

Anchor MicroLab References

Selected Papers

Blood flow/Microsphere Studies

SWINE

Intravenous infusion of mesenchymal stem cells enhances regional perfusion and improves ventricular function in a porcine model of myocardial infarction.

Basic Res Cardiol. 2008 Nov;103(6):525-36.

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Cardiothoracic Research Laboratory, Division of Cardiothoracic Surgery, Emory Crawford Long Hospital, 550 Peachtree Strret, NE, Atlanta, GA, 30308, USA.

Comparison of Transendocardial and retrograde coronary venous intramyocardial catheter delivery systems in healthy and infarcted pigs.

Catheter Cardiovasc Interv. 2006 Sep;68(3):416-23.

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Angiogenesis Research Center, Dartmouth Medical School, Hanover, NH, USA.

Hypercholesterolemia impairs the myocardial angiogenic response in a swine model of chronic ischemia: role of endostatin and oxidative stress.

Ann Thorac Surg. 2006 Feb;81(2):634-41.

Boodhwani M, Nakai Y, Mieno S, Voisine P, Bianchi C, Araujo EG, Feng J, Michael K, Li J, Sellke FW.

Division of Cardiothoracic Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts, USA.

Contrast-enhanced multidetector computed tomography viability imaging after myocardial infarction: characterization of myocyte death, microvascular obstruction, and chronic scar.

Circulation. 2006 Jan 24;113(3):394-404.

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Division of Cardiology, Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD 21205, USA. al@jhmi.edu

Augmentation of tissue perfusion by a novel compression device increases neurologically intact survival in a porcine model of prolonged cardiac arrest.

Resuscitation. 2006 Jan;68(1):109-18. Epub 2005 Dec 2.

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The efficacy of a 'master switch gene' HIF-1alpha in a porcine model of chronic myocardial ischaemia.

Eur Heart J. 2005 Jul;26(13):1327-32. Epub 2005 Apr 8.

Heinl-Green A, Radke PW, Munkonge FM, Frass O, Zhu J, Vincent K, Geddes DM, Alton EW.

Department of Gene Therapy, Faculty of Medicine, The National Heart and Lung Institute, Imperial College London, Manresa Road, London SW3 6LR, UK.

a.heinl-green@ic.ac.uk

Effects of intramyocardial pVEGF165 delivery on regional myocardial blood flow: evidence for a spatial 'delivery-efficacy' mismatch.

Gene Ther. 2004 Aug;11(16):1249-55.

Radke PW, Heinl-Green A, Frass OM, Griesenbach U, Ferrari S, Geddes DM, Alton EW.

Department of Gene Therapy, National Heart and Lung Institute, Faculty of Medicine, Imperial College London, UK.

Inhibition of the cardiac angiogenic response to exogenous vascular endothelial growth factor.

Surgery. 2004 Aug;136(2):407-15.

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Inhibition of the cardiac angiogenic response to surgical FGF-2 therapy in a Swine endothelial dysfunction model.

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flow/function and metabolic mechanisms.**

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Cardiovascular Research Institute, Department of Biology and Molecular
Medicine, University of Medicine and Dentistry of New Jersey-New Jersey
Medical School, PO Box 1709, 185 S Orange Ave (MSB G-609), Newark, NJ
07101-1709, USA. kimso@umdnj.edu

**Significant improvement of heart function by cotransplantation of
human mesenchymal stem cells and fetal cardiomyocytes in
postinfarcted pigs.**

Ann Thorac Surg. 2002 Nov;74(5):1568-75.

Comment in: *Ann Thorac Surg.* 2004 Mar;77(3):1133; author reply 1133-4.

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Stem Cell Research Laboratory, The Charles A. Dana Research Institute, Boston,
Massachusetts, USA.

**Effectiveness of transcranial and transthoracic ultrasound and
microbubbles in dissolving intravascular thrombi.**

J Ultrasound Med. 2001 Dec;20(12):1313-25; quiz 1326.

Porter TR, Kricsfeld D, Lof J, Everbach EC, Xie F.

Department of Internal Medicine, University of Nebraska Medical Center, Omaha
69198-1165, USA.

CANINE

**Intramyocardial VEGF-B167 gene delivery delays the progression
towards congestive failure in dogs with pacing-induced dilated
cardiomyopathy.**

Circ Res. 2010;106:1893-903.

Pepe M, Mamdani M, Zentilin L, Csiszar A, Qanud K, Zacchigna S, Zoltan
Ungvari Z, Puligadda U, Moimas S, Xu X, Edwards JG, Hintze TH, Giacca M,
Recchia FA.

**Retention and biodistribution of microspheres injected into ischemic
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J Biomed Mater Res A. 2008 Mar 11. [Epub ahead of print]

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Department of Bioengineering, University of Washington, Seattle, Washington 98195.

Effect of coronary stenosis on adjacent bed flow reserve: Assessment of microvascular mechanisms using myocardial contrast echocardiography.

Circulation. 2006 Oct 31;114(18):1940-7.

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J Cereb Blood Flow Metab. 2006 Feb 22; [Epub ahead of print]

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1Department of Neurological Surgery, Pediatric and Congenital Neurological Surgery, The Cleveland Clinic Foundation, Cleveland, Ohio, USA.

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Int J Cardiol. 2006 Mar 8;107(3):382-8.

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Influence of Acute Renal Failure on Coronary Vasoregulation in Dogs.

J Am Soc Nephrol. 2006 Apr 5; [Epub ahead of print]

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J Appl Physiol. 2003 Sep;95(3):1159-69. Epub 2003 May 16.

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Department of Population Health Sciences, The University of Wisconsin-Madison,
Wisconsin 53726, USA. joshua.r.rodman@dartmouth.edu

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Cardiovascular Research Institute, Department of Medicine, Allegheny General Hospital, Pittsburgh, Pa 15212, USA.

Nitric oxide synthase inhibitors decrease coronary sinus-free radical concentration and ameliorate myocardial stunning in an ischemia-reperfusion model.

J Am Coll Cardiol. 2001 Aug;38(2):546-54.

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RABBIT

pO₂ and regional blood flow in a rabbit model of limb ischemia.

Physiol Meas. 2004 Jun;25(3):659-70.

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EPR Center for the Study of Viable Systems, Dartmouth Medical School,
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Angiogenic synergism, vascular stability and improvement of hind-limb ischemia by a combination of PDGF-BB and FGF-2.

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Karolinska Institutet, Stockholm, Sweden.

RAT

Acute exercise causes an enhancement of tissue renin-angiotensin system in the kidney in rats.

Acta Physiol Scand. 2005 Sep;185(1):79-86.

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Center for Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Tsukuba, Ibaraki, Japan. smaeda@tara.tsukuba.ac.jp.

Endothelin receptor antagonist reverses decreased NO system in the kidney in vivo during exercise.

Am J Physiol Endocrinol Metab. 2004 Apr;286(4):E609-14. Epub 2003 Dec 9.

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Center for Tsukuba Advanced Research Alliance, Institute of Health and Sport Sciences, University of Tsukuba, Tsukuba, Ibaraki 305-8577, Japan.

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Angiogenic signal triggered by ischemic stress induces myocardial repair in rat during chronic infarction.

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Molecular Cardiology Laboratory, University of Connecticut Medical School, Farmington, Connecticut 06030, USA.

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Circulation. 2004 Aug 17;110(7):796-802. Epub 2004 Aug 9.

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Department of Anatomy and Cell Biology, University of Iowa Carver College of Medicine, Iowa City, IA 52242, USA.

Anti-inflammatory effects of angiotensin II AT1 receptor antagonism prevent stress-induced gastric injury.

Am J Physiol Gastrointest Liver Physiol. 2003 Aug;285(2):G414-23. Epub 2003 Apr 9.

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Section on Pharmacology, National Institute of Mental Health, National Institute of Health, Department of Health and Human Services, Bethesda, MD 20892, USA. BregonzC@intr.nimh.nih.gov

Enhanced myocardial angiogenesis by gene transfer with transplanted cells.

Circulation. 2001 Sep 18;104(12 Suppl 1):I218-22.

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Division of Cardiovascular Surgery, Toronto General Hospital, University Health Network, Department of Surgery, University of Toronto, Toronto, Ontario, Canada. terry.yau@utoronto.ca

MOUSE

Endothelial nitric oxide synthase is protective in the initiation of caerulein-induced acute pancreatitis in mice.

Am J Physiol Gastrointest Liver Physiol. 2004 Jul;287(1):G80-7. Epub 2004 Feb 12.

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Department of Internal Medicine, Division of Gastroenterology, The University of Michigan Medical School, 1500 E. Medical Center Drive, 3912 Taubman Center, Ann Arbor, MI 48109-0362, USA. mdimagno@umich.edu

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Proc Natl Acad Sci U S A. 2000 Sep 12;97(19):10442-7.

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EQUINE

Intrapulmonary arteriovenous shunts of >15 microm in diameter probably do not contribute to arterial hypoxemia in maximally exercising Thoroughbred horses.

J Appl Physiol. 2005 Jul;99(1):224-9. Epub 2005 Mar 17.

Manohar M, Goetz TE.

Department of Veterinary Biosciences, College of Veterinary Medicine, University of Illinois at Urbana-Champaign, Urbana, IL 61802, USA. mmanohar@uiuc.edu

PRIMATE

A comparison of two progestins on myocardial ischemia-reperfusion injury in ovariectomized monkeys receiving estrogen therapy.

Coron Artery Dis. 2005 Aug;16(5):301-8.

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Comparison of neutron activated and radiolabeled microsphere methods for measurement of transmural myocardial blood flow in dogs.

J Thromb Thrombolysis. 2005 Jun; 19(3):201-8.

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Institut Universitaire de Cardiologie et Pneumologie, Department of Medicine, Laval University, Quebec City, Quebec, G1K 7P4. john.kingma@med.ulaval.ca

Stable labeled microspheres to measure perfusion: validation of a neutron activation assay technique.

Am J Physiol Heart Circ Physiol. 2001 Jan; 280(1): H108-16.

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Myocardial Isotope Research Laboratory and Division of Cardiology, Department of Radiology and Medicine, University of Massachusetts Medical Center, Worcester, Massachusetts 01606, USA. BioPAL@mx1.pair.com

Validation of real-time continuous perfusion measurement.

Med Biol Eng Comput. 2000 May;38(3):319-25.

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Thermal Technologies, Inc. Cambridge, MA, USA. gmartin@thermaltechinc.com

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Evaluation of high-pressure retrograde coronary venous delivery of FGF-2 protein.

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Stanford, California 94305, USA. wfearon@stanford.edu

**Hepatocyte asialoglycoprotein receptor assay using stable isotopes
and neutron activation analysis**

Clin Chem. 2000 Sep;46(9):1519-21.
Groman EV, Reinhardt CP.
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Freyman T, Polin G, Osman H, Crary J, Lu M, Cheng L, Palasis M, Wilensky RL.
Boston Scientific Corporation, Natick, MA, USA.

**Safety and feasibility of percutaneous autologous skeletal myoblast
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Gahremanpour A, Diethrich EB, Opie SR.
J Pharmacol Toxicol Methods. 2006 Feb 1; [Epub ahead of print]
Arizona Heart Institute, Phoenix, AZ, USA; Arizona State University, Tempe,
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Injection Monitoring Technology

Method to quantify tail vein injection technique in small animals.

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Incomplete retention after direct myocardial injection.

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Division of Cardiology, Department of Internal Medicine, University of Michigan
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Renal Technology

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Division of Renal Medicine, Department of Medicine, University of
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MRI Technology

Drug elimination kinetics following subconjunctival injection using dynamic contrast-enhanced magnetic resonance imaging.

Pharmaceutical Research 2007.

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