

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	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
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.
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	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
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	Identifying modifier genes for hypertrophic cardiomyopathy	Background: Hypertrophic cardiomyopathy (HCM) severity greatly varies among patients even with the same HCM gene mutations.
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

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	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	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	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	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	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	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	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 reperfus
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	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	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, bu
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 f
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
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.
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
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 thera
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	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	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	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	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
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	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	Dynamic Transcriptional Responses to Injury of Regenerative and Non-regenerative Cardiomyocytes Revealed by Single-Nucleus RNA Sequencing	The adult mammalian heart is incapable of regenera- tion following injury.
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	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 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 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	Repeated Remote Ischemic Conditioning Reduces Doxorubicin-Induced Cardiotoxicity	OBJECTIVES This study investigated the cardioprotective effect of repeated remote ischemic preconditioning (rRIC) on doxorubicin-induced cardiotoxicit
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	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	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	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	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 me- chanism remains largely elusive.

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	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	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, immunosuppressi
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	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.
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	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	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	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	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	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	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	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 sign

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	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 i
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	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	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 e
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	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	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	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
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	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
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	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.
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	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.
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	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	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	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	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 co
February 01, 2020	A Peptide-Functionalized Magnetic Nanoplatfom-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	Stachydrine hydrochloride alleviates pressure overload-induced heart failure and calcium mishandling on mice	Ethnopharmacological relevance: Traditional Chinese medicine Leonurus japonicus Houtt.
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	Metformin protects against PM2.5-induced lung injury and cardiac dysfunction independent of AMP-activated protein kinase α2	Fine particulate matter (PM2.5) airborne pollution increases the risk of respiratory and cardiovascular diseases.
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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.
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	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	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	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	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	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	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	Luteolin attenuates sepsis induced myocardial injury by enhancing autophagy in mice	Sepsis-induced cardiomyopathy (Slc) 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	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 auto
January 01, 2020	Bovine HDL and Dual Domain HDL-Mimetic Peptides Inhibit Tumor Development in Mice	A growing body of literature supports the role of apolipoproteins present in HDL in the treatment of pro-inflammatory diseases including cancer.
January 01, 2020	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	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	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	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.
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	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	Abnormal Lysosomal Positioning and Small Extracellular Vesicle Secretion in Arterial Stiffening and Calcification of Mice Lacking Mucopolin 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	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 homeosta
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	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	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	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	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	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	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 preecla
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	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	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	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	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	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	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	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	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	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	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	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 athe
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	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 be
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	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	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	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	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	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	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	Biodegradable Nanofibrous Temperature-Responsive Gelling Microspheres for Heart Regeneration	Myocardial infarction (heart attack) is the number one killer of heart patients.
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	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	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	Isofraxidin Alleviates Myocardial Infarction Through NLRP3 Inflammasome Inhibition	Isofraxidin is a well-known coumarin compound refined from traditional Chinese medicines.
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	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	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	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	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	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	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	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	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	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	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	Sevoflurane Pre-conditioning Ameliorates Diabetic Myocardial Ischemia/Reperfusion Injury Via Differential Regulation of p38 and ERK	Diabetes mellitus (DM) significantly increases myocardial ischemia/reperfusion (M/I/R) injury.
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	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	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	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	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.
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	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	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	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	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	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	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	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	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	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	Mononuclear phagocyte system blockade improves therapeutic exosome delivery to the myocardium	Rationale: Exosomes are emerging as a promising drug delivery carrier.
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	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 domai
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	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 macrophages
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	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	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	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	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 myocytolysis
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	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	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	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	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	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	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	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
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 urgen
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	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
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	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 (O ₂) therapy in preterm infants impairs lung development, but the impact of O ₂ on long-term systemic vascular structure and functi
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	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	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	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	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	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	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 an
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	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	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	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	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	Isorhynchophylline enhances Nrf2 and inhibits MAPK pathway in cardiac hypertrophy	Isorhynchophylline (IRN) is one of the major tetracyclic oxindole alkaloids found in <i>Uncaria rhynchophylla</i> .
January 01, 2020	Protective effects of Pulsatilla chinensis Regel against isoproterenol-induced heart failure in mice	Objective: To study the cardioprotective effect of Baitouwen (<i>Pulsatilla chinensis</i> 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	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	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	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	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	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
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	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	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	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	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	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	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	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	LGZ696, 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	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	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	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
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	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	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	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	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 gr

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	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 with
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 mechani
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	Phosphorylation of GATA4 at serine 105 is required for left ventricular remodeling process in angiotensin II induced hypertension in rats	In this study, we investigated whether local intramyocardial GATA4 overexpression affects the left ventricular (LV) remodeling 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.
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	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.
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	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	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	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	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	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	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	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	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	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	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
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-1 α -NRF1-TFAM pathway is considered a novel potential therapeutic target to treat heart failure (HF).
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	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	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
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	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	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 ca

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	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	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	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.
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	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
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	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	Berberine Attenuates Cardiac Hypertrophy Through Inhibition of mTOR Signaling Pathway	Purpose: Berberine was reported to exert beneficial effects on cardiac hypertrophy.
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	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	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	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	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	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

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	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
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	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	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	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	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	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	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	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.
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	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	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 ris
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	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	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 Targetscan so
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	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
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.
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	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	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	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	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	Dexmedetomidine prevents septic myocardial dysfunction in rats via activation of α7nAChR and PI3K/Akt-mediated autophagy	Background and purpose: Dexmedetomidine (Dex) has been shown to elicit cardio-protective effects in sepsis.
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	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.
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

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.
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).
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 atherosclerosis
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	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	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	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	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	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 outcomes

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 diseases.
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.
October 01, 2019	Cardioprotection of (±)-sodium 5-bromo-2-(α-hydroxypropyl) benzoate (BZP) on mouse myocardium I/R injury through inhibiting 12/15-LOX-2 activity	(±)-Sodium 5-bromo-2-(α-hydroxypropyl) benzoate (brand name: brozopine, BZP, 1a), derived from L-3-n-butylphthalide (L-NBP), has been reported to protect
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	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	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.
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 cells
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.
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 cardiomyopathy.
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 (CHD).
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	Biaxial 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	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.
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
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	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	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.
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	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	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	Cardiomyocyte d-dopachrome tautomerase protects against heart failure	The mechanisms contributing to heart failure remain incompletely understood.

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	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	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.
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 apoptosi
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	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	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	Dexmedetomidine improves cardiac function and protects against maladaptive remodeling following myocardial infarction	Dexmedetomidine (DEX), a highly specific and selective α 2 adrenergic receptor agonist, has been demonstrated to possess potential cardioprotective eff
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	Cardioprotective Effect of Danhong Injection against Myocardial Infarction in Rats Is Critically Contributed by MicroRNAs	Background .
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	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
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	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	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	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	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	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	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	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	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	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	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 understood
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	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	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
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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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.
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	Targeting cardiac fibrosis with engineered T cells	Fibrosis is observed in nearly every form of myocardial disease1.
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	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	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	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 Trypanosoma cruzi infection, is an important public health problem attributable to progre
January 01, 2019	Chronic high dose testosterone treatment: impact on rat cardiac contractile biology	Androgen therapy provides cardiovascular benefits for hypogonadism.
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	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	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	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	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	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	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	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	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	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	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	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	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 dysfunction
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	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 comorbidity
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	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	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	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 infarction therapy.
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	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	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	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 H₂S 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.

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	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	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	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	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	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	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	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	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	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	Dual PPARα/γ activation inhibits SIRT1-PGC1α axis and causes cardiac dysfunction	Dual PPARα/γ agonists that were developed to target hyperlipidemia and hyperglycemia in patients with type 2 diabetes caused cardiac dysfunction or ot
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	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	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.
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.