

June 25, 2021	Improving characterization of hypertrophy-induced murine cardiac dysfunction using four-dimensional ultrasound derived strain mapping	Mouse models of cardiac disease have become essential tools in the study of pathological mechanisms, but the small size of rodents makes it challenging
June 04, 2021	Fast super-resolution ultrasound microvessel imaging using spatiotemporal data with deep fully convolutional neural network	Ultrasound localization microscopy (ULM) has been proposed to image microvasculature beyond the ultrasound diffraction limit.
March 25, 2021	Machine learning driven contouring of high-frequency four-dimensional cardiac ultrasound data	Automatic boundary detection of 4D ultrasound (4DUS) cardiac data is a promising yet challenging application at the intersection of machine learning a
January 18, 2021	Morphological, functional, and molecular assessment of breast cancer bone metastases by experimental ultrasound techniques compared with magnetic resonance imaging and histological analysis	Background: The imaging of bone metastases, which is regularly performed by cross-sectional modalities, is clinically vital when characterizing and st
November 03, 2020	Cysteine depletion induces pancreatic tumor ferroptosis in mice	Ferroptosis is a form of cell death that results from the catastrophic accumulation of lipid reactive oxygen species (ROS).
June 30, 2020	Uncoupling DNA damage from chromatin damage to detoxify doxorubicin	The anthracycline doxorubicin (Doxo) and its analogs daunorubicin (Daun), epirubicin (Epi), and idarubicin (Ida) have been cornerstones of anticancer
January 01, 2020	Commercial 4-dimensional echocardiography for murine heart volumetric evaluation after myocardial infarction	Background: Traditional preclinical echocardiography (ECHO) modalities, including 1-dimensional motion-mode (M-Mode) and 2-dimensional long axis (2D-U
January 01, 2020	Sex differences in the evolution of left ventricle remodeling in rats with severe volume overload	Background: Aortic valve regurgitation (AR) results in left ventricle (LV) volume overload (VO) leading to its dilation and hypertrophy (H).
January 01, 2020	World Trade Center-Cardiorespiratory and Vascular Dysfunction: Assessing the Phenotype and Metabolome of a Murine Particulate Matter Exposure Model	Vascular changes occur early in the development of obstructive airways disease.
January 01, 2020	Toward standardization of echocardiography for the evaluation of left ventricular function in adult rodents: a position paper of the ESC Working Group on Myocardial Function	Echocardiography is a reliable and reproducible method to assess non-invasively cardiac function in clinical and experimental research.
January 01, 2019	Three-dimensional myocardial strain correlates with murine left ventricular remodelling severity post-infarction	Heart failure continues to be a common and deadly sequela of myocardial infarction (MI).
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
January 01, 2013	Quantification of Murine Pancreatic Tumors by High-Resolution Ultrasound	Ultrasonography is a powerful imaging modality that enables non-invasive, real time visualization of abdominal organs and tissues.
November 02, 2021	IL4Rα signaling promotes neonatal cardiac regeneration and cardiomyocyte cell cycle activity	Neonatal heart regeneration depends on proliferation of pre-existing cardiomyocytes, yet the mechanisms driving regeneration and cardiomyocyte prolife

November 02, 2021	Pneumonia initiates a tauopathy	Pneumonia causes short- and long-term cognitive dysfunction in a high proportion of patients, although the mechanism(s) responsible for this effect are
November 02, 2021	3D-Printed Scaffolds Promote Angiogenesis by Recruiting Antigen-Specific T Cells	The immune response after implantation is a primary determinant of the tissue-repair effects of three-dimensional (3D)-printed scaffolds.
November 02, 2021	Doxorubicin induces wide-spread transcriptional changes in the myocardium of hearts distinguishing between mice with preserved and impaired cardiac function	Aims: Doxorubicin (DOX) is an important drug for the treatment of various tumor entities.
November 02, 2021	Atorvastatin treatment ameliorates cardiac function and remodeling induced by isoproterenol attack through mitigation of ferroptosis	Ferroptosis has been identified as an important role in damaged heart.
October 19, 2021	Accelerating the mdx heart histo-pathology through physical exercise	Chronic cardiac muscle inflammation and fibrosis are key features of Duchenne Muscular Dystrophy (DMD).
October 19, 2021	Loss of group ii metabotropic glutamate receptor signaling exacerbates hypertension in spontaneously hypertensive rats	High blood pressure is a major risk factor of cerebro-cardiovascular outcomes.
October 19, 2021	Selective blood-brain barrier permeabilization of brain metastases by a type 1 receptor-selective tumor necrosis factor mutein	Metastasis to the brain is a major challenge with poor prognosis.
October 19, 2021	Clusters of Ultrasound Scattering Parameters for the Classification of Steatotic and Normal Livers	The study of ultrasound tissue interactions in fatty livers has a long history with strong clinical potential for assessing steatosis.
October 19, 2021	Sex differences in the impact of parental obesity on offspring cardiac SIRT3 expression, mitochondrial efficiency, and diastolic function early in life	Previous studies suggest that parental obesity may adversely impact long-term metabolic health of the offspring.
October 19, 2021	Heart failure impairs mood and memory in male rats and down-regulates the expression of numerous genes important for synaptic plasticity in related brain regions	Chronic heart failure (HF) is a serious disorder that afflicts more than 26 million patients worldwide.
October 19, 2021	Potential for inhibition of checkpoint kinases 1/2 in pulmonary fibrosis and secondary pulmonary hypertension	Background: Idiopathic pulmonary fibrosis (IPF) is a chronic lung disease characterized by exuberant tissue remodelling and associated with high unmet
October 19, 2021	Disruption of MAP7D1 Gene Function Increases the Risk of Doxorubicin-Induced Cardiomyopathy and Heart Failure	Doxorubicin is a cornerstone chemotherapeutic drug widely used to treat various cancers; its dose-dependent cardiomyopathy, however, is one of the leading
October 19, 2021	Safety assessment of HEA-enriched Cordyceps cicadae mycelia on the central nervous system (CNS), cardiovascular system, and respiratory system in ICR male mice	Cordyceps cicadae, an entomopathogenic fungus, is a source of traditional Chinese medicine in China. Due to the low yield of wild C.
October 19, 2021	Combining sonodynamic therapy with chemoradiation for the treatment of pancreatic cancer	Treatment options for patients with pancreatic cancer are limited and survival prospects have barely changed over the past 4 decades.
October 18, 2021	Artesunate Attenuated the Progression of Abdominal Aortic Aneurysm in a Mouse Model	Background: The inflammatory reaction is an important mechanism of pathogenesis of abdominal aortic aneurysm (AAA).
October 18, 2021	Membrane composition is a functional determinant of NIR-activable liposomes in orthotopic head and neck cancer	Near-infrared (NIR)-activable liposomes containing photosensitizer (PS)-lipid conjugates are emerging as tunable, high-payload, and tumor-selective pl

October 18, 2021	Early inflammation precedes cardiac fibrosis and heart failure in desmoglein 2 murine model of arrhythmogenic cardiomyopathy	The study of a desmoglein 2 murine model of arrhythmogenic cardiomyopathy revealed cardiac inflammation as a key early event leading to fibrosis.
August 24, 2021	Differences in molecular phenotype in mouse and human hypertrophic cardiomyopathy	Hypertrophic cardiomyopathy (HCM) is characterized by phenotypic heterogeneity.
August 09, 2021	Iminodibenzyl redirected cyclooxygenase-2 catalyzed dihomoy-linolenic acid peroxidation pattern in lung cancer	Cyclooxygenase-2 (COX-2) is up-regulated by redox imbalance and is considered a target for cancer therapy.
August 09, 2021	Post-event application of neurotrophin protects against ischemic insult toward better outcomes in a murine model of subarachnoid hemorrhage	Early brain injury (EBI) is closely linked to the development of delayed cerebral ischemia and poor outcomes after aneurysmal subarachnoid hemorrhage
August 09, 2021	The sympathetic/beta-adrenergic pathway mediates irisin regulation of cardiac functions in zebrafish	Irisin is a 23 kDa myokine encoded in its precursor, fibronectin type III domain containing 5 (FNDC5).
August 09, 2021	Ultrasound-assisted C3F8-filled PLGA nanobubbles for enhanced FGF21 delivery and improved prophylactic treatment of diabetic cardiomyopathy	Diabetic cardiomyopathy (DCM) is a serious cardiac complication of diabetes that currently lacks specific treatment.
August 09, 2021	Beneficial effect of voluntary physical exercise in Plakophilin2 transgenic mice	Arrhythmogenic right ventricular cardiomyopathy is a hereditary, rare disease with an increased risk for sudden cardiac death.
August 09, 2021	Superiority of focused ion beam-scanning electron microscope tomography of cardiomyocytes over standard 2D analyses highlighted by unmasking mitochondrial heterogeneity	Background: Cardioprotection by preventing or repairing mitochondrial damage is an unmet therapeutic need.
July 07, 2021	Dimethyl fumarate preserves left ventricular infarct integrity following myocardial infarction via modulation of cardiac macrophage and fibroblast oxidative metabolism	Myocardial infarction (MI) is one of the leading causes of mortality and cardiovascular disease worldwide.
July 07, 2021	Molecular magnetic resonance imaging of Alpha-v-Beta-3 integrin expression in tumors with ultrasound microbubbles	Microbubbles (MB) are used as ultrasound (US) contrast agents and can be efficiently targeted against markers of angiogenesis and inflammation.
July 07, 2021	Metabolic remodeling precedes mTORC1-mediated cardiac hypertrophy	Rationale: The nutrient sensing mechanistic target of rapamycin complex 1 (mTORC1) and its primary inhibitor, tuberin (TSC2), are cues for the develop
June 28, 2021	Chronic stimulation of group II metabotropic glutamate receptors in the medulla oblongata attenuates hypertension development in spontaneously hypertensive rats	Baroreflex dysfunction is partly implicated in hypertension and one responsible region is the dorsal medulla oblongata including the nucleus tractus s
June 25, 2021	Histone H3K9 butyrylation is regulated by dietary fat and stress via an Acyl-CoA dehydrogenase short chain-dependent mechanism	Objective: We previously reported that β -oxidation enzymes are present in the nucleus in close proximity to transcriptionally active promoters.
June 25, 2021	Dietary protein source contributes to the risk of developing maternal syndrome in the Dahl salt-sensitive rat	Preeclampsia (PE) is a disorder of pregnancy, which is categorized by hypertension and proteinuria or signs of end-organ damage.
June 21, 2021	Bursting microbubbles: How nanobubble contrast agents can enable the future of medical ultrasound molecular imaging and image-guided therapy	The field of medical ultrasound has undergone a significant evolution since the development of microbubbles as contrast agents.

June 21, 2021	Barth syndrome-related cardiomyopathy is associated with a reduction in myocardial glucose oxidation	Heart failure presents as the leading cause of infant mortality in individuals with Barth syndrome (BTHS), a rare genetic disorder due to mutations in
June 10, 2021	Pharmacological and cell-specific genetic PI3Kα inhibition worsens cardiac remodeling after myocardial infarction	Background: PI3K α (Phosphoinositide 3-kinase α) regulates multiple downstream signaling pathways controlling cell survival, growth, and proliferation
June 10, 2021	Branched chain amino acids selectively promote cardiac growth at the end of the awake period	Essentially all biological processes fluctuate over the course of the day, manifesting as time-of-day-dependent variations with regards to the way in
June 10, 2021	FOSL1 promotes cholangiocarcinoma via transcriptional effectors that could be therapeutically targeted	Background & Aims: Cholangiocarcinoma (CCA) is a neoplasia of the biliary tract driven by genetic, epigenetic and transcriptional mechanisms.
June 09, 2021	Constitutive activation of ERK1/2 signaling protects against myocardial ischemia via inhibition of mitochondrial fragmentation in the aging heart	Background: Studies have shown that the ability of the myocardium to tolerate ischemia becomes significantly compromised with age.
June 09, 2021	Periplocymarin protects against myocardial fibrosis induced by β-adrenergic activation in mice	Periplocymarin is an effective component of Periplocae Cortex, which was widely used as an ingredient in Traditional Chinese Medicine.
June 07, 2021	Ultrasonography study of the skin wound healing process in gilthead seabream (<i>Sparus aurata</i>)	This work aimed to carry out an in vivo study of the skin healing process in gilthead seabream (<i>Sparus aurata</i>) after being experimentally wounded.
June 07, 2021	Three-dimensional visualization and improved quantification with super-resolution ultrasound imaging - Validation framework for analysis of microvascular morphology using a chicken embryo model	The purpose of this study was to improve the morphological analysis of microvascular networks depicted in three-dimensional (3D) super-resolution ultr
June 07, 2021	Fluid mechanics of the left atrial ligation chick embryonic model of hypoplastic left heart syndrome	Left atrial ligation (LAL) of the chick embryonic heart at HH21 is a model of the hypoplastic left heart syndrome (HLHS) disease, demonstrating morpho
June 07, 2021	FoxO1 inhibition alleviates type 2 diabetes-related diastolic dysfunction by increasing myocardial pyruvate dehydrogenase activity	Type 2 diabetes (T2D) increases the risk for diabetic cardiomyopathy and is characterized by diastolic dysfunction.
June 04, 2021	Cardiac Hypertrophy Changes Compartmentation of cAMP in Non-Raft Membrane Microdomains	3',5'-Cyclic adenosine monophosphate (cAMP) is a ubiquitous second messenger which plays critical roles in cardiac function and disease.
June 04, 2021	Measurement of total liver blood flow in intact anesthetized rats using ultrasound imaging	This short report describes the measurement of total liver blood flow in commonly used laboratory rats using the relatively non-invasive approach of u
June 04, 2021	Impact of obesity on day-night differences in cardiac metabolism	An intrinsic property of the heart is an ability to rapidly and coordinately adjust flux through metabolic pathways in response to physiologic stimuli
June 04, 2021	Segmental analysis by speckle-tracking echocardiography of the left ventricle response to isoproterenol in male and female mice	We studied by conventional and speckle-tracking echocardiography, the response of the left ventricle (LV) to a three-week continuous infusion of isopr

June 04, 2021	Effect of captopril on post-infarction remodelling visualized by light sheet microscopy and echocardiography	Angiotensin converting enzyme inhibitors, among them captopril, improve survival following myocardial infarction (MI).
May 28, 2021	Gai-biased apelin analog protects against isoproterenol-induced myocardial dysfunction in rats	Apelin receptor (APJ) activation by apelin-13 (APLN-13) engages both Gai proteins and b-arrestins, stimulating distinct intracellular pathways and tri
March 25, 2021	Aestivation motifs explain hypertension and muscle mass loss in mice with psoriatic skin barrier defect	Aim: Recent evidence suggests that arterial hypertension could be alternatively explained as a physiological adaptation response to water shortage, te
March 25, 2021	Angiotensin-II type 1 receptor mediates pulmonary hypertension and right ventricular remodeling induced by inhaled nicotine.	Use of electronic cigarettes is rapidly increasing among youth and young adults, but little is known regarding the long-term cardiopulmonary health im
March 25, 2021	Doppler ultrasound assessment of splanchnic perfusion and heart rate for the detection of necrotizing enterocolitis	Purpose Monitoring disease progression is crucial to improve the outcome of necrotizing enterocolitis (NEC).
March 25, 2021	Correlation of cardiac function and cerebral perfusion in a murine model of subarachnoid hemorrhage	Cerebral hypoperfusion is a key factor for determining the outcome after subarachnoid hemorrhage (SAH).
March 25, 2021	Functional Transdermal Nanoethosomes Enhance Photodynamic Therapy of Hypertrophic Scars via Self-Generating Oxygen	Photodynamic therapy (PDT) is a new therapeutic strategy for hypertrophic scars (HSs), and nanoethosomes (ES) have attracted considerable attention as
March 25, 2021	Sestrin2 is an endogenous antioxidant that improves contractile function in the heart during exposure to ischemia and reperfusion stress	Little research has been published on emotional responses evoked by completely new, innovative food products.
March 25, 2021	Calycosin attenuates doxorubicin-induced cardiotoxicity via autophagy regulation in zebrafish models	Anthracyclines are highly effective chemotherapeutics for antineoplastic treatment.
March 23, 2021	Activation of bone marrow adaptive immunity in type 2 diabetes: rescue by co-stimulation modulator Abatacept	HYPOTHESIS: Type 2 diabetes (T2D) is characterized by low-grade inflammation.
March 12, 2021	Adenylate kinase AK2 isoform integral in embryo and adult heart homeostasis	Adenylate kinase2 (AK2) catalyzes trans-compartmental nucleotide exchange, but the functional implications of this mitochondrial intermembrane isoform
March 12, 2021	Soluble epoxide hydrolase in aged female mice and human explanted hearts following ischemic injury	Myocardial infarction (MI) accounts for a significant proportion of death and morbidity in aged individuals.
March 08, 2021	Hydration State and Hyaluronidase Treatment Significantly Affect Porcine Vocal Fold Biomechanics	Objectives: The understanding of vocal fold hydration state, including dehydrated, euhydrated, rehydrated tissue, and how hydration affects vocal fold
March 08, 2021	Multiparametric ultrasound imaging for the assessment of normal versus steatotic livers	Liver disease is increasing in prevalence across the globe.
March 08, 2021	Identification and analysis of circulating long non-coding RNAs with high significance in diabetic cardiomyopathy	Diabetic cardiomyopathy (DCM) lacks diagnostic biomarkers.
March 08, 2021	Sonopermeation Enhances Uptake and Therapeutic Effect of Free and Encapsulated Cabazitaxel	Delivery of drugs and nanomedicines to tumors is often heterogeneous and insufficient and, thus, of limited efficacy.

March 01, 2021	Restoration of Cardiac Function After Myocardial Infarction by Long-Term Activation of the CNS Leptin-Melanocortin System	Heart failure has a high mortality rate, and current therapies offer limited benefits.
March 01, 2021	Animal Model Dependent Response to Pentagalloyl Glucose in Murine Abdominal Aortic Injury	Abdominal aortic aneurysms (AAAs) are a local dilation of the aorta and are associated with significant mortality due to rupture and treatment complic
March 01, 2021	Kv1.1 potassium channel subunit deficiency alters ventricular arrhythmia susceptibility, contractility, and repolarization	Epilepsy-associated Kv1.1 voltage-gated potassium channel subunits encoded by the Kcna1 gene have traditionally been considered absent in heart, but r
March 01, 2021	Subcutaneous Injection Performance in Yucatan Miniature Pigs with and without Human Hyaluronidase and Auto-injector Tolerability in Humans	Recombinant human hyaluronidase PH20 (rHuPH20) facilitates subcutaneous (SC) delivery of co-administered therapeutic agents by locally and transiently
March 01, 2021	Activation of EP4 receptor limits transition of acute to chronic heart failure in lipoxygenase deficient mice	Aim: Immune responsive 12/15 lipoxygenase (12/15LOX)-orchestrate biosynthesis of essential inflammation-resolution mediators during acute inflammatory
March 01, 2021	Digestive n-6 Lipid Oxidation, a Key Trigger of Vascular Dysfunction and Atherosclerosis in the Western Diet: Protective Effects of Apple Polyphenols	Scope: A main risk factor of atherosclerosis is a Western diet (WD) rich in n-6 polyunsaturated fatty acids (PUFAs) sensitive to oxidation.
March 01, 2021	Time-restricted feeding normalizes hyperinsulinemia to inhibit breast cancer in obese postmenopausal mouse models	Accumulating evidence indicates that obesity with its associated metabolic dysregulation, including hyperinsulinemia and aberrant circadian rhythms, i
March 01, 2021	Hemodynamic Assay of Hind Limb in Multiple Animal Models	Introduction: Measuring hemodynamic characteristics of injured limbs is paramount to early identification of potentially damaging ischemic conditions,
February 23, 2021	Ryanodine receptor remodeling in cardiomyopathy and muscular dystrophy caused by lamin A/C gene mutation	Mutations in the lamin A/C gene (LMNA), which encodes A-type lamins, cause several diseases called laminopathies, the most common of which is dilated
February 23, 2021	MiR-1929-3p Overexpression Alleviates Murine Cytomegalovirus-Induced Hypertensive Myocardial Remodeling by Suppressing Ednra/NLRP3 Inflammasome Activation	MicroRNAs (miRNAs) play crucial roles in the development of essential hypertension (EH).
February 23, 2021	Testicular quantitative ultrasound: A noninvasive monitoring method for evaluating spermatogenic function in busulfan-induced testicular injury mouse models	Busulfan-induced testicular injury mouse models are commonly used for experiments on spermatogonial stem cell transplantation, treatments for azoosper
February 23, 2021	VDAC1 in the diseased myocardium and the effect of VDAC1-interacting compound on atrial fibrosis induced by hyperaldosteronism	The voltage-dependent anion channel 1 (VDAC1) is a key player in mitochondrial function.
February 23, 2021	DUSP5 expression in left ventricular cardiomyocytes of young hearts regulates thyroid hormone (T3)-induced proliferative ERK1/2 signaling	Cardiomyocytes of newborn mice proliferate after injury or exposure to growth factors.
February 23, 2021	Stimulation of Sigma-1 Receptor Protects against Cardiac Fibrosis by Alleviating IRE1 Pathway and Autophagy Impairment	Sigma-1 receptor (Sig1R), a chaperone in the endoplasmic reticulum (ER) membrane, has been implicated in cardiac hypertrophy; however, its role in car

January 18, 2021	A novel mouse model of obstructive sleep apnea by bulking agent-induced tongue enlargement results in left ventricular contractile dysfunction	Aims Obstructive sleep apnea (OSA) is a widespread disease with high global socio-economic impact.
January 18, 2021	A surgical mouse model of neonatal pressure overload by transverse aortic constriction	Cardiac disease is the main cause of death worldwide.
January 18, 2021	A new implantable tool for repeated assessment of supraventricular electrophysiology and atrial fibrillation susceptibility in freely moving rats	The complex pathophysiology of atrial fibrillation (AF) is governed by multiple risk factors in ways that are still elusive.
January 14, 2021	A Novel Noninvasive Method for Quantitative Detection of Colonic Dysmotility Using Real-Time Ultrasonography	Introduction: Colonic motility disorders are a frequent clinical problem caused by various drugs and diseases.
January 14, 2021	Reduced reticulum-mitochondria Ca²⁺ transfer is an early and reversible trigger of mitochondrial dysfunctions in diabetic cardiomyopathy	Type 2 diabetic cardiomyopathy features Ca ²⁺ signaling abnormalities, notably an altered mitochondrial Ca ²⁺ handling.
January 04, 2021	Adenoviral Mediated Delivery of OSKM Factors Induces Partial Reprogramming of Mouse Cardiac Cells In Vivo	The induction of in vivo reprogramming toward pluripotency has been demonstrated in several tissues utilizing either transgenic inducible mice or gene
January 04, 2021	Novel Evidence Concerning Lacrimal Sac Movement Using Ultra-High-Frequency Ultrasound Examinations of Lacrimal Drainage Systems	PURPOSE: Current hypothesis regarding the mechanism of active tear drainage is based on studies performed ex vivo or under nonphysiological conditions
January 04, 2021	Early Gestational Exposure to Inhaled Ozone Impairs Maternal Uterine Artery and Cardiac Function	Exposure to air pollutants such as ozone (O ₃) is associated with adverse pregnancy outcomes, including higher incidence of gestational hypertension, p
January 04, 2021	Effects of Braiding Parameters on Tissue Engineered Vascular Graft Development	Tissue engineered vascular grafts (TEVGs) using scaffolds fabricated from braided poly(glycolic acid) (PGA) fibers coated with poly(glycerol sebacate)
January 04, 2021	Brachyury engineers cardiac repair competent stem cells	To optimize the regenerative proficiency of stem cells, a cardiopoietic protein-based cocktail consisting of multiple growth factors has been developed
January 04, 2021	Ultrasound-guided platelet-rich plasma injection and multimodality ultrasound examination of peripheral nerve crush injury	Ultrasound-guided platelet-rich plasma (PRP) injection is able to make up for the limitations of applying a single growth factor.
January 04, 2021	Bimodal Imaging-Visible Nanomedicine Integrating CXCR4 and VEGFa Genes Directs Synergistic Reendothelialization of Endothelial Progenitor Cells	A major challenge to treat vascular endothelial injury is the restoration of endothelium integrity in which endothelial progenitor cells (EPCs) plays
November 03, 2020	Aortic Stiffness and Diastolic Dysfunction in Sprague Dawley Rats Consuming Short-Term Fructose Plus High Salt Diet	Introduction: High fructose and salt consumption continues to be prevalent in western society.
November 03, 2020	SOD2 deficiency in cardiomyocytes defines defective mitochondrial bioenergetics as a cause of lethal dilated cardiomyopathy	Electrophilic aldehyde (4-hydroxynonenal; 4-HNE), formed after lipid peroxidation, is a mediator of mitochondrial dysfunction and implicated in both t
November 03, 2020	A tumbling magnetic microrobot system for biomedical applications	A microrobot system comprising an untethered tumbling magnetic microrobot, a two-degree-of-freedom rotating permanent magnet, and an ultrasound imager

November 03, 2020	Confirmation of the Cardioprotective Effect of MitoGamide in the Diabetic Heart	Purpose: HFpEF (heart failure with preserved ejection fraction) is a major consequence of diabetic cardiomyopathy with no effective treatments.
November 03, 2020	Evaluation of Hemodynamics in a Murine Hindlimb Ischemia Model Using Spatial Frequency Domain Imaging	Background and Objectives: Spatial frequency domain imaging (SFDI), an optical imaging technique capable of quantitatively measuring tissue hemodynamics
October 19, 2020	Impaired angiotensin II type 1 receptor signaling contributes to sepsis induced acute kidney injury.	Background: In sepsis-induced acute kidney injury (SI-AKI), renal blood flow (RBF) may be elevated despite decreased glomerular filtration.
October 19, 2020	A novel oral glucagon-like peptide 1 receptor agonist protects against diabetic cardiomyopathy via alleviating cardiac lipotoxicity induced mitochondria dysfunction	Diabetic cardiomyopathy is one of the major cardiovascular complications of diabetes mellitus associated with left ventricular diastolic dysfunction.
October 16, 2020	AAV9 gene transfer of cMyBPC N-terminal domains ameliorates cardiomyopathy in cMyBPC-deficient mice	Decreased cardiac myosin-binding protein C (cMyBPC) expression due to inheritable mutations is thought to contribute to the hypertrophic cardiomyopathy
October 16, 2020	Withaferin A attenuates ovarian cancer-induced cardiac cachexia	Cachexia is a common multifactorial syndrome in the advanced stages of cancer and accounts for approximately 20–30% of all cancer-related fatalities.
October 16, 2020	The ubiquitin ligase WWP1 contributes to shifts in matrix proteolytic profiles and a myocardial aging phenotype with diastolic heart	Ubiquitylation is a key event that regulates protein turnover, and induction of the ubiquitin ligase E3 WWP1 has been associated with age.
October 16, 2020	Ultrasound-Mediated Delivery of Chemotherapy into the Transgenic Adenocarcinoma of the Mouse Prostate Model	Ultrasound (US) in combination with microbubbles (MB) has had promising results in improving delivery of chemotherapeutic agents.
October 16, 2020	Long-Term Monitoring of Donor Xenogeneic Testis Tissue Grafts and Cell Implants in Recipient Mice Using Ultrasound Biomicroscopy	Testis tissue xenografting and testis cell aggregate implantation from various donor species into recipient mice are novel models for the study and ma
October 16, 2020	An inhibitor role of Nrf2 in the regulation of myocardial senescence and dysfunction after myocardial infarction	Cellular senescence, a process whereby cells enter a state of permanent growth arrest, appears to regulate cardiac pathological remodeling and dysfunc
October 16, 2020	Alcohol suppresses cardiovascular diurnal variations in male normotensive rats: Role of reduced PER2 expression and CYP2E1 hyperactivity in the heart	Background and aims: The molecular mechanism of the adverse effects of ethanol on diurnal cardiovascular regulation remains unknown.
October 16, 2020	Contrast-enhanced ultrasound imaging for assessing organ perfusion in rainbow trout (Oncorhynchus mykiss)	Contrast-enhanced ultrasound (CEUS) imaging has great potential as a non-lethal, inexpensive monitoring tool in aquatic toxicology.
September 09, 2020	Vascular contributions to 16p11.2 deletion autism syndrome modeled in mice	While the neuronal underpinnings of autism spectrum disorder (ASD) are being unraveled, vascular contributions to ASD remain elusive.
September 09, 2020	Targeting the eCIRP/TREM-1 Interaction with a Small Molecule Inhibitor Improves Cardiac Dysfunction in Neonatal Sepsis	Background: Neonatal sepsis and the associated myocardial dysfunction remain a leading cause of infant mortality.

September 09, 2020	Reduction of Polyunsaturated Fatty Acids with Tumor Progression in a Lean Non-Alcoholic Steatohepatitis-Associated Hepatocellular Carcinoma Mouse Model	Background and Aim: Non-alcoholic fatty liver disease (NAFLD) is the most common liver disease in Western countries.
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.
May 29, 2020	Thermodynamic interference with bile acid demicelleization reduces systemic entry and injury during cholestasis	Bile acids (BA), with their large hydrophobic steroid nucleus and polar groups are amphipathic molecules.
May 01, 2020	In Mice Subjected to Chronic Stress, Exogenous cBIN1 Preserves Calcium-Handling Machinery and Cardiac Function	Heart failure is an important, and growing, cause of morbidity and mortality.
May 01, 2020	Sestrin2 modulates cardiac inflammatory response through maintaining redox homeostasis during ischemia and reperfusion	Ischemia heart disease is the leading cause of death world-widely and has increased prevalence and exacerbated myocardial infarction with aging.
May 01, 2020	Activation of Oxytocin Neurons Improves Cardiac Function in a Pressure-Overload Model of Heart Failure	This work shows long-term restoration of the hypothalamic oxytocin (OXT) network preserves OXT release, reduces mortality, cardiac inflammation, fibro
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
April 01, 2020	Maresin Conjugates in Tissue Regeneration 1 Prevents Lipopolysaccharide-Induced Cardiac Dysfunction Through Improvement of Mitochondrial Biogenesis and Function	Mitochondrial dysfunction is increasingly considered as the center of pathophysiology in sepsis-induced cardiac dysfunction.
March 31, 2020	Empagliflozin Ameliorates Obesity-Related Cardiac Dysfunction by Regulating Sestrin2-Mediated AMPK-mTOR Signaling and Redox Homeostasis in High-Fat Induced Obese Mice	Sodium glucose co-transporter-2 inhibitors (SGLT2i) have favorable cardiovascular outcomes in diabetic patients.
March 30, 2020	EXPRESS: Echocardiographic markers of pulmonary hemodynamics and right ventricular hypertrophy in rat models of pulmonary hypertension	Echocardiography is the gold standard non-invasive technique to diagnose pulmonary hypertension (PH).
March 27, 2020	Ventricular remodeling in ischemic heart failure stratifies responders to stem cell therapy	Response to stem cell therapy in heart failure is heterogeneous, warranting a better understanding of outcome predictors.
March 01, 2020	Effects of external low intensity focused ultrasound on electrophysiological changes in vivo in a rodent model of common peroneal nerve injury	Non-invasive treatment methods for neuropathic pain are lacking.
March 01, 2020	Low Intensity Focused Ultrasound Modulation of Vincristine Induced Neuropathy	Previously, we showed internal low intensity focused ultrasound (lIFUS) improves nociceptive thresholds in rats with vincristine-induced neuropathy (V
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	Neurogranin regulates eNOS function and endothelial activation	Endothelial nitric oxide (NO) is a critical mediator of vascular function and vascular remodeling.

February 01, 2020	Macrophage-Derived Exosomal Mir-155 Regulating Cardiomyocyte Pyroptosis and Hypertrophy in Uremic Cardiomyopathy	miR-155 was synthesized and loaded into exosomes in increased infiltration of macrophages in a uremic heart.
February 01, 2020	Empagliflozin attenuates ischemia and reperfusion injury through LKB1/AMPK signaling pathway	The beneficial effects of empagliflozin (EMPA) on cardiac functions during ischemia and reperfusion were characterized.
February 01, 2020	Design and characterization of a porous pouch to prevent peritoneal adhesions during in vivo vascular graft maturation	Vein grafts for coronary artery bypass are not available in more than 30% of patients due to prior use or systemic vascular diseases.
February 01, 2020	Macrophage migration inhibitory factor increases atrial arrhythmogenesis through CD74 signaling	Macrophage migration inhibitory factor (MIF), a pleiotropic inflammatory cytokine, is highly expressed in patients with atrial fibrillation (AF).
February 01, 2020	Evaluation of the Crushed Sciatic Nerve and Denervated Muscle with Multimodality Ultrasound Techniques: An Animal Study	This study was aimed at evaluating the value of multimodality ultrasound techniques in the detection of crushed sciatic nerve and denervated muscle in
January 31, 2020	Nox2+ myeloid cells drive vascular inflammation and endothelial dysfunction in heart failure after myocardial infarction via angiotensin II receptor type 1	Aims: Heart failure (HF) ensuing myocardial infarction (MI) is characterized by the initiation of a systemic inflammatory response.
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	mTORC1 Deficiency Modifies Volume Homeostatic Responses to Dietary Sodium in a Sex-Specific Manner	Mechanistic target of rapamycin (mTOR) pathway plays a role in features common to both excess salt/aldosterone and cardiovascular/renal diseases.
January 01, 2020	Microenvironment stiffness requires decellularized cardiac extracellular matrix to promote heart regeneration in the neonatal mouse heart	The transient period of regeneration potential in the postnatal heart suggests molecular changes with maturation influence the cardiac response to dam
January 01, 2020	Loss of ADAMTS19 causes progressive non-syndromic heart valve disease	Valvular heart disease is observed in approximately 2% of the general population ¹ .
January 01, 2020	Protective role of cardiac-specific overexpression of caveolin-3 in cirrhotic cardiomyopathy	Cirrhotic cardiomyopathy is a clinical syndrome in patients with liver cirrhosis characterized by blunted cardiac contractile responses to stress and/
January 01, 2020	Photo-Electro Active Nanocomposite Silk Hydrogel for Spatiotemporal Controlled Release of Chemotherapeutics: An In Vivo Approach Towards Suppressing Solid Tumor Growth	Conventional systemic chemotherapeutic regimens suffer from challenges such as non-specificity, shorter half-life, clearance of drugs and dose-limitin
January 01, 2020	Heart-Specific Immune Responses in an Animal Model of AutoimmuneRelated Myocarditis Mitigated by an Immunoproteasome Inhibitor and Genetic Ablation	Background: Immune checkpoint inhibitor (ICI) therapy is often accompanied by immune-related pathology, with an increasing occurrence of high-risk ICI
January 01, 2020	Myo-inositol and D-Chiro-inositol oral supplementation ameliorate cardiac dysfunction and remodeling in a mouse model of diet-induced obesity	Obesity is an independent risk factor to develop cardiac functional and structural impairments.

January 01, 2020	Age and Sex Differences in Hearts of Soluble Epoxide Hydrolase Null Mice	Biological aging is an inevitable part of life that has intrigued individuals for millennia.
January 01, 2020	GLP-1 mediated diuresis and natriuresis are blunted in heart failure and restored by selective afferent renal denervation	BACKGROUND: Glucagon-like peptide-1 (GLP-1) induces diuresis and natriuresis.
January 01, 2020	Retinoid X receptor alpha is a spatiotemporally predominant therapeutic target for anthracycline-induced cardiotoxicity	To uncover the genetic basis of anthracycline-induced cardiotoxicity (AIC), we recently established a genetic suppressor screening strategy in zebrafish.
January 01, 2020	Loss of insulin signaling may contribute to atrial fibrillation and atrial electrical remodeling in type 1 diabetes	Atrial fibrillation (AF) is prevalent in diabetes mellitus (DM); however, the basis for this is unknown.
January 01, 2020	The phospholamban p.(Arg14del) pathogenic variant leads to cardiomyopathy with heart failure and is unresponsive to standard heart failure therapy	Phospholamban (PLN) plays a role in cardiomyocyte calcium handling as primary inhibitor of sarco/endoplasmic reticulum Ca ²⁺ -ATPase (SERCA).
January 01, 2020	Speckle Tracking Echocardiography: New Ways of Translational Approaches in Preeclampsia to Detect Cardiovascular Dysfunction	Several studies have shown that women with a preeclamptic pregnancy exhibit an increased risk of cardiovascular disease.
January 01, 2020	Transfer of a human gene variant associated with exceptional longevity improves cardiac function in obese type 2 diabetic mice through induction of the SDF 1/CXCR4 signalling pathway	Aims Homozygosity for a four-missense single-nucleotide polymorphism haplotype of the human BPIFB4 gene is enriched in long-living individuals.
January 01, 2020	Hydrogen sulfide stimulates xanthine oxidoreductase conversion to nitrite reductase and formation of NO	Cardiovascular disease is the leading cause of death and disability worldwide with increased oxidative stress and reduced NO bioavailability serving a
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	Ca²⁺/calmodulin-dependent protein kinase II is essential in hyperacute pressure overload	Background: Activation of Ca ²⁺ /calmodulin-dependent protein kinase II (CaMKII) is established as a central intracellular trigger for various cardiac p
January 01, 2020	Inhibition of urea transporter ameliorates uremic cardiomyopathy in chronic kidney disease	Uremic cardiomyopathy, characterized by hypertension, cardiac hypertrophy, and fibrosis, is a complication of chronic kidney disease (CKD).
January 01, 2020	Serelaxin Improves Regional Myocardial Function in Experimental Heart Failure: An In Vivo Cardiac Magnetic Resonance Study	Background: Animal studies demonstrated that serelaxin lessens fibrosis in heart failure.
January 01, 2020	Sirtuin 3 is essential for hypertension induced cardiac fibrosis via mediating pericyte transition	Hypertension is the key factor for the development of cardiac fibrosis and diastolic dysfunction.
January 01, 2020	Acute kidney injury promotes development of papillary renal cell adenoma and carcinoma from renal progenitor cells	Acute tissue injury causes DNA damage and repair processes involving increased cell mitosis and polyploidization, leading to cell function alterations
January 01, 2020	Delivering More of an Injectable Human Recombinant Collagen III Hydrogel Does Not Improve Its Therapeutic Efficacy for Treating Myocardial Infarction	Injectable hydrogels are a promising method to enhance repair in the heart after myocardial infarction (MI).
January 01, 2020	The mechanism of cancer drug addiction in ALK-positive T-Cell lymphoma	Rational new strategies are needed to treat tumors resistant to kinase inhibitors.

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	Regeneration of testis tissue after ectopic implantation of porcine testis cell aggregates in mice: Improved consistency of outcomes and in situ monitoring	Ectopic implantation of donor testis cell aggregates in recipient mice results in de novo formation or regeneration of testis tissue and, as such, pro
January 01, 2020	Interleukin 22 Directly Activates Myocardial STAT3 (Signal Transducer and Activator of Transcription 3) Signaling Pathway and Prevents Myocardial Ischemia Reperfusion Injury	BACKGROUND Interleukin (IL)-22, a member of the IL-10 cytokine family, is the only known cytokine that is secreted by immune cells but does not target
January 01, 2020	High-definition ultrasound characterization of acute cyclophosphamide-induced cystitis in the mouse	Purpose: To examine associations if any between changes in voiding function, hematuria, and bladder ultrasonography metrics in murine cyclophosphamide
January 01, 2020	Nck1, But Not Nck2, Mediates Disturbed Flow Induced p21 Activated Kinase Activation and Endothelial Permeability	BACKGROUND: Alteration in hemodynamic shear stress at atheroprone sites promotes endothelial paracellular pore formation and permeability.
January 01, 2020	Thrombospondin 1 mediates Drp 1 signaling following ischemia reperfusion in the aging heart	Background: Ischemia reperfusion (IR) injury leads to activation of dynamin-related protein (Drp-1), causing mitochondrial fission and generation of
January 01, 2020	Interference with ERK-dimerization at the nucleocytoplasmic interface targets pathological ERK1/2 signaling without cardiotoxic side-effects	Dysregulation of extracellular signal-regulated kinases (ERK1/2) is linked to several diseases including heart failure, genetic syndromes and cancer.
January 01, 2020	Detection of Lung Tumor Progression in Mice by Ultrasound Imaging	With ~1.6 million victims per year, lung cancer contributes tremendously to the worldwide burden of cancer.
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	REEP5 depletion causes sarco-endoplasmic reticulum vacuolization and cardiac functional defects	The sarco-endoplasmic reticulum (SR/ER) plays an important role in the development and progression of many heart diseases.
January 01, 2020	Molecular and Cellular Differences in Cardiac Repair of Male and Female Mice	BACKGROUND: Leukocyte- directed biosynthesis of specialized proresolving mediators (SPMs) orchestrates physiological in- flammation after myocardial i
January 01, 2020	Intermittent Use of a Short-Course Glucagon-like Peptide-1 Receptor Agonist Therapy Limits Adverse Cardiac Remodeling via Parkin-dependent Mitochondrial Turnover	Given that adverse remodeling is the leading cause of heart failure and death in the USA, there is an urgent unmet need to develop new methods in deal
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	Microengineered biosynthesized cellulose as anti-fibrotic in vivo protection for cardiac implantable electronic devices	Upon cardiac implantable electronic device (CIED) exchange, upgrade, or revision surgery patients are exposed to a considerable risk of adverse events

January 01, 2020	Activated Endothelial TGFβ1 Signaling Promotes Venous Thrombus Nonresolution in Mice Via Endothelin-1	RATIONALE: Chronic thromboembolic pulmonary hypertension (CTEPH) is characterized by defective thrombus resolution, pulmonary artery obstruction, and
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	2,4-dienoyl-CoA reductase regulates lipid homeostasis in treatment-resistant prostate cancer	Despite the clinical success of Androgen Receptor (AR)-targeted therapies, reactivation of AR signalling remains the main driver of castration-resista
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	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	Trophoblast-induced spiral artery remodelling and uteroplacental haemodynamics in pregnant rats with increased blood pressure induced by heme oxygenase inhibition	Introduction: The aim of the present study was to determine the contribution of the heme oxygenase (HO) system to the adaptation of the uteroplacental
January 01, 2020	CD105 is a prognostic marker and valid endothelial target for microbubble platforms in cholangiocarcinoma	Purpose: The current treatment outcomes in cholangiocarcinoma are poor with cure afforded only by surgical extirpation.
January 01, 2020	Stromal Modulation and Treatment of Metastatic Pancreatic Cancer with Local Intraperitoneal Triple miRNA/siRNA Nanotherapy	Nanomedicines achieve tumor-targeted delivery mainly through enhanced permeability and retention (EPR) effect following intravenous (IV) administratio
January 01, 2020	Endothelial Sirtuin 3 Dictates Glucose Transport to Cardiomyocyte and Sensitizes Pressure Overload Induced Heart Failure	BACKGROUND: Alterations of energetic metabolism are suggested to be an important contributor to pressure overload (PO)- induced heart failure.
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	ERBB2 drives YAP activation and EMT-like processes during cardiac regeneration	Cardiomyocyte (CM) loss after injury results in adverse remodelling and fibrosis, which inevitably lead to heart failure.
January 01, 2020	Urocortin 2 Gene Transfer Improves Heart Function in Aged Mice	Prevalence of left ventricular (LV) systolic and diastolic dysfunction increases with aging.
January 01, 2020	BOLD-MRI demonstrates acute placental and fetal organ hypoperfusion with fetal brain sparing in response to phenylephrine but not ephedrine	Introduction: We previously reported blood oxygen level dependent MRI (BOLD-MRI) for monitoring placental and fetal hemodynamic changes in mice follow
January 01, 2020	The Novel P2X7 Receptor PKT100 Improves Right Ventricular Function and Survival in Pulmonary Hypertension	Background: Pulmonary hypertension (PH) is a life-threatening disease.

January 01, 2020	EXPRESS: Biventricular diastolic dysfunction, thrombocytopenia and red blood cell macrocytosis in experimental pulmonary arterial hypertension	Pulmonary arterial hypertension (PAH) is a fatal disease, where death is associated with right heart failure and reduced cardiorespiratory reserve.
January 01, 2020	Cardiac, renal and uterine hemodynamics changes throughout pregnancy in rats with a prolonged high fat diet from an early age	OBJECTIVE: To examine whether the cardiac, renal and uterine physiological hemodynamic changes during gestation are altered in rats with an early and
January 01, 2020	Isolation Methods for Human CD34 Subsets Using Fluorescent and Magnetic Activated Cell Sorting: an In Vivo Comparative Study	Introduction: Acute myocardial infarction (AMI) and resulting cardiac damage and heart failure are leading causes of morbidity and mortality worldwide
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	Speckle-tracking echocardiography combined with imaging mass spectrometry assesses region-dependent alterations	Left ventricular (LV) contraction is characterized by shortening and thickening of longitudinal and circumferential fibres.
January 01, 2020	Long-term atorvastatin or the combination of atorvastatin and nicotinamide ameliorate insulin resistance and left ventricular diastolic dysfunction in a murine model of obesity	Current studies aimed at investigating the association between atorvastatin therapy and insulin resistance (IR) appear to be controversial.
January 01, 2020	Label-free photoacoustic and ultrasound imaging for murine atherosclerosis characterization	Dual-modality photoacoustic tomography (PAT) and 4D ultrasound (4DUS) imaging have shown promise for cardiovascular applications, but their use in mur
January 01, 2020	Structural, functional, and molecular impact on the cardiovascular system in ApoE^{-/-} mice exposed to aerosol from candidate modified risk tobacco products, Carbon Heated Tobacco Product 1.2 and Tobacco Heating System 2.2, compared with cigarette smoke	Aim: To investigate the molecular, structural, and functional impact of aerosols from candidate modified risk tobacco products (cMRTP), the Carbon Hea
January 01, 2020	An implantable system for long-term assessment of atrial fibrillation substrate in unanesthetized rats exposed to underlying pathological conditions	Atrial fibrillation (AF) is a progressive arrhythmia with underlying mechanisms that are not fully elucidated, partially due to lack of reliable and a
January 01, 2020	Clarithromycin inhibits autophagy in colorectal cancer by regulating the hERG1 potassium channel interaction with PI3K	We have studied how the macrolide antibiotic Clarithromycin (Cla) regulates autophagy, which sustains cell survival and resistance to chemotherapy in
January 01, 2020	Substrate metabolism regulated by Sestrin2–mTORC1 alleviates pressure overload-induced cardiac hypertrophy in aged heart	Sestrin2 (Sesn2) is a stress sensor for the mammalian target of rapamycin complex 1 (mTORC1) pathway.
January 01, 2020	Assessment of ICAM-1 N-glycoforms in mouse and human models of endothelial dysfunction	Endothelial dysfunction is a critical event in vascular inflammation characterized, in part, by elevated surface expression of adhesion molecules such
January 01, 2020	PRMT1 promotes neuroblastoma cell survival through ATF5	Aberrant expression of protein arginine methyltransferases (PRMTs) has been implicated in a number of cancers, making PRMTs potential therapeutic targ
January 01, 2020	Fluorescent Silica Nanoparticles to Label Metastatic Tumor Cells in Mineralized Bone Microenvironments	During breast cancer bone metastasis, tumor cells interact with bone microenvironment components including inorganic minerals.

January 01, 2020	Vascular KATP channels protect from cardiac dysfunction and preserve cardiac metabolism during endotoxemia	Abstract: KATP channels in the vasculature composed of Kir6.1 regulate vascular tone and may contribute to the pathogenesis of endotoxemia.
January 01, 2020	Ribonuclease 1 attenuates septic cardiomyopathy and cardiac apoptosis in a murine model of polymicrobial sepsis	Septic cardiomyopathy is a life-threatening organ dysfunction caused by sepsis.
November 01, 2019	Contribution of DNA methylation in chronic stress induced cardiac remodeling and arrhythmias in mice	It is recognized that stress can induce cardiac dysfunction, but the underlying mechanisms are not well understood.
November 01, 2019	Epilepsy-related and other causes of mortality in people with epilepsy: A systematic review of systematic reviews	Background: This systematic review of epilepsy mortality systematic reviews evaluates comparative risks, causes, and risk factors for all-cause mortal
October 01, 2019	N-Acetylcysteine prevents the decreases in cardiac collagen I/III ratio and systolic function in neonatal mice with prenatal alcohol exposure	Prenatal alcohol exposure (PAE) is often associated with congenital heart defects, most commonly septal, valvular, and great vessel defects.
October 01, 2019	Multifunctional magnetic hairbot for untethered osteogenesis, ultrasound contrast imaging and drug delivery	To explore novel materials graded for biological functions is one of the grand challenges and ambitions of robotics.
October 01, 2019	Impact of early life AT1 blockade on adult cardiac morpho-functional changes and the renin-angiotensin system in a model of neonatal high oxygen-induced cardiomyopathy	We previously reported that neonatal blockade of angiotensin II AT1 receptor prevents cardiac changes in 4 weeks rats with neonatal hyperoxia-induced
October 01, 2019	The Reduced Uterine Perfusion Pressure (RUPP) rat model of preeclampsia exhibits impaired systolic function and global longitudinal strain during pregnancy	Background: Preeclampsia (PE) is a disorder prevalent in 3–8% of pregnancies, characterized by hypertension, endothelial dysfunction and cardiac dysfu
October 01, 2019	TLR (Toll-Like Receptor) 4 Antagonism Prevents Left Ventricular Hypertrophy and Dysfunction Caused by Neonatal Hyperoxia Exposure in Rats	Preterm birth is associated with proinflammatory conditions and alterations in adult cardiac shape and function.
September 01, 2019	The cardioprotective effects of icariin on the isoprenaline-induced takotsubo-like rat model: Involvement of reactive oxygen species and the TLR4/NF-κB signaling pathway	Introduction: Takotsubo syndrome (TS) is an acute cardiac syndrome that mimics acute coronary syndrome (ACS) but lacks coronary obstruction and is ass
September 01, 2019	LMO2 Confers Synthetic Lethality to PARP Inhibition in DLBCL	Deficiency in DNA double-strand break (DSB) repair mechanisms has been widely exploited for the treatment of different malignances, including homologo
August 06, 2019	Mitochondrial transplantation ameliorates acute limb ischemia	Objective: Acute limb ischemia (ALI), the most challenging form of ischemia-reperfusion injury (IRI) in skeletal muscle tissue, leads to decreased ske
July 01, 2019	Accuracy of Ultrasound-Guided versus Landmark-Guided Intra-articular Injection for Rat Knee Joints	Abstract—Our aim was to test the effectiveness of ultrasound-guided intra-articular (IA) injection into the knee joint of rodents by an inexperienced
April 25, 2019	PM2.5-induced ADRB2 hypermethylation contributed to cardiac dysfunction through cardiomyocytes apoptosis via PI3K/Akt pathway	Background: Long-term exposure to fine particulate matter (PM2.5) can causally contribute to progression of atherosclerosis, risk of ischemic heart di

April 22, 2019	Strain Mapping From Four-Dimensional Ultrasound Reveals Complex Remodeling in Dissecting Murine Abdominal Aortic Aneurysms	Current in vivo abdominal aortic aneurysm (AAA) imaging approaches tend to focus on maximum diameter but do not measure three-dimensional (3D) vascula
March 21, 2019	Targeting NAD+ Metabolism as Interventions for Mitochondrial Disease	Leigh syndrome is a mitochondrial disease characterized by neurological disorders, metabolic abnormality and premature death.
February 01, 2019	Deficiency of IL12p40 (Interleukin 12 p40) Promotes Ang II (Angiotensin II)-Induced Abdominal Aortic Aneurysm	Objective—Abdominal aortic aneurysm is caused by the accumulation of inflammatory cells in the aortic wall.
January 28, 2019	A collagen hydrogel loaded with HDAC7-derived peptide promotes the regeneration of infarcted myocardium with functional improvement in a rodent model	Myocardial infarction (MI) leads to the loss of cardiomyocytes, left ventricle (LV) dilation, and cardiac dysfunction, eventually developing into hear
January 03, 2019	Abstract 2833: Epithelial cell adhesion molecule (EpCAM) is associated with prostate cancer progression and chemo-/radio-resistance in vitro and in vivo	Prostate cancer (CaP) is the most common cancer in males in Australia which caused more than 3000 deaths in 2015.
January 01, 2019	Augmenting canonical Wnt signalling in therapeutically inert cells converts them into therapeutically potent exosome factories	Cardiosphere-derived cells are therapeutic candidates with disease-modifying bioactivity, but their variable potency has complicated their clinical tr
January 01, 2019	Cardiac hypertrophy with obesity is augmented after pregnancy in C57BL/6 mice	Background: Over a third of reproductive-age women in the USA are obese, and the prevalence of cardiovascular disease (CVD) is rising in premenopausal
January 01, 2019	Murine model of left ventricular diastolic dysfunction and electro-mechanical uncoupling following high-fat diet	Background/Objectives: It is well established that obesity is an independent risk factor for cardiac death.
January 01, 2019	Towards Functional Mobile Microrobotic Systems	This paper presents our work over the last decade in developing functional microrobotic systems, which include wireless actuation of microrobots to tr
January 01, 2019	Reparative macrophage transplantation for myocardial repair: a refinement of bone marrow mononuclear cell-based therapy	Reparative macrophages play an important role in cardiac repair post-myocardial infarction (MI).
January 01, 2019	GHSR deficiency exacerbates cardiac fibrosis: role in macrophage inflammasome activation and myofibroblast differentiation	AIMS: Sustained activation of beta-adrenergic signaling induces cardiac fibrosis, which marks progression to heart failure.
January 01, 2019	T Cell-Derived IL-17A Induces Vascular Dysfunction via Perivascular Fibrosis Formation and Dysregulation of · NO/cGMP Signaling	Aims . The neutrophil recruiting cytokine Interleukin-17A (IL-17A) is a key component in vascular dysfunction and arterial hypertension.
January 01, 2019	Mouse Model of Thyroid Cancer Progression and Dedifferentiation Driven by STRN-ALK Expression and Loss of p53: Evidence for the Existence of Two Types of Poorly Differentiated Carcinoma	Thyroid tumor progression from well-differentiated cancer to poorly differentiated thyroid carcinoma (PDTc) and anaplastic thyroid carcinoma (ATC) inv
January 01, 2019	Non Invasive Ultrasound Quantification of Scar Tissue Volume Identifies Early Functional Changes During Tendon Healing	Tendon injuries are very common and disrupt the transmission of forces from muscle to bone, leading to impaired function and quality of life.

January 01, 2019	TNF-Induced Interstitial Lung Disease in a Murine Arthritis Model: Accumulation of Activated Monocytes, Conventional Dendritic Cells, and CD21 + /CD23 – B Cell Follicles Is Prevented with Anti-TNF Therapy	Type 1 diabetes mellitus is an autoimmune disease characterized by T cell-mediated destruction of the insulin-producing beta cells in the islets of La
January 01, 2019	Trimethoxystilbene Reduces Nuclear Factor Kappa B, Interleukin-6, and Tumor Necrosis Factor- α Levels in Rats with Pulmonary Artery Hypertension	Pulmonary artery hypertension is a refractory disease that severely affects cardiopulmonary function, mainly resulting in irreversible pulmonary vascu
January 01, 2019	PKG1-modified TSC2 regulates mTORC1 activity to counter adverse cardiac stress	The mechanistic target of rapamycin complex-1 (mTORC1) coordinates regulation of growth, metabolism, protein synthesis and autophagy1.
January 01, 2019	Resveratrol improves cardiac function by promoting M2-like polarization of macrophages in mice with myocardial infarction	Macrophage polarization determines the transition from the inflammation phase to the inflammation resolution phase after myocardial infarction (MI).
January 01, 2019	Exercise training upregulates Nrf2 protein in the rostral ventrolateral medulla of mice with heart failure	Chronic heart failure (CHF) is associated with global oxidative stress, which contributes to sympathoexcitation.
January 01, 2019	Sex-specific differences in endoplasmic reticulum aminopeptidase 1 modulation influence blood pressure and renin-angiotensin system responses	Salt sensitivity of blood pressure (SSBP) and hypertension are common, but the underlying mechanisms remain unclear.
January 01, 2019	Alpha calcitonin gene related peptide prevents pressure overload induced heart failure: role of apoptosis and oxidative stress	Alpha-calcitonin gene-related peptide (α -CGRP) is a 37-amino acid neuropeptide that plays an important protective role in modulating cardiovascular di
October 15, 2018	Size-dependent Tumor Response to Photodynamic Therapy and Irinotecan Monotherapies Revealed by Longitudinal Ultrasound Monitoring in an Orthotopic Pancreatic Cancer Model	Longitudinal monitoring of tumor size in vivo can provide important biological information about disease progression and treatment efficacy that is no
September 05, 2018	A preclinical ultrasound method for the assessment of vascular disease progression in murine models	Introduction: The efficacy of preclinical ultrasound at providing a quantitative assessment of mouse models of vascular disease is relatively unknown.
July 31, 2018	Comparative determination of placental perfusion by magnetic resonance imaging and contrast-enhanced ultrasound in a murine model of intrauterine growth restriction	Introduction: Exploration of placental perfusion is essential in screening for dysfunctions impairing fetal growth.
July 31, 2018	Immune response mediates cardiac dysfunction after traumatic brain injury	Cardiovascular complications are common after TBI and are associated with increased morbidity and mortality.
April 22, 2018	Cranial irradiation increases tumor growth in experimental breast cancer brain metastasis	© 2018 John Wiley & Sons, Ltd.
April 21, 2018	Nitric oxide-sensitive guanylyl cyclase stimulation improves experimental heart failure with preserved ejection fraction	Heart failure with preserved ejection fraction (HFpEF) can arise from cardiac and vascular remodeling processes following long-lasting hypertension.
April 20, 2018	Abstract 3109: Ultrasound-mediated delivery and distribution of polymeric nanoparticles in the normal brain parenchyma and melanoma metastases	The blood-brain barrier (BBB) prevents the passage of nearly all drugs into the brain, hindering brain cancer treatment.
April 20, 2018	Sinapultide-loaded lipid microbubbles and the stabilization effect of sinapultide on the shells of lipid microbubbles	Sinapultide-loaded lipid microbubbles were fabricated for ultrasound imaging, and the stabilization mechanism was investigated by molecular dynamics s
February 23, 2018	Astragalus Granule Prevents Ca²⁺ Current Remodeling in Heart Failure by the Downregulation of CaMKII	Background. Astragalus was broadly used for treating heart failure (HF) and arrhythmias in East Asia for thousands of years.

February 23, 2018	Primary Immunoprevention of Epithelial Ovarian Carcinoma by Vaccination against the Extracellular Domain of Anti-Müllerian Hormone Receptor II	Epithelial ovarian carcinoma (EOC) is the most prevalent form of ovarian cancer in the United States, representing approximately 85% of all cases and
February 23, 2018	Multitarget Effects of Danqi Pill on Global Gene Expression Changes in Myocardial Ischemia	Danqi pill (DQP) is a widely prescribed traditional Chinese medicine (TCM) in the treatment of cardiovascular diseases.
February 23, 2018	MicroRNA-378 enhances radiation response in ectopic and orthotopic implantation models of glioblastoma	Glioblastoma multiforme (GBM) is the most common and highly malignant primary brain tumor, which is virtually incurable due to its therapeutic resista
February 23, 2018	A New Murine Model of Chronic Kidney Disease-Mineral and Bone Disorder	Chronic kidney disease (CKD) is associated with mineral and bone disorder (MBD), which is the main cause of the extensively increased cardiovascular m
January 01, 2018	Optimal range of injection rates for a lymphatic drug delivery system	The lymphatic drug delivery system (LDDS) is a new technique that permits the injection of drugs into a sentinel lymph node (SLN) at an early stage of
November 20, 2017	Effects of Total Flavone from Rhododendron simsii Planch. Flower on Postischemic Cardiac Dysfunction and Cardiac Remodeling in Rats	This study investigated the effect of total flavone from Rhododendron simsii Planch.
March 07, 2017	Activation of E-prostanoid 3 receptor in macrophages facilitates cardiac healing after myocardial infarction	Two distinct monocyte (Mo)/macrophage (Mp) subsets (Ly6Clow and Ly6Chigh) orchestrate cardiac recovery process following myocardial infarction (MI).
March 07, 2017	Association of serum HMGB2 level with MACE at 1 mo of myocardial infarction: Aggravation of myocardial ischemic injury in rats by HMGB2 via ROS	High-mobility group box (HMGB) family is related to inflammatory diseases.
March 01, 2017	Endothelial Nox4-based NADPH oxidase regulates atherosclerosis via soluble epoxide hydrolase	Nox4-based NADPH oxidase is a major reactive oxygen species-generating enzyme in the vasculature, but its role in atherosclerosis remains controversia
March 01, 2017	Decreased WNT/β-catenin signalling contributes to the pathogenesis of dilated cardiomyopathy caused by mutations in the lamin a/C gene	Cardiomyopathy caused by lamin A/C gene (LMNA) mutations (hereafter referred as LMNA cardiomyopathy) is characterized by cardiac conduction abnormalit
January 01, 2016	Stretching reduces skin thickness and improves subcutaneous tissue mobility in a murine model of systemic sclerosis	OBJECTIVE Although physical therapy can help preserve mobility in patients with systemic sclerosis (SSc), stretching has not been used systematically
November 29, 2016	Local checkpoint inhibition of CTLA-4 as a monotherapy or in combination with anti-PD1 prevents the growth of murine bladder cancer	ABSTRACT Checkpoint blockade of CTLA-4 results in long-lasting survival benefits in metastatic cancer patients.
May 21, 2015	Evaluation of utero-placental and fetal hemodynamic parameters throughout gestation in pregnant mice using high-frequency ultrasound	Throughout gestation, changes in maternal and fetal Doppler parameters in pregnant mice, similar to those obtained in human fetuses, were detected usi
December 01, 2011	Feasibility of very-high resolution ultrasound to assess elastic and muscular arterial wall morphology in adolescents attending an outpatient clinic for obesity and lipid abnormalities	Objective: Atherosclerosis begins during early life and is accelerated in individuals with cardiovascular risk factors.

<p>March 01, 2011</p>	<p>Echocardiography in Mice.</p>	<p>Murine models have been utilized with increasing frequency mainly due to availability of genetically engineered models.</p>
<p>January 01, 2010</p>	<p>Assessment of vascular phenotype using a novel very-high-resolution ultrasound technique in adolescents after aortic coarctation repair and/or stent implantation: relationship to central haemodynamics and left ventricular mass</p>	<p>Objectives Coarctation of the aorta (CoA) has been associated with abnormal vascular function, increased blood pressure (BP) and premature cardiovascu</p>