one of the most effective antineoplastic drugs.   |
| July 01, 2020      | <a href="#">Identifying modifier genes for hypertrophic cardiomyopathy</a>   | Background: Hypertrophic cardiomyopathy (HCM) severity greatly varies among patients even with the same HCM gene mutations.                            |
| June 01, 2020      | <a href="#">Silica nanoparticles induce JNK-mediated inflammation and myocardial contractile dysfunction</a>   | Increasing environmental exposure to silica nanoparticles (SiNPs) and limited cardiotoxicity studies posed a challenge for the safety evaluation and m |

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| June 01, 2020 | <a href="#">Construction of vascular graft with circumferentially oriented microchannels for improving artery regeneration</a>  | Design and fabrication of scaffolds with three-dimensional (3D) topological cues inducing regeneration of the neo-tissue comparable to native one rema |
| June 01, 2020 | <a href="#">Modified citrus pectin ameliorates myocardial fibrosis and inflammation via suppressing galectin-3 and TLR4/MyD88/NF-<math>\kappa</math>B signaling pathway</a>                     | Myocardial fibrosis (MF) plays a key role in the development and progression of heart failure (HF) with limited effective therapies.                   |
| June 01, 2020 | <a href="#">Combined exposure of fine particulate matter and high-fat diet aggravate the cardiac fibrosis in C57BL/6J mice</a>  | Cardiac fibrosis is associated with fine particulate matter (PM2.5) exposure.  |
| June 01, 2020 | <a href="#">Radio-metal cross-linking of alginate hydrogels for non-invasive in vivo imaging</a>  | Alginate hydrogels are cross-linked polymers with high water content, tuneable chemical and material properties, and a range of biomedical application |
| May 18, 2020  | <a href="#">NDUFAB1 confers cardio-protection by enhancing mitochondrial bioenergetics through coordination of respiratory complex and supercomplex assembly</a>                                | The impairment of mitochondrial bioenergetics, often coupled with exaggerated reactive oxygen species (ROS) production, is a fundamental disease mecha |
| May 14, 2020  | <a href="#">MSTN Attenuates Cardiac Hypertrophy through Inhibition of Excessive Cardiac Autophagy by Blocking AMPK /mTOR and miR-128/PPAR<math>\gamma</math>/NF-<math>\kappa</math>B</a>        | Cardiac hypertrophy, a response of the heart to increased workload, is a major risk factor for heart failure.  |
| May 01, 2020  | <a href="#">Stevioside improved hyperglycemia-induced cardiac dysfunction by attenuating the development of fibrosis and promoting the degradation of established fibrosis</a>                  | Stevioside, a non-caloric sweetener, has been used for nutritional therapy to diabetic patients; but there are few reports about the effects of stevio |
| May 01, 2020  | <a href="#">Mitochondrial fusion promoter restores mitochondrial dynamics balance and ameliorates diabetic cardiomyopathy in an optic atrophy 1 dependent way</a>                               | Aim: Imbalanced mitochondrial dynamics including suppressed mitochondrial fusion has been observed in diabetic hearts.                                 |
| May 01, 2020  | <a href="#">MicroRNA-184 alleviates insulin resistance in cardiac myocytes and high fat diet-induced cardiac dysfunction in mice through the LPP3/DAG pathway</a>                               | Aim: Cardiovascular complication is a major cause of mortality and morbidity in patients with diabetes.  |
| May 01, 2020  | <a href="#">LncRNA Oprm1 overexpression attenuates myocardial ischemia/reperfusion injury by increasing endogenous hydrogen sulfide via Oprm1/miR-30b-5p/CSE axis</a>                           | Aims Ischemia/reperfusion (I/R) injury largely limits the efficacy of revascularization in acute myocardial infarction.                                |
| May 01, 2020  | <a href="#">Sequential delivery of nanoformulated <math>\alpha</math>-mangostin and triptolide overcomes permeation obstacles and improves therapeutic effects in pancreatic cancer</a>         | Pancreatic ductal adenocarcinoma (PDAC) is a devastating disease exhibiting the poorest prognosis among solid tumors.                                  |
| May 01, 2020  | <a href="#">Electron paramagnetic resonance spectroscopy reveals alterations in the redox state of endogenous copper and iron complexes in photodynamic stress-induced ischemic mouse liver</a> | Divalent copper and iron cations have been acknowledged for their catalytic roles in physiological processes critical for homeostasis maintenance.     |
| May 01, 2020  | <a href="#">The role of a lncRNA (TCONS_00044595) in regulating pineal CLOCK expression after neonatal hypoxia-ischemia brain injury</a>  | A common, yet often neglectable, feature of neonatal hypoxic-ischemic brain damage (HIBD) is circadian rhythm disorders resulted from pineal gland dys |
| May 01, 2020  | <a href="#">Metformin ameliorates cardiac conduction delay by regulating microRNA-1 in mice</a>   | Cardiac conduction delay may occur as a common complication of several cardiac diseases.   |
| May 01, 2020  | <a href="#"><math>\kappa</math>-opioid receptor activation promotes mitochondrial fusion and enhances myocardial resistance to ischemia and reperfusion injury via STAT3-OPA1 pathway</a>       | Mitochondrial dynamics, determining mitochondrial morphology, quality and abundance, have recently been implicated in myocardial ischemia and reperfus |
| May 01, 2020  | <a href="#">Induction of caveolin-3/eNOS complex by nitroxyl (HNO) ameliorates diabetic cardiomyopathy</a>  | Nitroxyl (HNO), one-electron reduced and protonated sibling of nitric oxide (NO), is a potential regulator of cardiovascular functions.                |

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| May 01, 2020   | <a href="#">Ambient PM2.5 caused cardiac dysfunction through FoxO1-targeted cardiac hypertrophy and macrophage-activated fibrosis in mice</a>   | Plenty of epidemiological evidences have shown that ambient particulate matter (PM2.5) exposure increased the prevalence of cardiovascular disease, bu |
| May 01, 2020   | <a href="#">A machine learning-driven study indicates emodin improves cardiac hypertrophy by modulation of mitochondrial SIRT3 signaling</a>  | Cardiac hypertrophy (CH) is an enormous risk factor in the process of heart failure development, however, there is still lack of effective treatment f |
| May 01, 2020   | <a href="#">Melatonin ameliorates pressure overload-induced cardiac hypertrophy by attenuating Atg5-dependent autophagy and activating the Akt/mTOR pathway</a>   | Cardiac hypertrophy, including hypertension and valvular dysfunction, is a pathological feature of many cardiac diseases that ultimately leads to hear |
| May 01, 2020   | <a href="#">Necroptosis mediated by impaired autophagy flux contributes to adverse ventricular remodeling after myocardial infarction</a>   | Loss of functional cardiomyocytes by cell death after myocardial infarction is most critical for the subsequent left ventricular remodeling, cardiac d |
| May 01, 2020   | <a href="#">Motor transmission defects with sex differences in a new mouse model of mild spinal muscular atrophy</a>  | Background: Mouse models of mild spinal muscular atrophy (SMA) have been extremely challenging to generate.  |
| May 01, 2020   | <a href="#">Single-shot morpho-functional and structural characterization of the left-ventricle in a mouse model of acute ischemia-reperfusion injury with an optimized 3D IntraGate cine FLASH sequence at 7T MR</a> | Preclinical cardiac MR is challenging and time-consuming.  |
| April 30, 2020 | <a href="#">Therapeutic potential of miR-21 regulation by human peripheral blood derived-small extracellular vesicles in myocardial infarction</a>  | Small extracellular vesicles (sEVs) as natural membranous vesicles are on the frontiers of nanomedical research, due to their ability to deliver thera |
| April 01, 2020 | <a href="#">Surface-modified GVs as nanosized contrast agents for molecular ultrasound imaging of tumor</a>   | Nanobubbles, as a kind of new ultrasound contrast agent (UCAs), have shown promise to penetrate tumor vasculature to allow for targeted imaging.       |
| April 01, 2020 | <a href="#">Qishen Granule alleviates endoplasmic reticulum stress-induced myocardial apoptosis through IRE-1-CRYAB pathway in myocardial ischemia</a>  | Ethnopharmacological relevance: Qishen Granule (QSG) is a prevailing traditional Chinese medicine formula that displays impressive cardiovascular prot |
| April 01, 2020 | <a href="#">The Emergence of Cardiac Changes Following the Self-Administration of Methamphetamine</a>   | Background Clinical observations suggest an association between methamphetamine (METH) use and cardiovascular disease, but preclinical studies are lac |
| April 01, 2020 | <a href="#">Melatonin fine-tunes intracellular calcium signals and eliminates myocardial damage through the IP3R/MCU pathways in cardiorenal syndrome type 3</a>  | Cardiorenal syndrome type-3 (CRS-3) is characterized by acute cardiac injury induced by acute kidney injury.   |
| April 01, 2020 | <a href="#">Morrisonide enhances angiogenesis and improves cardiac function following acute myocardial infarction in rats</a>   | Angiogenesis is critical for re-establishing blood supply to the ischemic myocardium after acute myocardial infarction (AMI).                          |
| April 01, 2020 | <a href="#">Dynamic Transcriptional Responses to Injury of Regenerative and Non-regenerative Cardiomyocytes Revealed by Single-Nucleus RNA Sequencing</a>   | The adult mammalian heart is incapable of regenera- tion following injury.   |
| April 01, 2020 | <a href="#">Fibroblast growth factor-inducible 14 mediates macrophage infiltration in heart to promote pressure overload-induced cardiac dysfunction</a>  | Aims: Heart failure (HF) is characterized by compromised cardiac structure and function.   |
| April 01, 2020 | <a href="#">Lack of Thy1 defines a pathogenic fraction of cardiac fibroblasts in heart failure</a>  | In response to heart injury, inflammation, or mechanical overload, quiescent cardiac fibroblasts (CFs) can become activated myofibroblasts leading to  |

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| April 01, 2020 | <a href="#">Adenosine A2A receptor activation prevents DOCA-salt induced hypertensive cardiac remodeling via iBAT</a>                                   | Hypertensive cardiac remodeling is a constellation of abnormalities that includes cardiomyocyte hypertrophy and death and tissue fibrosis.             |
| April 01, 2020 | <a href="#">Metabolomic profiling of metoprolol-induced cardioprotection in a murine model of acute myocardial ischemia</a>                             | Metoprolol (Met) is widely applied in the treatment of myocardial infarction and coronary heart disease in clinic.                                     |
| April 01, 2020 | <a href="#">Mangiferin activates Nrf2 to attenuate cardiac fibrosis via redistributing glutaminolysis-derived glutamate</a>                             | Cardiac injury is followed by fibrosis, characterized by myofibroblast activation.   |
| March 30, 2020 | <a href="#">Cutaneous optical coherence tomography for longitudinal volumetric assessment of intradermal volumes in a mouse model</a>                   | Clinical evaluation of skin lesions requires precise and reproducible technologies for their qualitative and quantitative assessment.                  |
| March 30, 2020 | <a href="#">Management of metabolic syndrome and reduction in body weight in type II diabetic mice by inhibiting glycosphingolipid synthesis</a>        | Metabolic syndrome is defined by hyperlipidemia and cardiovascular complications.  |
| March 30, 2020 | <a href="#">Overexpression of peptidase inhibitor 16 attenuates angiotensin II-induced cardiac fibrosis via regulating HDAC1 of cardiac fibroblasts</a> | Cardiac hypertrophy and fibrosis are the major causes of heart failure due to non-ischaemia heart disease.   |
| March 30, 2020 | <a href="#">Spontaneous Pulmonary Hypertension Associated With Systemic Sclerosis in P Selectin Glycoprotein Ligand 1-Deficient Mice</a>                | Objective: Pulmonary arterial hypertension (PAH), one of the major complications of systemic sclerosis (SSc), is a rare disease with unknown etiopatho |
| March 30, 2020 | <a href="#">EXPRESS: Echocardiographic markers of pulmonary hemodynamics and right ventricular hypertrophy in rat models of pulmonary hypertension</a>  | Echocardiography is the gold standard non-invasive technique to diagnose pulmonary hypertension (PH).  |
| March 27, 2020 | <a href="#">Ventricular remodeling in ischemic heart failure stratifies responders to stem cell therapy</a>   | Response to stem cell therapy in heart failure is heterogeneous, warranting a better understanding of outcome predictors.                              |
| March 27, 2020 | <a href="#">Cytokine mRNA Degradation in Cardiomyocytes Restrains Sterile Inflammation in Pressure-Overloaded Hearts</a>                                | BACKGROUND Proinflammatory cytokines play an important role in the pathogenesis of heart failure.  |
| March 01, 2020 | <a href="#">Investigational new drug enabling angiotensin oral-delivery studies to attenuate pulmonary hypertension</a>                                 | Pulmonary arterial hypertension (PAH) is a deadly and incurable disease characterized by remodeling of the pulmonary vasculature and increased pulmona |
| March 01, 2020 | <a href="#">Inhibition of Dectin-1 in mice ameliorates cardiac remodeling by suppressing NF-κB/NLRP3 signaling after myocardial infarction</a>          | The myocardial inflammatory response is a consequence of myocardial infarction (MI), which may deteriorate cardiac remodeling and lead to dysfunction  |
| March 01, 2020 | <a href="#">Repeated Remote Ischemic Conditioning Reduces Doxorubicin-Induced Cardiotoxicity</a>  | OBJECTIVES This study investigated the cardioprotective effect of repeated remote ischemic preconditioning (rRIC) on doxorubicin-induced cardiotoxicit |
| March 01, 2020 | <a href="#">Cannabinoids Rescue Cocaine-Induced Seizures by Restoring Brain Glycine Receptor Dysfunction</a>  | Cannabinoids are reported to rescue cocaine- induced seizures (CISs), a severe complication in cocaine users.  |
| March 01, 2020 | <a href="#">Maternal administration of tadalafil improves fetal ventricular systolic function in a Hey2 knockout mouse model of fetal heart failure</a> | Background: There is no established transplacental treatment for heart failure (HF) in utero, and no animal models or experimental systems of fetal HF |
| March 01, 2020 | <a href="#">Pharmacological Silencing of MicroRNA-152 Prevents Pressure Overload-Induced Heart Failure</a>  | BACKGROUND: MicroRNAs are small, noncoding RNAs that play a key role in gene expression.   |
| March 01, 2020 | <a href="#">Early life undernutrition reduces maximum treadmill running capacity in adulthood in mice</a>   | Undernutrition during early life causes chronic disease with specific impairments to the heart and skeletal muscle.                                    |



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| March 01, 2020 | <a href="#">Multi-phase catheter-injectable hydrogel enables dual-stage protein-engineered cytokine release to mitigate adverse left ventricular remodeling following myocardial infarction in a small animal model and a large animal model</a> | Although ischemic heart disease is the leading cause of death worldwide, mainstay treatments ultimately fail because they do not adequately address di |
| March 01, 2020 | <a href="#">Verapamil decreases calpain-1 and matrix metalloproteinase-2 activities and improves hypertension-induced hypertrophic cardiac remodeling in rats</a>  | Aims: Increased activity of calpain-1 and matrix metalloproteinase (MMP)-2 was observed in different models of arterial hypertension and contribute to |
| March 01, 2020 | <a href="#">Amphiregulin promotes cardiac fibrosis post myocardial infarction by inducing the endothelial-mesenchymal transition via the EGFR pathway in endothelial cells</a>   | The endothelial-mesenchymal transition (EndMT) plays a key role in the development of cardiac fibrosis (CF) after acute myocardial infarction (AMI).   |
| March 01, 2020 | <a href="#">B cell-Derived IL35 Drives STAT3-Dependent CD8 + T-cell Exclusion in Pancreatic Cancer</a>   | Pancreatic ductal adenocarcinoma (PDA) is an aggressive malignancy characterized by a paucity of tumor-proximal CD8+ T cells and resistance to immunot |
| March 01, 2020 | <a href="#">Innate Lymphoid Cells Play a Pathogenic Role in Pericarditis</a>   | We find that cardiac group 2 innate lymphoid cells (ILC2s) are essential for the development of IL-33- induced eosinophilic pericarditis.              |
| March 01, 2020 | <a href="#">BRCA1 protects cardiac microvascular endothelial cells against irradiation by regulating p21-mediated cell cycle arrest</a>  | Aims: Microvascular endothelial cell dysfunction is a leading cause of radiation-induced heart disease (RIHD).   |
| March 01, 2020 | <a href="#">The circular RNA hsa_circ_0007623 acts as a sponge of microRNA-297 and promotes cardiac repair</a>   | Circular RNAs (circRNAs) are a kind of closed loop endogenous non-coding RNAs have attracted increasing interest in recent years.                      |
| March 01, 2020 | <a href="#">TRPM4 modulates right ventricular remodeling under pressure load accompanied with decreased expression level</a>   | Survival of patients with congenital heart defects including increased right ventricular pressure load (i.e.   |
| March 01, 2020 | <a href="#">Therapeutic Antibody Against Phosphorylcholine Preserves Coronary Function and Attenuates Vascular 18F-FDG Uptake in Atherosclerotic Mice</a>  | This study showed that treatment with a therapeutic monoclonal immunoglobulin-G1 antibody against phosphorylcholine on oxidized phospholipids preserve |
| March 01, 2020 | <a href="#">Severe hypoglycemia exacerbates myocardial dysfunction and metabolic remodeling in diabetic mice</a>   | Although several studies have revealed that adverse cardiovascular events in diabetic patients are closely associated with severe hypoglycemia (SH), t |
| March 01, 2020 | <a href="#">Sexual dimorphism in cardiac transcriptome associated with a troponin C murine model of hypertrophic cardiomyopathy</a>  | Heart disease remains the number one killer of women in the US.  |
| March 01, 2020 | <a href="#">PRKAR1A deficiency impedes hypertrophy and reduces heart size</a>  | Protein kinase A (PKA) activity is pivotal for proper functioning of the human heart, and its dysregulation has been implicated in a variety of cardia |
| March 01, 2020 | <a href="#">LIN28B Underlies the Pathogenesis of a Subclass of Ewing Sarcoma</a>   | Ewing sarcoma (EwS) is associated with poor prognosis despite current multimodal therapy.  |
| March 01, 2020 | <a href="#">The SGLT2 inhibitor empagliflozin reduces mortality and prevents progression in experimental pulmonary hypertension</a>  | Pulmonary arterial hypertension (PAH) is a rare, but progressive and devastating vascular disease with few treatment options to prevent the advancemen |
| March 01, 2020 | <a href="#">Assessment of cardiac structure and function in a murine model of temporal lobe epilepsy</a>   | Sudden unexpected death in epilepsy (SUDEP) is a significant cause of premature seizure-related death.   |

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| March 01, 2020    | <a href="#">Nicotinamide riboside kinase-2 alleviates ischemia-induced heart failure through P38 signaling</a>   | Nicotinamide riboside kinase-2 (NRK-2), a muscle-specific $\beta$ 1 integrin binding protein, predominantly expresses in skeletal muscle with a trace amount           |
| March 01, 2020    | <a href="#">Estrogen Receptor-<math>\alpha</math> Non-Nuclear Signaling Confers Cardioprotection and Is Essential to cGMP-PDE5 Inhibition Efficacy</a>                   | Using genetically engineered mice lacking estrogen receptor- $\alpha$ non-nuclear signaling, this study demonstrated that estrogen receptor- $\alpha$ non-nuclear sign |
| March 01, 2020    | <a href="#">NLRP3 inflammasome-mediated pyroptosis contributes to the pathogenesis of non-ischemic dilated cardiomyopathy</a>  | Dilated cardiomyopathy (DCM) is one of the most common causes of heart failure, and the underlying mechanism remains largely elusive.                                  |
| March 01, 2020    | <a href="#">P66Shc Deletion Ameliorates Oxidative Stress and Cardiac Dysfunction in Pressure Overload-Induced Heart Failure</a>  | Objective: p66Shc is a redox enzyme that plays an important role in the response of oxidative stress and the p53-dependent apoptosis.                                  |
| March 01, 2020    | <a href="#">Resveratrol protects against CIH-induced myocardial injury by targeting Nrf2 and blocking NLRP3 inflammasome activation</a>                                  | The prominent feature of obstructive sleep apnea (OSA) is chronic intermittent hypoxia (CIH).  |
| March 01, 2020    | <a href="#">Bone marrow mesenchymal stem cells-derived exosomal microRNA-185 represses ventricular remodeling of mice with myocardial infarction by inhibiting SOCS2</a> | Objective: Recently, the function of microRNAs (miRNAs) has been clarified in human diseases, we aimed to identify the role of miR-185 in myocardial i                 |
| March 01, 2020    | <a href="#">PM2.5-induced inflammation and lipidome alteration associated with the development of atherosclerosis based on a targeted lipidomic analysis</a>             | Epidemiological studies have confirmed that PM2.5 could contribute to the development of atherosclerosis accompanied with lipids dysregulation.                        |
| March 01, 2020    | <a href="#">Fendrr involves in the pathogenesis of cardiac fibrosis via regulating miR-106b/SMAD3 axis</a>   | Cardiovascular diseases (CVDs) is the first cause of death worldwide, generally exhibiting a high morbidity, high disability rate and high mortality e                 |
| March 01, 2020    | <a href="#">Adrenomedullin Is Necessary to Resolve Hyperoxia-Induced Experimental Bronchopulmonary Dysplasia and Pulmonary Hypertension in Mice</a>                      | Bronchopulmonary dysplasia (BPD)-associated pulmonary hypertension (PH) is an infantile lung disease characterized by aberrant angiogenesis and impair                 |
| March 01, 2020    | <a href="#">Senescence-Induced Vascular Remodeling Creates Therapeutic Vulnerabilities in Pancreas Cancer</a>  | Summary KRAS mutant pancreatic ductal adenocarcinoma (PDAC) is characterized by a desmoplastic response that promotes hypovascularity, immunosuppressi                 |
| March 01, 2020    | <a href="#">Berberine alleviates pulmonary hypertension through Trx1 and <math>\beta</math>-catenin signaling pathways in pulmonary artery smooth muscle cells</a>       | Pulmonary arterial hypertension (PAH) is closely associated with profound vascular remodeling, especially pulmonary arterial medial hypertrophy and mu                 |
| February 01, 2020 | <a href="#">Stachydrine hydrochloride alleviates pressure overload-induced heart failure and calcium mishandling on mice</a>   | Ethnopharmacological relevance: Traditional Chinese medicine Leonurus japonicus Houtt.   |
| February 01, 2020 | <a href="#">Dexrazoxane ameliorates doxorubicin-induced cardiotoxicity by inhibiting both apoptosis and necroptosis in cardiomyocytes</a>                                | Doxorubicin, as a first line chemotherapeutic agent, its usage is limited owing to cardiotoxicity.   |
| February 01, 2020 | <a href="#">US-triggered ultra-sensitive "thrombus constructor" for precise tumor therapy</a>  | Embolization therapy is an attractive strategy for antitumor therapy, especially for solid tumors.   |
| February 01, 2020 | <a href="#">Cardamonin protects against doxorubicin-induced cardiotoxicity in mice by restraining oxidative stress and inflammation associated with Nrf2 signaling</a>   | The clinical application of doxorubicin (DOX) for cancer treatment is limited due to its cardiotoxicity.   |
| February 01, 2020 | <a href="#">Late onset renal hypertrophy and dysfunction in mice lacking CTRP1</a>   | Local and systemic factors that influence renal structure and function in aging are not well understood.   |

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| February 01, 2020 | <a href="#">Targeting exosome associated human antigen R attenuates fibrosis and inflammation in diabetic heart</a>  | RNA-binding proteins like human antigen R (HuR) are key regulators in post-transcriptional control of gene expression in several pathophysiological co |
| February 01, 2020 | <a href="#">Dynamic tracking of bulk nanobubbles from microbubbles shrinkage to collapse</a>   | Nanobubbles (NBs) have attracted great attention because of their potential role in interfacial science and application.                               |
| February 01, 2020 | <a href="#">Effects of the different-sized external stents on vein graft intimal hyperplasia and inflammation</a>  | Background: The poor long-term patency ratio of vein grafts prevents patients from benefiting from coronary artery bypass graft (CABG).                |
| February 01, 2020 | <a href="#">Left Ventricular Longitudinal Strain as a Marker for Point of No Return in Hypertensive Heart Failure Treatment</a>  | Background: There are currently no therapies that can improve prognosis in cases of heart failure (HF) with preserved ejection fraction (EF).          |
| February 01, 2020 | <a href="#">Enhancing sustained-release local therapy: Single versus dual chemotherapy for the treatment of neuroblastoma</a>  | Background: Neuroblastoma is the most common pediatric extracranial solid malignancy with limited effective treatment.                                 |
| February 01, 2020 | <a href="#">ROS-responsive polyurethane fibrous patches loaded with methylprednisolone (MP) for restoring structures and functions of infarcted myocardium in vivo</a> | Reactive oxygen species (ROS) play an important role in the pathogenesis of numerous diseases including atherosclerosis, diabetes, inflammation and my |
| February 01, 2020 | <a href="#">MiR 144 protects the heart from hyperglycemia induced injury by regulating mitochondrial biogenesis and cardiomyocyte apoptosis</a>                        | Several lines of evidence have revealed the potential of microRNAs (miRNAs, miRs) as biomarkers for detecting diabetic cardiomyopathy, although their  |
| February 01, 2020 | <a href="#">A Peptide-Functionalized Magnetic Nanoplatfrom-Loaded Melatonin for Targeted Amelioration of Fibrosis in Pressure Overload-Induced Cardiac Hypertrophy</a> | Introduction: Currently, the unsatisfactory treatment of cardiac hypertrophy is due to the unbridled myocardial fibrosis.                              |
| February 01, 2020 | <a href="#">Tumor Contrast Imaging with Gas Vesicles by Circumventing the Reticuloendothelial System</a>   | Gas vesicles (GVs) are nanosized structures (45–800 nm) and have been reported to produce non-linear contrast signals, making them an attractive agent |
| February 01, 2020 | <a href="#">Enhanced cardiomyocyte reactive oxygen species signaling promotes ibrutinib-induced atrial fibrillation</a>  | Atrial fibrillation (AF) occurs in up to 11% of cancer patients treated with ibrutinib.  |
| February 01, 2020 | <a href="#">Bnip3 mediates doxorubicin-induced cardiomyocyte pyroptosis via caspase-3/GSDME</a>  | Aims: This study was aimed to investigate the role of GSDME-mediated pyroptosis in cardiac injury induced by Doxorubicin (DOX), and to evaluate the ro |
| February 01, 2020 | <a href="#">Evolution of metallic cardiovascular stent materials: A comparative study among stainless steel, magnesium and zinc</a>                                    | A cardiovascular stent is a small mesh tube that expands a narrowed or blocked coronary artery.  |
| January 31, 2020  | <a href="#">Alginate Oligosaccharide Alleviates Monocrotaline-Induced Pulmonary Hypertension via Anti-Oxidant and Anti-Inflammation Pathways in Rats</a>               | Pulmonary arterial hypertension (PAH) is a serious and fatal cardiovascular disorder characterized by increased pulmonary vascular resistance and prog |
| January 30, 2020  | <a href="#">Ocular Pulse Elastography: Imaging Corneal Biomechanical Responses to Simulated Ocular Pulse Using Ultrasound</a>  | Purpose: In vivo evaluation of corneal biomechanics holds the potential for improving diagnosis and management of ocular diseases.                     |
| January 01, 2020  | <a href="#">Up regulation of miR 195 contributes to cardiac hypertrophy induced arrhythmia by targeting calcium and potassium channels</a>                             | Previous studies have confirmed that miR-195 expression is increased in cardiac hypertrophy, and the bioinformatics website predicted by Targetscan so |

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| January 01, 2020 | <a href="#">Qi Dan Li Xin pill improves chronic heart failure by regulating mTOR/p70S6k-mediated autophagy and inhibiting apoptosis</a>  | Myocardial remodeling represents a key factor in chronic heart failure (CHF) development, and is characterized by chronic death of cardiomyocytes.     |
| January 01, 2020 | <a href="#">Syndecan 4 Protects the Heart From the Profibrotic Effects of Thrombin Cleaved Osteopontin</a>   | Background: Pressure overload of the heart occurs in patients with hypertension or valvular stenosis and induces cardiac fibrosis because of excessive |
| January 01, 2020 | <a href="#">Ultrasound and magnetic resonance imaging for group stratification and treatment monitoring in the transgenic adenocarcinoma of the mouse prostate model</a>       | Background: The transgenic adenocarcinoma of the mouse prostate (TRAMP) is a widely used genetically engineered spontaneous prostate cancer model.     |
| January 01, 2020 | <a href="#">Accelerating development of high-risk neuroblastoma patient-derived xenograft models for preclinical testing and personalised therapy</a>                          | Background: Predictive preclinical models play an important role in the assessment of new treatment strategies and as avatar models for personalised m |
| January 01, 2020 | <a href="#">Programmed death-ligand 1 triggers PSMCs pyroptosis and pulmonary vascular fibrosis in pulmonary hypertension</a>  | Pyroptosis is a pro-inflammatory form of programmed cell death, whose genesis directly depended on caspase-1 activation.                               |
| January 01, 2020 | <a href="#">Intravascular flow stimulates PKD2 (polycystin-2) channels in endothelial cells to reduce blood pressure</a>   | PKD2 (polycystin-2, TRPP1), a TRP polycystin channel, is expressed in endothelial cells (ECs), but its physiological functions in this cell type are u |
| January 01, 2020 | <a href="#">Dynamic solid-state ultrasound contrast agent for monitoring pH fluctuations in vivo.</a>  | The key challenge for in vivo biosensing is to design biomarker-responsive contrast agents that can be readily detected and monitored by broadly avail |
| January 01, 2020 | <a href="#">Reductive Stress Causes Pathological Cardiac Remodeling and Diastolic Dysfunction</a>  | Aims: Redox homeostasis is tightly controlled and regulates key cellular signaling pathways.   |
| January 01, 2020 | <a href="#">Repurposing Kir6/SUR2 Channel Activator Minoxidil to Arrests Growth of Gynecologic Cancers</a>   | Gynecologic cancers are among the most lethal cancers found in women, and, advanced stage cancers are still a treatment challenge.                     |
| January 01, 2020 | <a href="#">A high fat diet increases influenza A virus-associated cardiovascular damage</a>   | Background Influenza A virus (IAV) causes a wide range of extra-respiratory complications.   |
| January 01, 2020 | <a href="#">Mitochondria-targeted antioxidant mitoquinone attenuates liver inflammation and fibrosis in cirrhotic rats</a>   | In liver cirrhosis, oxidative stress plays a major role in promoting liver inflammation and fibrosis.  |
| January 01, 2020 | <a href="#">Hydrogen Sulfide Promotes Cardiomyocyte Proliferation and Heart Regeneration via ROS Scavenging</a>  | Neonatal mouse hearts can regenerate completely in 21 days after cardiac injury, providing an ideal model to exploring heart regenerative therapeutic  |
| January 01, 2020 | <a href="#">Melatonin protects against thoracic aortic aneurysm and dissection through SIRT1 dependent regulation of oxidative stress and vascular smooth muscle cell loss</a> | Melatonin functions as an endogenous protective molecule in multiple vascular diseases, whereas its effects on thoracic aortic aneurysm and dissection |
| January 01, 2020 | <a href="#">Selective targeting of ubiquitination and degradation of PARP1 by E3 ubiquitin ligase WWP2 regulates isoproterenol-induced cardiac remodeling</a>                  | The elevated expression of poly(ADP-ribose) polymerase-1 (PARP1) and increased PARP1 activity, namely, poly(ADP-ribose)ylation (PARylation), have been |
| January 01, 2020 | <a href="#">Exploring the mechanism underlying the cardioprotective effect of shexiang baixin pill on acute myocardial infarction rats by comprehensive metabolomics</a>       | Ethnopharmacological relevance: Shexiang Baixin Pill (SBP) is a commercial Chinese medicine included in the Chinese Pharmacopoeia with well-establishe |



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| January 01, 2020 | <a href="#">Targeted Repair of Vascular Injury by Adipose Derived Stem Cells Modified with P Selectin Binding Peptide</a>  | Percutaneous coronary intervention for coronary artery disease treatment often results in pathological vascular injury, characterized by P-selectin ov            |
| January 01, 2020 | <a href="#">Contrast-enhanced ultrasound with sub-micron sized contrast agents detects insulinitis in mouse models of type1 diabetes</a>   | In type1 diabetes (T1D) autoreactive T-cells infiltrate the islets of Langerhans, depleting insulin-secreting $\beta$ -cells (insulinitis).                       |
| January 01, 2020 | <a href="#">Metformin protects against PM2.5-induced lung injury and cardiac dysfunction independent of AMP-activated protein kinase <math>\alpha</math>2</a>  | Fine particulate matter (PM2.5) airborne pollution increases the risk of respiratory and cardiovascular diseases.   |
| January 01, 2020 | <a href="#">Mild carotid stenosis creates gradual, progressive, lifelong brain, and eye damage: An experimental laboratory rat model</a>   | In humans, carotid stenosis of 70% and above might be the cause of clinical symptoms such as transient ischemic attack and stroke.                                |
| January 01, 2020 | <a href="#">The function of RNase L and its degradation mechanism in cardiac acute ischemic injury</a>   | RNase L is generally thought to play a key role in antiviral defenses.  |
| January 01, 2020 | <a href="#">Local delivery of dinutuximab from lyophilized silk fibroin foams for treatment of an orthotopic neuroblastoma model</a>   | Immunotherapy targeting GD2 is a primary treatment for patients with high-risk neuroblastoma.   |
| January 01, 2020 | <a href="#">Aminooxyacetic acid attenuates post infarct cardiac dysfunction by balancing macrophage polarization through modulating macrophage metabolism in mice</a>  | Excessive activation of pro-inflammatory M1 macrophages following acute myocardial infarction (MI) aggravates adverse cardiac remodelling and heart dy            |
| January 01, 2020 | <a href="#">Hydrogen Sulfide Therapy Suppresses Cofilin-2 and Attenuates Ischemic Heart Failure in a Mouse Model of Myocardial Infarction</a>  | Aims: Hydrogen sulfide (H <sub>2</sub> S) protects against ischemic and inflammatory injury following myocardial ischemia via induction of microRNA (miR)-21.     |
| January 01, 2020 | <a href="#">Dietary methionine restriction improves the impairment of cardiac function in middle-aged obese mice</a>   | Dietary methionine restriction (MR) has been reported to extend lifespan, reduce obesity and decrease oxidative damage to mtDNA in the heart of rats,             |
| January 01, 2020 | <a href="#">IL-33 Induces Type-2-Cytokine Phenotype but Exacerbates Cardiac Remodeling Post-Myocardial Infarction with Eosinophil Recruitment, Worsened Systolic Dysfunction, and Ventricular Wall Rupture</a> | Myocardial infarction (MI) is the leading cause of mortality worldwide.   |
| January 01, 2020 | <a href="#">EXPRESS: Endurance Exercise Training in Pulmonary Hypertension increases Skeletal Muscle Electron Transport Chain Supercomplex Assembly</a>  | Introduction: Pulmonary hypertension (PH) is associated with pronounced exercise intolerance (decreased V O <sub>2</sub> max) that can significantly impact quali |
| January 01, 2020 | <a href="#">Cardiopoietic stem cell therapy restores infarction-altered cardiac proteome</a>   | Cardiopoietic stem cells have reached advanced clinical testing for ischemic heart failure.   |
| January 01, 2020 | <a href="#">Inhibition of SREBP Improves Cardiac Lipidopathy, Improves Endoplasmic Reticulum Stress, and Modulates Chronic Chagas Cardiomyopathy</a>   | Background: Trypanosoma cruzi is an intracellular parasite that causes debilitating chronic Chagas cardiomyopathy (CCM), for which there is no effecti            |
| January 01, 2020 | <a href="#">Carbachol alleviates myocardial injury in septic rats through PI3K/AKT signaling pathway</a>   | OBJECTIVE: To explore the effect of carbachol on myocardial injury in septic rats, and to further study its influence on the phosphatidylinositol 3-ki            |
| January 01, 2020 | <a href="#">Cardiac remodeling secondary to chronic volume overload is attenuated by a novel MMP9/2 blocking antibody</a>  | Objective Monoclonal antibody derivatives are promising drugs for the treatment of various diseases due to their high matrix metalloproteinases (MMP)             |
| January 01, 2020 | <a href="#">Lung developmental arrest caused by PDGF-A deletion: consequences for the adult mouse lung</a>   | PDGF-A is a key contributor to lung development in mice.  |

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| January 01, 2020 | <a href="#">FGF23 induced left ventricular hypertrophy mediated by FGFR4 signaling in the myocardium is attenuated by soluble Klotho in mice</a>   | There is controversy regarding whether excess FGF23 causes left ventricular hypertrophy (LVH) directly through activation of fibroblast growth factor   |
| January 01, 2020 | <a href="#">Stopping transformed cancer cell growth by rigidity sensing</a>  | A common feature of cancer cells is the alteration of kinases and biochemical signalling pathways enabling transformed growth on soft matrices, wherea  |
| January 01, 2020 | <a href="#">Uncoupling protein 2 facilitates insulin-elicited protection against lipopolysaccharide-induced myocardial dysfunction</a>   | Sepsis-induced myocardial dysfunction is a critical cause of high mortality among patients with sepsis.   |
| January 01, 2020 | <a href="#">Overexpression of mitochondrial creatine kinase preserves cardiac energetics without ameliorating murine chronic heart failure</a>   | Mitochondrial creatine kinase (Mt-CK) is a major determinant of cardiac energetic status and is down-regulated in chronic heart failure, which may con  |
| January 01, 2020 | <a href="#">Mononuclear phagocyte system blockade improves therapeutic exosome delivery to the myocardium</a>  | Rationale: Exosomes are emerging as a promising drug delivery carrier.  |
| January 01, 2020 | <a href="#">The hydroxypropyl <math>\beta</math> cyclodextrin minoxidil inclusion complex improves the cardiovascular and proliferative adverse effects of minoxidil in male rats: Implications in the treatment of alopecia</a> | The efficacy of minoxidil (MXD) ethanolic solutions (1%-5% w/v) in the treatment of androgenetic alopecia is limited by adverse reactions.              |
| January 01, 2020 | <a href="#">Mesenchymal Stem Cells Promote the Resolution of Cardiac Inflammation After Ischemia Reperfusion Via Enhancing Efferocytosis of Neutrophils</a>  | Background Neutrophils play a major role in inflammation after myocardial ischemia-reperfusion (I/R) injury.  |
| January 01, 2020 | <a href="#">Dietary Tomato or Lycopene Do Not Reduce Castration-Resistant Prostate Cancer Progression in a Murine Model</a>  | Background: Dietary tomato products or lycopene protect against prostate carcinogenesis, but their impact on the emergence of castration-resistant pro  |
| January 01, 2020 | <a href="#">Assessment of Metastatic and Reactive Sentinel Lymph Nodes with B7-H3-Targeted Ultrasound Molecular Imaging: A Longitudinal Study in Mouse Models</a>  | Purpose: To explore the potential of B7-H3-targeted ultrasound molecular imaging (USMI) for longitudinal assessment and differentiation of metastatic   |
| January 01, 2020 | <a href="#">A small-molecule allosteric inhibitor of BAX protects against doxorubicin-induced cardiomyopathy</a>   | Doxorubicin remains an essential component of many cancer regimens, but its use is limited by lethal cardiomyopathy, which has been difficult to target |
| January 01, 2020 | <a href="#">Low-frequency ultrasound-mediated cytokine transfection enhances T cell recruitment at local and distant tumor sites</a>   | Robust cytotoxic T cell infiltration has proven to be difficult to achieve in solid tumors.   |
| January 01, 2020 | <a href="#">Mesencephalic astrocyte-derived neurotrophic factor is an ER-resident chaperone that protects against reductive stress in the heart</a>  | We have previously demonstrated that ischemia/reperfusion (I/R) impairs endoplasmic reticulum (ER)-based protein folding in the heart and thereby acti  |
| January 01, 2020 | <a href="#">Luteolin attenuates sepsis induced myocardial injury by enhancing autophagy in mice</a>  | Sepsis-induced cardiomyopathy (Slc) is a compli- cation of severe sepsis and septic shock characterized by an invertible myocardial depression.         |
| January 01, 2020 | <a href="#">TASK-1 and TASK-3 channels modulate pressure overload-induced cardiac remodeling and dysfunction</a>   | Tandem pore domain acid-sensitive K + (TASK) channels are present in cardiac tissue; however, their contribution to cardiac pathophysiology is not wel  |
| January 01, 2020 | <a href="#">Arctigenin alleviates myocardial infarction injury through inhibition of the NFAT5-related inflammatory phenotype of cardiac macrophages/monocytes in mice</a>   | In this study, we screened potential natural compounds for the treatment of myocardial infarction (MI) and explored the underlying mechanisms.          |
| January 01, 2020 | <a href="#">Mesenchymal-endothelial transition-derived cells as a potential new regulatory target for cardiac hypertrophy</a>  | The role of Mesenchymal-endothelial transition (MEndoT) in cardiac hypertrophy is unclear.  |

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| January 01, 2020 | <a href="#">Bovine HDL and Dual Domain HDL-Mimetic Peptides Inhibit Tumor Development in Mice</a>  | A growing body of literature supports the role of apolipoproteins present in HDL in the treatment of pro-inflammatory diseases including cancer.       |
| January 01, 2020 | <a href="#">ILC2s amplify PD-1 blockade by activating tissue-specific cancer immunity</a>  | Group 2 innate lymphoid cells (ILC2s) regulate inflammation and immunity in mammalian tissues <sup>1,2</sup> .   |
| January 01, 2020 | <a href="#">The circadian clock protects against ionizing radiation induced cardiotoxicity</a>   | Radiation therapy (RT) is commonly used to treat solid tumors of the breast, lung, and esophagus; however, the heart is an unintentional target of ion |
| January 01, 2020 | <a href="#">IGF-1C domain-modified hydrogel enhanced the efficacy of stem cells in the treatment of AMI</a>  | BACKGROUND: Due to the low survival rate of cell transplantation, stem cell has not been widely used in clinical treatment of acute myocardial infarct |
| January 01, 2020 | <a href="#">Doxorubicin induces cardiomyocyte apoptosis and atrophy through cyclin-dependent kinase 2-mediated activation of forkhead box O1</a>   | Recent clinical investigations indicate that anthracycline-based chemotherapies induce early decline in heart mass in cancer patients.                 |
| January 01, 2020 | <a href="#">Involvement of Low Density Lipoprotein Receptor in the Pathogenesis of Pulmonary Hypertension</a>  | Background: Recently, we and others have reported a causal role for oxidized lipids in the pathogenesis of pulmonary hypertension (PH).                |
| January 01, 2020 | <a href="#">The Long Non coding RNA NR_045363 Regulates Cardiomyocyte Apoptosis and Cardiac Repair Through Activating P53 Signal Pathway</a>   | Long noncoding RNAs (lncRNAs) can participate in various biological behaviors, including regulating cell differentiation, proliferation and apoptosis. |
| January 01, 2020 | <a href="#">Abnormal Lysosomal Positioning and Small Extracellular Vesicle Secretion in Arterial Stiffening and Calcification of Mice Lacking Mucopolipin 1 Gene</a>   | Recent studies have shown that arterial medial calcification is mediated by abnormal release of exosomes/small extracellular vesicles from vascular sm |
| January 01, 2020 | <a href="#">Dermal exposure to the UV filter benzophenone-3 during early pregnancy affects fetal growth and sex ratio of the progeny in mice</a>   | The aim of this study was to analyze whether dermal exposure to benzophenone 3 (BP-3) during pregnancy affects critical parameters of pregnancy, and w |
| January 01, 2020 | <a href="#">Renal Tissue PO 2 Sensing During Acute Hemodilution is Dependent on the Diluent.</a>   | The mechanism by which the kidney senses changes in hemoglobin concentration (Hb) may inform decisions regarding the optimal fluid for intravascular v |
| January 01, 2020 | <a href="#">Use of Transabdominal Ultrasound for the Detection of Intra-Peritoneal Tumor Engraftment and Growth in Mouse Xenografts of Epithelial Ovarian Cancer</a>   | Objective: To evaluate intraperitoneal (IP) tumor engraftment, metastasis and growth in a pre-clinical murine epithelial ovarian cancer (EOC) model us |
| January 01, 2020 | <a href="#">Inhibition of peptidyl arginine deiminase-4 protects against myocardial infarction induced cardiac dysfunction</a>   | Peptidyl arginine deiminase-4 (PAD4), a PAD enzyme family member, catalyzes the posttranslational conversion of arginine residues to citrulline in tar |
| January 01, 2020 | <a href="#">Chronic Empagliflozin treatment reduces myocardial infarct size in non-diabetic mice through STAT-3 mediated protection on microvascular endothelial cells and reduction of oxidative stress</a> | Aims: Empagliflozin (EMPA) demonstrates cardioprotective effects on diabetic myocardium but its infarct sparing effects in normoglycemia remain unspe  |
| January 01, 2020 | <a href="#">Medial calcification in the arterial wall of smooth muscle cell specific Smpd1 transgenic mice: A ceramide mediated vasculopathy</a>   | Arterial medial calcification (AMC) is associated with crystallization of hydroxyapatite in the extracellular matrix and arterial smooth muscle cells  |
| January 01, 2020 | <a href="#">Atypical ALPK2 kinase is not essential for cardiac development and function</a>  | Protein kinases play an integral role in cardiac development, function, and disease.   |

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| January 01, 2020 | <a href="#">Loss of Dynamic Regulation of G Protein-Coupled Receptor Kinase 2 by Nitric Oxide Leads to Cardiovascular Dysfunction with Aging</a>                               | Nitric oxide (NO) and S-nitrosothiol (SNO) are considered cardio- and vaso-protective substances.   |
| January 01, 2020 | <a href="#">Icariin Attenuates Diabetic Cardiomyopathy and Downregulates Extracellular Matrix Proteins in Heart Tissue of Type 2 Diabetic Rats</a>                             | Objective: Diabetic cardiomyopathy (DCM) is a serious complication of type 2 diabetes mellitus (T2DM), resulting in unfavorable prognosis.                          |
| January 01, 2020 | <a href="#">Production of TRPV2-targeting functional antibody ameliorating dilated cardiomyopathy and muscular dystrophy in animal models</a>                                  | Abnormal Ca <sup>2+</sup> handling is essential in the pathophysiology of degenerative muscle disorders, such as dilated cardiomyopathy (DCM) and muscular dystrop  |
| January 01, 2020 | <a href="#">A murine model of increased coronary sinus pressure induces myocardial edema with cardiac lymphatic dilation and fibrosis</a>                                      | Myocardial edema is a consequence of many cardiovascular stressors, including myocardial infarction, cardiac bypass surgery, and hypertension.                      |
| January 01, 2020 | <a href="#">miR-19a/19b improves the therapeutic potential of mesenchymal stem cells in a mouse model of myocardial infarction</a>   | Myocardial infarction (MI) is the cardiac emergency that may leads to myocardial necrosis.  |
| January 01, 2020 | <a href="#">NFATc3-dependent expression of miR-153-3p promotes mitochondrial fragmentation in cardiac hypertrophy by impairing mitofusin-1 expression</a>                      | Mitochondrial dysfunction is involved in the pathogenesis of various cardiovascular disorders.  |
| January 01, 2020 | <a href="#">CTRP15 derived from cardiac myocytes attenuates TGFβ1-induced fibrotic response in cardiac fibroblasts</a>   | Purpose: Cardiac fibrosis is characterized by net accumulation of extracellular matrix (ECM) components in the myocardium and facilitates the developm              |
| January 01, 2020 | <a href="#">Tet2-mediated clonal hematopoiesis in nonconditioned mice accelerates age-associated cardiac dysfunction</a>   | Clonal hematopoiesis of indeterminate potential is prevalent in elderly individuals and associated with increased risks of all-cause mortality and car              |
| January 01, 2020 | <a href="#">Gas Generating, pH Responsive Calcium Carbonate Hybrid Particles with Biomimetic Coating for Contrast Enhanced Ultrasound Imaging</a>                              | This work reports the fabrication of biocompatible and pH-sensitive hybrid polydopamine/bovine serum albumin/calcium carbonate (PDA/BSA/CaCO <sub>3</sub> ) particl |
| January 01, 2020 | <a href="#">Investigation of cardiovascular protective effect of Shenmai injection by network pharmacology and pharmacological evaluation</a>                                  | BACKGROUND: Shenmai injection (SMI) has been used in the treatment of cardiovascular disease (CVD), such as heart failure, myocardial ischemia and cor              |
| January 01, 2020 | <a href="#">Development of a chimeric Fab directed against human galectin-3 and validation as an immune-PET tracer for the sensitive in vivo imaging of thyroid cancer</a>     | BACKGROUND The lack of facile methods for the specific characterization of malignant thyroid nodules makes the diagnosis of thyroid cancer (TC) challe              |
| January 01, 2020 | <a href="#">Systemic long term inactivation of hypoxia inducible factor prolyl 4 hydroxylase 2 ameliorates aging induced changes in mice without affecting their life span</a> | Hypoxia inactivates hypoxia-inducible factor (HIF) prolyl 4-hydroxylases (HIF-P4Hs), which stabilize HIF and upregulate genes to restore tissue oxygen              |
| January 01, 2020 | <a href="#">Ultrasound/Optical Dual Modality Imaging for Evaluation of Vulnerable Atherosclerotic Plaques with Osteopontin Targeted Nanoparticles</a>                          | Because of the high mortality of coronary atherosclerotic heart diseases, it is necessary to develop novel early detection methods for vulnerable athe              |
| January 01, 2020 | <a href="#">Natriuretic Peptide Receptor 2 Locus Contributes to Carotid Remodeling</a>   | BACKGROUND: Carotid artery intima/media thickness (IMT) is a hallmark trait associated with future cardiovascular events.   |
| January 01, 2020 | <a href="#">Huoxue Wentong Formula ameliorates myocardial infarction in rats through inhibiting CaMKII oxidation and phosphorylation</a>                                       | Background: The Chinese medicine Huoxue Wentong Formula (HXWTF) was used to treat thoracic obstruction and angina pectoris in clinic, which has not be              |



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| January 01, 2020 | <a href="#">Heart failure after pressure overload in autosomal-dominant desminopathies: Lessons from heterozygous DES-p.R349P knock-in mice</a>                                   | Background Mutations in the human desmin gene (DES) cause autosomal-dominant and -recessive cardiomyopathies, leading to heart failure, arrhythmias, a |
| January 01, 2020 | <a href="#">Three-Dimensional Inflation Response of Porcine Optic Nerve Head Using High-Frequency Ultrasound Elastography</a>   | Characterization of the biomechanical behavior of the optic nerve head (ONH) in response to intraocular pressure (IOP) elevation is important for unde |
| January 01, 2020 | <a href="#">β 3 -Adrenergic receptor blockade reduces mortality in endotoxin-induced heart failure by suppressing induced nitric oxide synthase and saving cardiac metabolism</a> | The β 3 -adrenergic receptor (β 3 AR) is related to myocardial fatty acid metabolism and its expression has been implicated in heart failure.          |
| January 01, 2020 | <a href="#">FoxO1–Dio2 signaling axis governs cardiomyocyte thyroid hormone metabolism and hypertrophic growth</a>  | Forkhead box O (FoxO) proteins and thyroid hormone (TH) have well established roles in cardiovascular morphogenesis and remodeling.                    |
| January 01, 2020 | <a href="#">Effect of miR-195-5p on cardiomyocyte apoptosis in rats with heart failure by regulating TGF-β1/Smad3 signaling pathway</a>   | Purpose: This study set out to investigate the effect of miR-195-5p on cardiomyocyte apoptosis in rats with heart failure (HF) and its mechanism.      |
| January 01, 2020 | <a href="#">Prohibitin 2 deficiency impairs cardiac fatty acid oxidation and causes heart failure</a>   | Fatty acids are the most major substrate source for adult cardiac energy generation.   |
| January 01, 2020 | <a href="#">B7 33. a Functionally Selective Relaxin Receptor 1 Agonist, Attenuates Myocardial Infarction–Related Adverse Cardiac Remodeling in Mice</a>                           | BACKGROUND: Human relaxin- 2 is a peptide hormone capable of pleiotropic effects in several organ systems.   |
| January 01, 2020 | <a href="#">Biodegradable Nanofibrous Temperature-Responsive Gelling Microspheres for Heart Regeneration</a>  | Myocardial infarction (heart attack) is the number one killer of heart patients.   |
| January 01, 2020 | <a href="#">Load-independent effects of empagliflozin contribute to improved cardiac function in experimental heart failure with reduced ejection fraction</a>                    | Background and aims: Sodium–glucose linked cotransporter 2 (SGLT2) inhibitors reduce the likelihood of hospitali zation for heart failure and cardiov  |
| January 01, 2020 | <a href="#">LncRNA 2810403D21Rik/Mirf promotes ischemic myocardial injury by regulating autophagy through targeting Mir26a</a>  | More evidence is emerging of the roles long non-coding RNAs (lncRNAs) play as regulatory factors in a variety of biological processes, but the mechani |
| January 01, 2020 | <a href="#">Activation of CaMKII via ER stress mediates coxsackievirus B3 induced cardiomyocyte apoptosis</a>   | Cardiomyocyte apoptosis contributes to the development of coxsackievirus B3 (CVB3) induced myocarditis, but the mechanism for the apoptosis by CVB3 in |
| January 01, 2020 | <a href="#">A Long-Term Pilot Study on Sex and Spinal Cord Injury Shows Sexual Dimorphism in Functional Recovery and Cardio-Metabolic Responses</a>                               | More than a quarter of a million individuals in the US live with spinal cord injury (SCI). SCI disrupts neural circuitry to vital organs in the body.  |
| January 01, 2020 | <a href="#">Isofraxidin Alleviates Myocardial Infarction Through NLRP3 Inflammasome Inhibition</a>  | Isofraxidin is a well-known coumarin compound refined from traditional Chinese medicines.  |
| January 01, 2020 | <a href="#">Sinomenine's protective role and mechanism in stress load induced heart failure</a>   | Objectives This study is designed to investigate the effects and mechanisms of sinomenine (Sin) in stress load-induced heart failure in mice.          |
| January 01, 2020 | <a href="#">Sufficiency of CD40 activation and immune checkpoint blockade for T cell priming and tumor immunity</a>   | Innate immune receptors such as toll-like receptors (TLRs) provide critical molecular links between innate cells and adaptive immune responses.        |
| January 01, 2020 | <a href="#">The compendium of matrix metalloproteinase expression in the left ventricle of mice following myocardial infarction</a>   | Matrix metalloproteinases (MMPs) are proteolytic enzymes that break down extracellular matrix (ECM) components and have shown to be highly active in t |

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| January 01, 2020 | <a href="#">GDF3 Protects Mice against Sepsis-Induced Cardiac Dysfunction and Mortality by Suppression of Macrophage Pro-Inflammatory Phenotype</a>            | Macrophages are critical for regulation of inflammatory response during endotoxemia and septic shock.  |
| January 01, 2020 | <a href="#">TFEB-NF-κB inflammatory signaling axis: a novel therapeutic pathway of Dihydratanshinone I in doxorubicin-induced cardiotoxicity</a>               | Background: Doxorubicin is effective in a variety of solid and hematological malignancies.   |
| January 01, 2020 | <a href="#">Validation of ultrasound biomicroscopy for the assessment of xenogeneic testis tissue grafts and cell implants in recipient mice</a>               | Background: Subcutaneous grafting/implantation of neonatal testis tissue/cells from diverse donor species into recipient mice can be used as an in viv |
| January 01, 2020 | <a href="#">Organoid-Transplant Model Systems to Study the Effects of Obesity on the Pancreatic Carcinogenesis in vivo</a>                                     | Pancreatic ductal adenocarcinoma (PDAC) is the third leading cause of cancer-related mortality among adults in developed countries.                    |
| January 01, 2020 | <a href="#">Inhibition of Interleukin 6/glycoprotein 130 signalling by Bazedoxifene ameliorates cardiac remodelling in pressure overload mice</a>              | The role of IL-6 signalling in hypertensive heart disease and its sequelae is controversial.   |
| January 01, 2020 | <a href="#">Tlr4 participates in the responses of markers of apoptosis, inflammation, and ER stress to different acute exercise intensities in mice hearts</a> | Background: Toll-like receptor 4 (Tlr4) is recognized due to its role in the immune response.  |
| January 01, 2020 | <a href="#">Bypassing mitochondrial complex III using alternative oxidase inhibits acute pulmonary oxygen sensing</a>  | Mitochondria play an important role in sensing both acute and chronic hypoxia in the pulmonary vasculature, but their primary oxygen-sensing mechanism |
| January 01, 2020 | <a href="#">Effects of Klotho supplementation on hyperoxia-induced renal injury in a rodent model of postnatal nephrogenesis</a>                               | Background: Hyperoxia (HO) causes kidney injury in preterm infants; however, whether these effects are modifiable is unknown.                          |
| January 01, 2020 | <a href="#">Locally optimized correlation-guided Bayesian adaptive regularization for ultrasound strain imaging</a>  | Ultrasound strain imaging utilizes radio-frequency (RF) ultrasound echo signals to estimate the relative elasticity of tissue under deformation.       |
| January 01, 2020 | <a href="#">LncRNA FAF inhibits fibrosis induced by angiotensinogen II via the TGFβ1-P-Smad2/3 signalling by targeting FGF9 in cardiac fibroblasts</a>         | The dysregulation of Long noncoding RNAs (lncRNAs) has been implicated in many cardiovascular diseases, including cardiac fibrosis.                    |
| January 01, 2020 | <a href="#">Loss of nuclear ARC contributes to the development of cardiac hypertrophy in rats</a>  | Aim: Cardiac hypertrophy and myocardial apoptosis are two major factors in heart failure.  |
| January 01, 2020 | <a href="#">Sevoflurane Pre-conditioning Ameliorates Diabetic Myocardial Ischemia/Reperfusion Injury Via Differential Regulation of p38 and ERK</a>            | Diabetes mellitus (DM) significantly increases myocardial ischemia/reperfusion (MI/R) injury.  |
| January 01, 2020 | <a href="#">Serelaxin alleviates cardiac fibrosis through inhibiting endothelial-to-mesenchymal transition via RXFP1</a>                                       | Rationale: Cardiac fibrosis is an integral constituent of every form of chronic heart disease, and persistence of fibrosis reduces tissue compliance a |
| January 01, 2020 | <a href="#">Angiotensin-(1-7) reduces doxorubicin-induced cardiac dysfunction in male and female Sprague-Dawley rats through antioxidant mechanisms</a>        | Doxorubicin (Dox) is an effective chemotherapeutic for a variety of pediatric malignancies.  |
| January 01, 2020 | <a href="#">Coadministration of an Adhesive Conductive Hydrogel Patch and an Injectable Hydrogel to Treat Myocardial Infarction</a>                            | Over the past decade, tissue-engineering strategies, mainly involving injectable hydrogels and epicardial biomaterial patches, have been pursued to tr |
| January 01, 2020 | <a href="#">CD74 knockout protects against LPS induced myocardial contractile dysfunction through AMPK Skp2 SUV39H1 mediated demethylation of BCLB</a>         | Background and Purpose: Lipopolysaccharides (LPS), an outer membrane component of Gram-negative bacteria, triggers myocardial anomalies in sepsis.     |

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| January 01, 2020 | <a href="#">Deleterious mtDNA mutations are common in mature oocytes</a>   | Heritable mitochondrial DNA (mtDNA) mutations are common, yet only a few recurring pathogenic mtDNA variants account for the majority of known familia |
| January 01, 2020 | <a href="#">Distinct cardiac energy metabolism and oxidative stress adaptations between obese and non-obese type 2 diabetes mellitus</a>   | Background: Little is known about the pathophysiological diversity of myocardial injury in type 2 diabetes mellitus (T2DM), but analyzing these differ |
| January 01, 2020 | <a href="#">Cardiovascular and Autonomic Dysfunction in Murine Ligature-Induced Periodontitis</a>  | The present study examined the hemodynamics [arterial pressure (AP), AP variability (APV), heart rate (HR), and heart rate variability (HRV)], cardiac |
| January 01, 2020 | <a href="#">Inhalation of Ultrafine Zinc Particles Impaired Cardiovascular Functions in Hypertension-Induced Heart Failure Rats With Preserved Ejection Fraction</a>   | Although it is possible for inhalation of ultrafine particles to impair human health, its effect is not clear in patients with HFpEF.                  |
| January 01, 2020 | <a href="#">TGF-<math>\beta</math> Signaling Promotes Tissue Formation during Cardiac Valve Regeneration in Adult Zebrafish</a>  | Cardiac valve disease can lead to severe cardiac dysfunction and is thus a frequent cause of morbidity and mortality.                                  |
| January 01, 2020 | <a href="#">Cardamonin protects against lipopolysaccharide-induced myocardial contractile dysfunction in mice through Nrf2-regulated mechanism</a>   | In patients with sepsis, lipopolysaccharide (LPS) from the outer membrane of gram-negative bacteria triggers cardiac dysfunction and heart failure, bu |
| January 01, 2020 | <a href="#">Kanglexin, a novel anthraquinone compound, protects against myocardial ischemic injury in mice by suppressing NLRP3 and pyroptosis</a>   | Pyroptosis is a form of inflammatory cell death that could be driven by the nucleotide-binding oligomerization domain-like receptor family pyrin domai |
| January 01, 2020 | <a href="#">Role of DJ-1 in Modulating Glycative Stress in Heart Failure</a>   | Background: DJ-1 is a ubiquitously expressed protein typically associated with the development of early onset Parkinson disease.                       |
| January 01, 2020 | <a href="#">Dynamic Changes in Brain Glucose Metabolism and Neuronal Structure in Rats with Heart Failure</a>  | Patients with heart failure (HF) are more susceptible to cognitive impairment, but the mechanism is still unclear.                                     |
| January 01, 2020 | <a href="#">Liraglutide treatment improves the coronary microcirculation in insulin resistant Zucker obese rats on a high salt diet</a>  | Background: Obesity, hypertension and prediabetes contribute greatly to coronary artery disease, heart failure and vascular events, and are the leadin |
| January 01, 2020 | <a href="#">The Myocardial Microenvironment Modulates the Biology of Transplanted Mesenchymal Stem Cells</a>   | Purpose: The maximal efficacy of cell therapy depends on the survival of stem cells, as well as on the phenotypic and biologic changes that may occur  |
| January 01, 2020 | <a href="#">Enhancing respiratory sinus arrhythmia increases cardiac output in rats with left ventricular dysfunction</a>  | Key points: Respiratory sinus arrhythmia is physiological pacing of the heart that disappears in cardiovascular disease and is associated with poor ca |
| January 01, 2020 | <a href="#">Extracellular vesicles from human embryonic stem cell-derived cardiovascular progenitor cells promote cardiac infarct healing through reducing cardiomyocyte death and promoting angiogenesis</a>                              | Human pluripotent stem cells (hPSCs)-derived cardiovascular progenitor cells (CVPCs) are a promising source for myocardial repair, while the mechanism |
| January 01, 2020 | <a href="#">Prostate tumor-derived GDF11 accelerates androgen deprivation therapy-induced sarcopenia</a>   | Most prostate cancers depend on androgens for growth, and therefore, the mainstay treatment for advanced, recurrent, or metastatic prostate cancer is  |
| January 01, 2020 | <a href="#">High-dose nitrate therapy recovers the expression of subtypes <math>\alpha</math>1 and <math>\beta</math>-adrenoceptors and Ang II receptors of the renal cortex in rats with myocardial infarction-induced heart failures</a> | Background: Few studies examined the effect of long-acting nitrates on renal function in chronic heart failure (CHF).                                  |

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| January 01, 2020 | <a href="#">Cancer During Pregnancy: The Role of Vascular Toxicity in Chemotherapy-Induced Placental Toxicity</a>  | Breast cancer is diagnosed in ~0.3% of pregnant women.   |
| January 01, 2020 | <a href="#">Biophysical mechanisms for QRS- and QTc-interval prolongation in mice with cardiac expression of expanded CUG-repeat RNA</a>                               | Myotonic dystrophy type 1 (DM1), the most common form of muscular dystrophy in adults, results from the expression of toxic gain-of-function transcrip             |
| January 01, 2020 | <a href="#">Cardiac-specific LRP6 knockout induces lipid accumulation through Drp1/CPT1b pathway in adult mice</a>   | We recently reported low-density lipoprotein receptor-related protein 6 (LRP6) decreased in dilated cardiomyopathy hearts, and cardiac-specific knocko             |
| January 01, 2020 | <a href="#">Cardiac Mesenchymal Cells from Failing and Non-Failing Hearts Limit Ventricular Dilation when Administered Late after Infarction</a>                       | Although cell therapy-mediated cardiac repair offers promise for treatment/management of heart failure, lack of fundamental understanding of how cell              |
| January 01, 2020 | <a href="#">Establishment and characterization of a cell line and patient-derived xenograft (PDX) from peritoneal metastasis of low-grade serous ovarian carcinoma</a> | Peritoneal spread indicates poor prognosis in patients with serous ovarian carcinoma (SOC) and is generally treated by surgical cytoreduction and chem             |
| January 01, 2020 | <a href="#">Inflammatory extracellular vesicles prompt heart dysfunction via TRL4-dependent NF-κB activation</a>   | Background: After myocardial infarction, necrotic cardiomyocytes release damage-associated proteins that stimulate innate immune pathways and macropha             |
| January 01, 2020 | <a href="#">Different degradation rates of nanofiber vascular grafts in small and large animal models</a>  | Nanofiber vascular grafts have been shown to create neovessels made of autologous tissue, by in vivo scaffold biodegradation over time.                            |
| January 01, 2020 | <a href="#">Immune response mediates the cardiac damage after subarachnoid hemorrhage</a>  | Cardiac dysfunction is a common adverse effect of subarachnoid hemorrhage (SAH).   |
| January 01, 2020 | <a href="#">A bivalent antihypertensive vaccine targeting L type calcium channels and angiotensin AT 1 receptors</a>   | Background and Purpose: Hypertension has been the leading preventable cause of premature death worldwide.  |
| January 01, 2020 | <a href="#">EMRE is essential for mitochondrial calcium uniporter activity in a mouse model</a>  | The mitochondrial calcium uniporter is widely accepted as the primary route of rapid calcium entry into mitochondria, where increases in matrix calciu             |
| January 01, 2020 | <a href="#">Effects and mechanisms of PSS-loaded nanoparticles on coronary microcirculation dysfunction in streptozotocin-induced diabetic cardiomyopathy rats</a>     | Coronary microvascular dysfunction (CMD) is the pathological basis and pathogenesis of diabetic cardiomyopathy (DCM).  |
| January 01, 2020 | <a href="#">Inhibition of Grb14, a negative modulator of insulin signaling, improves glucose homeostasis without causing cardiac dysfunction</a>                       | Insulin resistance increases patients' risk of developing type 2 diabetes (T2D), non-alcoholic steatohepatitis (NASH) and a host of other comorbidity              |
| January 01, 2020 | <a href="#">Persistence of Intraluminal Thrombus Makes Saccular Aneurysm More Biologically Active than Fusiform in an Experimental Rat Model</a>                       | Introduction: Saccular aneurysms are thought to have a worse prognosis than fusiform aneurysms in humans, due to hemodynamic reasons.                              |
| January 01, 2020 | <a href="#">Measurement of Pulse Propagation Velocity, Distensibility and Strain in an Abdominal Aortic Aneurysm Mouse Model</a>                                       | An abdominal aortic aneurysm (AAA) is defined as a localized dilation of the abdominal aorta that exceeds the maximal intraluminal diameter (MILD) by              |
| January 01, 2020 | <a href="#">Crystal structure, molecular docking and protective activity on myocarditis of Co(II) coordination polymer based nanoparticles</a>                         | This work presents the synthesis and characterization of a dicyanamide-bridged coordination polymer [Co(L)2(dca)] <sub>n</sub> (1) by using the bidentate NO donor |



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| January 01, 2020 | <a href="#">aYAP modRNA reduces cardiac inflammation and hypertrophy in a murine ischemia-reperfusion model</a>  | Myocardial recovery from ischemia-reperfusion (IR) is shaped by the interaction of many signaling pathways and tissue repair processes, including the                           |
| January 01, 2020 | <a href="#">Systemic blockade of ACVR2B ligands attenuates muscle wasting in ischemic heart failure without compromising cardiac function</a>  | Signaling through activin receptors regulates skeletal muscle mass and activin receptor 2B (ACVR2B) ligands are also suggested to participate in myoca                          |
| January 01, 2020 | <a href="#">Development and Validation of a Clinically Relevant Workflow for MR-Guided Volumetric Arc Therapy in a Rabbit Model of Head and Neck Cancer</a>  | There is increased interest in the use of magnetic resonance imaging (MRI) for guiding radiation therapy (RT) in the clinical setting.  |
| January 01, 2020 | <a href="#">Cardiac sympathetic nerve transdifferentiation reduces action potential heterogeneity after myocardial infarction</a>  | Cardiac sympathetic nerves undergo cholinergic transdifferentiation following reperfused myocardial infarction (MI), whereby the sympathetic nerves re                          |
| January 01, 2020 | <a href="#">The Effects of Neuropeptide Y Overexpression on the Mouse Model of Doxorubicin-Induced Cardiotoxicity</a>  | Doxorubicin is a potent anticancer drug with cardiotoxicity hampering its use.  |
| January 01, 2020 | <a href="#">Improvement of Endothelial Dysfunction of Berberine in Atherosclerotic Mice and Mechanism Exploring through TMT-Based Proteomics</a>   | Atherosclerosis is a multifactorial vascular disease triggered by disordered lipid metabolism, characterized by chronic inflammatory injury, and initi                          |
| January 01, 2020 | <a href="#">B-type natriuretic peptide is upregulated by c-Jun N-terminal kinase and contributes to septic hypotension</a>   | B-type natriuretic peptide (BNP) is secreted by ventricular cardiomyocytes in response to various types of cardiac stress and has been used as a heart                          |
| January 01, 2020 | <a href="#">Alteration of the brain methylation landscape following postnatal inflammatory injury in rat pups</a>  | Preterm infants are vulnerable to inflammation-induced white matter injury (WMI), which is associated with neurocognitive impairment and increased ris                          |
| January 01, 2020 | <a href="#">Inhibition of the LncRNA Gpr19 attenuates ischemia reperfusion injury after acute myocardial infarction by inhibiting apoptosis and oxidative stress via the miR 324 5p/Mtfr1 axis</a> | Reperfusion therapy after acute myocardial infarction (AMI) can effectively restore the blood supply and nutritional support of ischemic myocardium an                          |
| January 01, 2020 | <a href="#">Downregulation of MicroRNA-206 Alleviates the Sublethal Oxidative Stress-Induced Premature Senescence and Dysfunction in Mesenchymal Stem Cells via Targeting Alpl</a>                 | Bone marrow-derived mesenchymal stem cells (MSCs) have shown great promise in tissue engineering and regenerative medicine; however, the regenerative                           |
| January 01, 2020 | <a href="#">Calpain regulates CVB3 induced viral myocarditis by promoting autophagic flux upon infection</a>   | Calpains are calcium-activated neutral cysteine proteases.  |
| January 01, 2020 | <a href="#">Tsg101 positively regulates P62-Keap1-Nrf2 pathway to protect hearts against oxidative damage</a>  | Currently, most antioxidants do not show any favorable clinical outcomes in reducing myocardial ischemia-reperfusion (I/R) injury, suggesting an urgen                          |
| January 01, 2020 | <a href="#">Aging-associated sinus arrest and sick sinus syndrome in adult zebrafish</a>   | Because of its powerful genetics, the adult zebrafish has been increasingly used for studying cardiovascular diseases.  |
| January 01, 2020 | <a href="#">Mitochondrial substrate utilization regulates cardiomyocyte cell-cycle progression</a>   | The neonatal mammalian heart is capable of regeneration for a brief window of time after birth.   |
| January 01, 2020 | <a href="#">Neonatal hyperoxia exposure induces aortic biomechanical alterations and cardiac dysfunction in juvenile rats</a>  | Supplemental oxygen (O <sub>2</sub> ) therapy in preterm infants impairs lung development, but the impact of O <sub>2</sub> on long-term systemic vascular structure and functi |
| January 01, 2020 | <a href="#">Mechanism of angiogenesis promotion with Shexiang Baoxin Pills by regulating function and signaling pathway of endothelial cells through macrophages</a>                               | Background and aims: "Shexiang Baoxin Pill" (SBP), a commonly used traditional Chinese medicine, has been used to treat angina, myocardial infarction                           |

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| January 01, 2020 | <a href="#">Branched chain amino acids exacerbate myocardial ischemia/reperfusion vulnerability via enhancing GCN2/ATF6/PPAR-<math>\alpha</math> pathway-dependent fatty acid oxidation</a>          | Rationale: Myocardial vulnerability to ischemia/reperfusion (I/R) injury is strictly regulated by energy substrate metabolism.                         |
| January 01, 2020 | <a href="#">Anti-G250 nanobody-functionalized nanobubbles targeting renal cell carcinoma cells for ultrasound molecular imaging</a>  | Traditional imaging examinations have difficulty in identifying benign and malignant changes in renal masses.  |
| January 01, 2020 | <a href="#">Application of a combination of echocardiographic techniques in an experimental model of epirubicin-induced cardiotoxicity</a>   | This study compared the potential ability of multinomial echocardiographic parameters in early detection, prediction and combined diagnosis of antineo |
| January 01, 2020 | <a href="#">GLI1-mediated pulmonary artery smooth muscle cell pyroptosis contributes to hypoxia-induced pulmonary hypertension</a>   | Pulmonary hypertension (PH) is a clinically common malignant cardiovascular disease.   |
| January 01, 2020 | <a href="#">Fingolimod attenuates lung injury and cardiac dysfunction following traumatic brain injury</a>   | Acute lung injury (ALI) and cardiac dysfunction are common in traumatic brain injury (TBI) patients and always indicate poor outcomes.                 |
| January 01, 2020 | <a href="#">Ablation of the N terminus of cardiac essential light chain promotes the super relaxed state of myosin and counteracts hypercontractility in hypertrophic cardiomyopathy mutant mice</a> | In this study, we focus on the molecular mechanisms associated with the A57G (Ala57-to-Gly57) mutation in myosin essential light chains (ELCs), found  |
| January 01, 2020 | <a href="#">Myocardial protection by nanomaterials formulated with CHIR99021 and FGF1</a>  | The mortality of patients suffering from acute myocardial infarction (AMI) is linearly related to the infarct size.                                    |
| January 01, 2020 | <a href="#">Bridging repair of the abdominal wall in a rat experimental model. Comparison between uncoated and polyethylene oxide-coated equine pericardium meshes</a>                               | Biological meshes improve the outcome of incisional hernia repairs in infected fields but often lead to recurrence after bridging techniques.          |
| January 01, 2020 | <a href="#">A genetic system for tissue-specific inhibition of cell proliferation</a>  | Cellular proliferation is a basic process during organ development, tissue homeostasis and disease progression.  |
| January 01, 2020 | <a href="#">Protective effects of Pulsatilla chinensis Regel against isoproterenol-induced heart failure in mice</a>   | Objective: To study the cardioprotective effect of Baitouwen (Pulsatilla chinensis Regel, PR) in isoproterenol (ISO) induced heart failure in mice, an |
| January 01, 2020 | <a href="#">MitoQ regulates redox-related noncoding RNAs to preserve mitochondrial network integrity in pressure-overload heart failure</a>  | Evidence suggests that mitochondrial network integrity is impaired in cardiomyocytes from failing hearts.  |
| January 01, 2020 | <a href="#">MicroRNA-27 attenuates pressure overload-Induced cardiac hypertrophy and dysfunction by targeting galectin-3</a>   | Cardiac hypertrophy is an adaptive response to hemodynamic stress to compensate for cardiac dysfunction.   |
| January 01, 2020 | <a href="#">Isorhynchophylline enhances Nrf2 and inhibits MAPK pathway in cardiac hypertrophy</a>  | Isorhynchophylline (IRN) is one of the major tetracyclic oxindole alkaloids found in Uncaria rhynchophylla.  |
| January 01, 2020 | <a href="#">Sectm1a deficiency aggravates inflammation-triggered cardiac dysfunction through disruption of LXR<math>\alpha</math> signalling in macrophages</a>                                      | Aims Cardiac dysfunction is a prevalent comorbidity of disrupted inflammatory homeostasis observed in conditions such as sepsis (acute) or obesity (ch |
| January 01, 2020 | <a href="#">Ultrasound Responsive Noble Gas Microbubbles for Applications in Image-Guided Gas Delivery</a>   | Abstract Noble gases, especially xenon (Xe), have been shown to have antiapoptotic effects in treating hypoxia ischemia related injuries.              |

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| January 01, 2020 | <a href="#">Dysbiotic 1 carbon metabolism in cardiac muscle remodeling</a>   | Unless there is a genetic defect/mutation/deletion in a gene, the causation of a given disease is chronic dysregulation of gut metabolism.             |
| January 01, 2020 | <a href="#">Myocardial B cells are a subset of circulating lymphocytes with delayed transit through the heart</a>  | Current models of B lymphocyte biology posit that B cells continuously recirculate between lymphoid organs without accumulating in peripheral healthy  |
| January 01, 2020 | <a href="#">Endothelial S1pr1 regulates pressure overload induced cardiac remodelling through AKT eNOS pathway</a>   | Cardiac vascular microenvironment is crucial for cardiac remodelling during the process of heart failure.  |
| January 01, 2020 | <a href="#">AT2R agonist NP 6A4 mitigates aortic stiffness and proteolytic activity in mouse model of aneurysm</a>   | Clinical and experimental studies show that angiotensin II (AngII) promotes vascular pathology via activation of AngII type 1 receptors (AT1Rs).       |
| January 01, 2020 | <a href="#">Local Delivery of Dual MicroRNAs in Trilayered Electrospun Grafts for Vascular Regeneration</a>  | Globally growing problems related to cardiovascular diseases lead to a considerable need for synthetic vascular grafts.                                |
| January 01, 2020 | <a href="#">Non-invasive ultrasound detection of cerebrovascular changes in a mouse model of TBI</a>   | carotid arteries of mice exposed to a controlled cortical impact.  |
| January 01, 2020 | <a href="#">α1-AR overactivation induces cardiac inflammation through NLRP3 inflammasome activation</a>  | Acute sympathetic stress causes excessive secretion of catecholamines and induces cardiac injuries, which are mainly mediated by β-adrenergic receptor |
| January 01, 2020 | <a href="#">A 6-month systems toxicology inhalation study in ApoE -/- mice demonstrates reduced cardiovascular effects of E-vapor aerosols compared with cigarette smoke</a>                   | Smoking cigarettes is harmful to the cardiovascular system.  |
| January 01, 2020 | <a href="#">Wenxin Keli Regulates Mitochondrial Oxidative Stress and Homeostasis and Improves Atrial Remodeling in Diabetic Rats</a>   | Mitochondrial dysfunction and oxidative stress play an important role in the pathogenesis of both atrial fibrillation (AF) and diabetes mellitus (DM). |
| January 01, 2020 | <a href="#">CRISPR-Mediated Activation of Endogenous Gene Expression in the Postnatal Heart</a>  | Rationale: Genome editing by CRISPR (clustered regularly interspaced short palindromic repeats)/Cas9 is evolving rapidly.                              |
| January 01, 2020 | <a href="#">CTRP9 Mediates Protective Effects in Cardiomyocytes via AMPK- and Adiponectin Receptor-Mediated Induction of Anti-Oxidant Response</a>   | The C1q/tumor necrosis factor-α-related protein 9 (CTRP9) has been reported to exert cardioprotective effects, but its role in the right ventricle     |
| January 01, 2020 | <a href="#">LncRNA TUG1 alleviates cardiac hypertrophy by targeting miR 34a/DKK1/Wnt β catenin signalling</a>  | The current study was designed to explore the role and underlying mechanism of lncRNA taurine up-regulated gene 1 (TUG1) in cardiac hypertrophy.       |
| January 01, 2020 | <a href="#">LCZ696, an Angiotensin Receptor-Nepriylisin Inhibitor, Improves Cardiac Hypertrophy and Fibrosis and Cardiac Lymphatic Remodeling in Transverse Aortic Constriction Model Mice</a> | Cardiac hypertrophy and ventricular remodeling following heart failure are important causes of high mortality in heart disease patients.               |
| January 01, 2020 | <a href="#">Cytosolic DNA sensor cGAS plays an essential pathogenetic role in pressure overload-induced heart failure</a>  | Background: Growing evidence shows that activation of inflammation in the heart provokes left ventricular (LV) remodeling and dysfunction in humans an |
| January 01, 2020 | <a href="#">Effects of Adiponectin on Diastolic Function in Mice Underwent Transverse Aorta Constriction</a>   | Diastolic dysfunction is common in various cardiovascular diseases, which could be affected by adiponectin (APN).                                      |
| January 01, 2020 | <a href="#">Moderate Loss of the Extracellular Matrix Proteoglycan Lumican Attenuates Cardiac Fibrosis in Mice Subjected to Pressure Overload</a>  | Introduction: The heart undergoes myocardial remodeling during progression to heart failure following pressure overload.                               |

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| January 01, 2020 | <a href="#">Exacerbated pressor and sympathoexcitatory effects of central Elabela in spontaneously hypertensive rats</a>  | Elabela (ELA) is a newly discovered peptide that acts as a novel endogenous ligand of angiotensin receptor-like 1 (APJ) receptor.                              |
| January 01, 2020 | <a href="#">Xenograft Tumor Volume Measurement in Nude Mice: Estimation of 3D Ultrasound Volume Measurements Based on Manual Caliper Measurements</a>                                   | Objectives: Volume measurement of subcutaneous xenograft tumors in nude mice models is an important metric to assess tumor growth or response to therapy       |
| January 01, 2020 | <a href="#">Multipotency of mouse trophoblast stem cells</a>  | Background: In a number of disease processes, the body is unable to repair injured tissue, promoting the need to develop strategies for tissue repair          |
| January 01, 2020 | <a href="#">Intermittent hypoxia mediated by TSP1 dependent on STAT3 induces cardiac fibroblast activation and cardiac fibrosis</a>   | Intermittent hypoxia (IH) is the predominant pathophysiological disturbance in obstructive sleep apnea (OSA), known to be independently associated with        |
| January 01, 2020 | <a href="#">ACTRIIA-Fc rebalances activin/GDF versus BMP signaling in pulmonary hypertension</a>  | Human genetics, biomarker, and animal studies implicate loss of function in bone morphogenetic protein (BMP) signaling and maladaptive transforming growth     |
| January 01, 2020 | <a href="#">Phosphorylation of GATA4 at serine 105 is required for left ventricular remodeling process in angiotensin II induced hypertension in rats</a>                               | In this study, we investigated whether local intramyocardial GATA4 overexpression affects the left ventricular (LV) remodeling process and the import          |
| January 01, 2020 | <a href="#">Sodium–glucose cotransporter 2 inhibitor Dapagliflozin attenuates diabetic cardiomyopathy</a>   | Background: Diabetes mellitus type 2 (DM2) is a risk factor for developing heart failure but there is no specific therapy for diabetic heart disease.          |
| January 01, 2020 | <a href="#">Epoxyeicosatrienoic acid prevents maladaptive remodeling in pressure overload by targeting calcineurin/NFAT and Smad-7</a>  | Background: Emerging evidence demonstrates that epoxyeicosatrienoic acids (EETs) as important active eicosanoids that regulate cardiovascular homeostasis      |
| January 01, 2020 | <a href="#">Activating transcription factor 3 coordinates differentiation of cardiac and hematopoietic progenitors by regulating glucose metabolism</a>                                 | The cardiac and hematopoietic progenitors (CPs and HPs, respectively) in the mesoderm ultimately form a well-organized circulation system, but mechanistically |
| January 01, 2020 | <a href="#">Sulforaphane prevents right ventricular injury and reduces pulmonary vascular remodeling in pulmonary arterial hypertension</a>   | Right ventricular (RV) dysfunction is the main determinant of mortality in patients with pulmonary arterial hypertension (PAH) and while inflammation          |
| January 01, 2020 | <a href="#">Ulinastatin attenuates lipopolysaccharide induced cardiac dysfunction by inhibiting inflammation and regulating autophagy</a>   | Ulinastatin exerts protective effects against lipopolysaccharide (LPS) induced cardiac dysfunction.  |
| January 01, 2020 | <a href="#">Soluble receptor for advanced glycation end-products promotes angiogenesis through activation of STAT3 in myocardial ischemia/reperfusion injury</a>                        | Soluble receptor for advanced glycation end-products (sRAGE), which exerts cardioprotective effect through inhibiting cardiomyocyte apoptosis and autophagy    |
| January 01, 2020 | <a href="#">The therapeutic impact of human neonatal BMSC in a right ventricular pressure overload model in mice</a>  | OBJECTIVE: To determine the impact of donor age on the therapeutic effect of bone marrow-derived mesenchymal stem cells (BMSCs) in treating adverse remodeling |
| January 01, 2020 | <a href="#">Intrauterine exposure to chronic hypoxia in the rat leads to progressive diastolic dysfunction and increased aortic stiffness from early postnatal developmental stages</a> | Aim: We sought to explore whether fetal hypoxia exposure, an insult of placental insufficiency, is associated with left ventricular dysfunction and in         |
| January 01, 2020 | <a href="#">Period 2 -Induced Activation of Autophagy Improves Cardiac Remodeling After Myocardial Infarction</a>   | Accumulating evidence indicates that the onset of myocardial infarction (MI) shows obvious circadian rhythmicity.  |



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| January 01, 2020 | <a href="#">3D High-Frequency Ultrasound Imaging of Cartilage-Bone Interface Compared with Micro-CT</a>  | Cartilage-bone interface (CBI) is a complex structure which bears important information in pathophysiology of osteoarthritis (OA).                            |
| January 01, 2020 | <a href="#">Stress Induced Cyclin C Translocation Regulates Cardiac Mitochondrial Dynamics</a>   | Background Nuclear-to-mitochondrial communication regulating gene expression and mitochondrial function is a critical process following cardiac ischem        |
| January 01, 2020 | <a href="#">GATA4-targeted compound exhibits cardioprotective actions against doxorubicin-induced toxicity in vitro and in vivo: establishment of a chronic cardiotoxicity model using human iPSC-derived cardiomyocytes</a> | Doxorubicin is a widely used anticancer drug that causes dose-related cardiotoxicity.   |
| January 01, 2020 | <a href="#">Intravenous Administration of Allogenic Cell-Derived Microvesicles of Healthy Origins Defends Against Atherosclerotic Cardiovascular Disease Development by a Direct Action on Endothelial Progenitor Cells</a>  | Atherosclerosis and cardiovascular disease development is the outcome of intermediate processes where endothelial dysfunction and vascular inflammation       |
| January 01, 2020 | <a href="#">Increased uterine artery blood flow in hypoxic murine pregnancy is not sufficient to prevent fetal growth restriction</a>  | Incomplete maternal vascular responses to pregnancy contribute to pregnancy complications including intrauterine growth restriction (IUGR) and preecl         |
| January 01, 2020 | <a href="#">Empagliflozin prevents doxorubicin-induced myocardial dysfunction</a>  | Background: Empagliflozin showed efficacy in controlling glycaemia, leading to reductions in HbA1c levels, weight loss and blood pressure, compared to        |
| January 01, 2020 | <a href="#">Perindopril Improves Cardiac Function by Enhancing the Expression of SIRT3 and PGC-1<math>\alpha</math> in a Rat Model of Isoproterenol-Induced Cardiomyopathy</a>   | Mitochondrial biosynthesis regulated by the PGC-1 $\alpha$ -NRF1-TFAM pathway is considered a novel potential therapeutic target to treat heart failure (HF). |
| January 01, 2020 | <a href="#">PP2Cm overexpression alleviates MI/R injury mediated by a BCAA catabolism defect and oxidative stress in diabetic mice</a>   | Diabetic patients are sensitive to myocardial ischemia-reperfusion (MI/R) injury.   |
| January 01, 2020 | <a href="#">Bisoprolol, a <math>\beta</math> 1 antagonist, protects myocardial cells from ischemia reperfusion injury via PI3K/AKT/GSK3<math>\beta</math> pathway</a>  | The aim of this work was to explore whether bisoprolol plays a protective role in cardiomyocytes against ischemia reperfusion injury via PI3K/AKT/ GSK        |
| January 01, 2020 | <a href="#">Probenecid treatment improves outcomes in a novel mouse model of peripartum cardiomyopathy</a>   | Probenecid has been used for decades in the treatment of gout but recently has also been found to improve outcomes in patients with heart failure via         |
| January 01, 2020 | <a href="#">Mussel-inspired conductive Ti 2 C-cryogel promotes functional maturation of cardiomyocytes and enhances repair of myocardial infarction</a>  | Rationale: Researches on conductive engineering cardiac patch (ECP) for myocardial infarction (MI) treatment have achieved some progress in the animal        |
| January 01, 2020 | <a href="#">Comparison of different protocols of Morris water maze in cognitive impairment with heart failure</a>  | Aim: This study aimed to find a more sensitive and systematic behavioral evaluation protocol to evaluate the cognitive impairment in rats with heart f        |
| January 01, 2020 | <a href="#">Aortopathies in mouse models of Pompe, Fabry and Mucopolysaccharidosis IIIB lysosomal storage diseases</a>   | Introduction Lysosomal storage diseases (LSDs) are rare inherited metabolic diseases characterized by an abnormal accumulation of various toxic materi        |
| January 01, 2020 | <a href="#">A durable murine model of spleen transplantation with arterial and venous anastomoses</a>  | The spleen is a large lymphoid organ located in the abdomen that filters blood and regulates the immune system.   |
| January 01, 2020 | <a href="#">BMP10-mediated ALK1 signaling is continuously required for vascular development and maintenance</a>  | Hereditary hemorrhagic telangiectasia (HHT) is an autosomal-dominant vascular disorder characterized by development of high-flow arteriovenous malform        |

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| January 01, 2020 | <a href="#">Quantification of Atherosclerotic Plaque Elasticity Using Ultrasonic Texture Matching</a>   | The composition of an atherosclerotic plaque is a major determinant of its vulnerability, i.e. proneness to rupture.                                   |
| January 01, 2020 | <a href="#">AAV-mediated cardiac gene transfer of wild-type desmin in mouse models for recessive desminopathies</a>   | Mutations in the human desmin gene cause autosomal-dominant and recessive cardiomyopathies and myopathies with marked phenotypic variability.          |
| January 01, 2020 | <a href="#">Prevention and rescue of cardiac dysfunction by methanocarpa adenosine monophosphonate derivatives</a>  | Accumulating evidence supports a therapeutic role of purinergic signaling in cardiac diseases.   |
| January 01, 2020 | <a href="#">Ginsenoside Rg3-loaded, reactive oxygen species-responsive polymeric nanoparticles for alleviating myocardial ischemia-reperfusion injury</a>                                   | Myocardial ischemia-reperfusion injury (MIRI) is a serious threat to the health and lives of patients without any effective therapy.                   |
| January 01, 2020 | <a href="#">Stem cell delivery to kidney via minimally invasive ultrasound-guided renal artery injection in mice</a>  | cell-based therapies are promising treatments for various kidney diseases.   |
| January 01, 2020 | <a href="#">Tobacco cigarette smoking exacerbates aortic calcification in an early stage of myocardial infarction in a female mouse model</a>   | Despite increased social awareness, marketing restraints, tobacco taxation, and available smoking cessation rehab programs, active and passive smoking |
| January 01, 2020 | <a href="#">Melatonin Ameliorates MI-Induced Cardiac Remodeling and Apoptosis through a JNK/p53-Dependent Mechanism in Diabetes Mellitus</a>  | Diabetes mellitus, a worldwide health threat, is considered an independent risk factor for cardiovascular diseases.                                    |
| January 01, 2020 | <a href="#">Ginsenoside Rg1 attenuates cardiomyocyte apoptosis and inflammation via the TLR4/NF κB/NLRP3 pathway</a>  | Sepsis-induced myocardial dysfunction (SIMD) causes high mortality in seriously ill patients.  |
| January 01, 2020 | <a href="#">DLX1008 (brolicizumab), a single-chain anti-VEGF-A antibody fragment with low picomolar affinity, leads to tumor involution in an in vivo model of Kaposi Sarcoma</a>           | Kaposi Sarcoma (KS) is among the most angiogenic cancers in humans and an AIDS-defining condition.   |
| January 01, 2020 | <a href="#">Transplantation of human induced pluripotent stem cell-derived cardiomyocytes improves myocardial function and reverses ventricular remodeling in infarcted rat hearts</a>      | Background: Human-induced pluripotent stem cell-derived cardiomyocytes (iPSC-CMs) have shed great light on cardiac regenerative medicine and specific  |
| January 01, 2020 | <a href="#">NF κB signaling in cardiomyocytes is inhibited by sevoflurane and promoted by propofol</a>  | Both inhalational and intravenous anesthetics affect myocardial remodeling, but the precise effect of each anesthetic on molecular signaling in myocar |
| January 01, 2020 | <a href="#">Transcriptomics and metabolomics reveal the cardioprotective effect of Compound Danshen tablet on isoproterenol-induced myocardial injury in high-fat-diet fed mice</a>         | Ethnopharmacological relevance: Compound Danshen tablet, an herbal preparation consisting of salviae miltiorrhizae, notoginseng and borneolum, is exte |
| January 01, 2020 | <a href="#">Berberine Attenuates Cardiac Hypertrophy Through Inhibition of mTOR Signaling Pathway</a>   | Purpose: Berberine was reported to exert beneficial effects on cardiac hypertrophy.  |
| January 01, 2020 | <a href="#">Phospholipid Oxygen Microbubbles for Image-Guided Therapy</a>   | In recent work, oxygen microbubbles (OMB) have been shown to oxygenate hypoxic tumors, increase radio-sensitivity and improve tumor control by radiati |
| January 01, 2020 | <a href="#">Tailorable Hydrogel Improves Retention and Cardioprotection of Intramyocardial Transplanted Mesenchymal Stem Cells for the Treatment of Acute Myocardial Infarction in Mice</a> | Background: Poor engraftment of intramyocardial stem cells limits their therapeutic efficiency against myocardial infarction (MI)-induced cardiac inju |
| January 01, 2020 | <a href="#">Cathelicidin deficiency exacerbates cardiac dysfunction in lipopolysaccharide induced endotoxaemic mice</a>   | The therapeutic potential of the antimicrobial peptide cathelicidin (Camp) administration in sepsis has been widely investigated.                      |
| January 01, 2020 | <a href="#">Heterogeneity and chimerism of endothelial cells revealed by single-cell transcriptome in orthotopic liver tumors</a>   | The liver is a common host organ for cancer, either through lesions that arise in liver epithelial cells [e.g., hepatocellular carcinoma (HCC)] or as  |

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| January 01, 2020  | <a href="#">Statin as anti-cancer therapy in autochthonous T-lymphomas expressing stabilized gain-of-function mutant p53 proteins</a>  | An important component of missense mutant p53 gain-of-function (mutp53 GOF) activities is the ability of stabilized mutp53 proteins to upregulate the  |
| January 01, 2020  | <a href="#">Hyperdynamic circulatory syndrome in a mouse model transgenic for SerpinB3</a>   | Introduction and objectives: SerpinB3 is a cysteine protease inhibitor involved in several biological activities.                                      |
| January 01, 2020  | <a href="#">IKK Epsilon Deficiency Attenuates Angiotensin II-Induced Abdominal Aortic Aneurysm Formation in Mice by Inhibiting Inflammation, Oxidative Stress, and Apoptosis</a>                           | Abdominal aortic aneurysm (AAA) is a vascular disorder that is considered a chronic inflammatory disease.  |
| December 01, 2019 | <a href="#">Neutrophil-derived advanced glycation end products-Nε-(carboxymethyl) lysine promotes RIP3-mediated myocardial necroptosis via RAGE and exacerbates myocardial ischemia/reperfusion injury</a> | Nε-(carboxymethyl) lysine (CML), the major member of advanced glycation end products, was widely studied in diabetic complications and aging-associate |
| December 01, 2019 | <a href="#">Ferulic acid increases intestinal Lactobacillus and improves cardiac function in TAC mice</a>  | Ferulic acid, a main ingredient of Ligusticum, exhibits anti-oxidant and anti-inflammation effects in heart diseases.                                  |
| December 01, 2019 | <a href="#">Mechanism of electrical remodeling of atrial myocytes and its influence on susceptibility to atrial fibrillation in diabetic rats</a>  | Aims: To explore the atrial electrical remodeling and the susceptibility of atrial fibrillation (AF) in diabetic rats.                                 |
| December 01, 2019 | <a href="#">Chronic inhibition of chemokine receptor CXCR2 attenuates cardiac remodeling and dysfunction in spontaneously hypertensive rats</a>  | System hypertension is a major risk factor for cardiac hypertrophy and heart failure.  |
| December 01, 2019 | <a href="#">Acetaldehyde dehydrogenase 2 deficiency exacerbates cardiac fibrosis by promoting mobilization and homing of bone marrow fibroblast progenitor cells</a>                                       | Cardiac fibrosis is a common feature of various cardiovascular diseases.   |
| December 01, 2019 | <a href="#">Tongguan capsule derived-herb ameliorates remodeling at infarcted border zone and reduces ventricular arrhythmias in rats after myocardial infarction</a>                                      | Objective: Tongguan Capsule, a traditional Chinese medicine, is safe to use and is efficient in treating ischemic heart diseases.                      |
| December 01, 2019 | <a href="#">Dexmedetomidine prevents septic myocardial dysfunction in rats via activation of α7nAChR and PI3K/Akt- mediated autophagy</a>  | Background and purpose: Dexmedetomidine (Dex) has been shown to elicit cardio-protective effects in sepsis.  |
| December 01, 2019 | <a href="#">Exercise does not ameliorate cardiac dysfunction in obese mice exposed to fine particulate matter</a>  | Background: Studies have demonstrated that exposure to fine particulate matter (PM2.5) is linked to cardiovascular disease (CVD), which is exacerbated |
| December 01, 2019 | <a href="#">Electrical Stimulation of pediatric cardiac-derived c-kit + progenitor cells improves retention and cardiac function in right ventricular heart failure</a>                                    | Nearly 1 in every 120 children born has a congenital heart defect.   |
| December 01, 2019 | <a href="#">Effect of human thymus adipose tissue-derived mesenchymal stem cells on myocardial infarction in rat model</a>   | Background and objective: Stem cell (SC) therapy exhibits promising therapeutic efficiency against cardiovascular disease.                             |
| December 01, 2019 | <a href="#">Loss of methionine sulfoxide reductases increases resistance to oxidative stress</a>   | Oxidation of methionine residues to methionine sulfoxide scavenges reactive species, thus protecting against oxidative stress.                         |
| December 01, 2019 | <a href="#">Cardiac expression of the microsomal triglyceride transport protein protects the heart function during ischemia</a>  | Aims: The microsomal triglyceride transport protein (MTTP) is critical for assembly and secretion of apolipoprotein B (apoB)-containing lipoproteins a |
| November 01, 2019 | <a href="#">MiR-207 inhibits autophagy and promotes apoptosis of cardiomyocytes by directly targeting LAMP2 in type 2 diabetic cardiomyopathy</a>  | Autophagy dysfunction plays a critical role in diabetic cardiomyopathy (DCM).  |

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| November 01, 2019 | <a href="#">Behavior, body composition, and vascular phenotype of homocystinuric mice on methionine restricted diet or enzyme replacement therapy</a>  | Classic homocystinuria (HCU) is an inherited disorder characterized by elevated homocysteine (Hcy) in plasma and tissues resulting from cystathionine         |
| November 01, 2019 | <a href="#">Rosiglitazone ameliorates bile duct ligation-induced liver fibrosis by down-regulating NF-<math>\kappa</math>B-TNF-<math>\alpha</math> signaling pathway in a PPAR<math>\gamma</math>-dependent manner</a> | Liver fibrosis is a major cause of morbidity and mortality worldwide.   |
| November 01, 2019 | <a href="#">Cardioprotective effects of galectin-3 inhibition against ischemia/reperfusion injury</a>  | Myocardial ischemia/reperfusion (IR) injury is caused by the restoration of the coronary blood flow following an ischemic episode.                            |
| November 01, 2019 | <a href="#">Loss of flow responsive Tie1 results in Impaired Aortic valve remodeling</a>   | The mechanisms regulating endothelial cell response to hemodynamic forces required for heart valve development, especially valve remodeling, remain           |
| November 01, 2019 | <a href="#">Modulation of redox metabolism negates cancer-associated fibroblasts-induced treatment resistance in a heterotypic 3D culture platform of pancreatic cancer</a>  | The complex interplay between cancer cells and their microenvironment remains a major challenge in the design and optimization of treatment strategies        |
| November 01, 2019 | <a href="#">Negative regulation of eNOS-NO signaling by over-SUMOylation of PPAR<math>\gamma</math> contributes to insulin resistance and dysfunction of vascular endothelium in rats</a>                              | SUMOylation of peroxisome proliferator-activated receptor gamma (PPAR $\gamma$ ) plays important regulatory role in its transcriptional activity.             |
| November 01, 2019 | <a href="#">Effect of vagus nerve stimulation on tissue damage and function loss in a mouse myocardial ischemia-reperfusion model</a>  | Objectives: In cardiac ischemia, acute inflammatory responses further increase the detrimental effect on myocardial tissue.                                   |
| November 01, 2019 | <a href="#">A knock-in mutation at cysteine 144 of TRIM72 is cardioprotective and reduces myocardial TRIM72 release</a>  | TRIM72 is a membrane repair protein that protects against ischemia reperfusion (I/R) injury.  |
| October 01, 2019  | <a href="#">Elevated luteinizing hormone contributes to atherosclerosis formation by inhibiting nitric oxide synthesis via PI3K/Akt pathway</a>  | Background: The contentious effects of estrogen therapy on the risk of postmenopausal cardiovascular disease (CVD) indicate that this type of atherosclerosis |
| October 01, 2019  | <a href="#">Regulation of the inflammatory response by vascular grafts modified with Aspirin-Triggered Resolvin D1 promotes blood vessel regeneration</a>  | The unabated inflammatory response is often the cause for inhibited vascular regeneration of transplanted small-diameter vascular grafts (diameter            |
| October 01, 2019  | <a href="#">KLF15-Wnt-Dependent Cardiac Reprogramming Up-Regulates SHISA3 in the Mammalian Heart</a>   | Background: The combination of cardiomyocyte (CM) and vascular cell (VC) fetal reprogramming upon stress culminates in end-stage heart failure (HF) by        |
| October 01, 2019  | <a href="#">Effects of combined angiotensin II receptor antagonism and neprilysin inhibition in experimental pulmonary hypertension and right ventricular failure</a>  | Background: Combined angiotensin II receptor antagonism and neprilysin inhibition by LCZ696 reduces morbidity and mortality in heart failure patients         |
| October 01, 2019  | <a href="#">Scavenger receptor A1 attenuates aortic dissection via promoting efferocytosis in macrophages</a>  | Macrophage class A1 scavenger receptor (SR-A1) is a pattern recognition receptor with an anti-inflammatory feature in cardiovascular diseases.                |
| October 01, 2019  | <a href="#">Assessing therapeutic response non-invasively in a neonatal rat model of acute inflammatory white matter injury using high-field MRI</a>   | Perinatal infection and inflammatory episodes in preterm infants are associated with diffuse white matter injury (WMI) and adverse neurological outcomes      |
| October 01, 2019  | <a href="#">Study of the mechanism underlying therapeutic effect of Compound Longmaining on myocardial infarction using a network pharmacology-based approach</a>  | Compound Longmaining (CLMN) decoction, a herbal formula from Traditional Chinese Medicine (TCM), has been widely used for the treatment of cardiovascular     |



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| October 01, 2019   | <a href="#">VCAM-1 Density and Tumor Perfusion Predict T-cell Infiltration and Treatment Response in Preclinical Models</a>  | Cancer immunotherapies have demonstrated durable responses in a range of different cancers.   |
| October 01, 2019   | <a href="#">Pioglitazone downregulates Twist-1 expression in the kidney and protects renal function of Zucker diabetic fatty rats</a>  | Aims: Renal interstitial fibrosis and glomerulosclerosis are the characteristic presentation of diabetic nephropathy progression.                                   |
| October 01, 2019   | <a href="#">Spatiotemporal delivery of basic fibroblast growth factor to directly and simultaneously attenuate cardiac fibrosis and promote cardiac tissue vascularization following myocardial infarction</a> | Following myocardial infarction (MI), the destruction of vasculature in the infarcted heart muscle and progression of cardiac fibrosis lead to cardiac              |
| October 01, 2019   | <a href="#">Cardioprotection of (±)-sodium 5-bromo-2-(α-hydroxypentyl) benzoate (BZP) on mouse myocardium I/R injury through inhibiting 12/15-LOX-2 activity</a>   | (±)-Sodium 5-bromo-2-(α-hydroxypentyl) benzoate (brand name: brozopine, BZP, 1a), derived from L-3-n-butylphthalide (L-NBP), has been reported to prote             |
| October 01, 2019   | <a href="#">The non-steroidal mineralocorticoid receptor antagonist finerenone prevents cardiac fibrotic remodeling</a>  | Mineralocorticoid receptor (MR) overactivation promotes cardiac fibrosis.   |
| October 01, 2019   | <a href="#">YQWY decoction reverses cardiac hypertrophy induced by TAC through inhibiting GATA4 phosphorylation and MAPKs</a>  | To investigate the effect of Yiqi Wenyang (YQWY) decoction on reversing cardiac hypertrophy induced by the transverse aortic constriction (TAC).                    |
| October 01, 2019   | <a href="#">Direct implantations of erythropoietin and autologous EPCs in critical limb ischemia (CLI) area restored CLI area blood flow and rescued remote AMI-induced LV dysfunction</a>                     | Background: This study tested the hypothesis that intramuscular injections of erythropoietin (EPO) and endothelial progenitor cells (EPC) to critical               |
| October 01, 2019   | <a href="#">Renal denervation ameliorates post-infarction cardiac remodeling in rats through dual regulation of oxidative stress in the heart and brain</a>  | Background: Myocardial remodeling is the key step in the development of ischemic cardiomyopathy.  |
| September 01, 2019 | <a href="#">LCZ696, an angiotensin receptor-neprilysin inhibitor, ameliorates diabetic cardiomyopathy by inhibiting inflammation, oxidative stress and apoptosis</a>   | Diabetic cardiomyopathy, which refers to the destruction of the structure and function of the heart, is the primary cause of heart failure due to diab              |
| September 01, 2019 | <a href="#">Design and synthesis of sulfonamidophenylethylamides as novel cardiac myosin activator</a>   | The sulfonamidophenylethylamide analogues were explored for finding novel and potent cardiac myosin activators.   |
| September 01, 2019 | <a href="#">Guanxin Danshen Formulation improved the effect of mesenchymal stem cells transplantation for the treatment of myocardial infarction probably via enhancing the engraftment</a>                    | Although intravenous injection is the most convenient and feasible approach for mesenchymal stem cells (MSCs) delivery, the proportion of donor stem c              |
| September 01, 2019 | <a href="#">Therapeutic contribution of melatonin to the treatment of septic cardiomyopathy: A novel mechanism linking Ripk3-modified mitochondrial performance and endoplasmic reticulum function</a>         | The basic pathophysiological mechanisms underlying septic cardiomyopathy have not yet been completely clarified.  |
| September 01, 2019 | <a href="#">All-trans retinoic acid attenuates isoproterenol-induced cardiac dysfunction through Crabp1 to dampen CaMKII activation</a>  | Inhibiting Ca <sup>2+</sup> /calmodulin-dependent protein kinase II (CaMKII) over activation can decrease detrimental cardiac remodeling that leads to dilated card |
| September 01, 2019 | <a href="#">Increased mitochondrial NADPH oxidase 4 (NOX4) expression in aging is a causative factor in aortic stiffening</a>  | Aging is characterized by increased aortic stiffness, an early, independent predictor and cause of cardiovascular disease.  |
| September 01, 2019 | <a href="#">Novel insights into the genetic landscape of congenital heart disease with systems genetics</a>  | We recently conducted a large-scale mouse mutagenesis screen and uncovered a central role for cilia in the pathogenesis of congenital heart disease (C              |

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| September 01, 2019 | <a href="#">Resveratrol prevents chronic intermittent hypoxia-induced cardiac hypertrophy by targeting the PI3K/AKT/mTOR pathway</a>   | Aims: Resveratrol is a polyphenolic compound that has received much attention for its use in ameliorating various systemic pathological conditions.    |
| September 01, 2019 | <a href="#">Bi axial biomechanical properties of the nonpregnant murine cervix and uterus</a>  | From a biomechanical perspective, female reproductive health is an understudied area of research.  |
| September 01, 2019 | <a href="#">Obese mice exposed to psychosocial stress display cardiac and hippocampal dysfunction associated with local brain-derived neurotrophic factor depletion</a>                  | Introduction: Obesity and psychosocial stress (PS) co-exist in individuals of Western society.   |
| September 01, 2019 | <a href="#">Therapeutic targeting of mitochondrial ROS ameliorates murine model of volume overload cardiomyopathy</a>  | Concomitant heart failure is associated with poor clinical outcome in dialysis patients.   |
| September 01, 2019 | <a href="#">Valproic acid attenuates sepsis-induced myocardial dysfunction in rats by accelerating autophagy through the PTEN/AKT/mTOR pathway</a>                                       | Aims: Sepsis is a leading cause of death and disability worldwide.   |
| August 01, 2019    | <a href="#">Adenosine Kinase Inhibition Augments Conducted Vasodilation and Prevents Left Ventricle Diastolic Dysfunction in Heart Failure With Preserved Ejection Fraction</a>          | Background: Heart failure with preserved ejection fraction (HFpEF) is often manifested as impaired cardiovascular reserve.                             |
| August 01, 2019    | <a href="#">Small-Molecule and CRISPR Screening Converge to Reveal Receptor Tyrosine Kinase Dependencies in Pediatric Rhabdoid Tumors</a>  | Cancer is often seen as a disease of mutations and chromosomal abnormalities.  |
| August 01, 2019    | <a href="#">Exercise-induced increases in the expression and activity of cardiac sarcoplasmic reticulum calcium ATPase 2 is attenuated in AMPK<math>\alpha</math> 2 kinase-dead mice</a> | Exercise enhances cardiac sarcoplasmic reticulum Ca <sup>2+</sup> -ATPase 2a (SERCA2a) function through unknown mechanisms.                            |
| August 01, 2019    | <a href="#">Combination PD-1 and PD-L1 Blockade Promotes Durable Neoantigen-Specific T Cell-Mediated Immunity in Pancreatic Ductal Adenocarcinoma</a>                                    | Pancreatic ductal adenocarcinoma (PDA) is a lethal cancer resistant to immunotherapy.  |
| August 01, 2019    | <a href="#">Simulation of gastric bypass effects on glucose metabolism and non-alcoholic fatty liver disease with the Sleeveballoon device</a>   | Background: Gastric bypass surgery is a very effective treatment of obesity and type 2 diabetes.   |
| August 01, 2019    | <a href="#">GDF15 Is an Inflammation-Induced Central Mediator of Tissue Tolerance</a>  | Growth and differentiation factor 15 (GDF15) is an inflammation-associated hormone with poorly defined biology.  |
| June 01, 2019      | <a href="#">Malonyl CoA Decarboxylase Inhibition Improves Cardiac Function Post-Myocardial Infarction</a>  | Alterations in cardiac energy metabolism after a myocardial infarction contribute to the severity of heart failure (HF).                               |
| January 01, 2019   | <a href="#">Human Relaxin 2 Fusion Protein Treatment Prevents and Reverses Isoproterenol Induced Hypertrophy and Fibrosis in Mouse Heart</a>   | Background Heart failure is one of the leading causes of death in Western countries, and there is a need for new therapeutic approaches.               |
| January 01, 2019   | <a href="#">MicroRNA-150 alleviates acute myocardial infarction through regulating cardiac fibroblasts in ventricular remodeling</a>   | OBJECTIVE: The aim of this study was to investigate the effect of microRNA-150 on the regulation of myocardial fibrosis and ventricular remodeling in  |
| January 01, 2019   | <a href="#">Prelamin A mediates myocardial inflammation in dilated and HIV-associated cardiomyopathies</a>   | Cardiomyopathies are complex heart muscle diseases that can be inherited or acquired.  |
| January 01, 2019   | <a href="#">Inducible cardiac-specific overexpression of cyclooxygenase-2 (COX-2) confers resistance to ischemia/reperfusion injury</a>  | The role of cyclooxygenase-2 (COX-2) in cardiovascular biology remains controversial.  |
| January 01, 2019   | <a href="#">miR-486 is modulated by stretch and increases ventricular growth</a>   | Perturbations in biomechanical stimuli during cardiac development contribute to congenital cardiac defects such as hypoplastic left heart syndrome (HL |

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| January 01, 2019 | <a href="#">CaMKII-<math>\delta</math>9 promotes cardiomyopathy through disrupting UBE2T-dependent DNA repair</a>   | Ca <sup>2+</sup> /calmodulin-dependent kinase II (CaMKII) is a multifunctional serine/threonine kinase family, and its $\delta$ isoform is predominant in the heart.    |
| January 01, 2019 | <a href="#">TFEB activation in macrophages attenuates postmyocardial infarction ventricular dysfunction independently of ATG5-mediated autophagy</a>  | Lysosomes are at the epicenter of cellular processes critical for inflammasome activation in macrophages.   |
| January 01, 2019 | <a href="#">Dual PPAR<math>\alpha</math>/<math>\gamma</math> activation inhibits SIRT1-PGC1<math>\alpha</math> axis and causes cardiac dysfunction</a>  | Dual PPAR $\alpha$ / $\gamma$ agonists that were developed to target hyperlipidemia and hyperglycemia in patients with type 2 diabetes caused cardiac dysfunction or ot |
| January 01, 2019 | <a href="#">Poly (ADP ribose) polymerase inhibition protects against myocardial ischaemia/reperfusion injury via suppressing mitophagy</a>  | Myocardial ischaemia/reperfusion (I/R) injury attenuates the beneficial effects of reperfusion therapy.   |
| January 01, 2019 | <a href="#">Endothelial EphB4 maintains vascular integrity and transport function in adult heart</a>  | The homeostasis of heart and other organs relies on the appropriate provision of nutrients and functional specialization of the local vasculature.                      |
| January 01, 2019 | <a href="#">Phosphodiesterase 5 Associates With <math>\beta</math>2 Adrenergic Receptor to Modulate Cardiac Function in Type 2 Diabetic Hearts</a>  | Background: In murine heart failure models and in humans with diabetic-related heart hypertrophy, inhibition of phosphodiesterase 5 (PDE5) by sildenafil                |
| January 01, 2019 | <a href="#">The lipid-droplet-associated protein ABHD5 protects the heart through proteolysis of HDAC4</a>  | Catecholamines stimulate the first step of lipolysis through protein kinase A (PKA)-dependent release of the lipid-droplet-associated protein abhydrol                  |
| January 01, 2019 | <a href="#">Fingolimod Improves the Outcome of Experimental Graves' Disease and Associated Orbitopathy by Modulating the Autoimmune Response to the Thyroid-Stimulating Hormone Receptor</a>              | Graves' disease (GD) and Graves' orbitopathy are associated with stimulating thyrotropin receptor (TSHR) autoantibodies and autoreactive T cells.                       |
| January 01, 2019 | <a href="#">miR-200a Attenuated Doxorubicin-Induced Cardiotoxicity through Upregulation of Nrf2 in Mice</a>   | Nuclear factor (erythroid-derived 2)-like 2 (Nrf2) was closely involved in doxorubicin-(DOX-) induced cardiotoxicity.   |
| January 01, 2019 | <a href="#">H19 is not hypomethylated or upregulated with age or sex in the aortic valves of mice</a>   | Epigenetic dysregulation of long noncoding RNA H19 was recently found to be associated with calcific aortic valve disease (CAVD) in humans by repressi                  |
| January 01, 2019 | <a href="#">Inhibition of miR-296-5p protects the heart from cardiac hypertrophy by targeting CACNG6</a>  | Heart often undergoes mal-remodeling and hypertrophic growth in response to pathological stress.  |
| January 01, 2019 | <a href="#">MCUB Regulates the Molecular Composition of the Mitochondrial Calcium Uniporter Channel to Limit Mitochondrial Calcium Overload During Stress</a>   | Background: The mitochondrial calcium uniporter (mtCU) is an $\approx$ 700-kD multisubunit channel residing in the inner mitochondrial membrane required for mi         |
| January 01, 2019 | <a href="#">Repair of subtotal tympanic membrane perforations: A temporal bone study of several tympanoplasty materials</a>   | The aim of this project was to investigate the effects of different types of graft material, and different remaining segments of the native TM on its                   |
| January 01, 2019 | <a href="#">The effects of human immunoglobulin G on enhancing tissue protection and neurobehavioral recovery after traumatic cervical spinal cord injury are mediated through the neurovascular unit</a> | Background: Spinal cord injury (SCI) is a condition with few effective treatment options.   |
| January 01, 2019 | <a href="#">Effect of HIF 1<math>\alpha</math>/miR 10b 5p/PTEN on Hypoxia Induced Cardiomyocyte Apoptosis</a>   | Background Few reports have addressed the mechanism by which microRNA miR-10b-5p regulates post-myocardial infarction (post-MI) cardiomyocyte apoptosi                  |

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| January 01, 2019 | <a href="#">Danqi soft capsule prevents infarct border zone remodelling and reduces susceptibility to ventricular arrhythmias in post myocardial infarction rats</a>  | Danqi soft capsule (DQ) is a traditional Chinese medicine containing Salvia miltiorrhiza and Panax notoginseng; it is safe and efficient in treating i                |
| January 01, 2019 | <a href="#">Combinatorial treatment of acute myocardial infarction using stem cells and their derived exosomes resulted in improved heart performance</a>   | Background: Bone marrow mesenchymal stem cells (MSCs) are among the most common cell types to be used and studied for cardiac regeneration.                           |
| January 01, 2019 | <a href="#">Dual-labeled pertuzumab for multimodality image-guided ovarian tumor resection.</a>   | Pertuzumab is clinically employed in the treatment of cancers over-expressing human epidermal growth factor receptor 2 (HER2).  |
| January 01, 2019 | <a href="#">NADPH oxidase-4 promotes eccentric cardiac hypertrophy in response to volume overload</a>   | AIMS Chronic pressure or volume overload induce concentric versus eccentric left ventricular (LV) remodelling, respectively.  |
| January 01, 2019 | <a href="#">Therapeutic Modulation of the Immune Response in Arrhythmogenic Cardiomyopathy</a>  | BACKGROUND: Inflammation is a prominent feature of arrhythmogenic cardiomyopathy (ACM), but whether it contributes to the disease phenotype is not kno                |
| January 01, 2019 | <a href="#">The flagellin-TLR5-Nox4 axis promotes the migration of smooth muscle cells in atherosclerosis</a>   | We hypothesized that NADPH oxidase 4 (Nox4) is involved in the formation of neointimal atherosclerotic plaques through the migration of smooth muscle                 |
| January 01, 2019 | <a href="#">Inhibition of microRNA-146a attenuated heart failure in myocardial infarction rats</a>  | The aim of the study was to determine the roles of microRNA (miR)-146a on myocardial infarction (MI)-induced heart failure and cardiac remodeling.                    |
| January 01, 2019 | <a href="#">Blood Pressure Normalization–Independent Cardioprotective Effects of Endogenous, Physical Activity–Induced <math>\alpha</math>CGRP (<math>\alpha</math> Calcitonin Gene-Related Peptide) in Chronically Hypertensive Mice</a> | Rationale: $\alpha$ CGRP ( $\alpha$ calcitonin gene-related peptide), one of the strongest vasodilators, is cardioprotective in hypertension by reducing the elevated |
| January 01, 2019 | <a href="#">Maternal valproic acid exposure leads to neurogenesis defects and autism-like behaviors in non-human primates</a>   | Despite the substantial progress made in identifying genetic defects in autism spectrum disorder (ASD), the etiology for majority of ASD individuals r                |
| January 01, 2019 | <a href="#">Endophilin A2 attenuates cardiac hypertrophy induced by isoproterenol through the activation of autophagy</a>   | Decreased autophagy has been reported to contribute to the progression of cardiac hypertrophy.  |
| January 01, 2019 | <a href="#">CD47 Deficiency Attenuates Isoproterenol-Induced Cardiac Remodeling in Mice</a>   | In this study, we investigated whether CD47 deficiency attenuates isoproterenol- (ISO-) induced cardiac remodeling in mice.   |
| January 01, 2019 | <a href="#">Scutellarin Prevents Angiogenesis in Diabetic Retinopathy by Downregulating VEGF/ERK/FAK/Src Pathway Signaling</a>  | Background . Diabetic retinopathy (DR) is a serious microvascular complication of diabetes.   |
| January 01, 2019 | <a href="#">eNOS-NO-induced small blood vessel relaxation requires EHD2-dependent caveolae stabilization</a>  | Endothelial nitric oxide synthase (eNOS)-related vessel relaxation is a highly coordinated process that regulates blood flow and pressure and is depen                |
| January 01, 2019 | <a href="#">WWP2 regulates pathological cardiac fibrosis by modulating SMAD2 signaling</a>  | Cardiac fibrosis is a final common pathology in inherited and acquired heart diseases that causes cardiac electrical and pump failure.                                |
| January 01, 2019 | <a href="#">Comparison of optical coherence tomography and high frequency ultrasound imaging in mice for the assessment of skin morphology and intradermal volumes</a>  | Optical coherence tomography (OCT) and high-frequency ultrasound (HFUS), two established imaging modalities in the field of dermatology, were evaluate                |
| January 01, 2019 | <a href="#"><math>\beta</math>3 Adrenergic Activation Improves Maternal and Offspring Perinatal Outcomes in Diet Induced Prepregnancy Obesity in Mice</a>   | Objective: Prepregnancy obesity is an epidemic disorder that seriously threatens both maternal and offspring health.  |



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| January 01, 2019 | <a href="#">Compound danshen dripping pills normalize a reprogrammed metabolism of myocardial ischemia rats to interpret its time-dependent efficacy in clinic trials: a metabolomic study</a> | Introduction: Clinical trials of Compound danshen dripping pills (CDDP) indicated distinct improvement in patients with chronic stable angina.         |
| January 01, 2019 | <a href="#">Effect of maternal betamethasone administration on fetal-placental vascular resistance in the mouse†</a>   | Antenatal corticosteroids are often administered to women at risk of preterm birth to accelerate fetal lung development; however, there is evidence th |
| January 01, 2019 | <a href="#">An Injectable Conductive Three-Dimensional Elastic Network by Tangled Surgical-Suture Spring for Heart Repair</a>  | Designing scaffolds with persistent elasticity and conductivity to mimic microenvironments becomes a feasible way to repair cardiac tissue.            |
| January 01, 2019 | <a href="#">A reference map of murine cardiac transcription factor chromatin occupancy identifies dynamic and conserved enhancers</a>  | Mapping the chromatin occupancy of transcription factors (TFs) is a key step in deciphering developmental transcriptional programs.                    |
| January 01, 2019 | <a href="#">Human iPSC cell-derived engineered heart tissue does not affect ventricular arrhythmias in a guinea pig cryo-injury model</a>  | Human iPSC-derived engineered heart tissue (hEHT) has been used to remuscularize injured hearts in a guinea pig infarction model.                      |
| January 01, 2019 | <a href="#">Transplantation of Human Umbilical Cord Blood-Derived Cellular Fraction Improves Left Ventricular Function and Remodeling After Myocardial Ischemia/Reperfusion</a>                | RATIONALE: Human umbilical cord blood (hUCB) contains diverse populations of stem/progenitor cells.  |
| January 01, 2019 | <a href="#">Effects of Photodynamic Therapy with Redaporfin on Tumor Oxygenation and Blood Flow in a Lung Cancer Mouse Model</a>   | Three photodynamic therapy (PDT) protocols with 15 min, 3 h and 72 h drug-to-light time intervals (DLIs) were performed using a bacteriochlorin named  |
| January 01, 2019 | <a href="#">Imaging of X-Ray-Excited Emissions from Quantum Dots and Biological Tissue in Whole Mouse</a>  | Optical imaging in clinical and preclinical settings can provide a wealth of biological information, particularly when coupled with targetted nanopart |
| January 01, 2019 | <a href="#">Cardiac-Specific Overexpression of Catalytically Inactive Corin Reduces Edema, Contractile Dysfunction, and Death in Mice with Dilated Cardiomyopathy</a>                          | Humans with dilated cardiomyopathy (DCM) and heart failure (HF) develop low levels of corin, a multi-domain, cardiac-selective serine protease involve |
| January 01, 2019 | <a href="#">In vivo engineered extracellular matrix scaffolds with instructive niches for oriented tissue regeneration</a>   | Implanted scaffolds with inductive niches can facilitate the recruitment and differentiation of host cells, thereby enhancing endogenous tissue regene |
| January 01, 2019 | <a href="#">Cardiac regeneration using human induced pluripotent stem cell derived biomaterial free 3D bioprinted cardiac patch in vivo</a>  | One of the leading causes of death worldwide is heart failure.   |
| January 01, 2019 | <a href="#">Quantitative Proteomics of Th-MYCN Transgenic Mice Reveals Aurora Kinase Inhibitor Altered Metabolic Pathways and Enhanced ACADM To Suppress Neuroblastoma Progression</a>         | Neuroblastoma is a neural crest-derived embryonal tumor and accounts for about 15% of all cancer deaths in children.                                   |
| January 01, 2019 | <a href="#">Augmentation of myocardial If dysregulates calcium homeostasis and causes adverse cardiac remodeling</a>   | HCN channels underlie the depolarizing funny current (If) that contributes importantly to cardiac pacemaking.  |
| January 01, 2019 | <a href="#">Fetal growth outcomes following peri-implantation exposure of Long-Evans rats to noise and ozone differ by sex</a>   | Background: Exposure to air pollution and high levels of noise have both been independently associated with the development of adverse pregnancy outco |
| January 01, 2019 | <a href="#">Research paper microbubble enhanced ultrasound for the antivasular treatment and monitoring of hepatocellular carcinoma</a>  | Background and Objective: Hepatocellular carcinoma (HCC) is the most common primary liver malignancy, and its current management relies heavily on loc |

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| January 01, 2019 | <a href="#">Blockade of L-type Ca<sup>2+</sup> channel attenuates doxorubicin-induced cardiomyopathy via suppression of CaMKII-NF-κB pathway</a>  | Ca <sup>2+</sup> /calmodulin-dependent protein kinase II (CaMKII) and nuclear factor-kappa B (NF-κB) play crucial roles in pathogenesis of doxorubicin (DOX)-induce             |
| January 01, 2019 | <a href="#">Targeting cardiac fibrosis with engineered T cells</a>  | Fibrosis is observed in nearly every form of myocardial disease <sup>1</sup> .  |
| January 01, 2019 | <a href="#">Upregulation of Yy1 Suppresses Dilated Cardiomyopathy caused by Ttn insufficiency</a>   | Truncating variants in TTN (TTNtv), coding for the largest structural protein in the sarcomere, contribute to the largest portion of familial and ambu                          |
| January 01, 2019 | <a href="#">Phenotypic effects of dietary stress in combination with a respiratory chain bypass in mice</a>   | The alternative oxidase (AOX) from <i>Ciona intestinalis</i> was previously shown to be expressible in mice and to cause no physiological disturbance under u                   |
| January 01, 2019 | <a href="#">Overexpression of protein phosphatase 5 in the mouse heart: Reduced contractility but increased stress tolerance – Two sides of the same coin?</a>  | The pathophysiological mechanisms of sepsis-induced cardiac dysfunction are largely unknown.  |
| January 01, 2019 | <a href="#">Improved Biomarker and Imaging Analysis for Characterizing Progressive Cardiac Fibrosis in a Mouse Model of Chronic Chagasic Cardiomyopathy</a>   | Background: Chronic chagasic cardiomyopathy (CCC), caused by <i>Trypanosoma cruzi</i> infection, is an important public health problem attributable to progre                   |
| January 01, 2019 | <a href="#">Cardioprotective Effect of Danhong Injection against Myocardial Infarction in Rats Is Critically Contributed by MicroRNAs</a>   | Background .  |
| January 01, 2019 | <a href="#">Salvianolic acid B protects against myocardial ischaemia-reperfusion injury in rats via inhibiting high mobility group box 1 protein expression through the PI3K/Akt signalling pathway</a> | Salvianolic acid B (Sal B) has a significant protective effect on myocardial ischaemia-reperfusion (I/R) injury.  |
| January 01, 2019 | <a href="#">Long-term cardiovascular disorders in the STOX1 mouse model of preeclampsia</a>   | Adverse long-term cardiovascular (CV) consequences of PE are well established in women.   |
| January 01, 2019 | <a href="#">FGF23 expression is stimulated in transgenic α-Klotho longevity mouse model</a>   | Observations in transgenic α-Klotho (KI) mice (KITg) defined the antiaging role of soluble Klotho (sKL130).   |
| January 01, 2019 | <a href="#">S allyl cysteine sulfoxide (alliin) alleviates myocardial infarction by modulating cardiomyocyte necroptosis and autophagy</a>  | S-allyl-cysteine sulfoxide (alliin) is the main organosulfur component of garlic and its preparations.  |
| January 01, 2019 | <a href="#">Functional coupling between NMDA receptors and SK channels in rat hypothalamic magnocellular neurons: altered mechanisms during heart failure</a>   | Key points: Glutamatergic NMDA receptors (NMDARs) and small conductance Ca <sup>2+</sup> -activated K <sup>+</sup> (SK) channels are critical synaptic and intrinsic mechanisms |
| January 01, 2019 | <a href="#">Fetal T Cell Activation in the Amniotic Cavity during Preterm Labor: A Potential Mechanism for a Subset of Idiopathic Preterm Birth</a>   | Prematurity is the leading cause of perinatal morbidity and mortality worldwide.  |
| January 01, 2019 | <a href="#">Bilayered Polymeric Micro- and Nanofiber Vascular Grafts as Abdominal Aorta Replacements: Long-Term in Vivo Studies in a Rat Model</a>  | In vivo long-term evaluation of degradable implants offers valuable information for the further design and optimization of biomaterials.  |
| January 01, 2019 | <a href="#">A conditional inducible JAK2V617F transgenic mouse model reveals myeloproliferative disease that is reversible upon switching off transgene expression</a>                                  | Aberrant activation of the JAK/STAT pathway is thought to be the critical event in the pathogenesis of the chronic myeloproliferative neoplasms, polyc                          |
| January 01, 2019 | <a href="#">Taohong Siwu Decoction Exerts a Beneficial Effect on Cardiac Function by Possibly Improving the Microenvironment and Decreasing Mitochondrial Fission after Myocardial Infarction</a>       | Cardiovascular disease has been established as a major cause of morbidity and mortality worldwide, resulting in a huge burden to patients, families, a                          |

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| January 01, 2019 | <a href="#">Vascular impact of quercetin administration in association with moderate exercise training in experimental type 1 diabetes</a>   | Hyperglycemia and oxidative stress have a major role in the pathogenesis of diabetic vascular complications.   |
| January 01, 2019 | <a href="#">Collagenase Nanoparticles Enhance the Penetration of Drugs into Pancreatic Tumors</a>  | Overexpressed extracellular matrix (ECM) in pancreatic ductal adenocarcinoma (PDAC) limits drug penetration into the tumor and is associated with poor |
| January 01, 2019 | <a href="#">Dietary Supplementation with Silicon-Enriched Spirulina Improves Arterial Remodeling and Function in Hypertensive Rats</a>   | Vascular aging is characterized by increase in arterial stiffness and remodeling of the arterial wall with a loss of elastic properties.               |
| January 01, 2019 | <a href="#">CD51 distinguishes a subpopulation of bone marrow mesenchymal stem cells with distinct migratory potential: a novel cell-based strategy to treat acute myocardial infarction in mice</a>     | Background: Experimental and clinical trials have demonstrated the efficiency of bone marrow-derived mesenchymal stromal/stem cells (bMSCs) in the tre |
| January 01, 2019 | <a href="#">Effects of Iliac Stenosis on Abdominal Aortic Aneurysm Formation in Mice and Humans</a>  | Reduced lower-limb blood flow has been shown to lead to asymmetrical abdominal aortic aneurysms (AAAs) but the mechanism of action is not fully unders |
| January 01, 2019 | <a href="#">Vimentin regulates Notch signaling strength and arterial remodeling in response to hemodynamic stress</a>  | The intermediate filament (IF) cytoskeleton has been proposed to regulate morphogenic processes by integrating the cell fate signaling machinery with  |
| January 01, 2019 | <a href="#">Aortic pathology from protein kinase G activation is prevented by an antioxidant vitamin B12 analog</a>  | People heterozygous for an activating mutation in protein kinase G1 (PRKG1, p.Arg177Gln) develop thoracic aortic aneurysms and dissections (TAAD) as y |
| January 01, 2019 | <a href="#">Exendin-4 Protects against Hyperglycemia-Induced Cardiomyocyte Pyroptosis via the AMPK-TXNIP Pathway</a>   | Diabetic cardiomyopathy is a common cardiac condition in patients with diabetes mellitus, which results in cardiac hypertrophy and subsequent heart fa |
| January 01, 2019 | <a href="#">Injectable Citrate-Based Hydrogel as an Angiogenic Biomaterial Improves Cardiac Repair after Myocardial Infarction</a>   | Implanted medical biomaterials are closely in contact with host biological systems via biomaterial-cell/tissue interactions, and these interactions pl |
| January 01, 2019 | <a href="#">Systems Network Genomic Analysis Reveals Cardioprotective Effect of MURC/Cavin 4 Deletion Against Ischemia/Reperfusion Injury</a>  | Background: Ischemia/reperfusion (I/R) injury is a critical issue in the development of treatment strategies for ischemic heart disease.               |
| January 01, 2019 | <a href="#">Hypoxia inducible factor 1<math>\alpha</math> in vascular smooth muscle cells promotes angiotensin II-induced vascular remodeling via activation of CCL7-mediated macrophage recruitment</a> | The process of vascular remodeling is associated with increased hypoxia.   |
| January 01, 2019 | <a href="#">TREK-1 protects the heart against ischemia-reperfusion-induced injury and from adverse remodeling after myocardial infarction</a>  | The TWIK-related K <sup>+</sup> channel (TREK-1) is a two-pore-domain potassium channel that produces background leaky potassium currents.             |
| January 01, 2019 | <a href="#">Targetable cellular signaling events mediate vascular pathology in vascular Ehlers-Danlos syndrome</a>   | Vascular Ehlers-Danlos syndrome (vEDS) is an autosomal-dominant connective tissue disorder caused by heterozygous mutations in the COL3A1 gene, which  |
| January 01, 2019 | <a href="#">Tanshinone IIA Restores Dynamic Balance of Autophagosome/Autolysosome in Doxorubicin-Induced Cardiotoxicity via Targeting Beclin1/LAMP1</a>  | Clinical use of the anti-cancer drug doxorubicin (DOX) is largely limited due to its severe cardiotoxicity.  |
| January 01, 2019 | <a href="#">Hyperoxia but not AOX expression mitigates pathological cardiac remodeling in a mouse model of inflammatory cardiomyopathy</a>   | Constitutive expression of the chemokine Mcp1 in mouse cardiomyocytes creates a model of inflammatory cardiomyopathy, with death from heart failure at |

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| January 01, 2019 | <a href="#">Regulation of cardiac fibroblast-mediated maladaptive ventricular remodeling by <math>\beta</math>-arrestins</a>   | Cardiac fibroblasts (CF) play a critical role in post-infarction remodeling which can ultimately lead to pathological fibrosis and heart failure.      |
| January 01, 2019 | <a href="#">Deciphering Role of Wnt Signalling in Cardiac Mesoderm and Cardiomyocyte Differentiation from Human iPSCs: Four-dimensional control of Wnt pathway for hiPSC-CMs differentiation</a> | Differentiation of cardiomyocytes (CMs) from human induced pluripotent stem cells (hiPSCs) is critically dependent upon the regulation of the Wnt sign |
| January 01, 2019 | <a href="#">A spontaneously metastatic model of bladder cancer: imaging characterization</a>   | Background: Spontaneously metastatic xenograft models of cancer are infrequent and the few that exist are resource intensive.                          |
| January 01, 2019 | <a href="#">Sustained elevation of MG53 in the bloodstream increases tissue regenerative capacity without compromising metabolic function</a>  | MG53 is a muscle-specific TRIM-family protein that presides over the cell membrane repair response.  |
| January 01, 2019 | <a href="#">The POU4F2/Brn-3b transcription factor is required for the hypertrophic response to angiotensin II in the heart</a>  | Adult hearts respond to increased workload such as prolonged stress or injury, by undergoing hypertrophic growth.                                      |
| January 01, 2019 | <a href="#">Hippo pathway deletion in adult resting cardiac fibroblasts initiates a cell state transition with spontaneous and self-sustaining fibrosis</a>                                      | Cardiac fibroblasts (CFs) respond to injury by transitioning through multiple cell states, including resting CFs, activated CFs, and myofibroblasts.   |
| January 01, 2019 | <a href="#">Wisteria floribunda agglutinin staining for the quantitative assessment of cardiac fibrogenic activity in a mouse model of dilated cardiomyopathy</a>                                | Cardiac fibrosis is a typical phenomenon in failing hearts for most cardiac diseases, including dilated cardiomyopathy (DCM), and its specific detecti |
| January 01, 2019 | <a href="#">p27kip1 haploinsufficiency preserves myocardial function in the early stages of myocardial infarction via Atg5 mediated autophagy flux restoration</a>                               | Myocardial infarction (MI) is a leading cause of mortality in adults worldwide.  |
| January 01, 2019 | <a href="#">Cell proliferation detected using [18F]FLT PET/CT as an early marker of abdominal aortic aneurysm</a>  | Background: Abdominal aortic aneurysm (AAA) is a focal aortic dilatation progressing towards rupture.  |
| January 01, 2019 | <a href="#">Myocardial death and dysfunction after ischemia-reperfusion injury require CaMKII<math>\delta</math> oxidation</a>   | Reactive oxygen species (Ros) contribute to myocardial death during ischemia-reperfusion (I/R) injury, but detailed knowledge of molecular pathways co |
| January 01, 2019 | <a href="#">Tumor susceptibility gene 101 ameliorates endotoxin-induced cardiac dysfunction by enhancing Parkin-mediated mitophagy</a>   | Cardiac mitochondrial damage and subsequent inflammation are hallmarks of endotoxin-induced myocardial depression.                                     |
| January 01, 2019 | <a href="#">Mechanisms of renal sympathetic denervation on improving ventricular arrhythmias after acute myocardial infarction in rats</a>   | Background: More than 50% of acute myocardial infarction (MI) survivors died from malignant ventricular arrhythmias (VA).                              |
| January 01, 2019 | <a href="#">Non-invasive contrast enhanced ultrasound molecular imaging of inflammation in autoimmune myocarditis for prediction of left ventricular fibrosis and remodeling</a>                 | Background Myocarditis can lead to myocyte loss and myocardial fibrosis resulting in dilated cardiomyopathy (DCMP).                                    |
| January 01, 2019 | <a href="#">Yin Yang 1 Suppresses Dilated Cardiomyopathy and Cardiac Fibrosis Through Regulation of Bmp7 and Ctgf</a>  | RATIONALE: Pathogenic variations in the lamin gene (LMNA) cause familial dilated cardiomyopathy (DCM).   |
| January 01, 2019 | <a href="#">Treatment with adipose tissue-derived mesenchymal stem cells exerts anti-diabetic effects, improves long-term complications, and attenuates inflammation in type 2 diabetic rats</a> | Background: Long-term diabetes-associated complications are the major causes of morbidity and mortality in individuals with diabetes.                  |
| January 01, 2019 | <a href="#">Cell-specific ablation of Hsp47 defines the collagen-producing cells in the injured heart</a>  | Collagen production in the adult heart is thought to be regulated by the fibroblast, although cardiomyocytes and endothelial cells also express multip |



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| January 01, 2019 | <a href="#">Enhanced mTOR complex 1 signaling attenuates diabetic cardiac injury in OVE26 mice</a>   | The protein kinase mechanistic target of rapamycin (mTOR) performs diverse cellular functions through 2 distinct multiprotein complexes, mTOR complex   |
| January 01, 2019 | <a href="#">Lipoprotein receptor related protein 6 is required to maintain intercalated disk integrity</a>   | The intercalated disk (ID), a highly organized adhesion structure connecting neighboring cardiomyocytes, fulfills mechanical and electrical signaling   |
| January 01, 2019 | <a href="#">Heterogeneous Cellular Contributions to Elastic Laminae Formation in Arterial Wall Development</a>   | Rationale: Elastin is an important ECM (extracellular matrix) protein in large and small arteries.  |
| January 01, 2019 | <a href="#">Longitudinal characterization of local perfusion of the rat placenta using contrast-enhanced ultrasound imaging</a>  | The placenta performs many physiological functions critical for development.  |
| January 01, 2019 | <a href="#">The homozygous variant c.245G &gt; A/p.G82D in PNPLA2 is associated with arrhythmogenic cardiomyopathy phenotypic manifestations</a>   | Arrhythmogenic cardiomyopathy (ACM) is a familial cardiomyopathy featured by fibrofatty replacement of cardiomyocytes.                                  |
| January 01, 2019 | <a href="#">Chronic high dose testosterone treatment: impact on rat cardiac contractile biology</a>  | Androgen therapy provides cardiovascular benefits for hypogonadism.   |
| January 01, 2019 | <a href="#">Empagliflozin, a sodium glucose co-transporter-2 inhibitor, alleviates atrial remodeling and improves mitochondrial function in high-fat diet/streptozotocin-induced diabetic rats</a> | Background: Diabetes mellitus is an important risk factor for atrial fibrillation (AF) development.   |
| January 01, 2019 | <a href="#">Non-invasive thermal imaging of cardiac remodeling in mice</a>   | Thermal infrared imaging has been suggested as a non-invasive alternative to monitor physiological processes and disease.                               |
| January 01, 2019 | <a href="#">Resolvin D4 attenuates the severity of pathological thrombosis in mice</a>   | Deep vein thrombosis (DVT) is a common cardiovascular disease with a major effect on quality of life, and safe and effective therapeutic measures to e  |
| January 01, 2019 | <a href="#">Assessing the role of extracellular signal regulated kinases 1 and 2 in volume overload induced cardiac remodelling</a>  | Aims: Volume overload (VO) and pressure overload (PO) induce differential cardiac remodelling responses including distinct signalling pathways.         |
| January 01, 2019 | <a href="#">Cardiomyocyte d-dopachrome tautomerase protects against heart failure</a>  | The mechanisms contributing to heart failure remain incompletely understood.  |
| January 01, 2019 | <a href="#">Myocardial overexpression of ANKRD1 causes sinus venosus defects and progressive diastolic dysfunction</a>   | Aims Increased Ankyrin Repeat Domain 1 (ANKRD1) levels linked to gain of function mutations have been associated to total anomalous pulmonary venous r  |
| January 01, 2019 | <a href="#">Enhancement of cardiac lymphangiogenesis by transplantation of CD34+VEGFR-3+ endothelial progenitor cells and sustained release of VEGF-C</a>  | Impairment of cardiac lymphatic vessels leads to cardiac lymphedema.  |
| January 01, 2019 | <a href="#">Calpain 9 as a therapeutic target in TGFβ-induced mesenchymal transition and fibrosis</a>  | Fibrosis is a common pathologic outcome of chronic disease resulting in the replacement of normal tissue parenchyma with a collagen-rich extracellular  |
| January 01, 2019 | <a href="#">CD146-HIF-1α hypoxic reprogramming drives vascular remodeling and pulmonary arterial hypertension</a>  | Pulmonary arterial hypertension (PAH) is a vascular remodeling disease of cardiopulmonary units.  |
| January 01, 2019 | <a href="#">Facile Nanolization Strategy for Therapeutic Ganoderma Lucidum Spore Oil to Achieve Enhanced Protection against Radiation Induced Heart Disease</a>                                    | Radiotherapy (RT) has been extensively utilized for clinical cancer therapy, however, excessive generation of reactive oxygen species (ROS) is becoming |
| January 01, 2019 | <a href="#">Organ Dynamics and Hemodynamic of the Whole HH25 Avian Embryonic Heart, Revealed by Ultrasound Biomicroscopy, Boundary Tracking, and Flow Simulations</a>                              | Congenital heart malformations occur to substantial number of pregnancies.  |

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| January 01, 2019 | <a href="#">Dexmedetomidine improves cardiac function and protects against maladaptive remodeling following myocardial infarction</a>   | Dexmedetomidine (DEX), a highly specific and selective $\alpha_2$ adrenergic receptor agonist, has been demonstrated to possess potential cardioprotective eff |
| January 01, 2019 | <a href="#">Muscarinic receptors promote pacemaker fate at the expense of secondary conduction system tissue in zebrafish</a>   | Deterioration or inborn malformations of the cardiac conduction system (CCS) interfere with proper impulse propagation in the heart and may lead to su         |
| January 01, 2019 | <a href="#">Inhibition of Senescence Associated Genes Rb1 and Meis2 in Adult Cardiomyocytes Results in Cell Cycle Reentry and Cardiac Repair Post-Myocardial Infarction</a>   | Background: Myocardial infarction results in a large-scale cardiomyocyte loss and heart failure due to subsequent pathological remodeling.                     |
| January 01, 2019 | <a href="#">Theacrine attenuates myocardial fibrosis after myocardial infarction via the SIRT3/<math>\beta</math>-catenin/PPAR<math>\gamma</math> pathway in estrogen-deficient mice</a>                                | OBJECTIVE: To investigate the role of theacrine in the protection of ventricular remodeling and chronic heart failure after myocardial infarction in t         |
| January 01, 2019 | <a href="#">eIF4A supports an oncogenic translation program in pancreatic ductal adenocarcinoma</a>   | Pancreatic ductal adenocarcinoma (PDA) is a lethal malignancy with limited treatment options.  |
| January 01, 2019 | <a href="#">Mitochondrial calcium exchange links metabolism with the epigenome to control cellular differentiation</a>  | Fibroblast to myofibroblast differentiation is crucial for the initial healing response but excessive myofibroblast activation leads to pathological f         |
| January 01, 2019 | <a href="#">Immuno-evolution of mouse pancreatic organoid isografts from preinvasive to metastatic disease</a>  | Pancreatic ductal adenocarcinoma (PDA) has a highly immunosuppressive microenvironment, which is contributed by the complex interaction between cancer         |
| January 01, 2019 | <a href="#">Curcumin Analogs Reduce Stress and Inflammation Indices in Experimental Models of Diabetes</a>  | Chronic inflammation and oxidative stress lead to a multitude of adverse cellular responses in target organs of chronic diabetic complications.                |
| January 01, 2019 | <a href="#">The enhanced effect and underlying mechanisms of mesenchymal stem cells with IL-33 overexpression on myocardial infarction</a>  | Background: Interleukin 33 is known to have an important influence in the process of myocardial infarction, and the immunoregulatory function of MSCs          |
| January 01, 2019 | <a href="#">Ginsenoside-Rb1 Improved Diabetic Cardiomyopathy through Regulating Calcium Signaling by Alleviating Protein O-GlcNAcylation</a>  | Ginsenoside-Rb1 (Rb1), a major active component of ginseng, has many benefits for cardiovascular disease and diabetes mellitus (DM), but the effect an         |
| January 01, 2019 | <a href="#">Humanized bone facilitates prostate cancer metastasis and recapitulates therapeutic effects of zoledronic acid in vivo</a>  | Advanced prostate cancer (PCa) is known for its high prevalence to metastasize to bone, at which point it is considered incurable.                             |
| January 01, 2019 | <a href="#">Conservation and divergence of protein pathways in the vertebrate heart</a>   | Heart disease is the leading cause of death in the western world.  |
| January 01, 2019 | <a href="#">Pigment Epithelial Derived Factor Deficiency Accelerates Atherosclerosis Development via Promoting Endothelial Fatty Acid Uptake in Mice With Hyperlipidemia</a>  | Background: Endothelial cell injury, induced by dyslipidemia, is the initiation of atherosclerosis, resulting in an imbalance in endothelial fatty aci         |
| January 01, 2019 | <a href="#">Nicotinamide riboside promotes autolysosome clearance in preventing doxorubicin-induced cardiotoxicity</a>  | Doxorubicin (DOX) is widely used as a first-line chemotherapeutic drug for various malignancies.   |
| January 01, 2019 | <a href="#">Administration of losartan preserves cardiomyocyte size and prevents myocardial dysfunction in tail-suspended mice by inhibiting p47phox phosphorylation, NADPH oxidase activation and MuRF1 expression</a> | Background: Spaceflight or microgravity conditions cause myocardial atrophy and dysfunction, contributing to post-flight orthostatic intolerance.              |

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| January 01, 2019 | <a href="#">Improvement of insulin signalling rescues inflammatory cardiac dysfunction</a>   | Inflammation resulting from virus infection is the cause of myocarditis; however, the precise mechanism by which inflammation induces cardiac dysfunction   |
| January 01, 2019 | <a href="#">Defects in the Exocyst-Cilia Machinery Cause Bicuspid Aortic Valve Disease and Aortic Stenosis</a>   | BACKGROUND: Bicuspid aortic valve (BAV) disease is a congenital defect that affects 0.5% to 1.2% of the population and is associated with comorbidities   |
| January 01, 2019 | <a href="#">Ultra-long-acting tunable biodegradable and removable controlled release implants for drug delivery</a>  | Here we report an ultra-long-acting tunable, biodegradable, and removable polymer-based delivery system that offers sustained drug delivery for up to   |
| January 01, 2019 | <a href="#">Supplementing preservation solution with mitochondria targeted H<sub>2</sub>S donor AP 39 protects cardiac grafts from prolonged cold ischemia–reperfusion injury in heart transplantation</a> | Heart transplant has been accepted as the standard treatment for end stage heart failure.   |
| January 01, 2019 | <a href="#">Lipid/PLGA Hybrid Microbubbles as a Versatile Platform for Noninvasive Image-Guided Targeted Drug Delivery</a>   | Microbubbles (MBs) have recently emerged as promising theranostic carriers for ultrasound contrast imaging and drug delivery.   |
| January 01, 2019 | <a href="#">C1q/tumor necrosis factor-related protein-3-engineered mesenchymal stromal cells attenuate cardiac impairment in mice with myocardial infarction</a>   | Mesenchymal stromal cells (MSCs) transplantation offers an attractive alternative in myocardial infarction therapy.   |
| January 01, 2019 | <a href="#">Endothelial CDS2 deficiency causes VEGFA-mediated vascular regression and tumor inhibition</a>   | The response of endothelial cells to signaling stimulation is critical for vascular morphogenesis, homeostasis and function.  |
| January 01, 2019 | <a href="#">IL-10 producing B cells rescue mouse fetuses from inflammation-driven fetal death and are able to modulate T cell immune responses</a>   | Understanding the mechanisms leading to fetal death following maternal subclinical infections is crucial to develop new therapeutic strategies.   |
| January 01, 2019 | <a href="#">Shelf-Life Evaluation and Lyophilization of PBCA-Based Polymeric Microbubbles</a>  | Poly(n-butyl cyanoacrylate) microbubbles (PBCA-MB) are extensively employed for functional and molecular ultrasound (US) imaging, as well as for US-me  |
| January 01, 2019 | <a href="#">Hypoxia-Induced miR-210 Is Necessary for Vascular Regeneration upon Acute Limb Ischemia</a>  | Critical limb ischemia is the most serious form of peripheral artery disease, characterized by severe functional consequences, difficult clinical management  |
| January 01, 2019 | <a href="#">α-Ketoglutarate links p53 to cell fate during tumour suppression</a>   | The tumour suppressor TP53 is mutated in the majority of human cancers, and in over 70% of pancreatic ductal adenocarcinoma (PDAC) <sup>1,2</sup> .   |
| January 01, 2019 | <a href="#">Dietary protein restriction throughout intrauterine and postnatal life results in potentially beneficial myocardial tissue remodeling in the adult mouse heart</a>                             | Diet composition impacts metabolic and cardiovascular health with high caloric diets contributing to obesity related disorders.   |
| January 01, 2019 | <a href="#">Palbociclib improves cardiac dysfunction in diabetic cardiomyopathy by regulating Rb phosphorylation</a>   | Diabetic cardiomyopathy (DCM) is a condition associated with significant structural changes including cardiac tissue necrosis, localized fibrosis, and  |
| January 01, 2019 | <a href="#">Crystal structure, molecular docking, and treatment activity on myocarditis of a co Schiff base coordination polymer</a>   | This work presents the synthesis and characterization of a dicyanamide-bridged coordination polymer {[Co <sub>2</sub> (L) <sub>2</sub> (dca) <sub>2</sub> (H <sub>2</sub> O)} <sub>n</sub> (named complex 1 hereafter |
| January 01, 2019 | <a href="#">Infant cardiosphere-derived cells exhibit non-durable heart protection in dilated cardiomyopathy rats</a>  | Stem cells provide a new strategy for the treatment of cardiac diseases; however, their effectiveness in dilated cardiomyopathy (DCM) has not been investigated   |

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| January 01, 2019  | <a href="#">The mechanism of RNA oxidation involved in the development of heart failure</a>                       | Heart failure (HF) has become a global public health problem due to its unclear pathogenesis.   |
| January 01, 2019  | <a href="#">Protective effects of Salidroside on cardiac function in mice with myocardial infarction</a>          | Salidroside (SAL) is the major ingredient of <i>Rhodiola rosea</i> , and has been traditionally used in Chinese medicine for decades.     |
| December 01, 2017 | <a href="#">Novel application and serial evaluation of tissue-engineered portal vein grafts in a murine model</a> | Aim: Surgical management of pediatric extrahepatic portal vein obstruction requires meso-Rex bypass using autologous or synthetic grafts. |