



Peer Reviewed Publications Utilizing The MouseOx™ Pulse Oximeter

Total Publications = 101 as of January 2011

Summary of Publications:

I.	Influenza, Pneumonia, RSV & Other Acute Respiratory Disorders	(3 Publications)
II.	Lung Injury & Mechanical Ventilation	(17 Publications)
III.	Lung Cancer, COPD, Sleep Apnea & Other Chronic Respiratory Disorders	(9 Publications)
IV.	Shock Models	(1 Publication)
V.	Stroke & Brain Injury	(11 Publications)
VI.	Hypertension, Hypotension & Other Cardiovascular Disorders	(8 Publication)
VII.	Hypoxia & Inhalation Studies	(11 Publications)
VIII.	Vital Signs Monitoring During Imaging	(21 Publications)
IX.	Vital Signs Monitoring During Surgery & Experiments Requiring Anesthesia	(18 Publications)
X.	Pharmacology & Toxicology	(2 Publications)

Publication Abstracts & Internet Links:

I. Influenza, Pneumonia, RSV & Other Acute Respiratory Disorders

[Pulse-oximetry accurately predicts lung pathology and the immune response during influenza infection](#)

- ► [Virology](#). 2009 Jun 1.

[Verhoeven D](#), [Teijaro JR](#), [Farber DL](#). Department of Surgery, University of Maryland School of Medicine, Baltimore, MD 21210, USA.

In animal models of influenza, systemic weight loss is the primary indicator of morbidity from infection, which does not assess local lung pathology or the immune response. Here, we used a mouse-adapted pulse-oximeter as a non-invasive clinical readout of lung function during influenza infection in mice, and found direct correlations between oxygen saturation levels and lung pathology, that reflected the morbidity and survival from influenza infection. **We found blood oxygen levels to be a more accurate assessment than weight-loss morbidity in predicting lung pathology in hosts infected with different viral doses, and in assessing immune-mediated viral clearance in the lung.**

[Post-infection A77-1726 blocks pathophysiologic sequelae of respiratory syncytial virus infection](#)

- ► [ajrcmb.org](#)

IC Davis, ER Lazarowski, FP Chen, JM Hickman-Davis ... - American Journal of Respiratory Cell and Molecular Biology, 2007 - Am Thoracic Soc

... Peripheral Blood Arterial Oxygen Saturation Sp O 2 was measured in conscious mice using the MouseOx system (Starr Life Sciences Corp., Allison Park, PA), in ...

[Cited by 6](#) - [Related articles](#) - [Web Search](#) - [BL Direct](#) - [All 4 versions](#)

[Low Dose Arsenic Compromises the Immune Response to Influenza A Infection in vivo](#)

CD Kozul, KH Ely, RI Enelow, JW Hamilton - [ehponline.org](#)

... SpO 2 was measured using the MouseOx system (Starr Life Sciences Corp., Allison Park, PA) according to manufacturer's protocol. ...

[View as HTML](#) - [Web Search](#)

Because an increased severity of influenza infection often correlates with a decrease in SpO₂, we measured the oxygen saturation levels in infected control and As-exposed conscious mice at day 7 p.i. **The As-exposed mice displayed a significant decrease in SpO₂ levels compared with control mice (Figure 3D). The average SpO₂ reading for the control mice infected with influenza was 95.2% (range, 93–97.5%), and the average SpO₂ reading for As-exposed mice infected with influenza was 82.9% (range, 75–90%). Three of the six As-exposed mice had SpO₂ readings considered to be dangerously low (i.e., ≤ 80%).**

II. Lung Injury & Mechanical Ventilation

[Effects of Ethanol on Pulmonary Inflammation in Postburn Intratracheal Infection.](#)

- ► burncareresearch.org

EL Murdoch, HG Brown, RL Gamelli, EJ Kovacs - Journal of Burn Care & Research, 2008 - burncareresearch.org

... We used a murine pulse oximeter (MouseOx, STARR Life Science Corp., Allison Park, PA), which allowed us to perform this noninvasive procedure on unanesthetized ...

[Cited by 2](#) - [Related articles](#) - [Cached](#) - [Web Search](#) - [BL Direct](#) - [All 3 versions](#)

Infectious complications are a major cause of mortality in trauma patients. Burn patients with prior ethanol exposure have a worse prognosis than those who sustain injury but had not been drinking. We examined pulmonary infection and lung pathology in mice given ethanol (1.2 g/kg) 30 minutes before being subjected to 13 to 15% total body surface area scald burn followed by intratracheal inoculation with *Pseudomonas aeruginosa* ($1\text{-}2 \times 10^3$ colony-forming units [CFUs]). Survival was monitored for up to 48 hours. Sham control groups had 100% survival after intratracheal infection regardless of ethanol exposure. Infected burned animals had 55% survival; however, survival of infected mice exposed to ethanol and burn injury was significantly lower (27%, $P < .0001$). When pulmonary infection was evaluated, the lungs of sham groups were negative for bacterial colonies. In addition, at 24 hours there were no significant differences in lung CFUs from infected burned animals regardless of ethanol exposure (3.0×10^4). However, pulmonary bacterial content significantly decreased (1.2×10^5 , $P < .02$) at 48 hours in mice given burn injury alone, where CFUs from the lungs of mice exposed to ethanol prior to burn did not decline (5.4×10^5). **At the same time point, lungs from animals given ethanol and burn injury had about a 2-fold ($P < .02$) increase in leukocyte infiltration and vascular congestion, as well as decreased pulmonary oxygen saturation (82.8%, $P < .02$),** when compared with other treatment groups. In summary, ethanol exposure in postburn intratracheal infection results in the inability to clear pulmonary infection marked by a prolonged pulmonary leukocyte accumulation and a decrease in pulmonary function.

[Therapeutic effects of hypercapnia on chronic lung injury and vascular remodeling in neonatal rats](#)

A Masood, M Yi, M Lau, R Belcastro, S ... - American Journal of ..., 2009 - Am Physiological Soc ... clinical analyzer (Abbott Diagnostics, Abbott Park, IL). Effects of anesthesia on heart and respiratory rates were assessed using a tail sensor pulse oximeter (**MouseOx**; **STARR Life Sciences**, Oakmont, PA). Immunohistochemistry. ...

[Cited by 1](#) - [Related articles](#) - [All 5 versions](#)

[Transfusion-related acute lung injury](#)

CA Sheppard, LE Lögberg, JC Zimring, CD Hillyer - Hematology/oncology clinics of North America, 2007 - Elsevier

... Application of new tools, such as the recently marketed mouse pulse oximeter (MouseOx, Starr Life Sciences Corp., Allison Park, PA), may facilitate a ...

[Cited by 9](#) - [Related articles](#) - [Web Search](#) - [All 6 versions](#)

[Comparison of the effect of LPS and PAM3 on ventilated lungs](#)

H Hauber, D Karp, T Goldmann, E ... - BMC Pulmonary ..., 2010 - biomedcentral.com
 ... computer-controlled small animal ventilator. Oxygen saturation and pulse rate were monitored using the **MouseOx** oximeter (**Starr Life Science**, Pittsburgh, PA). The sensor was placed on the back leg along the leg axis. The mice were covered throughout the experiments ...

[Effect of low tidal volume ventilation on lung function and inflammation in mice](#)

HP Hauber, D Karp, T Goldmann, E ... - BMC Pulmonary ..., 2010 - biomedcentral.com
 ... Oxygen saturation and pulse rate were monitored using the **MouseOx** oximeter (**Starr Life Science**, Pittsburgh, PA). The sensor was placed on the back leg along the leg axis. The mice were covered throughout the experiments to maintain body temperature. Protocols. ...

[Lung volume recruitment maneuvers and respiratory system mechanics in mechanically ventilated mice](#)

V Cannizzaro, LJ Berry, PK Nicholls, GR Zosky, ... - Respiratory physiology ..., 2009 - Elsevier
 ... Heart rate and transcutaneous oxygen saturation were monitored via a small animal pulse oximeter (**MouseOx™**, **STARR Life Sciences Corporation™**, Oakmont, PA, USA) by placing the non-invasive sensor on the tail. 2.2. Measurement of respiratory system mechanics. ...

[Cited by 1](#) - [All 3 versions](#)

[Chronic hypercapnia alters lung matrix composition in mouse pups](#)

J Ryu, GP Heldt, M Nguyen, O ... - Journal of Applied ..., 2010 - Am Physiological Soc
 ... on 120 unrestrained un-anaesthetized mice either in room air or in the hypercapnia chamber using the 121 **MouseOx** system (**Starr Life Sciences Corp**, Oakmont, PA) as per manufacture's instruction. 122 Data was collected ...

[RESPIRATORY MECHANICS IN INFANT AND ADULT MICE MODELLING VENTILATOR-INDUCED LUNG INJURY](#)

V CANNIZZARO - phd.szote.u-szeged.hu
 ... PEEP=2 cmH2O. Heart rate and transcutaneous oxygen saturation were monitored via a small animal pulse oximeter (MouseOx™, **STARR Life Sciences Corporation™**, Oakmont PA, USA) by placing the non-invasive sensor on the tail. Animals were then ...

[Related articles](#) - [View as HTML](#) - [All 3 versions](#)

[Transplantation of Human Embryonic Stem Cell–Derived Alveolar Epithelial Type II Cells Abrogates Acute Lung Injury in Mice](#)

D Wang, JE Morales, DG Calame, JL Alcorn, RA ... - Molecular ..., 2010 - nature.com
 ... (b) Shown graphically are the blood arterial oxygen saturation levels recorded on days 4, 7, and 10 after BLM-challenge using a small rodent oximeter sensor mounted on the thigh of each mouse (Mouse OX ; **STARR Life Sciences**) as described in Materials and Methods. ...

[Cited by 1](#) - [Related articles](#) - [All 4 versions](#)

[Toll-like Receptor 4-Myeloid Differentiation Factor 88 Signaling Contributes to Ventilator-induced Lung Injury in Mice](#)

H Li, X Su, X Yan, K Wasserloos, W Chao... - ..., 2010 - journals.lww.com

... The oxygen saturation and heart rate in the anesthetized mice were continuously monitored with MouseOx (**Starr Life Science Corp.**, Oakmont, PA) and maintained within physiologic range with supplement of oxygen and intraperitoneal administration of glycopyrrolate (0.01 µg ...

[Related articles](#) - [All 5 versions](#)

[Simvastatin attenuates ventilator-induced lung injury in mice](#)

H Muller, K Hellwig, S Rosseau, T Tschernig... - Critical ..., 2010 - biomedcentral.com

Page 1. RESEARCH Open Access Simvastatin attenuates ventilator-induced lung injury in mice Holger C Müller^{1*}, Katharina Hellwig¹, Simone Rosseau¹, Thomas Tschernig², Andreas Schmiedl³, Birgitt Gutbier¹, Bernd Schreck¹ ...

[Cited by 2](#) - [Related articles](#) - [View as HTML](#) - [All 8 versions](#)

[Inducible disruption of autophagy in the lung causes airway hyper-responsiveness](#)

D Inoue, H Kubo, K Taguchi, T Suzuki... - Biochemical and ..., 2010 - Elsevier

... The weight of the male micewasmeasured every four weeks for 16 weeks, after starting doxycycline treatment. Oxygen saturation (SpO₂) was measured by pulse oxymetry, the Mouse Oxsystem (**Starr Life Science Corp.**). Mice ...

[High tidal volume ventilation is not deleterious in infant rats exposed to severe hemorrhage](#)
[Short title: High tidal ventilation after severe ...](#)

V Cannizzaro, LJ Berry, PK Nicholls... - 2010 - researchrepository.murdoch.edu.au

... 90/min, VT of ~ 7 mL/kg, and PEEP 3 cmH₂O. Heart rate and transcutaneous oxygen saturation (StcO₂) were monitored via oximeter (MouseOx TM , **STARR Life Sciences Corporation** TM , Oakmont PA, USA) by placing a non-invasive sensor on the tail. ...

[View as HTML](#)

[High Tidal Volume Ventilation Is not Deleterious in Infant Rats Exposed to Severe Hemorrhage](#)

V Cannizzaro, LJ Berry, PK Nicholls... - The Journal of ..., 2010 - pdfs.journals.lww.com

... 3 cm H₂O. Heart rate and transcutaneous oxygen saturation (StcO₂) were monitored via oximeter (MouseOx; **STARR Life Sciences Corp.**, Oakmont, PA) by placing a noninvasive sensor on the tail. Measurement of Respiratory ...

[Related articles](#) - [All 5 versions](#)

[Pulmonary Surfactant Surface Tension Influences Alveolar Capillary Shape and Oxygenation](#)

M Ikegami, TE Weaver, SN Grant... - American journal of ..., 2009 - ncbi.nlm.nih.gov

... Oxygen Saturation. Sequential measurements of percent oxygen saturation of arterial hemoglobin (Sp O₂) were made in room air by using a small-animal pulse oximeter (MouseOx; **Starr Life Sciences Corp.**, Allison Park, PA) according to the manufacturer's instructions. ...

[Cited by 1](#) - [Related articles](#) - [All 4 versions](#)

MITIGATION OF CHLORINE GAS LUNG INJURY IN RATS BY POST EXPOSURE ADMINISTRATION OF SODIUM NITRITE

AK Yadav, SF Doran, AA Samal... - American Journal of ..., 2010 - Am Physiological Soc

... Peripheral oxygen saturations were measured with a MouseOx Small Animal Oxymeter (**STARR Life Sciences**, Allison Park, PA) connected to a personal computer equipped with analysis software. ... C and D= Peripheral Oxygen Saturations (**STARR Life Corp** MouseOx Small ...

Pre-Exposure to Hyperoxia Causes Increased Lung Injury and Epithelial Apoptosis in Mice Ventilated with High Tidal Volumes

PS Makena, CL Luellen, L Balazs... - American Journal of ..., 2010 - Am Physiological Soc

[Related articles](#) - [All 2 versions](#)

III. Lung Cancer, COPD, Sleep Apnea & Other Chronic Respiratory Disorders

Non-invasive diagnosis of early pulmonary disease in PECAM-deficient mice using infrared ...

MA Early, M Lishnevsky, JM Gilchrist, DM ... - Experimental and Molecular Pathology, 2009 - Elsevier ... Pulse oximetry. This study used the MouseOx system (Starr Life Sciences, Oakmont, PA). Conscious (non-anesthetized) mice were used in all studies. ...

Pulse oximetry is a common tool for detecting reduced pulmonary function in human interstitial lung diseases. It has not previously been used in a mouse model of interstitial lung disease. Further, platelet endothelial cell adhesion molecule deficient mice rarely show symptoms until disease is advanced.

Using blood oxygen saturation, different stages of disease could be identified in a non-invasive manner. These stages could be correlated to pathology. Collagen deposition, using Picrosirius Red, did correlate with blood oxygen saturation. **These studies are the first to show the use of an infrared pulse oximetry system to analyze the progression of a fibrotic interstitial lung disease in a mouse model of the human diseases. Further, these studies show that an early alveolar damage/enlargement event precedes the fibrosis in this mouse model, a stage that represents the best targets for disease analysis and prevention.** This stage does not have extensive collagen deposition. Most importantly, targeting this earliest stage of disease for therapeutic intervention may lead to novel treatment for human disease.

Aerosolized Phosphoinositide 3-Kinase γ/δ Inhibitor TG100-115 as a Therapeutic Candidate for Asthma and Chronic Obstructive Pulmonary Disease

RS GN - 2008 - assets0.pubget.com

Page 1. JPET #144311 1 Aerosolized Phosphoinositide 3-Kinase γ/δ Inhibitor TG100-115 as a Therapeutic Candidate for Asthma and Chronic Obstructive Pulmonary Disease John Doukas, Lisa Eide, Karin Stebbins, Adrienne Racanelli-Layton, Luis Dellamary, Michael ...

[Related articles](#) - [View as HTML](#)

[BOOK] [Integration in respiratory control: from genes to systems](#)

MJ Poulin, RJA Wilson - 2007 - books.google.com

... National Research Council Research Press (Canada) Novus Biologicals, Inc. Physiological

Measurement Springer Publishing STARR Life Sciences Corp Page 16. . . .

All 3 versions

[Moderate pulmonary arterial hypertension in male mice lacking the vasoactive intestinal peptide gene](#)

- ► [ahajournals.org](#)

SI Said, SA Hamidi, KG Dickman, AM Szema, S ... - Circulation, 2007 - Am Heart Assoc
... We confirmed these measurements by determining hemoglobin O₂ saturation 25 by a special mouse oximeter (Starr Life Sciences, Allison Park, Pa) applied to the ...

Cited by 22 - Related articles - Web Search - All 4 versions

[Blunted hypoxic pulmonary vasoconstriction in experimental neonatal chronic lung disease](#)

171.66.122.149 [HTML]GJ Rey-Parra, SL Archer, RD Bland, KH ... - American journal of ..., 2008 - 171.66.122.149

... peak as previously described (26). For the HPV challenge, animals were briefly (30 s) exposed to hypoxia (2.5% O₂) until a saturation of approximately 60%

(**MouseOx**; **Starr Life Sciences Corp.**, Oakmont, PA) was obtained. ...

Cited by 3 - Related articles - All 12 versions

[Breathing and sleep: Measurement methods, genetic influences, and developmental impacts](#)

DM Baekey, P Feng, MJ Decker, KP Strohl - ILAR J, 2009 - del.s.nas.edu

... Hb saturation and heart rate were monitored with a **MouseOx** rodent pulse oximeter (**Starr Life Sciences**, Oakmont, PA), environmental O₂ concentration with an Alpha-Omega 9500 series oxygen monitor, and all signals were recorded using a CED 1401 data acquisition ...

Cited by 3 - Related articles - View as HTML - All 4 versions

[The Asparaginyl Hydroxylase Factor Inhibiting HIF-1 \[alpha\] Is an Essential Regulator of Metabolism](#)

N Zhang, Z Fu, S Linke, J Chicher, JJ Gorman, DA Visk, ... - Cell Metabolism, 2010 - Elsevier

[The role of NADPH oxidase in chronic intermittent hypoxia-induced pulmonary hypertension in mice](#)

RE Nisbet, AS Graves, DJ Kleinhenz... - American journal of ..., 2009 - ncbi.nlm.nih.gov

... chamber with room air. Alterations in oxyhemoglobin saturation of mice in the CIH chamber were monitored with a pulse oximeter specifically designed for rodents (MouseOX; **Starr Life Sciences**, Oakmont, PA). In preliminary studies ...

Cited by 7 - Related articles - All 6 versions

[Non-invasive system for applying airway obstructions to model obstructive sleep apnea in mice](#)

A Carreras, Y Wang, D Gozal, JM Montserrat... - Respiratory Physiology ..., 2010 - Elsevier

... 2) swings found in patients with OSA. After each animal was placed on the apnea platform, and prior to enclosing it in the box, a pulse oximeter (MouseOx; **STARR Life Sciences Corp.** Oakmont, PA, USA) was placed on its ...

IV. Shock Models

[Sphingosine kinase 1 and sphingosine-1-phosphate receptor 2 are vital to recovery from anaphylactic shock in mice](#)

A Olivera, C Eisner, Y Kitamura, S Dillahunt, L Allende, ... - 2010 - ncbi.nlm.nih.gov

V. Stroke & Brain Injury

[Posts ischemic Brain Injury Is Attenuated in Mice Lacking the \$\beta\$ 2-Adrenergic Receptor](#)

- [▶ anesth-analg.org](#)

RQ Han, YB Ouyang, L Xu, R Agrawal, AJ Patterson, ... - Anesthesia & Analgesia, 2009 - anesth-analg.org

... Pulse oximetry (Spo 2), heart rate, and respiratory rate were monitored continuously (STARR life sciences Corp., Allison Park, PA). ...

[Cited by 1](#) - [Related articles](#) - [Web Search](#) - [All 13 versions](#)

[Reproductive age modulates the impact of focal ischemia on the forebrain as well as the effects of ...](#)

A Selvamani, F Sohrabji - Neurobiology of Aging, 2008 - Elsevier

... were maintained at 37 °C throughout, and respiratory rate and oxygen saturation were constantly monitored using the Mouse Oximeter (STARR Life Sciences Corp ...

[Cited by 1](#) - [Related articles](#) - [Web Search](#) - [All 5 versions](#)

[Hardware and methodology for targeting single brain arterioles for photothrombotic stroke on an upright microscope](#)

A Sigler, A Goroshkov, TH Murphy - Journal of neuroscience methods, 2008 - Elsevier

... The physiological parameters mentioned above were measured using a Mouse-Ox pulse oximeter (**Starr Life** Sciences, Oakmont, PA). Hydration was maintained by intraperitoneal injection of saline (100–200 μ l) with 20 mM glucose at 1–2 h intervals. 2.2. Stroke model. ...

[Cited by 6](#) - [Related articles](#) - [All 6 versions](#)

[Novel Model of Frontal Impact Closed Head Injury in the Rat](#)

M Kilbourne, R Kuehn, C Tosun, J Caridi, K ... - Journal of ..., 2009 - liebertonline.com

... After injury, the coupling arm was removed and the infraorbital incisions were closed. Oxygen saturation and heart rate were monitored pre- and post-injury using a pulse oximeter (Mouse Ox TM ; **STARR Life** Sciences Corp., Oakmont, PA) placed on a hindlimb. ...

[All 4 versions](#)

[Biphasic direct current shift, haemoglobin desaturation and neurovascular uncoupling in cortical spreading depression](#)

JC Chang, LL Shook, J Biag, EN Nguyen, AW Toga, ... - Brain, 2010 - Oxford Univ Press
... of 2–7 s. In selected experiments, heart rate, pulse oxygenation and respiratory rate were monitored using a pulse oximeter (three animals with Nonin 8600 V, Nonin Inc., Minneapolis, MN, USA and four animals with **MouseOx**, **Starr Life Sciences Corp.**, Oakmont, PA, USA). ...
[Cited by 1](#)

[Recombinant Fv-Hsp70 Protein Mediates Neuroprotection After Focal Cerebral Ischemia in Rats](#)

X Zhan, BP Ander, IH Liao, JE Hansen, C Kim, D ... - Stroke, 2010 - Am Heart Assoc
... Heart rate, breathing rate, and SpO₂ were measured using the MouseOx Murine Pulse Oximeter System (Starr Life Sciences Corp; Oakmont, Pa). Cerebral blood flow was measured using a Laser Doppler Monitor (Perimed Inc; Ventura, Calif). 13. ...
[Related articles](#) - [All 4 versions](#)

[Nimodipine Prevents Memory Impairment Caused by Nitroglycerin-Induced Hypotension in Adult Mice](#)

[anesth-analg.net](#) [HTML]A Bekker, M Haile, YS Li, S Galoyan, E ... - Anesthesia & ..., 2009 - anesth-analg.net
... acquisition system (ADInstruments, Sydney, Australia). A **MouseOx** pulse oximetry device (**STARR Life Sciences**, Allison Park, PA) was used to measure oxygen saturation and heart rate. Local parenchymal perfusion (perfusion index ...
[Related articles](#) - [All 13 versions](#)

[Reversible Cyclosporin A-sensitive Mitochondrial Depolarization Occurs within Minutes of Stroke Onset in Mouse Somatosensory Cortex in Vivo](#)

RR Liu, TH Murphy - Journal of Biological Chemistry, 2009 - ASBMB
... The **MouseOx** pulse oximeter (**Starr Life Sciences**, Oakmont, PA) was used in some animals to monitor heart rate and oxygen saturation and was mounted on the tail
(2). Assessing Changes in Dendritic Morphology during Stroke. ...
[Related articles](#) - [All 5 versions](#)

[Astrocyte targeted overexpression of Hsp72 or SOD2 reduces neuronal vulnerability to forebrain ischemia](#)

[stanford.edu](#) [PDF]L Xu, JF Emery, YB Ouyang, LA Voloboueva, RG ... - Glia - interscience.wiley.com
... Rectal temperature was 37.61.0°C controlled by a Home- othermic blanket (Harvard Apparatus, Holliston, MA). Respiratory rate, oxygen saturation, and heart rate were monitored during surgery with a small animal Oximeter (**STARR life sciences Corp.**, Allison Park, PA). ...

[Early and Sustained Increase in Expression of Hippocampal IGF-1, but not EPO, in a Developmental Rodent Model of Traumatic Brain Injury](#)

ME Schober, B Block, JC Beachy, KD Statler... - Journal of ... - liebertonline.com
... heating pad. Oxygenation, heart rate and respiratory rate were monitored using femoral probe pulse oximetry (Mousox®, **Starr Life Sciences**, Oakmont, PA). The rat was placed into a

stereotaxic frame (David Kopf, Tujunga, CA). After shaving, prepping ...

[All 2 versions](#)

[The pathobiology of blast injuries and blast-induced neurotrauma as identified using a new experimental model of injury in mice](#)

I Cernak, AC Merkle, VE Koliatsos, JM Bilik... - *Neurobiology of ...*, 2010 - Elsevier
 ... post-exposure. Multiple vital signs were measured non-invasively using the MouseOx Pulse Oximeter (**Starr Life Sciences Corp.**, Oakmont, PA) before injury, immediately after, and at 7, 14, 21, and 30 days post-exposure. The ...

[Cited by 1](#)

VI. Hypertension, Hypotension & Other Cardiovascular Disorders

[Age-related cardiac muscle sarcopenia: Combining experimental and mathematical modeling to identify ...](#)

- ► [nih.gov](#)

J Lin, EF Lopez, Y Jin, H Van Remmen, T Bauch, HC ... - *Experimental gerontology*, 2008 - Elsevier
 ... Arterial oxygen saturation, pulse rate, breath rate, and pulse distension were all monitored using the MouseOx™ (STARR Life Science) to confirm comparable ...

[Cited by 1](#) - [Related articles](#) - [Web Search](#) - [All 3 versions](#)

[Molecular Cardiology](#)

SI Said, SA Hamidi, KG Dickman, AM Szema, S ... - *genetics*, 2007 - [cardiology.stonybrook.edu](#)
 ... O₂ saturation 25 by a special mouse oximeter (Starr Life Sciences, Allison Park, Pa) applied to the shaved thigh. Histological ...

[Related articles](#) - [View as HTML](#) - [Web Search](#)

[Severe spontaneous bradycardia associated with respiratory disruptions in rat pups with fewer brain stem 5-HT neurons](#)

KJ Cummings, KG Commons, KC Fan, ... - *American Journal of ...*, 2009 - *Am Physiological Soc*
 ... In some animals, heart rate was obtained from a pulse oximeter (**Starr Life Sciences**, Oakmont, PA), which was adhered lightly to the tail with polyether material. All outputs were recorded at 1 kHz (PowerLab and Chart; ADInstruments, Colorado Springs, CO). ...

[Cited by 4](#) - [Related articles](#) - [All 7 versions](#)

[Signaling from beta-and beta 2-adrenergic receptors is defined by differential interactions with ...](#)

- ► [nih.gov](#)

W Richter, P Day, R Agrawal, MD Bruss, S Granier, ... - *The EMBO Journal*, 2008 - [nature.com](#)
 ... A mouse pulse oximeter sensor (Mouse Ox, Starr Life Science Corp., Allison Park, PA) was then placed on the thigh of the mouse, and baseline heart-rate data ...

[Cited by 10](#) - [Related articles](#) - [Web Search](#) - [BL Direct](#) - [All 4 versions](#)

[In vivo study of the mitochondrial dysfunction during ischemia and the effect of oxidative stress on ...](#)

- ► [ubc.ca](#) [PDF]

R Liu - [dspace.library.ubc.ca](#)

Page 1. IN VIVO STUDY OF THE MITOCHONDRIAL DYSFUNCTION DURING ISCHEMIA AND THE EFFECT OF OXIDATIVE STRESS ON CELL PROLIFERATION by RAN LIU ...

[View as HTML](#) - [Web Search](#)

[Correlation of Blood Flow and Systemic Physiology in Mice Tumor Models in Photodynamic Therapy](#)

HW Wang, S Schenkel, RC Mesquita, AG Yodh ... - Biomedical ..., 2010 - [opticsinfobase.org](#) ... were analyzed with a Brownian diffusion semi-infinite homogeneous medium model for the mouse tumor and fits to the measured autocorrelation function were thus obtained [6]. Heart and breath rates were simultaneously acquired with a vitals monitor (**MouseOx**) placed on the ...

[In vivo study of the mitochondrial dysfunction during ischemia and the effect of oxidative stress on cell proliferation](#)

R Liu - [circle.ubc.ca](#)

Page 1. IN VIVO STUDY OF THE MITOCHONDRIAL DYSFUNCTION DURING ISCHEMIA AND THE EFFECT OF OXIDATIVE STRESS ON CELL PROLIFERATION by RAN LIU B.Sc., The University of Toronto, 2006 A THESIS ...

[Related articles](#) - [View as HTML](#) - [All 4 versions](#)

[Diabetes Depresses Synaptic Transmission in Sympathetic Ganglia by Inactivating nAChRs through a Conserved Intracellular Cysteine Residue](#)

V Campanucci, A Krishnaswamy... - *Neuron*, 2010 - Elsevier

[All 5 versions](#)

VII. Hypoxia & Inhalation Studies

[Physostigmine reverses cognitive dysfunction caused by moderate hypoxia in adult mice](#)

► [anesthesia-analgesia.com](#)

A Bekker, M Haile, K Gingrich, L Wenning, A Gorny, ... - *Anesthesia & Analgesia*, 2007 - [anesthesia-analgesia.com](#)

... We assessed arterial oxygen saturation in a separate group of mice by using a Mouse-Ox pulse oximeter (STARR life Sciences, Allison Park, PA). ...

[Cited by 2](#) - [Related articles](#) - [Web Search](#) - [BL Direct](#) - [All 12 versions](#)

[Double Oxygen-sensing Vector System for Robust Hypoxia/Ischemia-regulated Gene Induction in Cardiac Muscle In Vitro and In Vivo](#)

EV Fomicheva, II Turner, TG Edwards, J Hoff, E ... - Molecular ..., 2008 - nature.com
 ... The ribs were reapproximated and incision closed in two layers. Postoperative care was continued using blood oxygen monitoring (Mouse Ox **Starr Life Sciences**, Allen Park, PA) until extubation and full recovery from anesthesia. In vivo imaging of luciferase activity. ...

[Cited by 4](#) - [Related articles](#) - [All 4 versions](#)

[Aerosolized Phosphoinositide 3-Kinase \$\gamma/\delta\$ Inhibitor TG100-115 \[3-\[2, 4-Diamino-6-\(3-hydroxyphenyl\)\] ...](#)

J Doukas, L Eide, K Stebbins, A Racanelli-Layton, ... - Journal of Pharmacology and Experimental Therapeutics, 2009 - ASPET

... Arterial oxygenation levels were monitored using a pulse oximeter (Starr Life Sciences, Oakmont, PA) to ensure proper ventilation. ...

[Related articles](#) - [Web Search](#) - [All 2 versions](#)

[Development of the ACTH and corticosterone response to acute hypoxia in the neonatal rat](#)

ED Bruder, JK Taylor, KJ Kamer, H Raff - American Journal of Physiology- Regulatory, Integrative and ..., 2008 - Am Physiological Soc

... Arterial O₂ saturation (SPO₂ ; %) and heart rate (bpm) were measured using the MouseOx pulse oximetry unit (Starr Life Sciences, Allison Park, PA). ...

[Related articles](#) - [Web Search](#) - [All 4 versions](#)

[Epidermal sensing of oxygen is essential for systemic hypoxic response](#)

- [shmu.edu.cn](#) [PDF]

AT Boutin, A Weidemann, Z Fu, L Mesropian, K ... - Cell, 2008 - Elsevier

[Cited by 7](#) - [Related articles](#) - [Web Search](#) - [All 5 versions](#)

[Treatment with the catalytic metalloporphyrin AEOL 10150 reduces inflammation and oxidative stress due to inhalation of sulfur mustard analog 2-chloroethyl ethyl ...](#)

HC O'Neill, CW White, LA Veress, TB Hendry- ... - Free Radical Biology ..., 2010 - Elsevier

... Pulse Oximetry The **MouseOx** pulse oximeter (**Starr Life Sciences**, Oakmont PA), with a rat infrared sensor collar clip, was used to measure arterial hemoglobin oxygen saturation rats before CEES inhalation and at 18 hours post inhalation, immediately prior to euthanasia. ...

[Cited by 1](#) - [Related articles](#) - [All 2 versions](#)

[Effect of intermittent hypoxia on atherosclerosis in apolipoprotein E-deficient mice](#)

J Jun, C Reinke, D Bedja, D Berkowitz, S Bevans-Fonti, ... - Atherosclerosis, 2009 - Elsevier

... 20.9%. Oxygen level was measured with a ProOx 110 analyzer (Biospherix, Redfield, NY) and pulse oximetry with a neck cuff (**Starr Life Sciences Corp.**, Oakmont, PA).

2.3. Blood pressure and pulse wave velocity (PWV). Blood ...

[Cited by 1](#) - [Related articles](#) - [All 3 versions](#)

[Nimodipine prevents transient cognitive dysfunction after moderate hypoxia in adult mice](#)

M Haile, F Limson, K Gingrich, YS Li, D ... - Journal of ..., 2009 - journals.lww.com
 ... mg/kg of NIMO or vehicle in a 0.25 mL solution. Mice were given the ORT once either on Day 1 or Day 7. Separate groups of mice were used to collect data on O₂ saturation (**MouseOx**, **STARR Life Sciences**, Allison Park, PA). ...

[Cited by 4](#) - [Related articles](#) - [All 3 versions](#)

[Neuronal death during combined intermittent hypoxia/hypercapnia is due to mitochondrial dysfunction](#)

RM Douglas, J Ryu, A Kanaan, MC ... - American Journal of ..., 2010 - Am Physiological Soc
 ... unrestrained un- 140 anaesthetized mice (n = 4) either in room air or in the environmental chamber using the 141 **MouseOx** system (**Starr Life Sciences Corp**, Oakmont, PA) as per manufacture's instruction. 142 Data was collected ...

[Chronic intermittent hypoxia augments chemoreflex control of sympathetic activity: Role of the angiotensin II type 1 receptor](#)

NJ Marcus, YL Li, CE Bird, HD Schultz, BJ ... - Respiratory Physiology & ..., 2010 - Elsevier
 ... 2.6. Physiological measurements. Blood pressure, arterial oxygen saturation (Sa O₂ ; **MouseOx**, **Starr Life Sciences**, Oakmont, PA), and end-tidal CO₂ (PET CO₂ ; Capnogard, Respironics Novamatrix, Wallingford, CT) were measured continuously during the experiment. ...

[Related articles](#) - [All 2 versions](#)

[Identification of a Novel Form of Noradrenergic-Dependent Respiratory Motor Plasticity Triggered by Vagal Feedback](#)

[A Tadjalli, J Duffin... - Journal of Neuroscience, 2010 - neuro.cjb.net](#)

... Measuring CO₂ and O₂ levels. End-tidal CO₂ was monitored using a CO₂ analyzer (17630; VacuMed). Arterial O₂ saturation was measured using a pulse oximeter designed for rodents (MouseOx Pulse Oximeter; **STARR Life Sciences Corp.**). ...

VIII. Vital Signs Monitoring During Imaging

[Quantitative two-photon imaging of blood flow in cortex](#)

JD Driscoll, AY Shih, PJ Drew, I Valmianski, D ... - physics.ucsd.edu
 ... Isoflurane vaporizer (IsoTec) - Periosteal elevator (Roboz) - Pulse oximeter (Nonin for rats; Starr Life Sciences for mice) - Screwdriver, miniature ...

[Two-Photon Imaging during Prolonged Middle Cerebral Artery Occlusion in Mice Reveals Recovery of ...](#)

- ► jneurosci.org

P Li, TH Murphy - Journal of Neuroscience, 2008 - Soc Neuroscience
 ... In addition to measuring the heart rate electrophysiologically (in most animals), we also assessed physiological parameters using a Starr Life Sciences Mouse ...

[Related articles](#) - [Web Search](#) - [All 3 versions](#)

[Two-photon imaging of stroke onset in vivo reveals that NMDA-receptor independent ischemic ...](#)

- ► [cjb.net](#)

TH Murphy, P Li, K Betts, R Liu - Journal of Neuroscience, 2008 - neuro.cjb.net
... In addition to measuring the heart rate electrophysiologically, we also assessed physiological parameters using a Starr Life Sciences (Oakmont, PA) Mouse-Ox ...
[Cited by 10](#) - [Related articles](#) - [Web Search](#) - [All 4 versions](#)

[Basics of Small Animal Handling for In Vivo Imaging](#)

LW HEDLUND, TL GLUCKMAN - Molecular Imaging in Oncology, 2008 - books.google.com
... cardiac pulse, breathing rate, and oxygen saturation from a single sensor applied to the thigh or tail of a mouse or rat (Starr Life Sciences Corporation ...
[Related articles](#) - [Web Search](#)

[Characterization And Feasibility Study Of A Near Infrared CCD Imager For Monitoring Tumor ...](#)

- ► [uta.edu](#) [PDF]

M Goel, H Liu - 2007 - dspace.uta.edu
Page 1. CHARACTERIZATION AND FEASIBILITY STUDY OF A NEAR INFRARED CCD IMAGER FOR MONITORING TUMOR HEMODYNAMICS by MANAN GOEL Presented ...
[Related articles](#) - [View as HTML](#) - [Web Search](#) - [All 5 versions](#)

[Visualizing stromal cell dynamics in different tumor microenvironments by spinning disk confocal ...](#)

- [Free from Publisher](#)

M Egeblad, AJ Ewald, HA Askautrud, ML Truitt, BE ... - Disease Models & Mechanisms, 2008 - pubmedcentral.nih.gov
... We used an oximeter probe (MouseOx, Starr Life Sciences, PA) to monitor and display the heart rate (beats per minute; bpm), the arterial oxygen saturation of ...
[Cited by 3](#) - [Related articles](#) - [Web Search](#) - [All 6 versions](#)

[Imaging the impact of cortical microcirculation on synaptic structure and sensory-evoked hemodynamic ...](#)

S Zhang, TH Murphy - PLoS Biol, 2007 - biology.plosjournals.org
... The physiological parameters mentioned above were measured using a Starr Life Sciences Mouse-Ox pulse oximeter (<http://www.starrlifesciences.com>). ...
[Cited by 12](#) - [Related articles](#) - [Web Search](#) - [All 6 versions](#)

[New Method to Quantify Angiogenesis in vivo Using Multi-photon Imaging](#)

BJ Herron, JS Smith, RW Cole - Microscopy Today, 2009 - Cambridge Univ Press
... dextrose in 0.9% NaCl. Vital signs, including pulse, respiration, and oxygen saturation were monitored with the **MouseOx** system (**Starr Life Science Corp.**) throughout all procedures. Imaging. Individual mice were restrained ...
[Related articles](#)

[Quantitative two-photon imaging of blood flow in cortex](#)

JD Driscoll, AY Shih, PJ Drew, I ... - ... in Neuroscience and ..., 2010 - physics.ucsd.edu ... 1A) - Heat pad, feedback regulated (Harvard for rats; FHC for mice) - Hemostats - Isoflurane vaporizer (IsoTec) - Periosteal elevator (Roboz) - Pulse oximeter (Nonin for rats; **Starr Life Sciences** for mice) - Screwdriver, miniature - Stereotaxic frame (Kopf) Imaging equipment ...

[Cited by 1](#) - [Related articles](#) - [View as HTML](#) - [All 2 versions](#)

[The current functional state of local neuronal circuits controls the magnitude of a BOLD response to incoming stimuli](#)

F Angenstein, K Krautwald, H Scheich - NeuroImage, 2010 - Elsevier ... Heating was provided from the ventral side and heart rate, breathing rate, and oxygen saturation was monitored during the whole experiment using an MRI-compatible pulse oxymeter (**MouseOx**[™], **Starr Life Sciences Corp.** Pittsburgh PA, USA). ...

[All 2 versions](#)

[Micro-CT imaging assessment of dobutamine-induced cardiac stress in rats](#)

CT Badea, LW Hedlund, J Cook, BR Berridge, ... - ... of Pharmacological and ..., 2010 - Elsevier ... Instruments, Austin, TX). Additionally, heart and breathing rates, pulse and breathing distentions, and oxygen saturation were monitored by a pulse oximeter placed on the hind paw (**MouseOx**, StarrLife Sci, PA). Pulse distention ...

[Dendra2 Photoswitching through the Mammary Imaging Window](#)

B Gligorijevic, D Kedrin, JE Segall, J Condeelis, ... - Journal of Visualized ..., 2009 - jove.com ... data acquisition). The **MouseOx** pulse oximetry system (**Starr life Sciences Corp**) has been used succesfully. That way the data can be gathered continuously without turning the lights on in the room to check on the animal. Note ...

[Cited by 2](#) - [Related articles](#) - [Cached](#) - [All 5 versions](#)

[Real-time imaging of de novo arteriovenous malformation in a mouse model of hereditary hemorrhagic telangiectasia](#)

SO Park, M Wankhede, YJ Lee, EJ Choi, N Fliess, SW ... - 2009 - ncbi.nlm.nih.gov ... O₂ saturation data. Oxygen saturation was measured by pulse oximeter (**MouseOx**; **Starr Life Sciences Corp.**). The mouse was placed on a restrainer without anesthesia, and the sensory clip was placed on a hind paw. The ...

[Cited by 6](#) - [Related articles](#) - [All 8 versions](#)

[Chemical calcium indicators](#)

RM Paredes, JC Etzler, LT Watts, W Zheng, JD ... - Methods, 2008 - Elsevier

[Cited by 12](#) - [Related articles](#) - [All 5 versions](#)

[Cooperative regulation of neurotransmitter release by Rab3a and synapsin II](#)

WL Coleman, M Bykhovskaia - Molecular and Cellular Neuroscience, 2010 – Elsevier

[Laser speckle contrast imaging of collateral blood flow during acute ischemic stroke](#)

GA Armitage, KG Todd, A Shuaib... - Journal of Cerebral Blood ..., 2010 - nature.com
 ... 24 hours imaging sessions), rats were anesthetized with 1.5% to 2.0% isoflourane (30:70, O₂:N₂ 0). Temperature was maintained at 36.7°C, and heart rate, oxygen saturation, and breath rate were monitored using a MouseOx pulse oximeter (**STARR Life Sciences**, Oakmont ...

[Related articles](#) - [All 4 versions](#)

[Probabilistic independent component analysis for laser speckle contrast images reveals in vivo multi-component vascular responses to forepaw stimulation](#)

N Li, G Pelled... - Engineering in Medicine and ..., 2010 - ieeexplore.ieee.org
 ... Animal body temperature was maintained throughout using a Mega Warmers pad (Grabber Inc. MI.). Respiration rate, PO₂ and heart rate were continuously monitored by an oximeter (MouseOx, **STARR Life Sciences Corp.**, PA.). ...

[Imaging retinal blood flow with laser speckle flowmetry](#)

Al Srienc, ZL Kurth-Nelson... - neuroscience.umn.edu
 ... Blood oxygen saturation level and heart rate (MouseOx, **Starr Life Sciences Corp**), arterial blood pressure (Pressure Monitor BP-1, World Precision Instruments), and end-tidal CO₂ (microCapStar, CWE) were monitored continuously. ...

[Related articles](#) - [View as HTML](#)

[Blood oxygenation level-dependent \(BOLD\) functional MRI of visual stimulation in the rat retina at 11.7 T](#)

BH De La Garza, ER Muir, G Li, YY Shih... - NMR Biomed, 2010 - ric.uthscsa.edu
 ... setting (19). The rectal temperature was maintained at 37.0 + 0.58C. The heart rate and blood oxygen saturation level were monitored using a MouseOx system (**STARR Life Science Corp.**, Oakmont, PA, USA). All recorded physiological ...

[Cited by 1](#) - [Related articles](#) - [View as HTML](#)

[Pretreatment with a novel aquaporin 4 inhibitor, TGN-020, significantly reduces ischemic cerebral edema](#)

H Igarashi, VJ Huber, M Tsujita... - Neurological Sciences - Springer
 ... anesthesia period. Oxygen saturation (SpO₂) was monitored throughout the operation procedure using a pulse oxymeter Mouse Ox (**STARR Life Sciences Co**, Oakmont, PA, USA) with probe placement on the left thigh. Regional ...

[Related articles](#)

[A Novel Method to Quantify Angiogenesis in vivo Using Multi-photon Imaging](#)

R Cole, J Smith... - Microscopy and Microanalysis, 2009 - Cambridge Univ Press
 ... Vital signs were monitored with the MouseOx system, **Starr Life Science Corp.** (Oakmount PA) throughout all procedures. Animals were given a tail vein injection of 70kD FITC conjugated

dextran (Sigma Aldrich, St, Louis MO) before each imaging session. ...

[Related articles](#) - [All 2 versions](#)

IX. Vital Signs Monitoring During Surgery & Experiments Requiring Anesthesia

[Injury Modality, Survival Interval and Sample Region are Critical Determinants of qRT- ...](#)

JL Harris, T Reeves, L Phillips - Journal of Neurotrauma - liebertonline.com

... and to prevent hypoxia or hypercapnia, rats were monitored during the course of surgery with a pulse-oximetry system (MouseOx, Starr Life Sciences, Corp.). ...

[Related articles](#) - [All 3 versions](#)

[Overexpression of mitochondrial Hsp70/Hsp75 in rat brain protects mitochondria, reduces oxidative stress, and protects from focal ischemia](#)

L Xu, LA Voloboueva, YB Ouyang, JF Emery, ... - Journal of Cerebral ..., 2008 - nature.com
... Temperature, respiratory rate, oxygen saturation, and heart rate were monitored during the surgery, and after reanesthetizing the animals to remove the suture at 100 mins, with a small animal Oximeter (**STARR Life Sciences Corp.**, Allison Park, PA, USA). ...

[Cited by 13](#) - [Related articles](#) - [All 5 versions](#)

[Synaptic Organization of Connections between the Temporal Cortex and Pulvinar Nucleus of the Tree Shrew](#)

RD Chomsung, H Wei, JD Day-Brown, HM ... - Cerebral ..., 2009 - Oxford Univ Press
... The heart rate was continuously monitored with a **MouseOx** pulse oximeter (**STARR Life Sciences Corp.**, Pittsburgh, PA). Prior to injection, the tree shrews were placed in a stereotaxic apparatus and prepared for sterile surgery. ...

[Related articles](#) - [All 3 versions](#)

[BOOK] [Laboratory animal anaesthesia](#)

P Flecknell - 2009 - books.google.com

... Figure 2.23 Duration of anaesthesia and sleep times in rats with different anaesthetics CHAPTER 3 Figure 3.1 Methods of protecting an animal's eyes during anaesthesia Figure 3.2 Respiratory monitor using a pressure sensor Figure 3.3 The '**Mouseox**' pulse oximeter in use ...

[Cited by 371](#) - [Related articles](#) - [All 3 versions](#)

[Anesthesia with Isoflurane Increases Amyloid Pathology in Mice Models of Alzheimer'S Disease](#)

J Perucho, I Rubio, MJ Casarejos, A Gomez, JA ... - Journal of Alzheimer's ... - IOS Press
Page 1. 1 Journal of Alzheimer's Disease ISSN: 1387-2877 IOS Press DOI: 10.3233/JAD-2009-1318 Anesthesia with Isoflurane Increases Amyloid Pathology in Mice Models of Alzheimer's Disease Juan Peruchoa, Isabel Rubiob ...

[Cited by 1](#) - [Related articles](#) - [All 2 versions](#)

[Mild Sensory Stimulation Completely Protects the Adult Rodent Cortex from Ischemic Stroke](#)

CC Lay, MF Davis, CH Chen-Bee, RD Frostig... - PLoS ONE, 2010 - dx.plos.org

... Three animals were disqualified from this study due to obvious arterial abnormalities or malformations [43], [44]. (Also, in a subset of animals, Arterial O₂ saturation, respiration, and heart rate were measured using the MouseOx pulse oximetry unit (**Starr Life Sciences**, Allison ...

[Cited by 1](#) - [Related articles](#) - [Cached](#) - [All 2 versions](#)

[Limitations of collateral flow after occlusion of a single cortical penetrating arteriole](#)

N Nishimura, NL Rosidi, C Iadecola... - Journal of Cerebral Blood ..., 2010 - nature.com

... A pulse oximeter (MouseOx; **Starr Life Sciences Corp.**, Oakmont, PA, USA) clipped to the hind paw of the rat was used to monitor blood oxygen saturation and heart rate. A local anesthetic, bupivacaine (0.1 mL, 0.125%), was administered at each incision site. ...

[Related articles](#) - [All 3 versions](#)

[Purinergic Receptor Stimulation Reduces Cytotoxic Edema and Brain Infarcts in Mouse Induced by Photothrombosis by Energizing Glial Mitochondria](#)

W Zheng, LT Watts, DM Holstein, SI Prajapati... - PLoS one, 2010 - dx.plos.org

... Body temperature was maintained at 37°C by a feedback-controlled heating pad (Gaymar T/Pump). Vital signs including oxygen saturation, respiratory rate, and heart rate were continuously monitored by using the MouseOx system (**STARR Life Sciences**). ...

[Cached](#)

[Striatal and cortical BOLD, blood flow, blood volume, oxygen consumption, and glucose consumption changes in noxious forepaw electrical stimulation](#)

YYI Shih, HY Wey, BH De La Garza... - Journal of Cerebral Blood ..., 2010 - nature.com

... 2003). Rectal temperature was maintained at 37.0°C±0.5°C using a circulating warm-water pad. Heart rate and blood oxygen saturation level were monitored using MouseOx system (**STARR Life Science**, Oakmont, PA, USA). All ...

[A Novel Technique for the In Vivo Imaging of Autoimmune Diabetes Development in the Pancreas by Two-Photon Microscopy](#)

K Coppieters, MM Martinic, WB Kiosses, N Amirian... - PLoS one, 2010 - ncbi.nlm.nih.gov

... instruments). Heart rate and arterial oxygen saturation were monitored using a MouseOx pulse oximeter (**Starr Life Sciences Corp**) and were found to be similar in animals undergoing surgery as compared to anesthetized controls. ...

[Effects of D-3-hydroxybutyrate treatment on hypoglycemic coma in rat pups](#)

PW Schutz, PKH Wong, J O'Kusky, SM Innis... - Experimental ..., 2010 - Elsevier

... Heart rate and oxygen saturation were measured by pulse oximetry (MouseOx, **Starr Life Sciences**, USA). Temperature was monitored with a rectal probe attached to a PowerLab data acquisition system (ADInstruments, USA). Electroencephalography. ...

[Glutamate transporter type 3 knockout reduces brain tolerance to focal brain ischemia in mice](#)

L Li... - *Journal of Cerebral Blood Flow & Metabolism*, 2010 - [nature.com](#)

... Heart rate, breathing rate, and arterial blood oxygen saturation of mice were monitored continuously and noninvasively using a MouseOX Murine Plus Oximeter System (**Starr Life Sciences Corporation**, Oakmont, PA, USA) during the surgery. ...

[The neurotoxic effects of estrogen on ischemic stroke in older female rats is associated with age-dependent loss of insulin-like growth factor-1](#)

A Selvamani... - *Journal of Neuroscience*, 2010 - [Soc Neuroscience](#)

... (2) For delayed IGF-1 administration, IGF-1 was administered 4 h after the ET-1 injection. During surgery, the rats were maintained at 37°C throughout, and oxygen saturation and respiratory rate were constantly monitored using the Mouse Oximeter (**STARR Life Sciences**). ...

[Cited by 1](#) - [Related articles](#) - [All 3 versions](#)

[Anesthetic Considerations for the Study of Murine Tumor Models](#)

T Schroeder, S Shan... - *Tumor Models in Cancer Research*, 2011 - [Springer](#)

... However, the proper control of anesthesia depth may require expensive machinery, such as an animal pulse oximeter (eg MouseOx, **STARR Life Sciences**, Oakmont, PA). In addition, a calibrated anesthesia machine is necessary. ...

[Lactate levels in the brain are elevated upon exposure to volatile anesthetics: A microdialysis study](#)

T Horn... - *Neurochemistry International*, 2010 - [Elsevier](#)

... in brain slices. 2.5 Physiological parameters Blood oxygen saturation in awake and anesthetized mice was determined with the help of a MouseOx pulse oximeter (**Starr Life Sciences**, Oakmont, PA, USA). Cerebral blood flow ...

[Duration of Anesthesia Affects Intraocular Pressure, But Not Outflow Facility in Mice](#)

LJ Camras, KE Sufficool, CB Camras... - *Current Eye ...*, 2010 - [informahealthcare.com](#)

... Supplemental doses were administered as needed. A sensor clip was placed on the mouse's thigh to obtain oxygen saturation and heart rate (Mouse Ox™, Revision 5.1, **STARR Life Sciences Corp**, Oakmont, Pennsylvania, USA). ...

[Related articles](#) - [All 3 versions](#)

[Pulvinar Projections to the Striatum and Amygdala in the Tree Shrew](#)

JD Day-Brown, H Wei, RD Chomsung... - *Frontiers in ...*, 2010 - [ncbi.nlm.nih.gov](#)

... Prior to injection, the tree shrews were placed in a stereotaxic apparatus and prepared for sterile surgery. The heart rate was continuously monitored with a MouseOx pulse oximeter (**STARR Life Sciences Corp.**, Pittsburgh, PA, USA). ...

[State-specific Effects of Sevoflurane Anesthesia on Sleep Homeostasis](#)

M Sleep - Anesthesiology, 2011 - pdfs.journals.lww.com

... The heart rate, respiratory rate, and oxygen saturation were continuously monitored using a MouseOx® monitor (**Starr Life** Ad libitum sleep Ad libitum sleep Electrophysiological recordings Experimental condition Ad libitum (recovery) sleep ...

X. Pharmacology & Toxicology

[A novel paradigm for assessing efficacies of potential antidotes against neurotoxins in mice](#)

- ► [nih.gov](#)

DL Crankshaw, DJW Goon, JE Briggs, D DeLong, M ... - Toxicology letters, 2007 - Elsevier
... 5. Measurements were taken with a Starr Life Sciences mouse oximeter light cuff and consisted of repeated measures at 0, 15, and 30 min post-CN. ...

[Cited by 1](#) - [Related articles](#) - [Web Search](#) - [All 4 versions](#)

Historically, antidotal potencies of cyanide antagonists were measured as increases in the experimental LD(50) for cyanide elicited by the antidotes. This required the use of high doses of cyanide following pre-treatment with the putative antidote. **Since IACUC guidelines at our institutions strongly discourage LD(50) determinations: we developed a new test paradigm that allowed for maximal survival of cyanide-treated animals with greatly reduced numbers of animals.** Symptoms of cyanide toxicity include disruption of neuromuscular coordination, i.e., the righting reflex. Therefore, to establish a dose-response curve, the times required for recovery of this righting reflex with increasing doses of cyanide were measured. A cyanide dose that disrupted this righting reflex for approximately 1h with minimal deaths was then selected. Using this paradigm, the current cyanide antidotes, viz., nitrite plus thiosulfate and hydroxocobalamin, as well as some potential cyanide antidotes that we developed, were evaluated pre- and post-cyanide. This allowed, for the first time, the assessment of the post-cyanide effectiveness of the current antidotes against cyanide poisoning in a live animal. In addition, some prototype compounds were found to exhibit antidotal efficacy not only when injected i.p. following cyanide, but also when administered orally 30 min before cyanide. Pre-cyanide oral efficacy suggests that such compounds have the potential of being administered prophylactically before exposure to cyanide. This new test paradigm was found to be a powerful tool for assessing the efficacies of some novel antidotes against cyanide and should be equally applicable for evaluating putative antidotes for other neurotoxins.

[Novelty-evoked activity in open field predicts susceptibility to helpless behavior](#)

E Padilla, J Shumake, DW Barrett, G Holmes... - Physiology & ..., 2010 - Elsevier

... Using a Mouse Ox oximeter (**Starr Life** Sciences Corp, Oakmont, PA), pulse rates were measured via cyclic changes in absorption of light energy from red and infrared LEDs (light emitting diodes) as it passed through the tissue. ...

[Cited by 1](#) - [Related articles](#) - [All 3 versions](#)