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| February 01, 2020 | Speckle tracking echocardiography could detect the difference of pressure overload-induced myocardial remodelling between young and adult rats | The assessment by speckle tracking echocardiography (STE) provides useful information on regional and global left ventricular (LV) functions. |
| January 01, 2020 | Multimodal and multiscale optical imaging of nanomedicine delivery across the blood-brain barrier upon sonopermeation | Rationale: The blood-brain barrier (BBB) is a major obstacle for drug delivery to the brain. |
| January 01, 2019 | B-mode ultrasound for the assessment of hepatic fibrosis: a quantitative multiparametric analysis for a radiomics approach | Hepatic fibrosis and cirrhosis are a growing global health problem with increasing mortality rates. |
| January 01, 2019 | Pharmacological inhibition of Notch signaling regresses pre-established abdominal aortic aneurysm | Abdominal aortic aneurysm (AAA) is characterized by transmural infiltration of myeloid cells at the vascular injury site. |
| January 01, 2018 | Improving the quality of preclinical research echocardiography: observations, training, and guidelines for measurement | 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 | Preclinical development of a miR-132 inhibitor for heart failure treatment | Despite proven efficacy of pharmacotherapies targeting primarily global neurohormonal dysregulation, heart failure (HF) is a growing pandemic with inc |
| September 01, 2020 | Photochemical Tissue Passivation of Arteriovenous Grafts Prevents Long-term Development of Intimal Hyperplasia in a Swine Model | 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 | Mst1 knockdown alleviates cardiac lipotoxicity and inhibits the development of diabetic cardiomyopathy in db/db mice | Diabetic cardiomyopathy (DCM) accounts for increasing deaths of diabetic patients, and effective therapeutic targets are urgently needed. |
| August 01, 2020 | MEIS1 regulated proliferation and migration of pulmonary artery smooth muscle cells in hypoxia-induced pulmonary hypertension | 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 | Effects of single-dose protons or oxygen ions on function and structure of the cardiovascular system in male Long Evans rats | 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 | Si-Miao-Yong-An decoction attenuates cardiac fibrosis via suppressing TGF-β1 pathway and interfering with MMP-TIMPs expression | Background: Myocardial fibrosis is an important pathological feature of pressure overload cardiac remodeling. |
| July 01, 2020 | miR-374b-5p is increased in deep vein thrombosis and negatively targets IL-10 | Background: Deep venous thrombosis (DVT) is one of the most common venous thromboembolic (VTE) disorders and the third leading cardiovascular complica |
| July 01, 2020 | Mitophagy inhibitor liensinine suppresses doxorubicin-induced cardiotoxicity through inhibition of Drp1-mediated maladaptive mitochondrial fission | Doxorubicin (DOX) is one of the most effective antineoplastic drugs. |
| July 01, 2020 | Identifying modifier genes for hypertrophic cardiomyopathy | Background: Hypertrophic cardiomyopathy (HCM) severity greatly varies among patients even with the same HCM gene mutations. |
| July 01, 2020 | Deterministic paracrine repair of injured myocardium using microfluidic-based cocooning of heart explant-derived cells | While encapsulation of cells within protective nanoporous gel cocoons increases cell retention and pro-survival integrin signaling, the influence of c |
| June 01, 2020 | Silica nanoparticles induce JNK-mediated inflammation and myocardial contractile dysfunction | 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 | Construction of vascular graft with circumferentially oriented microchannels for improving artery regeneration | 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 | Modified citrus pectin ameliorates myocardial fibrosis and inflammation via suppressing galectin-3 and TLR4/MyD88/NF-κB signaling pathway | Myocardial fibrosis (MF) plays a key role in the development and progression of heart failure (HF) with limited effective therapies. |
| June 01, 2020 | Combined exposure of fine particulate matter and high-fat diet aggravate the cardiac fibrosis in C57BL/6J mice | Cardiac fibrosis is associated with fine particulate matter (PM2.5) exposure. |
| June 01, 2020 | Radio-metal cross-linking of alginate hydrogels for non-invasive in vivo imaging | Alginate hydrogels are cross-linked polymers with high water content, tuneable chemical and material properties, and a range of biomedical application |
| May 18, 2020 | NDUFAB1 confers cardio-protection by enhancing mitochondrial bioenergetics through coordination of respiratory complex and supercomplex assembly | The impairment of mitochondrial bioenergetics, often coupled with exaggerated reactive oxygen species (ROS) production, is a fundamental disease mecha |
| May 14, 2020 | MSTN Attenuates Cardiac Hypertrophy through Inhibition of Excessive Cardiac Autophagy by Blocking AMPK /mTOR and miR-128/PPARγ/NF-κB | Cardiac hypertrophy, a response of the heart to increased workload, is a major risk factor for heart failure. |
| May 01, 2020 | Mitochondrial fusion promoter restores mitochondrial dynamics balance and ameliorates diabetic cardiomyopathy in an optic atrophy 1 dependent way | Aim: Imbalanced mitochondrial dynamics including suppressed mitochondrial fusion has been observed in diabetic hearts. |
| May 01, 2020 | MicroRNA-184 alleviates insulin resistance in cardiac myocytes and high fat diet-induced cardiac dysfunction in mice through the LPP3/DAG pathway | Aim: Cardiovascular complication is a major cause of mortality and morbidity in patients with diabetes. |
| May 01, 2020 | Stevioside improved hyperglycemia-induced cardiac dysfunction by attenuating the development of fibrosis and promoting the degradation of established fibrosis | 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 | LncRNA Oprm1 overexpression attenuates myocardial ischemia/reperfusion injury by increasing endogenous hydrogen sulfide via Oprm1/miR-30b-5p/CSE axis | Aims Ischemia/reperfusion (I/R) injury largely limits the efficacy of revascularization in acute myocardial infarction. |
| May 01, 2020 | The role of a lncRNA (TCONS_00044595) in regulating pineal CLOCK expression after neonatal hypoxia-ischemia brain injury | 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 | Electron paramagnetic resonance spectroscopy reveals alterations in the redox state of endogenous copper and iron complexes in photodynamic stress-induced ischemic mouse liver | Divalent copper and iron cations have been acknowledged for their catalytic roles in physiological processes critical for homeostasis maintenance. |
| May 01, 2020 | Metformin ameliorates cardiac conduction delay by regulating microRNA-1 in mice | Cardiac conduction delay may occur as a common complication of several cardiac diseases. |
| May 01, 2020 | Sequential delivery of nanoformulated α-mangostin and triptolide overcomes permeation obstacles and improves therapeutic effects in pancreatic cancer | Pancreatic ductal adenocarcinoma (PDAC) is a devastating disease exhibiting the poorest prognosis among solid tumors. |
| May 01, 2020 | Induction of caveolin-3/eNOS complex by nitroxyl (HNO) ameliorates diabetic cardiomyopathy | Nitroxyl (HNO), one-electron reduced and protonated sibling of nitric oxide (NO), is a potential regulator of cardiovascular functions. |
| May 01, 2020 | Melatonin ameliorates pressure overload-induced cardiac hypertrophy by attenuating Atg5-dependent autophagy and activating the Akt/mTOR pathway | Cardiac hypertrophy, including hypertension and valvular dysfunction, is a pathological feature of many cardiac diseases that ultimately leads to hear |

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| May 01, 2020 | κ-opioid receptor activation promotes mitochondrial fusion and enhances myocardial resistance to ischemia and reperfusion injury via STAT3-OPA1 pathway | Mitochondrial dynamics, determining mitochondrial morphology, quality and abundance, have recently been implicated in myocardial ischemia and reperfusion |
| May 01, 2020 | Motor transmission defects with sex differences in a new mouse model of mild spinal muscular atrophy | Background: Mouse models of mild spinal muscular atrophy (SMA) have been extremely challenging to generate. |
| May 01, 2020 | Ambient PM2.5 caused cardiac dysfunction through FoxO1-targeted cardiac hypertrophy and macrophage-activated fibrosis in mice | Plenty of epidemiological evidences have shown that ambient particulate matter (PM2.5) exposure increased the prevalence of cardiovascular disease, but |
| May 01, 2020 | A machine learning-driven study indicates emodin improves cardiac hypertrophy by modulation of mitochondrial SIRT3 signaling | Cardiac hypertrophy (CH) is an enormous risk factor in the process of heart failure development, however, there is still lack of effective treatment |
| May 01, 2020 | Necroptosis mediated by impaired autophagy flux contributes to adverse ventricular remodeling after myocardial infarction | Loss of functional cardiomyocytes by cell death after myocardial infarction is most critical for the subsequent left ventricular remodeling, cardiac d |
| May 01, 2020 | 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 | Preclinical cardiac MR is challenging and time-consuming. |
| April 30, 2020 | Therapeutic potential of miR-21 regulation by human peripheral blood derived-small extracellular vesicles in myocardial infarction | Small extracellular vesicles (sEVs) as natural membranous vesicles are on the frontiers of nanomedical research, due to their ability to deliver ther |
| April 01, 2020 | The Emergence of Cardiac Changes Following the Self-Administration of Methamphetamine | Background Clinical observations suggest an association between methamphetamine (METH) use and cardiovascular disease, but preclinical studies are lac |
| April 01, 2020 | Surface-modified GVs as nanosized contrast agents for molecular ultrasound imaging of tumor | 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 | Qishen Granule alleviates endoplasmic reticulum stress-induced myocardial apoptosis through IRE-1-CRYAB pathway in myocardial ischemia | Ethnopharmacological relevance: Qishen Granule (QSG) is a prevailing traditional Chinese medicine formula that displays impressive cardiovascular prot |
| April 01, 2020 | Dynamic Transcriptional Responses to Injury of Regenerative and Non-regenerative Cardiomyocytes Revealed by Single-Nucleus RNA Sequencing | The adult mammalian heart is incapable of regeneration following injury. |
| April 01, 2020 | Morrisonide enhances angiogenesis and improves cardiac function following acute myocardial infarction in rats | Angiogenesis is critical for re-establishing blood supply to the ischemic myocardium after acute myocardial infarction (AMI). |
| April 01, 2020 | Melatonin fine-tunes intracellular calcium signals and eliminates myocardial damage through the IP3R/MCU pathways in cardiorenal syndrome type 3 | Cardiorenal syndrome type-3 (CRS-3) is characterized by acute cardiac injury induced by acute kidney injury. |
| April 01, 2020 | Fibroblast growth factor-inducible 14 mediates macrophage infiltration in heart to promote pressure overload-induced cardiac dysfunction | Aims: Heart failure (HF) is characterized by compromised cardiac structure and function. |
| April 01, 2020 | Lack of Thy1 defines a pathogenic fraction of cardiac fibroblasts in heart failure | 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 | Adenosine A2A receptor activation prevents DOCA-salt induced hypertensive cardiac remodeling via iBAT | Hypertensive cardiac remodeling is a constellation of abnormalities that includes cardiomyocyte hypertrophy and death and tissue fibrosis. |
| April 01, 2020 | Mangiferin activates Nrf2 to attenuate cardiac fibrosis via redistributing glutaminolysis-derived glutamate | Cardiac injury is followed by fibrosis, characterized by myofibroblast activation. |
| April 01, 2020 | Metabolomic profiling of metoprolol-induced cardioprotection in a murine model of acute myocardial ischemia | Metoprolol (Met) is widely applied in the treatment of myocardial infarction and coronary heart disease in clinic. |
| March 30, 2020 | Spontaneous Pulmonary Hypertension Associated With Systemic Sclerosis in P Selectin Glycoprotein Ligand 1–Deficient Mice | Objective: Pulmonary arterial hypertension (PAH), one of the major complications of systemic sclerosis (SSc), is a rare disease with unknown etiopatho |
| March 30, 2020 | Cutaneous optical coherence tomography for longitudinal volumetric assessment of intradermal volumes in a mouse model | Clinical evaluation of skin lesions requires precise and reproducible technologies for their qualitative and quantitative assessment. |
| March 30, 2020 | Management of metabolic syndrome and reduction in body weight in type II diabetic mice by inhibiting glycosphingolipid synthesis | Metabolic syndrome is defined by hyperlipidemia and cardiovascular complications. |
| March 30, 2020 | Overexpression of peptidase inhibitor 16 attenuates angiotensin II-induced cardiac fibrosis via regulating HDAC1 of cardiac fibroblasts | Cardiac hypertrophy and fibrosis are the major causes of heart failure due to non-ischaemia heart disease. |
| March 30, 2020 | EXPRESS: Echocardiographic markers of pulmonary hemodynamics and right ventricular hypertrophy in rat models of pulmonary hypertension | Echocardiography is the gold standard non-invasive technique to diagnose pulmonary hypertension (PH). |
| March 27, 2020 | Ventricular remodeling in ischemic heart failure stratifies responders to stem cell therapy | Response to stem cell therapy in heart failure is heterogeneous, warranting a better understanding of outcome predictors. |
| March 27, 2020 | Cytokine mRNA Degradation in Cardiomyocytes Restrains Sterile Inflammation in Pressure-Overloaded Hearts | BACKGROUND Proinflammatory cytokines play an important role in the pathogenesis of heart failure. |
| March 01, 2020 | Maternal administration of tadalafil improves fetal ventricular systolic function in a Hey2 knockout mouse model of fetal heart failure | 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 | Berberine alleviates pulmonary hypertension through Trx1 and β-catenin signaling pathways in pulmonary artery smooth muscle cells | Pulmonary arterial hypertension (PAH) is closely associated with profound vascular remodeling, especially pulmonary arterial medial hypertrophy and mu |
| March 01, 2020 | Adrenomedullin Is Necessary to Resolve Hyperoxia-Induced Experimental Bronchopulmonary Dysplasia and Pulmonary Hypertension in Mice | Bronchopulmonary dysplasia (BPD)–associated pulmonary hypertension (PH) is an infantile lung disease characterized by aberrant angiogenesis and impair |
| March 01, 2020 | Inhibition of Dectin-1 in mice ameliorates cardiac remodeling by suppressing NF-κB/NLRP3 signaling after myocardial infarction | The myocardial inflammatory response is a consequence of myocardial infarction (MI), which may deteriorate cardiac remodeling and lead to dysfunction |
| March 01, 2020 | Verapamil decreases calpain-1 and matrix metalloproteinase-2 activities and improves hypertension-induced hypertrophic cardiac remodeling in rats | 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 | Investigational new drug enabling angiotensin oral-delivery studies to attenuate pulmonary hypertension | Pulmonary arterial hypertension (PAH) is a deadly and incurable disease characterized by remodeling of the pulmonary vasculature and increased pulmona |

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| March 01, 2020 | Early life undernutrition reduces maximum treadmill running capacity in adulthood in mice | Undernutrition during early life causes chronic disease with specific impairments to the heart and skeletal muscle. |
| March 01, 2020 | Repeated Remote Ischemic Conditioning Reduces Doxorubicin-Induced Cardiotoxicity | OBJECTIVES This study investigated the cardioprotective effect of repeated remote ischemic preconditioning (rRIC) on doxorubicin-induced cardiotoxicity |
| March 01, 2020 | 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 | 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 | Pharmacological Silencing of MicroRNA-152 Prevents Pressure Overload-Induced Heart Failure | BACKGROUND: MicroRNAs are small, noncoding RNAs that play a key role in gene expression. |
| March 01, 2020 | Amphiregulin promotes cardiac fibrosis post myocardial infarction by inducing the endothelial-mesenchymal transition via the EGFR pathway in endothelial cells | The endothelial-mesenchymal transition (EndMT) plays a key role in the development of cardiac fibrosis (CF) after acute myocardial infarction (AMI). |
| March 01, 2020 | Therapeutic Antibody Against Phosphorylcholine Preserves Coronary Function and Attenuates Vascular 18F-FDG Uptake in Atherosclerotic Mice | This study showed that treatment with a therapeutic monoclonal immunoglobulin-G1 antibody against phosphorylcholine on oxidized phospholipids preserve |
| March 01, 2020 | B cell-Derived IL35 Drives STAT3-Dependent CD8 + T-cell Exclusion in Pancreatic Cancer | 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 | Innate Lymphoid Cells Play a Pathogenic Role in Pericarditis | We find that cardiac group 2 innate lymphoid cells (ILC2s) are essential for the development of IL-33- induced eosinophilic pericarditis. |
| March 01, 2020 | BRCA1 protects cardiac microvascular endothelial cells against irradiation by regulating p21-mediated cell cycle arrest | Aims: Microvascular endothelial cell dysfunction is a leading cause of radiation-induced heart disease (RIHD). |
| March 01, 2020 | Severe hypoglycemia exacerbates myocardial dysfunction and metabolic remodeling in diabetic mice | Although several studies have revealed that adverse cardiovascular events in diabetic patients are closely associated with severe hypoglycemia (SH), t |
| March 01, 2020 | PRKAR1A deficiency impedes hypertrophy and reduces heart size | 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 | The circular RNA hsa_circ_0007623 acts as a sponge of microRNA-297 and promotes cardiac repair | Circular RNAs (circRNAs) are a kind of closed loop endogenous non-coding RNAs have attracted increasing interest in recent years. |
| March 01, 2020 | TRPM4 modulates right ventricular remodeling under pressure load accompanied with decreased expression level | Survival of patients with congenital heart defects including increased right ventricular pressure load (i.e. |
| March 01, 2020 | Nicotinamide riboside kinase-2 alleviates ischemia-induced heart failure through P38 signaling | Nicotinamide riboside kinase-2 (NRK-2), a muscle-specific β 1 integrin binding protein, predominantly expresses in skeletal muscle with a trace amount |
| March 01, 2020 | NLRP3 inflammasome-mediated pyroptosis contributes to the pathogenesis of non-ischemic dilated cardiomyopathy | Dilated cardiomyopathy (DCM) is one of the most common causes of heart failure, and the underlying mechanism remains largely elusive. |

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| March 01, 2020 | The SGLT2 inhibitor empagliflozin reduces mortality and prevents progression in experimental pulmonary hypertension | Pulmonary arterial hypertension (PAH) is a rare, but progressive and devastating vascular disease with few treatment options to prevent the advancement |
| March 01, 2020 | Sexual dimorphism in cardiac transcriptome associated with a troponin C murine model of hypertrophic cardiomyopathy | Heart disease remains the number one killer of women in the US. |
| March 01, 2020 | P66Shc Deletion Ameliorates Oxidative Stress and Cardiac Dysfunction in Pressure Overload-Induced Heart Failure | 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 | LIN28B Underlies the Pathogenesis of a Subclass of Ewing Sarcoma | Ewing sarcoma (EwS) is associated with poor prognosis despite current multimodal therapy. |
| March 01, 2020 | Assessment of cardiac structure and function in a murine model of temporal lobe epilepsy | Sudden unexpected death in epilepsy (SUDEP) is a significant cause of premature seizure-related death. |
| March 01, 2020 | Estrogen Receptor-α Non-Nuclear Signaling Confers Cardioprotection and Is Essential to cGMP-PDE5 Inhibition Efficacy | Using genetically engineered mice lacking estrogen receptor- α non-nuclear signaling, this study demonstrated that estrogen receptor- α non-nuclear signaling |
| March 01, 2020 | Senescence-Induced Vascular Remodeling Creates Therapeutic Vulnerabilities in Pancreas Cancer | Summary KRAS mutant pancreatic ductal adenocarcinoma (PDAC) is characterized by a desmoplastic response that promotes hypovascularity, immunosuppression |
| March 01, 2020 | Fendrr involves in the pathogenesis of cardiac fibrosis via regulating miR-106b/SMAD3 axis | Cardiovascular diseases (CVDs) is the first cause of death worldwide, generally exhibiting a high morbidity, high disability rate and high mortality |
| March 01, 2020 | Resveratrol protects against CIH-induced myocardial injury by targeting Nrf2 and blocking NLRP3 inflammasome activation | The prominent feature of obstructive sleep apnea (OSA) is chronic intermittent hypoxia (CIH). |
| March 01, 2020 | Bone marrow mesenchymal stem cells-derived exosomal microRNA-185 represses ventricular remodeling of mice with myocardial infarction by inhibiting SOCS2 | Objective: Recently, the function of microRNAs (miRNAs) has been clarified in human diseases, we aimed to identify the role of miR-185 in myocardial infarction |
| March 01, 2020 | PM2.5-induced inflammation and lipidome alteration associated with the development of atherosclerosis based on a targeted lipidomic analysis | Epidemiological studies have confirmed that PM2.5 could contribute to the development of atherosclerosis accompanied with lipids dysregulation. |
| March 01, 2020 | Cannabinoids Rescue Cocaine-Induced Seizures by Restoring Brain Glycine Receptor Dysfunction | Cannabinoids are reported to rescue cocaine-induced seizures (CISs), a severe complication in cocaine users. |
| February 01, 2020 | US-triggered ultra-sensitive "thrombus constructor" for precise tumor therapy | Embolization therapy is an attractive strategy for antitumor therapy, especially for solid tumors. |
| February 01, 2020 | Late onset renal hypertrophy and dysfunction in mice lacking CTRP1 | Local and systemic factors that influence renal structure and function in aging are not well understood. |
| February 01, 2020 | Targeting exosome associated human antigen R attenuates fibrosis and inflammation in diabetic heart | RNA-binding proteins like human antigen R (HuR) are key regulators in post-transcriptional control of gene expression in several pathophysiological conditions |
| February 01, 2020 | Cardamonin protects against doxorubicin-induced cardiotoxicity in mice by restraining oxidative stress and inflammation associated with Nrf2 signaling | The clinical application of doxorubicin (DOX) for cancer treatment is limited due to its cardiotoxicity. |

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| February 01, 2020 | Dynamic tracking of bulk nanobubbles from microbubbles shrinkage to collapse | Nanobubbles (NBs) have attracted great attention because of their potential role in interfacial science and application. |
| February 01, 2020 | ROS-responsive polyurethane fibrous patches loaded with methylprednisolone (MP) for restoring structures and functions of infarcted myocardium in vivo | Reactive oxygen species (ROS) play an important role in the pathogenesis of numerous diseases including atherosclerosis, diabetes, inflammation and my |
| February 01, 2020 | MiR 144 protects the heart from hyperglycemia induced injury by regulating mitochondrial biogenesis and cardiomyocyte apoptosis | Several lines of evidence have revealed the potential of microRNAs (miRNAs, miRs) as biomarkers for detecting diabetic cardiomyopathy, although their |
| February 01, 2020 | Left Ventricular Longitudinal Strain as a Marker for Point of No Return in Hypertensive Heart Failure Treatment | Background: There are currently no therapies that can improve prognosis in cases of heart failure (HF) with preserved ejection fraction (EF). |
| February 01, 2020 | Bnip3 mediates doxorubicin-induced cardiomyocyte pyroptosis via caspase-3/GSDME | 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 | Tumor Contrast Imaging with Gas Vesicles by Circumventing the Reticuloendothelial System | 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 | Effects of the different-sized external stents on vein graft intimal hyperplasia and inflammation | Background: The poor long-term patency ratio of vein grafts prevents patients from benefiting from coronary artery bypass graft (CABG). |
| February 01, 2020 | Evolution of metallic cardiovascular stent materials: A comparative study among stainless steel, magnesium and zinc | A cardiovascular stent is a small mesh tube that expands a narrowed or blocked coronary artery. |
| February 01, 2020 | Enhancing sustained-release local therapy: Single versus dual chemotherapy for the treatment of neuroblastoma | Background: Neuroblastoma is the most common pediatric extracranial solid malignancy with limited effective treatment. |
| February 01, 2020 | Stachydrine hydrochloride alleviates pressure overload-induced heart failure and calcium mishandling on mice | Ethnopharmacological relevance: Traditional Chinese medicine Leonurus japonicus Houtt. |
| February 01, 2020 | A Peptide-Functionalized Magnetic Nanoplatfrom-Loaded Melatonin for Targeted Amelioration of Fibrosis in Pressure Overload-Induced Cardiac Hypertrophy | Introduction: Currently, the unsatisfactory treatment of cardiac hypertrophy is due to the unbridled myocardial fibrosis. |
| February 01, 2020 | Enhanced cardiomyocyte reactive oxygen species signaling promotes ibrutinib-induced atrial fibrillation | Atrial fibrillation (AF) occurs in up to 11% of cancer patients treated with ibrutinib. |
| February 01, 2020 | Dexrazoxane ameliorates doxorubicin-induced cardiotoxicity by inhibiting both apoptosis and necroptosis in cardiomyocytes | Doxorubicin, as a first line chemotherapeutic agent, its usage is limited owing to cardiotoxicity. |
| January 31, 2020 | Alginate Oligosaccharide Alleviates Monocrotaline-Induced Pulmonary Hypertension via Anti-Oxidant and Anti-Inflammation Pathways in Rats | Pulmonary arterial hypertension (PAH) is a serious and fatal cardiovascular disorder characterized by increased pulmonary vascular resistance and prog |
| January 30, 2020 | Ocular Pulse Elastography: Imaging Corneal Biomechanical Responses to Simulated Ocular Pulse Using Ultrasound | Purpose: In vivo evaluation of corneal biomechanics holds the potential for improving diagnosis and management of ocular diseases. |
| January 01, 2020 | Tailorable Hydrogel Improves Retention and Cardioprotection of Intramyocardial Transplanted Mesenchymal Stem Cells for the Treatment of Acute Myocardial Infarction in Mice | Background: Poor engraftment of intramyocardial stem cells limits their therapeutic efficiency against myocardial infarction (MI)-induced cardiac inju |

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| January 01, 2020 | Dietary Tomato or Lycopene Do Not Reduce Castration-Resistant Prostate Cancer Progression in a Murine Model | Background: Dietary tomato products or lycopene protect against prostate carcinogenesis, but their impact on the emergence of castration-resistant pro |
| January 01, 2020 | Assessment of Metastatic and Reactive Sentinel Lymph Nodes with B7-H3-Targeted Ultrasound Molecular Imaging: A Longitudinal Study in Mouse Models | Purpose: To explore the potential of B7-H3-targeted ultrasound molecular imaging (USMI) for longitudinal assessment and differentiation of metastatic |
| January 01, 2020 | IKK Epsilon Deficiency Attenuates Angiotensin II-Induced Abdominal Aortic Aneurysm Formation in Mice by Inhibiting Inflammation, Oxidative Stress, and Apoptosis | Abdominal aortic aneurysm (AAA) is a vascular disorder that is considered a chronic inflammatory disease. |
| January 01, 2020 | Low-frequency ultrasound-mediated cytokine transfection enhances T cell recruitment at local and distant tumor sites | Robust cytotoxic T cell infiltration has proven to be difficult to achieve in solid tumors. |
| January 01, 2020 | Mesencephalic astrocyte-derived neurotrophic factor is an ER-resident chaperone that protects against reductive stress in the heart | 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 | Prevention and rescue of cardiac dysfunction by methanocarpa adenosine monophosphonate derivatives | Accumulating evidence supports a therapeutic role of purinergic signaling in cardiac diseases. |
| January 01, 2020 | Carbachol alleviates myocardial injury in septic rats through PI3K/AKT signaling pathway | 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 | Cardiac remodeling secondary to chronic volume overload is attenuated by a novel MMP9/2 blocking antibody | Objective Monoclonal antibody derivatives are promising drugs for the treatment of various diseases due to their high matrix metalloproteinases (MMP) |
| January 01, 2020 | Melatonin Ameliorates MI-Induced Cardiac Remodeling and Apoptosis through a JNK/p53-Dependent Mechanism in Diabetes Mellitus | Diabetes mellitus, a worldwide health threat, is considered an independent risk factor for cardiovascular diseases. |
| January 01, 2020 | FGF23 induced left ventricular hypertrophy mediated by FGFR4 signaling in the myocardium is attenuated by soluble Klotho in mice | There is controversy regarding whether excess FGF23 causes left ventricular hypertrophy (LVH) directly through activation of fibroblast growth factor |
| January 01, 2020 | Stopping transformed cancer cell growth by rigidity sensing | 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 | Transplantation of human induced pluripotent stem cell-derived cardiomyocytes improves myocardial function and reverses ventricular remodeling in infarcted rat hearts | Background: Human-induced pluripotent stem cell-derived cardiomyocytes (iPSC-CMs) have shed great light on cardiac regenerative medicine and specifica |
| January 01, 2020 | NF kB signaling in cardiomyocytes is inhibited by sevoflurane and promoted by propofol | Both inhalational and intravenous anesthetics affect myocardial remodeling, but the precise effect of each anesthetic on molecular signaling in myocar |
| January 01, 2020 | Mononuclear phagocyte system blockade improves therapeutic exosome delivery to the myocardium | Rationale: Exosomes are emerging as a promising drug delivery carrier. |
| January 01, 2020 | The hydroxypropyl β cyclodextrin minoxidil inclusion complex improves the cardiovascular and proliferative adverse effects of minoxidil in male rats: Implications in the treatment of alopecia | 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 | Phospholipid Oxygen Microbubbles for Image-Guided Therapy | In recent work, oxygen microbubbles (OMB) have been shown to oxygenate hypoxic tumors, increase radio-sensitivity and improve tumor control by radiati |

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| January 01, 2020 | The Long Non coding RNA NR_045363 Regulates Cardiomyocyte Apoptosis and Cardiac Repair Through Activating P53 Signal Pathway | Long noncoding RNAs (lncRNAs) can participate in various biological behaviors, including regulating cell differentiation, proliferation and apoptosis. |
| January 01, 2020 | Selective targeting of ubiquitination and degradation of PARP1 by E3 ubiquitin ligase WWP2 regulates isoproterenol-induced cardiac remodeling | 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 | Dermal exposure to the UV filter benzophenone-3 during early pregnancy affects fetal growth and sex ratio of the progeny in mice | 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 | Syndecan 4 Protects the Heart From the Profibrotic Effects of Thrombin Cleaved Osteopontin | Background: Pressure overload of the heart occurs in patients with hypertension or valvular stenosis and induces cardiac fibrosis because of excessive |
| January 01, 2020 | Arctigenin alleviates myocardial infarction injury through inhibition of the NFAT5-related inflammatory phenotype of cardiac macrophages/monocytes in mice | In this study, we screened potential natural compounds for the treatment of myocardial infarction (MI) and explored the underlying mechanisms. |
| January 01, 2020 | Mesenchymal-endothelial transition-derived cells as a potential new regulatory target for cardiac hypertrophy | The role of Mesenchymal-endothelial transition (MEndoT) in cardiac hypertrophy is unclear. |
| January 01, 2020 | Accelerating development of high-risk neuroblastoma patient-derived xenograft models for preclinical testing and personalised therapy | 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 | Reductive Stress Causes Pathological Cardiac Remodeling and Diastolic Dysfunction | Aims: Redox homeostasis is tightly controlled and regulates key cellular signaling pathways. |
| January 01, 2020 | IGF-1C domain-modified hydrogel enhanced the efficacy of stem cells in the treatment of AMI | 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 | Dietary methionine restriction improves the impairment of cardiac function in middle-aged obese mice | 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 | Cardiopoietic stem cell therapy restores infarction-altered cardiac proteome | Cardiopoietic stem cells have reached advanced clinical testing for ischemic heart failure. |
| January 01, 2020 | Inhibition of SREBP Improves Cardiac Lipidopathy, Improves Endoplasmic Reticulum Stress, and Modulates Chronic Chagas Cardiomyopathy | Background: Trypanosoma cruzi is an intracellular parasite that causes debilitating chronic Chagas cardiomyopathy (CCM), for which there is no effecti |
| January 01, 2020 | NFATc3-dependent expression of miR-153-3p promotes mitochondrial fragmentation in cardiac hypertrophy by impairing mitofusin-1 expression | Mitochondrial dysfunction is involved in the pathogenesis of various cardiovascular disorders. |
| January 01, 2020 | CTRP15 derived from cardiac myocytes attenuates TGFβ1-induced fibrotic response in cardiac fibroblasts | Purpose: Cardiac fibrosis is characterized by net accumulation of extracellular matrix (ECM) components in the myocardium and facilitates the developm |
| January 01, 2020 | Inhibition of peptidyl arginine deiminase-4 protects against myocardial infarction induced cardiac dysfunction | Peptidyl arginine deiminase-4 (PAD4), a PAD enzyme family member, catalyzes the posttranslational conversion of arginine residues to citrulline in tar |

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| January 01, 2020 | 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 | Aims: Empagliflozin (EMPA) demonstrates cardioprotective effects on diabetic myocardium but its infarct sparing effects in normoglycaemia remain unspe |
| January 01, 2020 | Mild carotid stenosis creates gradual, progressive, lifelong brain, and eye damage: An experimental laboratory rat model | 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 | Local delivery of dinutuximab from lyophilized silk fibroin foams for treatment of an orthotopic neuroblastoma model | Immunotherapy targeting GD2 is a primary treatment for patients with high-risk neuroblastoma. |
| January 01, 2020 | Aminooxyacetic acid attenuates post infarct cardiac dysfunction by balancing macrophage polarization through modulating macrophage metabolism in mice | Excessive activation of pro-inflammatory M1 macrophages following acute myocardial infarction (MI) aggravates adverse cardiac remodelling and heart dy |
| January 01, 2020 | Medial calcification in the arterial wall of smooth muscle cell specific Smpd1 transgenic mice: A ceramide mediated vasculopathy | Arterial medial calcification (AMC) is associated with crystallization of hydroxyapatite in the extracellular matrix and arterial smooth muscle cells |
| January 01, 2020 | Atypical ALPK2 kinase is not essential for cardiac development and function | Protein kinases play an integral role in cardiac development, function, and disease. |
| January 01, 2020 | Loss of Dynamic Regulation of G Protein-Coupled Receptor Kinase 2 by Nitric Oxide Leads to Cardiovascular Dysfunction with Aging | Nitric oxide (NO) and S-nitrosothiol (SNO) are considered cardio- and vaso-protective substances. |
| January 01, 2020 | A small-molecule allosteric inhibitor of BAX protects against doxorubicin-induced cardiomyopathy | 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 | Luteolin attenuates sepsis induced myocardial injury by enhancing autophagy in mice | Sepsis-induced cardiomyopathy (SIC) is a complication of severe sepsis and septic shock characterized by an invertible myocardial depression. |
| January 01, 2020 | TASK-1 and TASK-3 channels modulate pressure overload-induced cardiac remodeling and dysfunction | Tandem pore domain acid-sensitive K ⁺ (TASK) channels are present in cardiac tissue; however, their contribution to cardiac pathophysiology is not well |
| January 01, 2020 | β 3 -Adrenergic receptor blockade reduces mortality in endotoxin-induced heart failure by suppressing induced nitric oxide synthase and saving cardiac metabolism | 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 | FoxO1–Dio2 signaling axis governs cardiomyocyte thyroid hormone metabolism and hypertrophic growth | Forkhead box O (FoxO) proteins and thyroid hormone (TH) have well established roles in cardiovascular morphogenesis and remodeling. |
| January 01, 2020 | Effect of miR-195-5p on cardiomyocyte apoptosis in rats with heart failure by regulating TGF-β1/Smad3 signaling pathway | 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 | Lung developmental arrest caused by PDGF-A deletion: consequences for the adult mouse lung | PDGF-A is a key contributor to lung development in mice. |
| January 01, 2020 | Investigation of cardiovascular protective effect of Shenmai injection by network pharmacology and pharmacological evaluation | 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 | Uncoupling protein 2 facilitates insulin-elicited protection against lipopolysaccharide-induced myocardial dysfunction | Sepsis-induced myocardial dysfunction is a critical cause of high mortality among patients with sepsis. |

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| January 01, 2020 | Overexpression of mitochondrial creatine kinase preserves cardiac energetics without ameliorating murine chronic heart failure | 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 | Mesenchymal Stem Cells Promote the Resolution of Cardiac Inflammation After Ischemia Reperfusion Via Enhancing Efferocytosis of Neutrophils | Background Neutrophils play a major role in inflammation after myocardial ischemia-reperfusion (I/R) injury. |
| January 01, 2020 | Natriuretic Peptide Receptor 2 Locus Contributes to Carotid Remodeling | BACKGROUND: Carotid artery intima/media thickness (IMT) is a hallmark trait associated with future cardiovascular events. |
| January 01, 2020 | Abnormal Lysosomal Positioning and Small Extracellular Vesicle Secretion in Arterial Stiffening and Calcification of Mice Lacking Mucolipin 1 Gene | Recent studies have shown that arterial medial calcification is mediated by abnormal release of exosomes/small extracellular vesicles from vascular sm |
| January 01, 2020 | TFEB-NF-κB inflammatory signaling axis: a novel therapeutic pathway of Dihydrotanshinone I in doxorubicin-induced cardiotoxicity | Background: Doxorubicin is effective in a variety of solid and hematological malignancies. |
| January 01, 2020 | Validation of ultrasound biomicroscopy for the assessment of xenogeneic testis tissue grafts and cell implants in recipient mice | 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 | Renal Tissue PO 2 Sensing During Acute Hemodilution is Dependent on the Diluent. | 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 | Use of Transabdominal Ultrasound for the Detection of Intra-Peritoneal Tumor Engraftment and Growth in Mouse Xenografts of Epithelial Ovarian Cancer | Objective: To evaluate intraperitoneal (IP) tumor engraftment, metastasis and growth in a pre-clinical murine epithelial ovarian cancer (EOC) model us |
| January 01, 2020 | Organoid-Transplant Model Systems to Study the Effects of Obesity on the Pancreatic Carcinogenesis in vivo | Pancreatic ductal adenocarcinoma (PDAC) is the third leading cause of cancer-related mortality among adults in developed countries. |
| January 01, 2020 | Bovine HDL and Dual Domain HDL-Mimetic Peptides Inhibit Tumor Develop- ment in Mice | A growing body of literature supports the role of apolipoproteins present in HDL in the treatment of pro-inflamma- tory diseases including cancer. |
| January 01, 2020 | B7 33, a Functionally Selective Relaxin Receptor 1 Agonist, Attenuates Myocardial Infarction-Related Adverse Cardiac Remodeling in Mice | BACKGROUND: Human relaxin- 2 is a peptide hormone capable of pleiotropic effects in several organ systems. |
| January 01, 2020 | ILC2s amplify PD-1 blockade by activating tissue-specific cancer immunity | Group 2 innate lymphoid cells (ILC2s) regulate inflammation and immunity in mammalian tissues ^{1,2} . |
| January 01, 2020 | The circadian clock protects against ionizing radiation induced cardiotoxicity | 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 | LncRNA 2810403D21Rik/Mirf promotes ischemic myocardial injury by regulating autophagy through targeting Mir26a | 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 | Doxorubicin induces cardiomyocyte apoptosis and atrophy through cyclin-dependent kinase 2-mediated activation of forkhead box O1 | Recent clinical investigations indicate that anthracycline-based chemotherapies induce early decline in heart mass in cancer patients. |

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| January 01, 2020 | Activation of CaMKII via ER stress mediates coxsackievirus B3 induced cardiomyocyte apoptosis | Cardiomyocyte apoptosis contributes to the development of coxsackievirus B3 (CVB3) induced myocarditis, but the mechanism for the apoptosis by CVB3 in |
| January 01, 2020 | Involvement of Low Density Lipoprotein Receptor in the Pathogenesis of Pulmonary Hypertension | Background: Recently, we and others have reported a causal role for oxidized lipids in the pathogenesis of pulmonary hypertension (PH). |
| January 01, 2020 | Sinomenine's protective role and mechanism in stress load induced heart failure | 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 | Sufficiency of CD40 activation and immune checkpoint blockade for T cell priming and tumor immunity | Innate immune receptors such as toll-like receptors (TLRs) provide critical molecular links between innate cells and adaptive immune responses. |
| January 01, 2020 | A murine model of increased coronary sinus pressure induces myocardial edema with cardiac lymphatic dilation and fibrosis | Myocardial edema is a consequence of many cardiovascular stressors, including myocardial infarction, cardiac bypass surgery, and hypertension. |
| January 01, 2020 | miR-19a/19b improves the therapeutic potential of mesenchymal stem cells in a mouse model of myocardial infarction | Myocardial infarction (MI) is the cardiac emergency that may leads to myocardial necrosis. |
| January 01, 2020 | Coadministration of an Adhesive Conductive Hydrogel Patch and an Injectable Hydrogel to Treat Myocardial Infarction | Over the past decade, tissue-engineering strategies, mainly involving injectable hydrogels and epicardial biomaterial patches, have been pursued to tr |
| January 01, 2020 | CD74 knockout protects against LPS induced myocardial contractile dysfunction through AMPK Skp2 SUV39H1 mediated demethylation of BCLB | Background and Purpose: Lipopolysaccharides (LPS), an outer membrane component of Gram-negative bacteria, triggers myocardial anomalies in sepsis. |
| January 01, 2020 | Tet2-mediated clonal hematopoiesis in nonconditioned mice accelerates age-associated cardiac dysfunction | Clonal hematopoiesis of indeterminate potential is prevalent in elderly individuals and associated with increased risks of all-cause mortality and car |
| January 01, 2020 | Deleterious mtDNA mutations are common in mature oocytes | 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 | Cardiovascular and Autonomic Dysfunction in Murine Ligature-Induced Periodontitis | The present study examined the hemodynamics [arterial pressure (AP), AP variability (APV), heart rate (HR), and heart rate variability (HRV)], cardiac |
| January 01, 2020 | Tlr4 participates in the responses of markers of apoptosis, inflammation, and ER stress to different acute exercise intensities in mice hearts | Background: Toll-like receptor 4 (Tlr4) is recognized due to its role in the immune response. |
| January 01, 2020 | Bypassing mitochondrial complex III using alternative oxidase inhibits acute pulmonary oxygen sensing | 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 | LncRNA FAF inhibits fibrosis induced by angiotensinogen II via the TGFβ1-P-Smad2/3 signalling by targeting FGF9 in cardiac fibroblasts | The dysregulation of Long noncoding RNAs (lncRNAs) has been implicated in many cardiovascular diseases, including cardiac fibrosis. |

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| January 01, 2020 | Icariin Attenuates Diabetic Cardiomyopathy and Downregulates Extracellular Matrix Proteins in Heart Tissue of Type 2 Diabetic Rats | Objective: Diabetic cardiomyopathy (DCM) is a serious complication of type 2 diabetes mellitus (T2DM), resulting in unfavorable prognosis. |
| January 01, 2020 | Production of TRPV2-targeting functional antibody ameliorating dilated cardiomyopathy and muscular dystrophy in animal models | Abnormal Ca ²⁺ handling is essential in the pathophysiology of degenerative muscle disorders, such as dilated cardiomyopathy (DCM) and muscular dystrop |
| January 01, 2020 | Loss of nuclear ARC contributes to the development of cardiac hypertrophy in rats | Aim: Cardiac hypertrophy and myocardial apoptosis are two major factors in heart failure. |
| January 01, 2020 | Serelaxin alleviates cardiac fibrosis through inhibiting endothelial-to-mesenchymal transition via RXFP1 | 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 | Extracellular vesicles from human embryonic stem cell-derived cardiovascular progenitor cells promote cardiac infarct healing through reducing cardiomyocyte death and promoting angiogenesis | Human pluripotent stem cells (hPSCs)-derived cardiovascular progenitor cells (CVPCs) are a promising source for myocardial repair, while the mechanism |
| January 01, 2020 | Heart failure after pressure overload in autosomal-dominant desminopathies: Lessons from heterozygous DES-p.R349P knock-in mice | Background Mutations in the human desmin gene (DES) cause autosomal-dominant and -recessive cardiomyopathies, leading to heart failure, arrhythmias, a |
| January 01, 2020 | Three-Dimensional Inflation Response of Porcine Optic Nerve Head Using High-Frequency Ultrasound Elastography | 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 | Cancer During Pregnancy: The Role of Vascular Toxicity in Chemotherapy-Induced Placental Toxicity | Breast cancer is diagnosed in ~0.3% of pregnant women. |
| January 01, 2020 | Prohibitin 2 deficiency impairs cardiac fatty acid oxidation and causes heart failure | Fatty acids are the most major substrate source for adult cardiac energy generation. |
| January 01, 2020 | Gas Generating, pH Responsive Calcium Carbonate Hybrid Particles with Biomimetic Coating for Contrast Enhanced Ultrasound Imaging | This work reports the fabrication of biocompatible and pH-sensitive hybrid polydopamine/bovine serum albumin/calcium carbonate (PDA/BSA/CaCO ₃) particl |
| January 01, 2020 | Cardiac-specific LRP6 knockout induces lipid accumulation through Drp1/CPT1b pathway in adult mice | We recently reported low-density lipoprotein receptor-related protein 6 (LRP6) decreased in dilated cardiomyopathy hearts, and cardiac-specific knocko |
| January 01, 2020 | Cardiac Mesenchymal Cells from Failing and Non-Failing Hearts Limit Ventricular Dilation when Administered Late after Infarction | Although cell therapy-mediated cardiac repair offers promise for treatment/management of heart failure, lack of fundamental understanding of how cell |
| January 01, 2020 | Establishment and characterization of a cell line and patient-derived xenograft (PDX) from peritoneal metastasis of low-grade serous ovarian carcinoma | Peritoneal spread indicates poor prognosis in patients with serous ovarian carcinoma (SOC) and is generally treated by surgical cytoreduction and chem |
| January 01, 2020 | 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 | 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 | TGF-β Signaling Promotes Tissue Formation during Cardiac Valve Regeneration in Adult Zebrafish | Cardiac valve disease can lead to severe cardiac dysfunction and is thus a frequent cause of morbidity and mortality. |
| January 01, 2020 | Cardamonin protects against lipopolysaccharide-induced myocardial contractile dysfunction in mice through Nrf2-regulated mechanism | In patients with sepsis, lipopolysaccharide (LPS) from the outer membrane of gram-negative bacteria triggers cardiac dysfunction and heart failure, bu |

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| January 01, 2020 | Systemic long term inactivation of hypoxia inducible factor prolyl 4 hydroxylase 2 ameliorates aging induced changes in mice without affecting their life span | Hypoxia inactivates hypoxia-inducible factor (HIF) prolyl 4-hydroxylases (HIF-P4Hs), which stabilize HIF and upregulate genes to restore tissue oxygen |
| January 01, 2020 | Kanglexin, a novel anthraquinone compound, protects against myocardial ischemic injury in mice by suppressing NLRP3 and pyroptosis | Pyroptosis is a form of inflammatory cell death that could be driven by the nucleotide-binding oligomerization domain-like receptor family pyrin domain |
| January 01, 2020 | Ultrasound/Optical Dual Modality Imaging for Evaluation of Vulnerable Atherosclerotic Plaques with Osteopontin Targeted Nanoparticles | Because of the high mortality of coronary atherosclerotic heart diseases, it is necessary to develop novel early detection methods for vulnerable atherosclerosis |
| January 01, 2020 | Dynamic Changes in Brain Glucose Metabolism and Neuronal Structure in Rats with Heart Failure | Patients with heart failure (HF) are more susceptible to cognitive impairment, but the mechanism is still unclear. |
| January 01, 2020 | Huoxue Wentong Formula ameliorates myocardial infarction in rats through inhibiting CaMKII oxidation and phosphorylation | Background: The Chinese medicine Huoxue Wentong Formula (HXWTF) was used to treat thoracic obstruction and angina pectoris in clinic, which has not been |
| January 01, 2020 | Enhancing respiratory sinus arrhythmia increases cardiac output in rats with left ventricular dysfunction | Key points: Respiratory sinus arrhythmia is physiological pacing of the heart that disappears in cardiovascular disease and is associated with poor cardiac output |
| January 01, 2020 | Persistence of Intraluminal Thrombus Makes Saccular Aneurysm More Biologically Active than Fusiform in an Experimental Rat Model | Introduction: Saccular aneurysms are thought to have a worse prognosis than fusiform aneurysms in humans, due to hemodynamic reasons. |
| January 01, 2020 | Crystal structure, molecular docking and protective activity on myocarditis of Co(II) coordination polymer based nanoparticles | This work presents the synthesis and characterization of a dicyanamide-bridged coordination polymer [Co(L)2(dca)] _n (1) by using the bidentate NO donor |
| January 01, 2020 | αYAP modRNA reduces cardiac inflammation and hypertrophy in a murine ischemia-reperfusion model | Myocardial recovery from ischemia-reperfusion (IR) is shaped by the interaction of many signaling pathways and tissue repair processes, including the |
| January 01, 2020 | Systemic blockade of ACVR2B ligands attenuates muscle wasting in ischemic heart failure without compromising cardiac function | Signaling through activin receptors regulates skeletal muscle mass and activin receptor 2B (ACVR2B) ligands are also suggested to participate in myocardi |
| January 01, 2020 | Inhibition of Interleukin 6/glycoprotein 130 signalling by Bazedoxifene ameliorates cardiac remodelling in pressure overload mice | The role of IL-6 signalling in hypertensive heart disease and its sequelae is controversial. |
| January 01, 2020 | The Effects of Neuropeptide Y Overexpression on the Mouse Model of Doxorubicin-Induced Cardiotoxicity | Doxorubicin is a potent anticancer drug with cardiotoxicity hampering its use. |
| January 01, 2020 | Improvement of Endothelial Dysfunction of Berberine in Atherosclerotic Mice and Mechanism Exploring through TMT-Based Proteomics | Atherosclerosis is a multifactorial vascular disease triggered by disordered lipid metabolism, characterized by chronic inflammatory injury, and initi |
| January 01, 2020 | B-type natriuretic peptide is upregulated by c-Jun N-terminal kinase and contributes to septic hypotension | 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 failure |
| January 01, 2020 | Biodegradable Nanofibrous Temperature-Responsive Gelling Microspheres for Heart Regeneration | Myocardial infarction (heart attack) is the number one killer of heart patients. |

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| January 01, 2020 | Load-independent effects of empagliflozin contribute to improved cardiac function in experimental heart failure with reduced ejection fraction | Background and aims: Sodium–glucose linked cotransporter 2 (SGLT2) inhibitors reduce the likelihood of hospitalization for heart failure and cardiov |
| January 01, 2020 | Different degradation rates of nanofiber vascular grafts in small and large animal models | Nanofiber vascular grafts have been shown to create neovessels made of autologous tissue, by in vivo scaffold biodegradation over time. |
| January 01, 2020 | Immune response mediates the cardiac damage after subarachnoid hemorrhage | Cardiac dysfunction is a common adverse effect of subarachnoid hemorrhage (SAH). |
| January 01, 2020 | A Long-Term Pilot Study on Sex and Spinal Cord Injury Shows Sexual Dimorphism in Functional Recovery and Cardio-Metabolic Responses | 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 bivalent antihypertensive vaccine targeting L type calcium channels and angiotensin AT 1 receptors | Background and Purpose: Hypertension has been the leading preventable cause of premature death worldwide. |
| January 01, 2020 | Isofraxidin Alleviates Myocardial Infarction Through NLRP3 Inflammasome Inhibition | Isofraxidin is a well-known coumarin compound refined from traditional Chinese medicines. |
| January 01, 2020 | Effects and mechanisms of PSS-loaded nanoparticles on coronary microcirculation dysfunction in streptozotocin-induced diabetic cardiomyopathy rats | Coronary microvascular dysfunction (CMD) is the pathological basis and pathogenesis of diabetic cardiomyopathy (DCM). |
| January 01, 2020 | The compendium of matrix metalloproteinase expression in the left ventricle of mice following myocardial infarction | Matrix metalloproteinases (MMPs) are proteolytic enzymes that break down extracellular matrix (ECM) components and have shown to be highly active in t |
| January 01, 2020 | GDF3 Protects Mice against Sepsis-Induced Cardiac Dysfunction and Mortality by Suppression of Macrophage Pro-Inflammatory Phenotype | Macrophages are critical for regulation of inflammatory response during endotoxemia and septic shock. |
| January 01, 2020 | Branched chain amino acids exacerbate myocardial ischemia/reperfusion vulnerability via enhancing GCN2/ATF6/PPAR-α pathway-dependent fatty acid oxidation | Rationale: Myocardial vulnerability to ischemia/reperfusion (I/R) injury is strictly regulated by energy substrate metabolism. |
| January 01, 2020 | Distinct cardiac energy metabolism and oxidative stress adaptations between obese and non-obese type 2 diabetes mellitus | Background: Little is known about the pathophysiological diversity of myocardial injury in type 2 diabetes mellitus (T2DM), but analyzing these differ |
| January 01, 2020 | GLI1-mediated pulmonary artery smooth muscle cell pyroptosis contributes to hypoxia-induced pulmonary hypertension | Pulmonary hypertension (PH) is a clinically common malignant cardiovascular disease. |
| January 01, 2020 | Fingolimod attenuates lung injury and cardiac dysfunction following traumatic brain injury | Acute lung injury (ALI) and cardiac dysfunction are common in traumatic brain injury (TBI) patients and always indicate poor outcomes. |
| January 01, 2020 | 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 | 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 | Myocardial protection by nanomaterials formulated with CHIR99021 and FGF1 | The mortality of patients suffering from acute myocardial infarction (AMI) is linearly related to the infarct size. |
| January 01, 2020 | Bridging repair of the abdominal wall in a rat experimental model. Comparison between uncoated and polyethylene oxide-coated equine pericardium meshes | Biological meshes improve the outcome of incisional hernia repairs in infected fields but often lead to recurrence after bridging techniques. |

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| January 01, 2020 | Effects of Klotho supplementation on hyperoxia-induced renal injury in a rodent model of postnatal nephrogenesis | Background: Hyperoxia (HO) causes kidney injury in preterm infants; however, whether these effects are modifiable is unknown. |
| January 01, 2020 | Locally optimized correlation-guided Bayesian adaptive regularization for ultrasound strain imaging | Ultrasound strain imaging utilizes radio-frequency (RF) ultrasound echo signals to estimate the relative elasticity of tissue under deformation. |
| January 01, 2020 | Alteration of the brain methylation landscape following postnatal inflammatory injury in rat pups | Preterm infants are vulnerable to inflammation-induced white matter injury (WMI), which is associated with neurocognitive impairment and increased risk |
| January 01, 2020 | 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 | Reperfusion therapy after acute myocardial infarction (AMI) can effectively restore the blood supply and nutritional support of ischemic myocardium and |
| January 01, 2020 | Sevoflurane Pre-conditioning Ameliorates Diabetic Myocardial Ischemia/Reperfusion Injury Via Differential Regulation of p38 and ERK | Diabetes mellitus (DM) significantly increases myocardial ischemia/reperfusion (MI/R) injury. |
| January 01, 2020 | Calpain regulates CVB3 induced viral myocarditis by promoting autophagic flux upon infection | Calpains are calcium-activated neutral cysteine proteases. |
| January 01, 2020 | Angiotensin-(1-7) reduces doxorubicin-induced cardiac dysfunction in male and female Sprague-Dawley rats through antioxidant mechanisms | Doxorubicin (Dox) is an effective chemotherapeutic for a variety of pediatric malignancies. |
| January 01, 2020 | Aging-associated sinus arrest and sick sinus syndrome in adult zebrafish | Because of its powerful genetics, the adult zebrafish has been increasingly used for studying cardiovascular diseases. |
| January 01, 2020 | Mechanism of angiogenesis promotion with Shexiang Baoxin Pills by regulating function and signaling pathway of endothelial cells through macrophages | Background and aims: "Shexiang Baoxin Pill" (SBP), a commonly used traditional Chinese medicine, has been used to treat angina, myocardial infarction |
| January 01, 2020 | Sectm1a deficiency aggravates inflammation-triggered cardiac dysfunction through disruption of LXRα signalling in macrophages | Aims Cardiac dysfunction is a prevalent comorbidity of disrupted inflammatory homeostasis observed in conditions such as sepsis (acute) or obesity (ch |
| January 01, 2020 | Ultrasound Responsive Noble Gas Microbubbles for Applications in Image-Guided Gas Delivery | Abstract Noble gases, especially xenon (Xe), have been shown to have antiapoptotic effects in treating hypoxia ischemia related injuries. |
| January 01, 2020 | Biophysical mechanisms for QRS- and QTc-interval prolongation in mice with cardiac expression of expanded CUG-repeat RNA | 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 | Dysbiotic 1 carbon metabolism in cardiac muscle remodeling | 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 | Endothelial S1pr1 regulates pressure overload induced cardiac remodelling through AKT eNOS pathway | Cardiac vascular microenvironment is crucial for cardiac remodelling during the process of heart failure. |
| January 01, 2020 | AT2R agonist NP 6A4 mitigates aortic stiffness and proteolytic activity in mouse model of aneurysm | Clinical and experimental studies show that angiotensin II (AngII) promotes vascular pathology via activation of AngII type 1 receptors (AT1Rs). |
| January 01, 2020 | Inhalation of Ultrafine Zinc Particles Impaired Cardiovascular Functions in Hypertension-Induced Heart Failure Rats With Preserved Ejection Fraction | Although it is possible for inhalation of ultrafine particles to impair human health, its effect is not clear in patients with HFpEF. |

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| January 01, 2020 | Non-invasive ultrasound detection of cerebrovascular changes in a mouse model of TBI | carotid arteries of mice exposed to a controlled cortical impact. |
| January 01, 2020 | Role of DJ 1 in Modulating Glycative Stress in Heart Failure | Background: DJ-1 is a ubiquitously expressed protein typically associated with the development of early onset Parkinson disease. |
| January 01, 2020 | Liraglutide treatment improves the coronary microcirculation in insulin resistant Zucker obese rats on a high salt diet | Background: Obesity, hypertension and prediabetes contribute greatly to coronary artery disease, heart failure and vascular events, and are the leadin |
| January 01, 2020 | The Myocardial Microenvironment Modulates the Biology of Transplanted Mesenchymal Stem Cells | 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 | Prostate tumor-derived GDF11 accelerates androgen deprivation therapy-induced sarcopenia | Most prostate cancers depend on androgens for growth, and therefore, the mainstay treatment for advanced, recurrent, or metastatic prostate cancer is |
| January 01, 2020 | MicroRNA-27 attenuates pressure overload-Induced cardiac hypertrophy and dysfunction by targeting galectin-3 | Cardiac hypertrophy is an adaptive response to hemodynamic stress to compensate for cardiac dysfunction. |
| January 01, 2020 | High-dose nitrate therapy recovers the expression of subtypes α1 and β-adrenoceptors and Ang II receptors of the renal cortex in rats with myocardial infarction-induced heart failures | Background: Few studies examined the effect of long-acting nitrates on renal function in chronic heart failure (CHF). |
| January 01, 2020 | Isorhynchophylline enhances Nrf2 and inhibits MAPK pathway in cardiac hypertrophy | Isorhynchophylline (IRN) is one of the major tetracyclic oxindole alkaloids found in Uncaria rhynchophylla. |
| January 01, 2020 | Cytosolic DNA sensor cGAS plays an essential pathogenetic role in pressure overload-induced heart failure | Background: Growing evidence shows that activation of inflammation in the heart provokes left ventricular (LV) remodeling and dysfunction in humans an |
| January 01, 2020 | Development and Validation of a Clinically Relevant Workflow for MR-Guided Volumetric Arc Therapy in a Rabbit Model of Head and Neck Cancer | There is increased interest in the use of magnetic resonance imaging (MRI) for guiding radiation therapy (RT) in the clinical setting. |
| January 01, 2020 | Cardiac sympathetic nerve transdifferentiation reduces action potential heterogeneity after myocardial infarction | Cardiac sympathetic nerves undergo cholinergic transdifferentiation following reperfused myocardial infarction (MI), whereby the sympathetic nerves re |
| January 01, 2020 | Inflammatory extracellular vesicles prompt heart dysfunction via TRL4-dependent NF-κB activation | Background: After myocardial infarction, necrotic cardiomyocytes release damage-associated proteins that stimulate innate immune pathways and macropha |
| January 01, 2020 | Effects of Adiponectin on Diastolic Function in Mice Underwent Transverse Aorta Constriction | Diastolic dysfunction is common in various cardiovascular diseases, which could be affected by adiponectin (APN). |
| January 01, 2020 | Exacerbated pressor and sympathoexcitatory effects of central Elabela in spontaneously hypertensive rats | Elabela (ELA) is a newly discovered peptide that acts as a novel endogenous ligand of angiotensin receptor-like 1 (APJ) receptor. |
| January 01, 2020 | Xenograft Tumor Volume Measurement in Nude Mice: Estimation of 3D Ultrasound Volume Measurements Based on Manual Caliper Measurements | Objectives: Volume measurement of subcutaneous xenograft tumors in nude mice models is an important metric to assess tumor growth or response to thera |
| January 01, 2020 | α1-AR overactivation induces cardiac inflammation through NLRP3 inflammasome activation | Acute sympathetic stress causes excessive secretion of catecholamines and induces cardiac injuries, which are mainly mediated by β -adrenergic receptor |

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| January 01, 2020 | EMRE is essential for mitochondrial calcium uniporter activity in a mouse model | The mitochondrial calcium uniporter is widely accepted as the primary route of rapid calcium entry into mitochondria, where increases in matrix calcium |
| January 01, 2020 | Inhibition of Grb14, a negative modulator of insulin signaling, improves glucose homeostasis without causing cardiac dysfunction | Insulin resistance increases patients' risk of developing type 2 diabetes (T2D), non-alcoholic steatohepatitis (NASH) and a host of other comorbidities |
| January 01, 2020 | CRISPR-Mediated Activation of Endogenous Gene Expression in the Postnatal Heart | Rationale: Genome editing by CRISPR (clustered regularly interspaced short palindromic repeats)/Cas9 is evolving rapidly. |
| January 01, 2020 | CTRP9 Mediates Protective Effects in Cardiomyocytes via AMPK- and Adiponectin Receptor-Mediated Induction of Anti-Oxidant Response | The C1q/tumor necrosis factor-alpha-related protein 9 (CTRP9) has been reported to exert cardioprotective effects, but its role in the right ventricle |
| January 01, 2020 | Measurement of Pulse Propagation Velocity, Distensibility and Strain in an Abdominal Aortic Aneurysm Mouse Model | 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 | Epoxyeicosatrienoic acid prevents maladaptive remodeling in pressure overload by targeting calcineurin/NFAT and Smad-7 | Background: Emerging evidence demonstrates that epoxyeicosatrienoic acids (EETs) as important active eicosanoids that regulate cardiovascular homeostasis |
| January 01, 2020 | Activating transcription factor 3 coordinates differentiation of cardiac and hematopoietic progenitors by regulating glucose metabolism | The cardiac and hematopoietic progenitors (CPs and HPs, respectively) in the mesoderm ultimately form a well-organized circulation system, but mechanistically |
| January 01, 2020 | Ulinastatin attenuates lipopolysaccharide induced cardiac dysfunction by inhibiting inflammation and regulating autophagy | Ulinastatin exerts protective effects against lipopolysaccharide (LPS) induced cardiac dysfunction. |
| January 01, 2020 | Soluble receptor for advanced glycation end-products promotes angiogenesis through activation of STAT3 in myocardial ischemia/reperfusion injury | Soluble receptor for advanced glycation end-products (sRAGE), which exerts cardioprotective effect through inhibiting cardiomyocyte apoptosis and autophagy |
| January 01, 2020 | Period 2 -Induced Activation of Autophagy Improves Cardiac Remodeling After Myocardial Infarction | Accumulating evidence indicates that the onset of myocardial infarction (MI) shows obvious circadian rhythmicity. |
| January 01, 2020 | Downregulation of MicroRNA-206 Alleviates the Sublethal Oxidative Stress-Induced Premature Senescence and Dysfunction in Mesenchymal Stem Cells via Targeting Alpl | Bone marrow-derived mesenchymal stem cells (MSCs) have shown great promise in tissue engineering and regenerative medicine; however, the regenerative capacity |
| January 01, 2020 | Tsg101 positively regulates P62-Keap1-Nrf2 pathway to protect hearts against oxidative damage | Currently, most antioxidants do not show any favorable clinical outcomes in reducing myocardial ischemia-reperfusion (I/R) injury, suggesting an urgent need |
| January 01, 2020 | Mitochondrial substrate utilization regulates cardiomyocyte cell-cycle progression | The neonatal mammalian heart is capable of regeneration for a brief window of time after birth. |
| January 01, 2020 | Neonatal hyperoxia exposure induces aortic biomechanical alterations and cardiac dysfunction in juvenile rats | Supplemental oxygen (O2) therapy in preterm infants impairs lung development, but the impact of O2 on long-term systemic vascular structure and function |
| January 01, 2020 | ACTRIIA-Fc rebalances activin/GDF versus BMP signaling in pulmonary hypertension | Human genetics, biomarker, and animal studies implicate loss of function in bone morphogenetic protein (BMP) signaling and maladaptive transforming growth factor-beta |

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| January 01, 2020 | Anti-G250 nanobody-functionalized nanobubbles targeting renal cell carcinoma cells for ultrasound molecular imaging | Traditional imaging examinations have difficulty in identifying benign and malignant changes in renal masses. |
| January 01, 2020 | Application of a combination of echocardiographic techniques in an experimental model of epirubicin-induced cardiotoxicity | This study compared the potential ability of multinomial echocardiographic parameters in early detection, prediction and combined diagnosis of antineo |
| January 01, 2020 | PP2Cm overexpression alleviates MI/R injury mediated by a BCAA catabolism defect and oxidative stress in diabetic mice | Diabetic patients are sensitive to myocardial ischemia-reperfusion (MI/R) injury. |
| January 01, 2020 | Bisoprolol, a β 1 antagonist, protects myocardial cells from ischemia reperfusion injury via PI3K/AKT/GSK3β pathway | 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 | Probenecid treatment improves outcomes in a novel mouse model of peripartum cardiomyopathy | 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 | Local Delivery of Dual MicroRNAs in Trilayered Electrospun Grafts for Vascular Regeneration | Globally growing problems related to cardiovascular diseases lead to a considerable need for synthetic vascular grafts. |
| January 01, 2020 | Aortopathies in mouse models of Pompe, Fabry and Mucopolysaccharidosis IIIB lysosomal storage diseases | Introduction Lysosomal storage diseases (LSDs) are rare inherited metabolic diseases characterized by an abnormal accumulation of various toxic materi |
| January 01, 2020 | A genetic system for tissue-specific inhibition of cell proliferation | Cellular proliferation is a basic process during organ development, tissue homeostasis and disease progression. |
| January 01, 2020 | BMP10-mediated ALK1 signaling is continuously required for vascular development and maintenance | Hereditary hemorrhagic telangiectasia (HHT) is an autosomal-dominant vascular disorder characterized by development of high-flow arteriovenous malform |
| January 01, 2020 | 3D High-Frequency Ultrasound Imaging of Cartilage-Bone Interface Compared with Micro-CT | Cartilage-bone interface (CBI) is a complex structure which bears important information in pathophysiology of osteoarthritis (OA). |
| January 01, 2020 | Stress Induced Cyclin C Translocation Regulates Cardiac Mitochondrial Dynamics | Background Nuclear-to-mitochondrial communication regulating gene expression and mitochondrial function is a critical process following cardiac ischem |
| January 01, 2020 | Protective effects of Pulsatilla chinensis Regel against isoproterenol-induced heart failure in mice | Objective: To study the cardioprotective effect of Baitouwen (Pulsatilla chinensis Regel, PR) in isoproterenol (ISO) induced heart failure in mice, an |
| January 01, 2020 | MitoQ regulates redox-related noncoding RNAs to preserve mitochondrial network integrity in pressure-overload heart failure | Evidence suggests that mitochondrial network integrity is impaired in cardiomyocytes from failing hearts. |
| January 01, 2020 | Increased uterine artery blood flow in hypoxic murine pregnancy is not sufficient to prevent fetal growth restriction† | Incomplete maternal vascular responses to pregnancy contribute to pregnancy complications including intrauterine growth restriction (IUGR) and precl |
| January 01, 2020 | Empagliflozin prevents doxorubicin-induced myocardial dysfunction | Background: Empagliflozin showed efficacy in controlling glycaemia, leading to reductions in HbA1c levels, weight loss and blood pressure, compared to |
| January 01, 2020 | Myocardial B cells are a subset of circulating lymphocytes with delayed transit through the heart | Current models of B lymphocyte biology posit that B cells continuously recirculate between lymphoid organs without accumulating in peripheral healthy |

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| January 01, 2020 | Berberine Attenuates Cardiac Hypertrophy Through Inhibition of mTOR Signaling Pathway | Purpose: Berberine was reported to exert beneficial effects on cardiac hypertrophy. |
| January 01, 2020 | Moderate Loss of the Extracellular Matrix Proteoglycan Lumican Attenuates Cardiac Fibrosis in Mice Subjected to Pressure Overload | Introduction: The heart undergoes myocardial remodeling during progression to heart failure following pressure overload. |
| January 01, 2020 | Cathelicidin deficiency exacerbates cardiac dysfunction in lipopolysaccharide induced endotoxaemic mice | The therapeutic potential of the antimicrobial peptide cathelicidin (Camp) administration in sepsis has been widely investigated. |
| January 01, 2020 | Heterogeneity and chimerism of endothelial cells revealed by single-cell transcriptome in orthotopic liver tumors | 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 |
| January 01, 2020 | Statin as anti-cancer therapy in autochthonous T-lymphomas expressing stabilized gain-of-function mutant p53 proteins | 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 | Hyperdynamic circulatory syndrome in a mouse model transgenic for SerpinB3 | Introduction and objectives: SerpinB3 is a cysteine protease inhibitor involved in several biological activities. |
| January 01, 2020 | A 6-month systems toxicology inhalation study in ApoE ^{-/-} mice demonstrates reduced cardiovascular effects of E-vapor aerosols compared with cigarette smoke | Smoking cigarettes is harmful to the cardiovascular system. |
| January 01, 2020 | Quantification of Atherosclerotic Plaque Elasticity Using Ultrasonic Texture Matching | The composition of an atherosclerotic plaque is a major determinant of its vulnerability, i.e. proneness to rupture. |
| January 01, 2020 | AAV-mediated cardiac gene transfer of wild-type desmin in mouse models for recessive desminopathies | Mutations in the human desmin gene cause autosomal-dominant and recessive cardiomyopathies and myopathies with marked phenotypic variability. |
| January 01, 2020 | Wenxin Keli Regulates Mitochondrial Oxidative Stress and Homeostasis and Improves Atrial Remodeling in Diabetic Rats | Mitochondrial dysfunction and oxidative stress play an important role in the pathogenesis of both atrial fibrillation (AF) and diabetes mellitus (DM). |
| January 01, 2020 | Ginsenoside Rg3-loaded, reactive oxygen species-responsive polymeric nanoparticles for alleviating myocardial ischemia-reperfusion injury | Myocardial ischemia-reperfusion injury (MIRI) is a serious threat to the health and lives of patients without any effective therapy. |
| January 01, 2020 | Stem cell delivery to kidney via minimally invasive ultrasound-guided renal artery injection in mice | cell-based therapies are promising treatments for various kidney diseases. |
| January 01, 2020 | LncRNA TUG1 alleviates cardiac hypertrophy by targeting miR 34a/DKK1/Wnt β catenin signalling | 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 | LCZ696, an Angiotensin Receptor-Nepriylsin Inhibitor, Improves Cardiac Hypertrophy and Fibrosis and Cardiac Lymphatic Remodeling in Transverse Aortic Constriction Model Mice | Cardiac hypertrophy and ventricular remodeling following heart failure are important causes of high mortality in heart disease patients. |
| January 01, 2020 | Tobacco cigarette smoking exacerbates aortic calcification in an early stage of myocardial infarction in a female mouse model | Despite increased social awareness, marketing restraints, tobacco taxation, and available smoking cessation rehab programs, active and passive smoking |
| January 01, 2020 | Ginsenoside Rg1 attenuates cardiomyocyte apoptosis and inflammation via the TLR4/NF κB/NLRP3 pathway | Sepsis-induced myocardial dysfunction (SIMD) causes high mortality in seriously ill patients. |
| January 01, 2020 | DLX1008 (brolucizumab), a single-chain anti-VEGF-A antibody fragment with low picomolar affinity, leads to tumor involution in an in vivo model of Kaposi Sarcoma | Kaposi Sarcoma (KS) is among the most angiogenic cancers in humans and an AIDS-defining condition. |

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| January 01, 2020 | Transcriptomics and metabolomics reveal the cardioprotective effect of Compound Danshen tablet on isoproterenol-induced myocardial injury in high-fat-diet fed mice | Ethnopharmacological relevance: Compound Danshen tablet, an herbal preparation consisting of salviae miltiorrhizae, notoginseng and borneolum, is exte |
| January 01, 2020 | Repurposing Kir6/SUR2 Channel Activator Minoxidil to Arrests Growth of Gynecologic Cancers | Gynecologic cancers are among the most lethal cancers found in women, and, advanced stage cancers are still a treatment challenge. |
| January 01, 2020 | A high fat diet increases influenza A virus-associated cardiovascular damage | Background Influenza A virus (IAV) causes a wide range of extra-respiratory complications. |
| January 01, 2020 | The therapeutic impact of human neonatal BMSC in a right ventricular pressure overload model in mice | OBJECTIVE: To determine the impact of donor age on the therapeutic effect of bone marrow-derived mesenchymal stem cells (BMSCs) in treating adverse re |
| January 01, 2020 | Intrauterine exposure to chronic hypoxia in the rat leads to progressive diastolic function and increased aortic stiffness from early postnatal developmental stages | 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 | Mitochondria-targeted antioxidant mitoquinone attenuates liver inflammation and fibrosis in cirrhotic rats | In liver cirrhosis, oxidative stress plays a major role in promoting liver inflammation and fibrosis. |
| January 01, 2020 | Hydrogen Sulfide Promotes Cardiomyocyte Proliferation and Heart Regeneration via ROS Scavenging | Neonatal mouse hearts can regenerate completely in 21 days after cardiac injury, providing an ideal model to exploring heart regenerative therapeutic |
| January 01, 2020 | Melatonin protects against thoracic aortic aneurysm and dissection through SIRT1 dependent regulation of oxidative stress and vascular smooth muscle cell loss | Melatonin functions as an endogenous protective molecule in multiple vascular diseases, whereas its effects on thoracic aortic aneurysm and dissection |
| January 01, 2020 | Up regulation of miR 195 contributes to cardiac hypertrophy induced arrhythmia by targeting calcium and potassium channels | Previous studies have confirmed that miR-195 expression is increased in cardiac hypertrophy, and the bioinformatics website predicted by Targets can so |
| January 01, 2020 | Qi Dan Li Xin pill improves chronic heart failure by regulating mTOR/p70S6k-mediated autophagy and inhibiting apoptosis | Myocardial remodeling represents a key factor in chronic heart failure (CHF) development, and is characterized by chronic death of cardiomyocytes. |
| January 01, 2020 | Multipotency of mouse trophoblast stem cells | 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 | Intermittent hypoxia mediated by TSP1 dependent on STAT3 induces cardiac fibroblast activation and cardiac fibrosis | Intermittent hypoxia (IH) is the predominant pathophysiological disturbance in obstructive sleep apnea (OSA), known to be independently associated wit |
| January 01, 2020 | Ultrasound and magnetic resonance imaging for group stratification and treatment monitoring in the transgenic adenocarcinoma of the mouse prostate model | Background: The transgenic adenocarcinoma of the mouse prostate (TRAMP) is a widely used genetically engineered spontaneous prostate cancer model. |
| January 01, 2020 | Phosphorylation of GATA4 at serine 105 is required for left ventricular remodelling process in angiotensin II induced hypertension in rats | In this study, we investigated whether local intramyocardial GATA4 overexpression affects the left ventricular (LV) remodelling process and the import |
| January 01, 2020 | Sodium–glucose cotransporter 2 inhibitor Dapagliflozin attenuates diabetic cardiomyopathy | Background: Diabetes mellitus type 2 (DM2) is a risk factor for developing heart failure but there is no specific therapy for diabetic heart disease. |

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| January 01, 2020 | Programmed death-ligand 1 triggers PSMCs pyroptosis and pulmonary vascular fibrosis in pulmonary hypertension | Pyroptosis is a pro-inflammatory form of programmed cell death, whose genesis directly depended on caspase-1 activation. |
| January 01, 2020 | Intravascular flow stimulates PKD2 (polycystin-2) channels in endothelial cells to reduce blood pressure | 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 | Dynamic solid-state ultrasound contrast agent for monitoring pH fluctuations in vivo. | 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 | Sulforaphane prevents right ventricular injury and reduces pulmonary vascular remodeling in pulmonary arterial hypertension | Right ventricular (RV) dysfunction is the main determinant of mortality in patients with pulmonary arterial hypertension (PAH) and while inflammation |
| January 01, 2020 | Comparison of different protocols of Morris water maze in cognitive impairment with heart failure | 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 | Hydrogen Sulfide Therapy Suppresses Cofilin-2 and Attenuates Ischemic Heart Failure in a Mouse Model of Myocardial Infarction | Aims: Hydrogen sulfide (H ₂ S) protects against ischemic and inflammatory injury following myocardial ischemia via induction of microRNA (miR)-21. |
| January 01, 2020 | A durable murine model of spleen transplantation with arterial and venous anastomoses | The spleen is a large lymphoid organ located in the abdomen that filters blood and regulates the immune system. |
| January 01, 2020 | IL-33 Induces Type-2-Cytokine Phenotype but Exacerbates Cardiac Remodeling Post-Myocardial Infarction with Eosinophil Recruitment, Worsened Systolic Dysfunction, and Ventricular Wall Rupture | Myocardial infarction (MI) is the leading cause of mortality worldwide. |
| January 01, 2020 | EXPRESS: Endurance Exercise Training in Pulmonary Hypertension increases Skeletal Muscle Electron Transport Chain Supercomplex Assembly | Introduction: Pulmonary hypertension (PH) is associated with pronounced exercise intolerance (decreased V O ₂ max) that can significantly impact quali |
| January 01, 2020 | 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 | Doxorubicin is a widely used anticancer drug that causes dose-related cardiotoxicity. |
| January 01, 2020 | Exploring the mechanism underlying the cardioprotective effect of shexiang baixin pill on acute myocardial infarction rats by comprehensive metabolomics | Ethnopharmacological relevance: Shexiang Baixin Pill (SBP) is a commercial Chinese medicine included in the Chinese Pharmacopoeia with well-establishe |
| January 01, 2020 | Targeted Repair of Vascular Injury by Adipose Derived Stem Cells Modified with P Selectin Binding Peptide | Percutaneous coronary intervention for coronary artery disease treatment often results in pathological vascular injury, characterized by P-selectin ov |
| January 01, 2020 | Intravenous Administration of Allogenic Cell-Derived Microvesicles of Healthy Origins Defends Against Atherosclerotic Cardiovascular Disease Development by a Direct Action on Endothelial Progenitor Cells | Atherosclerosis and cardiovascular disease development is the outcome of intermediate processes where endothelial dysfunction and vascular inflammatio |
| January 01, 2020 | Contrast-enhanced ultrasound with sub-micron sized contrast agents detects insulinitis in mouse models of type1 diabetes | In type1 diabetes (T1D) autoreactive T-cells infiltrate the islets of Langerhans, depleting insulin-secreting β-cells (insulinitis). |
| January 01, 2020 | Perindopril Improves Cardiac Function by Enhancing the Expression of SIRT3 and PGC-1α in a Rat Model of Isoproterenol-Induced Cardiomyopathy | Mitochondrial biosynthesis regulated by the PGC-1α-NRF1-TFAM pathway is considered a novel potential therapeutic target to treat heart failure (HF). |

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| January 01, 2020 | Metformin protects against PM2.5-induced lung injury and cardiac dysfunction independent of AMP-activated protein kinase $\alpha 2$ | Fine particulate matter (PM2.5) airborne pollution increases the risk of respiratory and cardiovascular diseases. |
| January 01, 2020 | The function of RNase L and its degradation mechanism in cardiac acute ischemic injury | RNase L is generally thought to play a key role in antiviral defenses. |
| January 01, 2020 | Mussel-inspired conductive Ti 2 C-cryogel promotes functional maturation of cardiomyocytes and enhances repair of myocardial infarction | Rationale: Researches on conductive engineering cardiac patch (ECP) for myocardial infarction (MI) treatment have achieved some progress in the animal |
| December 01, 2019 | Chronic inhibition of chemokine receptor CXCR2 attenuates cardiac remodeling and dysfunction in spontaneously hypertensive rats | System hypertension is a major risk factor for cardiac hypertrophy and heart failure. |
| December 01, 2019 | Mechanism of electrical remodeling of atrial myocytes and its influence on susceptibility to atrial fibrillation in diabetic rats | Aims: To explore the atrial electrical remodeling and the susceptibility of atrial fibrillation (AF) in diabetic rats. |
| December 01, 2019 | Tongguan capsule derived-herb ameliorates remodeling at infarcted border zone and reduces ventricular arrhythmias in rats after myocardial infarction | Objective: Tongguan Capsule, a traditional Chinese medicine, is safe to use and is efficient in treating ischemic heart diseases. |
| December 01, 2019 | Dexmedetomidine prevents septic myocardial dysfunction in rats via activation of $\alpha 7$nAChR and PI3K/Akt-mediated autophagy | Background and purpose: Dexmedetomidine (Dex) has been shown to elicit cardio-protective effects in sepsis. |
| December 01, 2019 | Acetaldehyde dehydrogenase 2 deficiency exacerbates cardiac fibrosis by promoting mobilization and homing of bone marrow fibroblast progenitor cells | Cardiac fibrosis is a common feature of various cardiovascular diseases. |
| December 01, 2019 | Exercise does not ameliorate cardiac dysfunction in obese mice exposed to fine particulate matter | Background: Studies have demonstrated that exposure to fine particulate matter (PM2.5) is linked to cardiovascular disease (CVD), which is exacerbated |
| December 01, 2019 | Electrical Stimulation of pediatric cardiac-derived c-kit + progenitor cells improves retention and cardiac function in right ventricular heart failure | Nearly 1 in every 120 children born has a congenital heart defect. |
| December 01, 2019 | Effect of human thymus adipose tissue-derived mesenchymal stem cells on myocardial infarction in rat model | Background and objective: Stem cell (SC) therapy exhibits promising therapeutic efficiency against cardiovascular disease. |
| December 01, 2019 | Loss of methionine sulfoxide reductases increases resistance to oxidative stress | Oxidation of methionine residues to methionine sulfoxide scavenges reactive species, thus protecting against oxidative stress. |
| December 01, 2019 | Cardiac expression of the microsomal triglyceride transport protein protects the heart function during ischemia | Aims: The microsomal triglyceride transport protein (MTTP) is critical for assembly and secretion of apolipoprotein B (apoB)-containing lipoproteins a |
| December 01, 2019 | Neutrophil-derived advanced glycation end products-Nϵ-(carboxymethyl) lysine promotes RIP3-mediated myocardial necroptosis via RAGE and exacerbates myocardial ischemia/reperfusion injury | N ϵ -(carboxymethyl) lysine (CML), the major member of advanced glycation end products, was widely studied in diabetic complications and aging-associate |
| December 01, 2019 | Ferulic acid increases intestinal Lactobacillus and improves cardiac function in TAC mice | Ferulic acid, a main ingredient of Ligusticum, exhibits anti-oxidant and anti-inflammation effects in heart diseases. |
| November 01, 2019 | Rosiglitazone ameliorates bile duct ligation-induced liver fibrosis by down-regulating NF-κB-TNF-α signaling pathway in a PPARγ-dependent manner | Liver fibrosis is a major cause of morbidity and mortality worldwide. |
| November 01, 2019 | Cardioprotective effects of galectin-3 inhibition against ischemia/reperfusion injury | Myocardial ischemia/reperfusion (IR) injury is caused by the restoration of the coronary blood flow following an ischemic episode. |

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| November 01, 2019 | Modulation of redox metabolism negates cancer-associated fibroblasts-induced treatment resistance in a heterotypic 3D culture platform of pancreatic cancer | The complex interplay between cancer cells and their microenvironment remains a major challenge in the design and optimization of treatment strategies |
| November 01, 2019 | Loss of flow responsive Tie1 results in Impaired Aortic valve remodeling | The mechanisms regulating endothelial cell response to hemodynamic forces required for heart valve development, especially valve remodeling, remain |
| November 01, 2019 | Negative regulation of eNOS-NO signaling by over-SUMOylation of PPARγ contributes to insulin resistance and dysfunction of vascular endothelium in rats | SUMOylation of peroxisome proliferator-activated receptor gamma (PPAR γ) plays important regulatory role in its transcriptional activity. |
| November 01, 2019 | Effect of vagus nerve stimulation on tissue damage and function loss in a mouse myocardial ischemia-reperfusion model | Objectives: In cardiac ischemia, acute inflammatory responses further increase the detrimental effect on myocardial tissue. |
| November 01, 2019 | A knock-in mutation at cysteine 144 of TRIM72 is cardioprotective and reduces myocardial TRIM72 release | TRIM72 is a membrane repair protein that protects against ischemia reperfusion (I/R) injury. |
| November 01, 2019 | MiR-207 inhibits autophagy and promotes apoptosis of cardiomyocytes by directly targeting LAMP2 in type 2 diabetic cardiomyopathy | Autophagy dysfunction plays a critical role in diabetic cardiomyopathy (DCM). |
| November 01, 2019 | Behavior, body composition, and vascular phenotype of homocystinuric mice on methionine restricted diet or enzyme replacement therapy | Classic homocystinuria (HCU) is an inherited disorder characterized by elevated homocysteine (Hcy) in plasma and tissues resulting from cystathionine |
| October 01, 2019 | Regulation of the inflammatory response by vascular grafts modified with Aspirin-Triggered Resolvin D1 promotes blood vessel regeneration | The unabated inflammatory response is often the cause for inhibited vascular regeneration of transplanted small-diameter vascular grafts (diameter |
| October 01, 2019 | KLF15-Wnt-Dependent Cardiac Reprogramming Up-Regulates SHISA3 in the Mammalian Heart | 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 | Effects of combined angiotensin II receptor antagonism and neprilysin inhibition in experimental pulmonary hypertension and right ventricular failure | Background: Combined angiotensin II receptor antagonism and neprilysin inhibition by LCZ696 reduces morbidity and mortality in heart failure patients |
| October 01, 2019 | Assessing therapeutic response non-invasively in a neonatal rat model of acute inflammatory white matter injury using high-field MRI | Perinatal infection and inflammatory episodes in preterm infants are associated with diffuse white matter injury (WMI) and adverse neurological outcome |
| October 01, 2019 | Scavenger receptor A1 attenuates aortic dissection via promoting efferocytosis in macrophages | Macrophage class A1 scavenger receptor (SR-A1) is a pattern recognition receptor with an anti-inflammatory feature in cardiovascular diseases. |
| October 01, 2019 | Study of the mechanism underlying therapeutic effect of Compound Longmaining on myocardial infarction using a network pharmacology-based approach | Compound Longmaining (CLMN) decoction, a herbal formula from Traditional Chinese Medicine (TCM), has been widely used for the treatment of cardiovascular |
| October 01, 2019 | VCAM-1 Density and Tumor Perfusion Predict T-cell Infiltration and Treatment Response in Preclinical Models | Cancer immunotherapies have demonstrated durable responses in a range of different cancers. |
| October 01, 2019 | Pioglitazone downregulates Twist-1 expression in the kidney and protects renal function of Zucker diabetic fatty rats | Aims: Renal interstitial fibrosis and glomerulosclerosis are the characteristic presentation of diabetic nephropathy progression. |

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| October 01, 2019 | Spatiotemporal delivery of basic fibroblast growth factor to directly and simultaneously attenuate cardiac fibrosis and promote cardiac tissue vascularization following myocardial infarction | Following myocardial infarction (MI), the destruction of vasculature in the infarcted heart muscle and progression of cardiac fibrosis lead to cardiac |
| October 01, 2019 | Cardioprotection of (±)-sodium 5-bromo-2-(α-hydroxypentyl) benzoate (BZP) on mouse myocardium I/R injury through inhibiting 12/15-LOX-2 activity | (±)-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 | The non-steroidal mineralocorticoid receptor antagonist finerenone prevents cardiac fibrotic remodeling | Mineralocorticoid receptor (MR) overactivation promotes cardiac fibrosis. |
| October 01, 2019 | 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 | Background: This study tested the hypothesis that intramuscular injections of erythropoietin (EPO) and endothelial progenitor cells (EPC) to critical |
| October 01, 2019 | YQWY decoction reverses cardiac hypertrophy induced by TAC through inhibiting GATA4 phosphorylation and MAPKs | To investigate the effect of Yiqi Wenyang (YQWY) decoction on reversing cardiac hypertrophy induced by the transverse aortic constriction (TAC). |
| October 01, 2019 | Renal denervation ameliorates post-infarction cardiac remodeling in rats through dual regulation of oxidative stress in the heart and brain | Background: Myocardial remodeling is the key step in the development of ischemic cardiomyopathy. |
| October 01, 2019 | Elevated luteinizing hormone contributes to atherosclerosis formation by inhibiting nitric oxide synthesis via PI3K/Akt pathway | Background: The contentious effects of estrogen therapy on the risk of postmenopausal cardiovascular disease (CVD) indicate that this type of atherosc |
| September 01, 2019 | Therapeutic contribution of melatonin to the treatment of septic cardiomyopathy: A novel mechanism linking Ripk3-modified mitochondrial performance and endoplasmic reticulum function | The basic pathophysiological mechanisms underlying septic cardiomyopathy have not yet been completely clarified. |
| September 01, 2019 | All-trans retinoic acid attenuates isoproterenol-induced cardiac dysfunction through Crabp1 to dampen CaMKII activation | Inhibiting Ca ²⁺ /calmodulin-dependent protein kinase II (CaMKII) over activation can decrease detrimental cardiac remodeling that leads to dilated card |
| September 01, 2019 | Resveratrol prevents chronic intermittent hypoxia-induced cardiac hypertrophy by targeting the PI3K/AKT/mTOR pathway | Aims: Resveratrol is a polyphenolic compound that has received much attention for its use in ameliorating various systemic pathological conditions. |
| September 01, 2019 | Increased mitochondrial NADPH oxidase 4 (NOX4) expression in aging is a causative factor in aortic stiffening | Aging is characterized by increased aortic stiffness, an early, independent predictor and cause of cardiovascular disease. |
| September 01, 2019 | Novel insights into the genetic landscape of congenital heart disease with systems genetics | We recently conducted a large-scale mouse mutagenesis screen and uncovered a central role for cilia in the pathogenesis of congenital heart disease (C |
| September 01, 2019 | Bi axial biomechanical properties of the nonpregnant murine cervix and uterus | From a biomechanical perspective, female reproductive health is an understudied area of research. |
| September 01, 2019 | Obese mice exposed to psychosocial stress display cardiac and hippocampal dysfunction associated with local brain-derived neurotrophic factor depletion | Introduction: Obesity and psychosocial stress (PS) co-exist in individuals of Western society. |
| September 01, 2019 | Therapeutic targeting of mitochondrial ROS ameliorates murine model of volume overload cardiomyopathy | Concomitant heart failure is associated with poor clinical outcome in dialysis patients. |
| September 01, 2019 | Valproic acid attenuates sepsis-induced myocardial dysfunction in rats by accelerating autophagy through the PTEN/AKT/mTOR pathway | Aims: Sepsis is a leading cause of death and disability worldwide. |

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| September 01, 2019 | LCZ696, an angiotensin receptor-neprilysin inhibitor, ameliorates diabetic cardiomyopathy by inhibiting inflammation, oxidative stress and apoptosis | 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 | Guanxin Danshen Formulation improved the effect of mesenchymal stem cells transplantation for the treatment of myocardial infarction probably via enhancing the engraftment | 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 | Design and synthesis of sulfonamidophenylethylamides as novel cardiac myosin activator | The sulfonamidophenylethylamide analogues were explored for finding novel and potent cardiac myosin activators. |
| August 01, 2019 | Small-Molecule and CRISPR Screening Converge to Reveal Receptor Tyrosine Kinase Dependencies in Pediatric Rhabdoid Tumors | Cancer is often seen as a disease of mutations and chromosomal abnormalities. |
| August 01, 2019 | Exercise-induced increases in the expression and activity of cardiac sarcoplasmic reticulum calcium ATPase 2 is attenuated in AMPKα 2 kinase-dead mice | Exercise enhances cardiac sarcoplasmic reticulum Ca ²⁺ -ATPase 2a (SERCA2a) function through unknown mechanisms. |
| August 01, 2019 | Combination PD-1 and PD-L1 Blockade Promotes Durable Neoantigen-Specific T Cell-Mediated Immunity in Pancreatic Ductal Adenocarcinoma | Pancreatic ductal adenocarcinoma (PDA) is a lethal cancer resistant to immunotherapy. |
| August 01, 2019 | Simulation of gastric bypass effects on glucose metabolism and non-alcoholic fatty liver disease with the Sleeveballoon device | Background: Gastric bypass surgery is a very effective treatment of obesity and type 2 diabetes. |
| August 01, 2019 | GDF15 Is an Inflammation-Induced Central Mediator of Tissue Tolerance | Growth and differentiation factor 15 (GDF15) is an inflammation-associated hormone with poorly defined biology. |
| August 01, 2019 | Adenosine Kinase Inhibition Augments Conducted Vasodilation and Prevents Left Ventricle Diastolic Dysfunction in Heart Failure With Preserved Ejection Fraction | Background: Heart failure with preserved ejection fraction (HFpEF) is often manifested as impaired cardiovascular reserve. |
| June 01, 2019 | Malonyl CoA Decarboxylase Inhibition Improves Cardiac Function Post-Myocardial Infarction | Alterations in cardiac energy metabolism after a myocardial infarction contribute to the severity of heart failure (HF). |
| January 01, 2019 | Combinatorial treatment of acute myocardial infarction using stem cells and their derived exosomes resulted in improved heart performance | 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 | Dual-labeled pertuzumab for multimodality image-guided ovarian tumor resection. | Pertuzumab is clinically employed in the treatment of cancers over-expressing human epidermal growth factor receptor 2 (HER2). |
| January 01, 2019 | NADPH oxidase-4 promotes eccentric cardiac hypertrophy in response to volume overload | AIMS Chronic pressure or volume overload induce concentric versus eccentric left ventricular (LV) remodelling, respectively. |
| January 01, 2019 | Therapeutic Modulation of the Immune Response in Arrhythmogenic Cardiomyopathy | BACKGROUND: Inflammation is a prominent feature of arrhythmogenic cardiomyopathy (ACM), but whether it contributes to the disease phenotype is not kno |
| January 01, 2019 | Repair of subtotal tympanic membrane perforations: A temporal bone study of several tympanoplasty materials | 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 | 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 | Background: Spinal cord injury (SCI) is a condition with few effective treatment options. |

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| January 01, 2019 | Effect of HIF 1α/miR 10b 5p/PTEN on Hypoxia Induced Cardiomyocyte Apoptosis | Background Few reports have addressed the mechanism by which microRNA miR-10b-5p regulates post-myocardial infarction (post-MI) cardiomyocyte apoptosis |
| January 01, 2019 | Danqi soft capsule prevents infarct border zone remodelling and reduces susceptibility to ventricular arrhythmias in post myocardial infarction rats | 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 | Scutellarin Prevents Angiogenesis in Diabetic Retinopathy by Downregulating VEGF/ERK/FAK/Src Pathway Signaling | Background . Diabetic retinopathy (DR) is a serious microvascular complication of diabetes. |
| January 01, 2019 | eNOS-NO-induced small blood vessel relaxation requires EHD2-dependent caveolae stabilization | 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 | WWP2 regulates pathological cardiac fibrosis by modulating SMAD2 signaling | Cardiac fibrosis is a final common pathology in inherited and acquired heart diseases that causes cardiac electrical and pump failure. |
| January 01, 2019 | Comparison of optical coherence tomography and high frequency ultrasound imaging in mice for the assessment of skin morphology and intradermal volumes | Optical coherence tomography (OCT) and high-frequency ultrasound (HFUS), two established imaging modalities in the field of dermatology, were evaluate |
| January 01, 2019 | β3 Adrenergic Activation Improves Maternal and Offspring Perinatal Outcomes in Diet Induced Prepregnancy Obesity in Mice | Objective: Prepregnancy obesity is an epidemic disorder that seriously threatens both maternal and offspring health. |
| January 01, 2019 | The flagellin-TLR5-Nox4 axis promotes the migration of smooth muscle cells in atherosclerosis | 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 | Inhibition of microRNA-146a attenuated heart failure in myocardial infarction rats | 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 | Blood Pressure Normalization–Independent Cardioprotective Effects of Endogenous, Physical Activity–Induced αCGRP (α Calcitonin Gene-Related Peptide) in Chronically Hypertensive Mice | Rationale: α CGRP (α calcitonin gene-related peptide), one of the strongest vasodilators, is cardioprotective in hypertension by reducing the elevated |
| January 01, 2019 | Maternal valproic acid exposure leads to neurogenesis defects and autism-like behaviors in non-human primates | 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 | Endophilin A2 attenuates cardiac hypertrophy induced by isoproterenol through the activation of autophagy | Decreased autophagy has been reported to contribute to the progression of cardiac hypertrophy. |
| January 01, 2019 | CD47 Deficiency Attenuates Isoproterenol-Induced Cardiac Remodeling in Mice | In this study, we investigated whether CD47 deficiency attenuates isoproterenol- (ISO-) induced cardiac remodeling in mice. |
| January 01, 2019 | Effects of Photodynamic Therapy with Redaporfin on Tumor Oxygenation and Blood Flow in a Lung Cancer Mouse Model | 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 | Imaging of X-Ray-Excited Emissions from Quantum Dots and Biological Tissue in Whole Mouse | Optical imaging in clinical and preclinical settings can provide a wealth of biological information, particularly when coupled with targeted nanopart |

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| January 01, 2019 | Cardiac-Specific Overexpression of Catalytically Inactive Corin Reduces Edema, Contractile Dysfunction, and Death in Mice with Dilated Cardiomyopathy | 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 | In vivo engineered extracellular matrix scaffolds with instructive niches for oriented tissue regeneration | Implanted scaffolds with inductive niches can facilitate the recruitment and differentiation of host cells, thereby enhancing endogenous tissue regene |
| January 01, 2019 | Cardiac regeneration using human induced pluripotent stem cell derived biomaterial free 3D bioprinted cardiac patch in vivo | One of the leading causes of death worldwide is heart failure. |
| January 01, 2019 | Quantitative Proteomics of Th-MYCN Transgenic Mice Reveals Aurora Kinase Inhibitor Altered Metabolic Pathways and Enhanced ACADM To Suppress Neuroblastoma Progression | Neuroblastoma is a neural crest-derived embryonal tumor and accounts for about 15% of all cancer deaths in children. |
| January 01, 2019 | Augmentation of myocardial If dysregulates calcium homeostasis and causes adverse cardiac remodeling | HCN channels underlie the depolarizing funny current (If) that contributes importantly to cardiac pacemaking. |
| January 01, 2019 | Compound danshen dripping pills normalize a reprogrammed metabolism of myocardial ischemia rats to interpret its time-dependent efficacy in clinic trials: a metabolomic study | Introduction: Clinical trials of Compound danshen dripping pills (CDDP) indicated distinct improvement in patients with chronic stable angina. |
| January 01, 2019 | Effect of maternal betamethasone administration on fetal-placental vascular resistance in the mouse† | 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 | An Injectable Conductive Three-Dimensional Elastic Network by Tangled Surgical-Suture Spring for Heart Repair | Designing scaffolds with persistent elasticity and conductivity to mimic microenvironments becomes a feasible way to repair cardiac tissue. |
| January 01, 2019 | A reference map of murine cardiac transcription factor chromatin occupancy identifies dynamic and conserved enhancers | Mapping the chromatin occupancy of transcription factors (TFs) is a key step in deciphering developmental transcriptional programs. |
| January 01, 2019 | Human iPSC cell-derived engineered heart tissue does not affect ventricular arrhythmias in a guinea pig cryo-injury model | Human iPSC-derived engineered heart tissue (hEHT) has been used to remuscularize injured hearts in a guinea pig infarction model. |
| January 01, 2019 | Transplantation of Human Umbilical Cord Blood-Derived Cellular Fraction Improves Left Ventricular Function and Remodeling After Myocardial Ischemia/Reperfusion | RATIONALE: Human umbilical cord blood (hUCB) contains diverse populations of stem/progenitor cells. |
| January 01, 2019 | Cardioprotective Effect of Danhong Injection against Myocardial Infarction in Rats Is Critically Contributed by MicroRNAs | Background . |
| January 01, 2019 | 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 | Salvianolic acid B (Sal B) has a significant protective effect on myocardial ischaemia-reperfusion (I/R) injury. |
| January 01, 2019 | Long-term cardiovascular disorders in the STOX1 mouse model of preeclampsia | Adverse long-term cardiovascular (CV) consequences of PE are well established in women. |
| January 01, 2019 | Fetal growth outcomes following peri-implantation exposure of Long-Evans rats to noise and ozone differ by sex | 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 | Research paper microbubble enhanced ultrasound for the antivasular treatment and monitoring of hepatocellular carcinoma | 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 | Blockade of L-type Ca²⁺ channel attenuates doxorubicin-induced cardiomyopathy via suppression of CaMKII-NF-κB pathway | Ca ²⁺ /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 | Targeting cardiac fibrosis with engineered T cells | Fibrosis is observed in nearly every form of myocardial disease ¹ . |
| January 01, 2019 | Upregulation of Yy1 Suppresses Dilated Cardiomyopathy caused by Ttn insufficiency | 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 | Phenotypic effects of dietary stress in combination with a respiratory chain bypass in mice | 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 | Overexpression of protein phosphatase 5 in the mouse heart: Reduced contractility but increased stress tolerance – Two sides of the same coin? | The pathophysiological mechanisms of sepsis-induced cardiac dysfunction are largely unknown. |
| January 01, 2019 | Improved Biomarker and Imaging Analysis for Characterizing Progressive Cardiac Fibrosis in a Mouse Model of Chronic Chagasic Cardiomyopathy | Background: Chronic chagasic cardiomyopathy (CCC), caused by <i>Trypanosoma cruzi</i> infection, is an important public health problem attributable to progre |
| January 01, 2019 | Bilayered Polymeric Micro- and Nanofiber Vascular Grafts as Abdominal Aorta Replacements: Long-Term in Vivo Studies in a Rat Model | In vivo long-term evaluation of degradable implants offers valuable information for the further design and optimization of biomaterials. |
| January 01, 2019 | A conditional inducible JAK2V617F transgenic mouse model reveals myeloproliferative disease that is reversible upon switching off transgene expression | 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 | Taohong Siwu Decoction Exerts a Beneficial Effect on Cardiac Function by Possibly Improving the Microenvironment and Decreasing Mitochondrial Fission after Myocardial Infarction | Cardiovascular disease has been established as a major cause of morbidity and mortality worldwide, resulting in a huge burden to patients, families, a |
| January 01, 2019 | FGF23 expression is stimulated in transgenic α-Klotho longevity mouse model | Observations in transgenic α-Klotho (KI) mice (KITg) defined the antiaging role of soluble Klotho (sKL130). |
| January 01, 2019 | S allyl cysteine sulfoxide (alliin) alleviates myocardial infarction by modulating cardiomyocyte necroptosis and autophagy | S-allyl-cysteine sulfoxide (alliin) is the main organosulfur component of garlic and its preparations. |
| January 01, 2019 | Functional coupling between NMDA receptors and SK channels in rat hypothalamic magnocellular neurons: altered mechanisms during heart failure | Key points: Glutamatergic NMDA receptors (NMDARs) and small conductance Ca ²⁺ -activated K ⁺ (SK) channels are critical synaptic and intrinsic mechanisms |
| January 01, 2019 | Fetal T Cell Activation in the Amniotic Cavity during Preterm Labor: A Potential Mechanism for a Subset of Idiopathic Preterm Birth | Prematurity is the leading cause of perinatal morbidity and mortality worldwide. |
| January 01, 2019 | Effects of Iliac Stenosis on Abdominal Aortic Aneurysm Formation in Mice and Humans | 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 | Vimentin regulates Notch signaling strength and arterial remodeling in response to hemodynamic stress | The intermediate filament (IF) cytoskeleton has been proposed to regulate morphogenic processes by integrating the cell fate signaling machinery with |
| January 01, 2019 | Aortic pathology from protein kinase G activation is prevented by an antioxidant vitamin B12 analog | People heterozygous for an activating mutation in protein kinase G1 (PRKG1, p.Arg177Gln) develop thoracic aortic aneurysms and dissections (TAAD) as y |

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| January 01, 2019 | Exendin-4 Protects against Hyperglycemia-Induced Cardiomyocyte Pyroptosis via the AMPK-TXNIP Pathway | Diabetic cardiomyopathy is a common cardiac condition in patients with diabetes mellitus, which results in cardiac hypertrophy and subsequent heart fa |
| January 01, 2019 | Injectable Citrate-Based Hydrogel as an Angiogenic Biomaterial Improves Cardiac Repair after Myocardial Infarction | Implanted medical biomaterials are closely in contact with host biological systems via biomaterial-cell/tissue interactions, and these interactions pl |
| January 01, 2019 | Vascular impact of quercetin administration in association with moderate exercise training in experimental type 1 diabetes | Hyperglycemia and oxidative stress have a major role in the pathogenesis of diabetic vascular complications. |
| January 01, 2019 | Collagenase Nanoparticles Enhance the Penetration of Drugs into Pancreatic Tumors | Overexpressed extracellular matrix (ECM) in pancreatic ductal adenocarcinoma (PDAC) limits drug penetration into the tumor and is associated with poor |
| January 01, 2019 | Dietary Supplementation with Silicon-Enriched Spirulina Improves Arterial Remodeling and Function in Hypertensive Rats | Vascular aging is characterized by increase in arterial stiffness and remodeling of the arterial wall with a loss of elastic properties. |
| January 01, 2019 | 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 | Background: Experimental and clinical trials have demonstrated the efficiency of bone marrow-derived mesenchymal stromal/stem cells (bMSCs) in the tre |
| January 01, 2019 | Regulation of cardiac fibroblast-mediated maladaptive ventricular remodeling by β-arrestins | Cardiac fibroblasts (CF) play a critical role in post-infarction remodeling which can ultimately lead to pathological fibrosis and heart failure. |
| January 01, 2019 | Deciphering Role of Wnt Signalling in Cardiac Mesoderm and Cardiomyocyte Differentiation from Human iPSCs: Four-dimensional control of Wnt pathway for hiPSC-CMs differentiation | 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 spontaneously metastatic model of bladder cancer: imaging characterization | Background: Spontaneously metastatic xenograft models of cancer are infrequent and the few that exist are resource intensive. |
| January 01, 2019 | Sustained elevation of MG53 in the bloodstream increases tissue regenerative capacity without compromising metabolic function | MG53 is a muscle-specific TRIM-family protein that presides over the cell membrane repair response. |
| January 01, 2019 | The POU4F2/Brn-3b transcription factor is required for the hypertrophic response to angiotensin II in the heart | Adult hearts respond to increased workload such as prolonged stress or injury, by undergoing hypertrophic growth. |
| January 01, 2019 | Hippo pathway deletion in adult resting cardiac fibroblasts initiates a cell state transition with spontaneous and self-sustaining fibrosis | Cardiac fibroblasts (CFs) respond to injury by transitioning through multiple cell states, including resting CFs, activated CFs, and myofibroblasts. |
| January 01, 2019 | Systems Network Genomic Analysis Reveals Cardioprotective Effect of MURC/Cavin 4 Deletion Against Ischemia/Reperfusion Injury | Background: Ischemia/reperfusion (I/R) injury is a critical issue in the development of treatment strategies for ischemic heart disease. |
| January 01, 2019 | Hypoxia inducible factor 1α in vascular smooth muscle cells promotes angiotensin II-induced vascular remodeling via activation of CCL7-mediated macrophage recruitment | The process of vascular remodeling is associated with increased hypoxia. |
| January 01, 2019 | TREK-1 protects the heart against ischemia-reperfusion-induced injury and from adverse remodeling after myocardial infarction | The TWIK-related K ⁺ channel (TREK-1) is a two-pore-domain potassium channel that produces background leaky potassium currents. |
| January 01, 2019 | Targetable cellular signaling events mediate vascular pathology in vascular Ehlers-Danlos syndrome | Vascular Ehlers-Danlos syndrome (vEDS) is an autosomal-dominant connective tissue disorder caused by heterozygous mutations in the COL3A1 gene, which |

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| January 01, 2019 | Tanshinone IIA Restores Dynamic Balance of Autophagosome/Autolysosome in Doxorubicin-Induced Cardiotoxicity via Targeting Beclin1/LAMP1 | Clinical use of the anti-cancer drug doxorubicin (DOX) is largely limited due to its severe cardiotoxicity. |
| January 01, 2019 | Hyperoxia but not AOX expression mitigates pathological cardiac remodeling in a mouse model of inflammatory cardiomyopathy | Constitutive expression of the chemokine Mcp1 in mouse cardiomyocytes creates a model of inflammatory cardiomyopathy, with death from heart failure at |
| January 01, 2019 | Myocardial death and dysfunction after ischemia-reperfusion injury require CaMKIIδ oxidation | Reactive oxygen species (Ros) contribute to myocardial death during ischemia-reperfusion (I/R) injury, but detailed knowledge of molecular pathways co |
| January 01, 2019 | Tumor susceptibility gene 101 ameliorates endotoxin-induced cardiac dysfunction by enhancing Parkin-mediated mitophagy | Cardiac mitochondrial damage and subsequent inflammation are hallmarks of endotoxin-induced myocardial depression. |
| January 01, 2019 | Wisteria floribunda agglutinin staining for the quantitative assessment of cardiac fibrogenic activity in a mouse model of dilated cardiomyopathy | Cardiac fibrosis is a typical phenomenon in failing hearts for most cardiac diseases, including dilated cardiomyopathy (DCM), and its specific detecti |
| January 01, 2019 | p27kip1 haploinsufficiency preserves myocardial function in the early stages of myocardial infarction via Atg5 mediated autophagy flux restoration | Myocardial infarction (MI) is a leading cause of mortality in adults worldwide. |
| January 01, 2019 | Cell proliferation detected using [18F]FLT PET/CT as an early marker of abdominal aortic aneurysm | Background: Abdominal aortic aneurysm (AAA) is a focal aortic dilatation progressing towards rupture. |
| January 01, 2019 | Lipoprotein receptor related protein 6 is required to maintain intercalated disk integrity | The intercalated disk (ID), a highly organized adhesion structure connecting neighboring cardiomyocytes, fulfills mechanical and electrical signalin |
| January 01, 2019 | Heterogeneous Cellular Contributions to Elastic Laminae Formation in Arterial Wall Development | Rationale: Elastin is an important ECM (extracellular matrix) protein in large and small arteries. |
| January 01, 2019 | Longitudinal characterization of local perfusion of the rat placenta using contrast-enhanced ultrasound imaging | The placenta performs many physiological functions critical for development. |
| January 01, 2019 | Mechanisms of renal sympathetic denervation on improving ventricular arrhythmias after acute myocardial infarction in rats | Background: More than 50% of acute myocardial infarction (MI) survivors died from malignant ventricular arrhythmias (VA). |
| January 01, 2019 | Non-invasive contrast enhanced ultrasound molecular imaging of inflammation in autoimmune myocarditis for prediction of left ventricular fibrosis and remodeling | Background Myocarditis can lead to myocyte loss and myocardial fibrosis resulting in dilated cardiomyopathy (DCMP). |
| January 01, 2019 | Yin Yang 1 Suppresses Dilated Cardiomyopathy and Cardiac Fibrosis Through Regulation of Bmp7 and Ctgf | RATIONALE: Pathogenic variations in the lamin gene (LMNA) cause familial dilated cardiomyopathy (DCM). |
| January 01, 2019 | Treatment with adipose tissue-derived mesenchymal stem cells exerts anti-diabetic effects, improves long-term complications, and attenuates inflammation in type 2 diabetic rats | Background: Long-term diabetes-associated complications are the major causes of morbidity and mortality in individuals with diabetes. |
| January 01, 2019 | Cell-specific ablation of Hsp47 defines the collagen-producing cells in the injured heart | Collagen production in the adult heart is thought to be regulated by the fibroblast, although cardiomyocytes and endothelial cells also express multip |
| January 01, 2019 | Enhanced mTOR complex 1 signaling attenuates diabetic cardiac injury in OVE26 mice | The protein kinase mechanistic target of rapamycin (mTOR) performs diverse cellular functions through 2 distinct multiprotein complexes, mTOR complex |
| January 01, 2019 | Enhancement of cardiac lymphangiogenesis by transplantation of CD34+VEGFR-3+ endothelial progenitor cells and sustained release of VEGF-C | Impairment of cardiac lymphatic vessels leads to cardiac lymphedema. |

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| January 01, 2019 | Calpain 9 as a therapeutic target in TGFβ-induced mesenchymal transition and fibrosis | 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 | CD146-HIF-1α hypoxic reprogramming drives vascular remodeling and pulmonary arterial hypertension | Pulmonary arterial hypertension (PAH) is a vascular remodeling disease of cardiopulmonary units. |
| January 01, 2019 | The homozygous variant c.245G > A/p.G82D in PNPLA2 is associated with arrhythmogenic cardiomyopathy phenotypic manifestations | Arrhythmogenic cardiomyopathy (ACM) is a familial cardiomyopathy featured by fibrofatty replacement of cardiomyocytes. |
| January 01, 2019 | Chronic high dose testosterone treatment: impact on rat cardiac contractile biology | Androgen therapy provides cardiovascular benefits for hypogonadism. |
| January 01, 2019 | Empagliflozin, a sodium glucose co-transporter-2 inhibitor, alleviates atrial remodeling and improves mitochondrial function in high-fat diet/streptozotocin-induced diabetic rats | Background: Diabetes mellitus is an important risk factor for atrial fibrillation (AF) development. |
| January 01, 2019 | Non-invasive thermal imaging of cardiac remodeling in mice | Thermal infrared imaging has been suggested as a non-invasive alternative to monitor physiological processes and disease. |
| January 01, 2019 | Resolvin D4 attenuates the severity of pathological thrombosis in mice | 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 | Assessing the role of extracellular signal regulated kinases 1 and 2 in volume overload induced cardiac remodelling | Aims: Volume overload (VO) and pressure overload (PO) induce differential cardiac remodelling responses including distinct signalling pathways. |
| January 01, 2019 | Cardiomyocyte d-dopachrome tautomerase protects against heart failure | The mechanisms contributing to heart failure remain incompletely understood. |
| January 01, 2019 | eIF4A supports an oncogenic translation program in pancreatic ductal adenocarcinoma | Pancreatic ductal adenocarcinoma (PDA) is a lethal malignancy with limited treatment options. |
| January 01, 2019 | Mitochondrial calcium exchange links metabolism with the epigenome to control cellular differentiation | Fibroblast to myofibroblast differentiation is crucial for the initial healing response but excessive myofibroblast activation leads to pathological f |
| January 01, 2019 | Immuno-evolution of mouse pancreatic organoid isografts from preinvasive to metastatic disease | Pancreatic ductal adenocarcinoma (PDA) has a highly immunosuppressive microenvironment, which is contributed by the complex interaction between cancer |
| January 01, 2019 | Curcumin Analogs Reduce Stress and Inflammation Indices in Experimental Models of Diabetes | Chronic inflammation and oxidative stress lead to a multitude of adverse cellular responses in target organs of chronic diabetic complications. |
| January 01, 2019 | Facile Nanolization Strategy for Therapeutic Ganoderma Lucidum Spore Oil to Achieve Enhanced Protection against Radiation Induced Heart Disease | Radiotherapy (RT) has been extensively utilized for clinical cancer therapy, however, excessive generation of reactive oxygen species (ROS) is becomin |
| January 01, 2019 | Organ Dynamics and Hemodynamic of the Whole HH25 Avian Embryonic Heart, Revealed by Ultrasound Biomicroscopy, Boundary Tracking, and Flow Simulations | Congenital heart malformations occur to substantial number of pregnancies. |
| January 01, 2019 | Dexmedetomidine improves cardiac function and protects against maladaptive remodeling following myocardial infarction | Dexmedetomidine (DEX), a highly specific and selective α2 adrenergic receptor agonist, has been demonstrated to possess potential cardioprotective eff |

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| January 01, 2019 | Muscarinic receptors promote pacemaker fate at the expense of secondary conduction system tissue in zebrafish | 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 | Inhibition of Senescence Associated Genes Rb1 and Meis2 in Adult Cardiomyocytes Results in Cell Cycle Reentry and Cardiac Repair Post-Myocardial Infarction | Background: Myocardial infarction results in a large-scale cardiomyocyte loss and heart failure due to subsequent pathological remodeling. |
| January 01, 2019 | Theacrine attenuates myocardial fibrosis after myocardial infarction via the SIRT3/β-catenin/PPARγ pathway in estrogen-deficient mice | 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 | Improvement of insulin signalling rescues inflammatory cardiac dysfunction | Inflammation resulting from virus infection is the cause of myocarditis; however, the precise mechanism by which inflammation induces cardiac dysfunct |
| January 01, 2019 | Defects in the Exocyst-Cilia Machinery Cause Bicuspid Aortic Valve Disease and Aortic Stenosis | BACKGROUND: Bicuspid aortic valve (BAV) disease is a congenital defect that affects 0.5% to 1.2% of the population and is associated with comorbiditie |
| January 01, 2019 | The enhanced effect and underlying mechanisms of mesenchymal stem cells with IL-33 overexpression on myocardial infarction | 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 | Ginsenoside-Rb1 Improved Diabetic Cardiomyopathy through Regulating Calcium Signaling by Alleviating Protein O-GlcNAcylation | 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 | Humanized bone facilitates prostate cancer metastasis and recapitulates therapeutic effects of zoledronic acid in vivo | Advanced prostate cancer (PCa) is known for its high prevalence to metastasize to bone, at which point it is considered incurable. |
| January 01, 2019 | Conservation and divergence of protein pathways in the vertebrate heart | Heart disease is the leading cause of death in the western world. |
| January 01, 2019 | Pigment Epithelial Derived Factor Deficiency Accelerates Atherosclerosis Development via Promoting Endothelial Fatty Acid Uptake in Mice With Hyperlipidemia | Background: Endothelial cell injury, induced by dyslipidemia, is the initiation of atherosclerosis, resulting in an imbalance in endothelial fatty aci |
| January 01, 2019 | Nicotinamide riboside promotes autolysosome clearance in preventing doxorubicin-induced cardiotoxicity | Doxorubicin (DOX) is widely used as a first-line chemotherapeutic drug for various malignancies. |
| January 01, 2019 | Administration of losartan preserves cardiomyocyte size and prevents myocardial dysfunction in tail-suspended mice by inhibiting p47phox phosphorylation, NADPH oxidase activation and MuRF1 expression | Background: Spaceflight or microgravity conditions cause myocardial atrophy and dysfunction, contributing to post-flight orthostatic intolerance. |
| January 01, 2019 | Hypoxia-Induced miR-210 Is Necessary for Vascular Regeneration upon Acute Limb Ischemia | Critical limb ischemia is the most serious form of peripheral artery disease, characterized by severe functional consequences, difficult clinical mana |
| January 01, 2019 | Ultra-long-acting tunable biodegradable and removable controlled release implants for drug delivery | 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 | Supplementing preservation solution with mitochondria targeted H 2 S donor AP 39 protects cardiac grafts from prolonged cold ischemia-reperfusion injury in heart transplantation | Heart transplant has been accepted as the standard treatment for end stage heart failure. |

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| January 01, 2019 | Lipid/PLGA Hybrid Microbubbles as a Versatile Platform for Noninvasive Image-Guided Targeted Drug Delivery | Microbubbles (MBs) have recently emerged as promising theranostic carriers for ultrasound contrast imaging and drug delivery. |
| January 01, 2019 | Myocardial overexpression of ANKRD1 causes sinus venosus defects and progressive diastolic dysfunction | 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 | C1q/tumor necrosis factor-related protein-3-engineered mesenchymal stromal cells attenuate cardiac impairment in mice with myocardial infarction | Mesenchymal stromal cells (MSCs) transplantation offers an attractive alternative in myocardial infarctive therapy. |
| January 01, 2019 | Endothelial CDS2 deficiency causes VEGFA-mediated vascular regression and tumor inhibition | The response of endothelial cells to signaling stimulation is critical for vascular morphogenesis, homeostasis and function. |
| January 01, 2019 | IL-10 producing B cells rescue mouse fetuses from inflammation-driven fetal death and are able to modulate T cell immune responses | Understanding the mechanisms leading to fetal death following maternal subclinical infections is crucial to develop new therapeutic strategies. |
| January 01, 2019 | Shelf-Life Evaluation and Lyophilization of PBCA-Based Polymeric Microbubbles | 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 | Crystal structure, molecular docking, and treatment activity on myocarditis of a co Schiff base coordination polymer | This work presents the synthesis and characterization of a dicyanamide-bridged coordination polymer $[\{Co_2(L)_2(dca)_2\}(H_2O)_n]$ (named complex 1 hereafter |
| January 01, 2019 | Infant cardiosphere-derived cells exhibit non-durable heart protection in dilated cardiomyopathy rats | Stem cells provide a new strategy for the treatment of cardiac diseases; however, their effectiveness in dilated cardiomyopathy (DCM) has not been inv |
| January 01, 2019 | The mechanism of RNA oxidation involved in the development of heart failure | Heart failure (HF) has become a global public health problem due to its unclear pathogenesis. |
| January 01, 2019 | Protective effects of Salidroside on cardiac function in mice with myocardial infarction | Salidroside (SAL) is the major ingredient of <i>Rhodiola rosea</i> , and has been traditionally used in Chinese medicine for decades. |
| January 01, 2019 | α-Ketoglutarate links p53 to cell fate during tumour suppression | The tumour suppressor TP53 is mutated in the majority of human cancers, and in over 70% of pancreatic ductal adenocarcinoma (PDAC) ^{1,2} . |
| January 01, 2019 | Dietary protein restriction throughout intrauterine and postnatal life results in potentially beneficial myocardial tissue remodeling in the adult mouse heart | Diet composition impacts metabolic and cardiovascular health with high caloric diets contributing to obesity related disorders. |
| January 01, 2019 | Palbociclib improves cardiac dysfunction in diabetic cardiomyopathy by regulating Rb phosphorylation | Diabetic cardiomyopathy (DCM) is a condition associated with significant structural changes including cardiac tissue necrosis, localized fibrosis, and |
| January 01, 2019 | CaMKII-δ9 promotes cardiomyopathy through disrupting UBE2T-dependent DNA repair | Ca ²⁺ /calmodulin-dependent kinase II (CaMKII) is a multifunctional serine/threonine kinase family, and its δ isoform is predominant in the heart. |
| January 01, 2019 | TFEB activation in macrophages attenuates postmyocardial infarction ventricular dysfunction independently of ATG5-mediated autophagy | Lysosomes are at the epicenter of cellular processes critical for inflammasome activation in macrophages. |
| January 01, 2019 | Dual PPARα/γ activation inhibits SIRT1-PGC1α axis and causes cardiac dysfunction | Dual PPAR α / γ agonists that were developed to target hyperlipidemia and hyperglycemia in patients with type 2 diabetes caused cardiac dysfunction or ot |

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| January 01, 2019 | Poly (ADP ribose) polymerase inhibition protects against myocardial ischaemia/reperfusion injury via suppressing mitophagy | Myocardial ischaemia/reperfusion (I/R) injury attenuates the beneficial effects of reperfusion therapy. |
| January 01, 2019 | Human Relaxin 2 Fusion Protein Treatment Prevents and Reverses Isoproterenol Induced Hypertrophy and Fibrosis in Mouse Heart | 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 | MicroRNA-150 alleviates acute myocardial infarction through regulating cardiac fibroblasts in ventricular remodeling | 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 | Prelamin A mediates myocardial inflammation in dilated and HIV-associated cardiomyopathies | Cardiomyopathies are complex heart muscle diseases that can be inherited or acquired. |
| January 01, 2019 | Inducible cardiac-specific overexpression of cyclooxygenase-2 (COX-2) confers resistance to ischemia/reperfusion injury | The role of cyclooxygenase-2 (COX-2) in cardiovascular biology remains controversial. |
| January 01, 2019 | miR-486 is modulated by stretch and increases ventricular growth | Perturbations in biomechanical stimuli during cardiac development contribute to congenital cardiac defects such as hypoplastic left heart syndrome (HL |
| January 01, 2019 | miR-200a Attenuated Doxorubicin-Induced Cardiotoxicity through Upregulation of Nrf2 in Mice | Nuclear factor (erythroid-derived 2)-like 2 (Nrf2) was closely involved in doxorubicin-(DOX-) induced cardiotoxicity. |
| January 01, 2019 | H19 is not hypomethylated or upregulated with age or sex in the aortic valves of mice | 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 | Inhibition of miR-296-5p protects the heart from cardiac hypertrophy by targeting CACNG6 | Heart often undergoes mal-remodeling and hypertrophic growth in response to pathological stress. |
| January 01, 2019 | MCUB Regulates the Molecular Composition of the Mitochondrial Calcium Uniporter Channel to Limit Mitochondrial Calcium Overload During Stress | Background: The mitochondrial calcium uniporter (mtCU) is an ≈700-kD multisubunit channel residing in the inner mitochondrial membrane required for mi |
| January 01, 2019 | Endothelial EphB4 maintains vascular integrity and transport function in adult heart | The homeostasis of heart and other organs relies on the appropriate provision of nutrients and functional specialization of the local vasculature. |
| January 01, 2019 | Phosphodiesterase 5 Associates With β2 Adrenergic Receptor to Modulate Cardiac Function in Type 2 Diabetic Hearts | Background: In murine heart failure models and in humans with diabetic-related heart hypertrophy, inhibition of phosphodiesterase 5 (PDE5) by sildenafil |
| January 01, 2019 | The lipid-droplet-associated protein ABHD5 protects the heart through proteolysis of HDAC4 | Catecholamines stimulate the first step of lipolysis through protein kinase A (PKA)-dependent release of the lipid-droplet-associated protein abhydrol |
| January 01, 2019 | Fingolimod Improves the Outcome of Experimental Graves' Disease and Associated Orbitopathy by Modulating the Autoimmune Response to the Thyroid-Stimulating Hormone Receptor | Graves' disease (GD) and Graves' orbitopathy are associated with stimulating thyrotropin receptor (TSHR) autoantibodies and autoreactive T cells. |
| December 01, 2017 | Novel application and serial evaluation of tissue-engineered portal vein grafts in a murine model | Aim: Surgical management of pediatric extrahepatic portal vein obstruction requires meso-Rex bypass using autologous or synthetic grafts. |