

Guanglong He, PhD
Email: ghe@uwyo.edu

Research Grants, Contracts, and Publications

Research Grants and Contracts:

Active Grants:

TITLE: Effects of Oxidized Low-density Lipoprotein on Bone Marrow Stem Cell
DESCRIPTION: Assessment of the differentiation of bone marrow stem cells to endothelial cells and the effect of OxL lipoprotein on the process
AGENCY: NIH Vascular Cell and Molecular Biology
ROLE: **Co-Investigator** (PI: Zhenguo Liu)
TYPE: 1R01 HL094650-01A2
PERIOD: 4/1/2010-3/31/2015
AMOUNT: \$1,875,000.00

Completed Grants as Primary Investigator:

TITLE: Western diet-induced Obesity, Cardiac Mitochondrial function and oxygen metabolism
DESCRIPTION: Determining the effect of Western diet induced obesity and exercise on cardiac mitochondrial function and oxygen metabolism
AGENCY: Diabetes Action Research and Education Foundation
ROLE: **Principal Investigator**
TYPE: Basic Research Award
PERIOD: 01/01/2012-3/31/2013
AMOUNT: \$39,930.00

TITLE: PKC ϵ and mitochondrial bioenergetics
DESCRIPTION: Determining the regulatory role of PKC ϵ on mitochondrial nucleotide content
AGENCY: OSU Ross Academic Advisory Committee
ROLE: **Principal Investigator**
PERIOD: 10/2008-8/2013
AMOUNT: \$40,000.00

TITLE: In vivo EPR imaging of myocardial oxygen consumption
DESCRIPTION: Determining the regulatory role of endothelium-derived NO on the myocardial oxygen consumption
AGENCY: National Heart, Lung and Blood Institute/NHLBI
ROLE: **Principal Investigator**
TYPE: 1R01HL081630-01
PERIOD: 09/01/2005-8/31/2010
AMOUNT: \$1,331,581.00

TITLE: In vivo EPR imaging of myocardial oxygen consumption

DESCRIPTION: Determining the correlation between ischemia time and post-ischemic tissue hyperoxygenation
AGENCY: National Heart, Lung and Blood Institute/NHLBI
ROLE: **Principal Investigator**
TYPE: 3R01HL081630-04S1/Administrative Supplement Grant
PERIOD: 7/15/2009-12/30/2010
AMOUNT: \$126,900.00

TITLE: Electron paramagnetic resonance spectroscopy and imaging of the redox status and oxygen tension of the in vivo rat heart
DESCRIPTION: To develop and apply EPR spectroscopy and imaging techniques to measure myocardial redox status and oxygenation
AGENCY: American Heart Association
ROLE: **Principal Investigator**
TYPE: Scientist Development Grant
PERIOD: 07/01/04 – 06/30/08
AMOUNT: \$260,000.00

Completed Grants as Co-Investigator:

TITLE: Enzymology of dimethylarginine
DESCRIPTION: Arginine methylation and NOS function
AGENCY: University of TX at Austin
ROLE: **Co-Investigator** (PI: Arturo Cardounel)
TYPE: UTA11-000297
PERIOD: 2/1/2012-1/31/2013
AMOUNT: \$64,613.00

TITLE: NanoSPINs for In Vivo EPR-Based Spectroscopy and Imaging
DESCRIPTION: Development of nano-spin probes for measurement of pH value and NO in the ischemic heart
AGENCY: NIH Innovative Application of Nanotechnology to Heart, Lung, Blood and Sleep
ROLE: **Co-Investigator** (PI: Valery Khramtsov)
TYPE: 1R21 HL089036-01A2
PERIOD: 9/1/2009-8/31/2011
AMOUNT: \$840,234.00

TITLE: CD39-mediated cardiovascular protection
DESCRIPTION: CD39 overexpression and cardioprotection
AGENCY: NHLBI
ROLE: **Co-Investigator** (PI: Richard Gumina)
TYPE: 1R21 HL096038
PERIOD: 7/1/2009-6/31/2011
AMOUNT: \$412,500.00

TITLE: Redox Control of Wound Healing
DESCRIPTION: Redox measurement in the wound healing processes
AGENCY: NAT IN GEN MED SCI

ROLE: **Co-Investigator** (PI: Chandan K. Sen/Sashwati Roy)
TYPE: 1R01GM069589-01A1
PERIOD: 07/01/2004-06/30/2008
AMOUNT: \$1,106,300.00

TITLE: Oxygen Sensitive Signaling in Primary Cardiac Fibroblast
DESCRIPTION: Determining the oxygen sensing process in the development of primary cardiac fibroblast

AGENCY: NAT HEART LUNG BLOOD
ROLE: **Co-Investigator** (PI: Chandan K. Sen/Sashwati Roy)
TYPE: 1R01HL073087-01A2
PERIOD: 07/01/2004-06/30/2008
AMOUNT: \$1,345,500.00

TITLE: Development of EPR/NMR co-imaging of free radicals
DESCRIPTION: Combined EPR/NMR imaging instrumentation for small animal research

AGENCY: National Institutes of Health/Division of Research Resource
ROLE: **Co-Investigator** (PI: Jay L. Zweier)
TYPE: 5R01EB00890-02
PERIOD: 09/01/02 – 06/30/06
AMOUNT: \$1,996,617.00

TITLE: *In vivo* EPR imaging of free radicals at 300 MHz
DESCRIPTION: Development of low-frequency (300 MHz) EPR imaging system
AGENCY: National Institutes of Health/GMS
ROLE: **Co-Investigator** (PI: Jay L. Zweier)
TYPE: 7R01EB00254-06
PERIOD: 02/01/00 – 05/31/06
AMOUNT: \$1,467,711.00

Manuscripts in Preparation:

1. Ming Cai, Yuanjing Li, Xiaohua Xu, Kirk Hutchinson, Loren Wold, Pamela Lucchesi, Qinghua Sun, and **Guanglong He***. High Fat Diet Suppresses Mitochondrial Biogenesis and Exacerbates Myocardial Ischemia Reperfusion Injury. In Preparation.
2. Cristian Dumitrescu, Bin Liu, **Guanglong He**, Jay L. Zweier. Ischemic Preconditioning Abolishes Myocardial Hyperoxygenation in the Post-ischemic Heart by Preserving Mitochondrial Oxygen Consumption and Electron Transport Chain Activity.

Manuscripts Submitted:

3. Yuanjing Li, Ming Cai, Xiaohua Xu, Kirk Hutchinson, Pamela A Lucchesi, Loren E Wold, Arturo J Cardounel, Keli Hu, Qinghua Sun, Zhenguo Liu, and **Guanglong He***. Endurance Exercise Accelerates Myocardial Tissue Oxygenation Recovery and Reduces Ischemia Reperfusion Injury. **Journal of Applied Physiology**.
4. Sashwati Roy, Jaideep Banerjee, Surya C. Gnyawali, Savita Khanna, **Guanglong He**, Douglas Pfeiffer, Jay L. Zweier, Chandan K. Sen. Mir-15b silences Pim-1 kinase and

induces mitochondrial dysfunction in a Dicer depleted model of cardiac dysfunction.
Journal of Biological Chemistry.

Peer-reviewed Publications-Selected:

1. Yuanjing Li, Ming Cai, Qinghua, Zhenguo Liu, Arturo J. Cardounel, Harold M. Swartz, and **Guanglong He***. Hyperoxia and Transforming Growth Factor β 1 Signaling in the Post-Ischemic Mouse Heart. **Life Sciences**. In Press.
2. Ming Cai, Zachary M. Huttinger, Heng He, Weizhi Zhang, Feng Li, Lauren A. Goodman, Debra G. Wheeler, Karen M. Dwyer, **Guanglong He**, Anthony JF d'Apice, Simon C. Robson, Peter J. Cowan, Richard J. Gumina. Transgenic over expression of ectonucleotide triphosphate diphosphohydrolase-1 protects against murine myocardial ischemic injury. **Journal of Molecular and Cellular Cardiology**. 2011 Dec;51(6):927-35.
3. Lingling Zhao, Lijun Zhu, Qian Wang, Jiaoli Li, Chengliang Zhang, Jiguang Liu, Xiaozhong Qu, **Guanglong He**, Zhenzhong Yang. Aerosol Process-Assisted Synthesis of compartmentalized Gel Capsules. **Soft Matter**. In press.
4. Xiaohua Xu, Zhekang Ying, Ming Cai, Zhaobin Xu, Yuanjing Li, Silis Y. Jiang, Kevin Tzan, Aixia Wang, Sampath Parthasarathy, **Guanglong He**, Sanjay Rajagopalan, Qinghua Sun. Exercise training ameliorates metabolic disorders and vascular dysfunction in diet-induced obese mice. **American Journal of Physiology Regulatory, Integrative and Comparative Physiology**. 2011; 300(5):1115-25.
5. Rohit Mital, Weizhi Zhang, Ming Cai, Zachary Huttinger, Lauren Goodman, Debra Wheeler, Mark Ziolo, Karen Dwyer, Anthony J d'Apice, Jay L. Zweier, **Guanglong He**, Peter J Cowan, and Richard J. Gumina. Antioxidant Network Expression Abrogates Oxidative Post-Translational Modifications in Mice. **American Journal of Physiology Heart and Circulatory Physiology**. 2011; 300(5):1960-70.
6. Ming Cai, Yuanjing Li, Yi Xu, Harold M. Swartz, Chwen-Lih Chen, Yeong-Renn Chen, and **Guanglong He***. Endothelial NOS Activity and Myocardial Oxygen Metabolism Define the Salvageable Ischemic Time Window for Ischemic Postconditioning. **American Journal of Physiology Heart and Circulatory Physiology**. 2011; 300(3):1069-77.
7. Yuanjing Li, Ming Cai, Yi Xu, Harold M. Swartz, **Guanglong He***. Late Phase Ischemic Preconditioning Attenuates Hyperoxygenation in the Post-Ischemic Mouse Heart. **Life Sciences**. 2011, 88 (1-2): 57-64.
8. Roy S, Khanna S, Azad A, Schnitt R, **He G**, Weigert C, Ichijo H, Sen CK. Fra-2 Mediates Oxygen-Sensitive Induction of Transforming Growth Factor β in Cardiac Fibroblasts. **Cardiovascular Research**. 2010, 87(4):647-55.
9. **Guanglong He***. Biomedical Applications of In Vivo Electron Paramagnetic Resonance Spectroscopy and Imaging. **Journal of Magnetic Resonance**. 2010, 27(1): 1-21.
10. Hamid El-Dahdah, Bei Wang, **Guanglong He**, Ronald X. Xu. An automatic occlusion device for remote control of tumor. **Technology in Cancer Research and Treatment**. 9(1):71-6, 2010.
11. Bin Liu, Xuehai Zhu, Chwen-Lih Chen, Keli Hu, Harold M. Swartz, Yeong-Renn Chen, and **Guanglong He***. Opening of the MitoK_{ATP} Channel and Decoupling of Mitochondrial Complex II and III Contribute to the Suppression of Myocardial Reperfusion Hyperoxygenation. **Molecular and Cellular Biochemistry**. (2010) 337:25-38.
12. **Guanglong He***. Electron Paramagnetic Resonance Oximetry and Redoximetry. **Methods in Molecular Biology**. 2010;594:85-105.

13. Bin Liu, Arun K. Tewari, Liwen Zhang, Kari B. Green-Church, Jay L. Zweier, Yeong-Renn Chen, **Guanglong He***. Proteomic Analysis of Protein Tyrosine Nitration after Ischemia Reperfusion Injury: Mitochondria as the Major Target. **Biochimica et Biophysica Acta (BBA)-Proteins and Proteomics**. 1794 (2009) 476-485.
14. Yi Xu, Bin Liu, Jay L. Zweier, **Guanglong He***. Formation of Hydrogen Peroxide and Reduction of Peroxynitrite via Dismutation of Superoxide at Reperfusion Enhances Myocardial Blood Flow and Oxygen Consumption in Postischemic Mouse Heart. **Journal of Pharmacology and Experimental Therapeutics**. 327:402-410, 2008.
15. Navdeep Ojha, Sashwati Roy, **Guanglong He**, Periannan Kuppusamy, Jay L. Zweier, and Chandan K. Sen. Assessment of wound-site redox environment and the significance of Rac2 in cutaneous healing. **Free Radical Biology and Medicine**. 2008 Feb 15;44(4):682-91.
16. Hiroshi Hirata, **Guanglong He**, Yuanmu Deng, Ildar Salikhov, Sergey Petryakov, and Jay L. Zweier. Parallel-gap body coil resonator for slice-selective in vivo EPR imaging in rats. **Journal of Magnetic Resonance**. 190(1): 124-134, 2008.
17. Xuehai Zhu, Bin Liu, Shaotang Zhou, Yeong-Renn Chen, Jay L. Zweier, and **Guanglong He***. Ischemic Preconditioning Prevents In Vivo Hyperoxygenation in Postischemic Myocardium with Preservation of Mitochondrial Oxygen Consumption. **American Journal of Physiology Heart and Circulatory Physiology**. 293:1442-1450, 2007.
18. **Guanglong He***, Cristian Dumitrescu, Sergey Patryakov, Yuanmu Deng, Eric Kesselring, Jay L. Zweier. Transverse Oriented Electric Field Re-entrant Resonator (TERR) with Automatic Tuning and Coupling Control for EPR Spectroscopy and Imaging of the Beating Heart. **Journal of Magnetic Resonance**. 187, 57-65, 2007.
19. Yuanmu Deng, Sergey Petryakov, **Guanglong He**, Eric Kesselring, Periannan Kuppusamy, and Jay L. Zweier. Fast 3D EPR Imaging at L-band Using Spiral Magnetic Field Gradient. **Journal of Magnetic Resonance**. 185(2):283-290, 2007.
20. Xuehai Zhu, Li Zuo, Arturo J. Cardounel, Jay L. Zweier, and **Guanglong He***. Characterization of In Vivo Tissue Redox Status, Oxygenation, and Formation of Reactive Oxygen Species in Postischemic Myocardium. **Antioxidants & Redox Signaling**. 9(4), 447-455, 2007.
21. Xue Zhao, Yeong-Renn Chen, **Guanglong He**, Aiwen Zhang, Druhan LJ, Strauch AR, and Jay L. Zweier. Endothelial Nitric Oxide Synthase (NOS3) Knockout Decreases NOS2 Induction Limiting Myocardial Hyperoxygenation and Conferring Protection in the Postischemic Heart. **American Journal of Physiology Heart and Circulatory Physiology**. 292:1541-1550, 2007.
22. Rizwan Ahmad, Bradley Clymer, Yuanmu Deng, **Guanglong He**, Deepti Vikram, Periannan Kuppusamy, Jay L. Zweier. Optimization of Data Acquisition for EPR Imaging. **Magnetic Resonance in Medicine**. 2006; 179(2):263-72.
23. **Guanglong He***, Haihong Li, Yuanmu Deng, Periannan Kuppusamy, and Jay L. Zweier. In Vivo Proton Electron Double Resonance Imaging of the Distribution and Clearance of Nitroxide Radicals in Mice. **Magnetic Resonance in Medicine**. 2006 Mar; 55(3):669-75.
24. Debasis Bagchi, Sashwati Roy, Viren Patel, **Guanglong He**, Savita Khanna, Navdeep Ojha, Christina Phillips, Manashi Bagchi and Chandan K. Sen. Safety and antioxidant potential of an anthocyanin-rich extract of edible berries. **Molecular and Cellular Biochemistry**. 2006; 281(1-2): 197-209.
25. Mark G. Angelos, Vijay K. Kutala, Carlos A. Torres, **Guanglong He**, Jason D. Stoner, Marwan Mohammad, Periannan Kuppusamy. Hypoxic reperfusion of the ischemic heart

- and oxygen radical generation. **American Journal of Physiology Heart Circulatory Physiology**. 2006; 290(1):H341-7.
26. Viren Patel, Indira Chivukala, Sashwati Roy, Savita Khanna, **Guanglong He**, Navdeep Ojha, Amita Mehrotra, Lisa M. Dias, Thomas K. Hunt and Chandan K. Sen. Oxygen: From the benefits of inducing VEGF expression to the risk of hyperbaric stress. **Antioxidants & Redox Signaling**. 7(9):1377-1387, 2005.
 27. Yeong-Renn Chen, Chwen-Lih Chen, Xiaoping Liu, **Guanglong He**, Jay L. Zweier. Involvement of Phospholipid, Biomembrane Integrity, and NO Peroxidase Activity in the NO Catabolism by Cytochrome c Oxidase. **Archives of Biochemistry and Biophysics**. 2005 Jul 15;439(2):200-210.
 28. **Guanglong He***, Xue Zhao, Yeong-Renn Chen, Ramasamy P. Pandian, Periannan Kuppusamy, and Jay L. Zweier. Endothelium-derived nitric oxide regulates in vivo oxygen consumption in postischemic myocardium. **Circulation**. 2005 Jun 7:111(22):2966-72.
 29. **Guanglong He**, Tomiko Mikuni, Sergey Petryakov, Mohanad M. Fallouh, Yuanmu Deng, Periannan Kuppusamy, Masaharu Tatsuta, and Jay L. Zweier. *In vivo* Detection of gastric carcinoma in rats by electron paramagnetic resonance imaging. **Cancer Research**. 64, 6495-6502. September 15, 2004.
 30. Yuanmu Deng, **Guanglong He**, Sergey Petryakov, Periannan Kuppusamy, and Jay L. Zweier. Fast EPR imaging at 300 MHz using spinning magnetic field gradients. **Journal of Magnetic Resonance**. 168: 220-227, 2004.
 31. **Guanglong He**, Vijay K. Kutala, Periannan Kuppusamy, and Jay L. Zweier. *In vivo* measurement and mapping of skin redox stress induced by ultraviolet light exposure. **Free Radical Biology and Medicine**. 36(5): 665-672, 2004.
 32. Yuanmu Deng, **Guanglong He**, Periannan Kuppusamy, and Jay L. Zweier. A Deconvolution Algorithm for EPR Imaging Based on Optimal Cutoff Frequency Estimate. **Magnetic Resonance in Medicine**. 50: 444-448 (2003).
 33. Jay L. Zweier, **Guanglong He**, Alexandre Samouilov, and Periannan Kuppusamy. EPR spectroscopy and imaging of oxygen: Applications to the gastrointestinal tract. **Advances in Experimental Medicine and Biology**. 530: 123-31, 2003.
 34. Jay L. Zweier, **Guanglong He**, Samouilov A, Kuppusamy P. Cardiac Applications of *In Vivo* EPR Spectroscopy and Imaging. In: **Oxygen Transport to Tissue XXIV**. [edited by Dunn and Swartz] Kluwer Academic/Plenum Publishers, 2003.
 35. Haihong Li, Yuanmu Deng, **Guanglong He**, Periannan Kuppusamy, David J. Lurie, Jay L. Zweier. PEDRI Mapping of the In Vivo Distribution and Clearance of a Triaryl Methyl Radical in Mice. **Magnetic Resonance in Medicine**. 48: (3) 530-534 SEP 2002.
 36. **Guanglong He**, Sathesh P. Evalappan, Hiroshi Hirata, Sergey Petryakov, Periannan Kuppusamy, and Jay L. Zweier. Mapping of the B₁ Field Distribution in a Surface Coil Resonator Using EPR Imaging. **Magnetic Resonance in Medicine**. 48: (6) 1057-1062 (2002).
 37. **Guanglong He**, Alexandre Samouilov, Periannan Kuppusamy and Jay L. Zweier. In Vivo Imaging of Free Radicals: Applications from Mouse to Man. **Molecular and Cellular Biochemistry**. 234 (1): 359-367 MAY-JUN 2002.
 38. **Guanglong He**, Yuanmu Deng, Haihong Li, Periannan Kuppusamy, and Jay L. Zweier. EPR/NMR Co-imaging for Anatomic Registration of Whole Body Free Radical Images. **Magnetic Resonance in Medicine**. 47:571-578 (2002).
 39. **Guanglong He**, Sergey Petryakov, Periannan Kuppusamy, Alexandre Samouilov, and Jay L. Zweier. EPR Imaging: A Technique Enabling In Vivo Mapping of Free Radicals and

- Redox Metabolism in Biomedical Applications. **Analytical Sciences**. Vol. 17, i507-i510, 2001.
40. **Guanglong He**, Alexandre Samouilov, Periannan Kuppusamy and Jay L. Zweier. In vivo study on the skin penetration and metabolism by EPR and EPR imaging. **Journal of Magnetic Resonance**. 148, 155-164 (2001).
 41. **Guanglong He**, Sergey Patrikov, Alexandre Samouilov, Periannan Kuppusamy and Jay L. Zweier. Development of A Resonator with Automatic Tuning and Coupling Capability To Minimize Sample Motion Noise For In vivo EPR Spectroscopy and Imaging. **Journal of Magnetic Resonance**. 149, 218-227 (2001).
 42. Sergey Petryakov, Michael Chzhan, Alexandre Samouilov, **Guanglong He**, Periannan Kuppusamy, and Jay L. Zweier. A Bridged Loop-Gap SpBand Surface Resonator for Topical EPR Spectroscopy. **Journal of Magnetic Resonance**. 151, 124-128 (2001).
 43. **Guanglong He**, Ravi A. Shankar, Michael Chzhan, Alexandre Samouilov, Periannan Kuppusamy, and Jay L. Zweier. Noninvasive measurement of anatomic structure and intraluminal oxygenation in the gastrointestinal tract of living mice with spatial and spectral EPR imaging. **Proceedings of National Academy of Sciences USA**, Vol. 96, pp. 4586-4591, April 1999.
 44. Michael Chzhan, Periannan Kuppusamy, Alexandre Samouilov, **Guanglong He**, and Jay L. Zweier. A Tunable Reentrant Resonator with Transverse Orientation of Electric Field for in Vivo EPR Spectroscopy. **Journal of Magnetic Resonance**. 137, 373-378 (1999).
 45. **Guanglong He**, Ciping Chen, Junlin Yang, Guangzhi Xu. First Demonstration of Selective Triplet Quenching in the Radical-Triplet Pair Mechanism (RTPM) of Chemically Induced Dynamic Electron Polarization (CIDEP). **Journal of Physical Chemistry, A** 1998, 102(17), 2865-2869.
 46. **Guanglong He**, Xinyue Li, Ciping Chen, Guangzhi Xu. Time-resolved ESR study of electron transfer process between phenothiazine and maleic anhydride. **Journal of Photochemistry and Photobiology, A: Chemistry**, 108(1997) 155-158.
 47. Qiu Tian, **Guanglong He**, Guangzhi Xu. **Journal of Magnetic Resonance** (Chinese), Vol. 15, No. 03, 1998, 205-209.
 48. **Guanglong He**, Xinyue Li, Ciping Chen, Guangzhi Xu. Time-Resolved ESR Study of the photo induced electron transfer in Phenothiazine-Maleic Anhydride System. **Science Bulletin** (Chinese), 1997, 42(11), 1162-1165.
 49. **Guanglong He**, Xinyue Li, Ciping Chen, Guangzhi Xu. Time-Resolved ESR Study of the Photoreaction process of Phenothiazine-p-benzoquinone system. **Journal of Magnetic Resonance** (Chinese), Vol. 14, No. 3, Jun. 1997, 205-210.
 50. Guangzhi Xu, **Guanglong He**, Tongxing Lu, and Leyu Fu. Two Dimensional CIDEP of Transient Radicals. **Journal of Magnetic Resonance** (Chinese), Vol. 14, No. 1, Feb. 1997, 1-6.
 51. **Guanglong He**, Xinyue Li, Ciping Chen, and Guangzhi Xu. The Time Resolved ESR Study on the Active Radicals Formed in Photochemical Hydrogen Abstraction Reaction Between Benzophenone and Amines. **Journal of Magnetic Resonance** (Chinese), Vol. 14, No. 1, Feb. 1997, 25-29.
 52. **Guanglong He**, Leyu Fu, and Guangzhi Xu. The ESR Imaging of the Distribution of Radical Ions on AL₂O₃-SiO₂ Surface. **Journal of Magnetic Resonance** (Chinese), Vol. 13, No. 4, Aug. 1996, 383-387.

53. Wenming Zhang, **Guanglong He**, Tongxin Lu. The CIDEP Spectra of Photolized p-benzoquinone and z-hydroxy-2-propyl Radicals. **Journal of Physical Chemistry (Chinese)**, 1996, 12(1): 18.
54. Wenming Zhang, Tongxin Lu, **Guanglong He**. A Chemically induced dynamic electron polarization study of p-benzosemiquinone radicals. **Journal of Chemistry (Chinese)**, 14: (1) 92-94, 1996.
55. Junlin Yang, **Guanglong He**, Guangzhi Xu. Study of the Interaction Between 4-Hydroxy-2,2,6,6-Tetramethylpiperidine-1-Nitroxyl (TEMPO) and several Photo-sensitive Molecules. **Science Bulletin (Chinese)**, 1996, 41(7): 608.
56. **Guanglong He**, Leyu Fu, Guangzhi Xu. The X-Band ESR Imaging. **Journal of Magnetic Resonance (Chinese)**, 1996, 13(2): 191-198.
57. **Guanglong He**, Qigao Lv, Guangzhi Xu. Study on the Spatial Distribution and Diffusion Process of Photostabilizer in Polymers by ESR Imaging Techniques. **Science Bulletin (Chinese)**, 1996, 41(13): 1191-1194.
58. **Guanglong He**, Leyu Fu, Tongxin Lu, Guangzhi Xu, DIDEF Study on the System of Photo-sensitive Molecules and Stable Radicals. **Science Bulletin (Chinese)**, 1996, 41(15): 1389-1394.
59. Tongxin Lu, **Guanglong He**. The CIDEP Time Evolution Investigation on the Photolized Semibenzoquinone Radical. **Journal of Chemical Physics (Chinese)**, 1995, 8(5): 410.
60. Tongxin Lu, **Guanglong He**, Xianzhang Zhao. Techniques of the Transient Photolysis ESR Spectroscopy. **Journal of Quantum Electronics (Chinese)**, 1994, 11(4): 292.
61. Lu Tongxing, Zhao Xianzhang, **He Guanglong**. Compound Cavity of Pulsed Dye Laser Tuned By Using Glancing-Incidence Grating. **Applied Optics**, Vol. 11, Nr. 4, August 1991; pp. 151-154.

Peer-reviewed Proceedings and Meeting Abstracts-Selected:

1. **Guanglong He**, Sergey Petryakov, Periannan Kuppusamy, Alexandre Samouilov, Jay L. Zweier. 750 MHz in vivo whole body small animal EPR spectroscopy and imaging system with automatic tuning and coupling functions. **Proceedings of Joint Symposium on Bio-sensing and Bio-imaging**. Aug. 2-4, 1A-3, 2001.
2. Jay L. Zweier, Alexandre Samouilov, **Guanglong He**, Kuppusamy Periannan. EPR imaging of free radical metabolism, oxygen and nitric oxide in cardiovascular applications. **Proceedings of Joint Symposium on Bio-sensing and Bio-imaging**, Aug. 2-4, 1A-1, 2001 (invited paper).
3. **Guanglong He**, Sathesh Porur Evalappan, Hiroshi Hirata, Sergey Petryakov, Periannan Kuppusamy and Jay L. Zweier. **Proceedings of International Society of Magnetic Resonance in Medicine 5 (2002)**.
4. **Guanglong He**, Yuanmu Deng, Haihong Li, Periannan Kuppusamy, and Jay L. Zweier. **Proceedings of International Society of Magnetic Resonance in Medicine 5 (2002)**.
5. Yuanmu Deng, **Guanglong He**, Periannan Kuppusamy, and Jay L. Zweier. **Proceedings of International Society of Magnetic Resonance in Medicine 5 (2002)**.
6. **Guanglong He**, Sergey Petryakov, Periannan Kuppusamy, Alexandre Samouilov, Jay L. Zweier. EPR Imaging: A Technique Enabling In Vivo Mapping of Free Radicals and Redox Metabolism in Biomedical Applications. **Analytic Chemistry**, 2001.
7. **Guanglong He**, Shanker RA, Chzhan M, Samouilov A, Kuppusamy P, Zweier JL. Mapping of oxygen in gastrointestinal tract using electron paramagnetic resonance imaging. **Free Radical Biology and Medicine** 25: 297, Suppl. 1 1998.

8. **Guanglong He**, Samouilov A, Falouh, MM, Kuppusamy P, and Zweier JL. Electron Paramagnetic Resonance Measurement and Imaging of the Effects of Topical Antioxidants on Nitroxide Free Radical Penetration, Metabolism and Distribution in Human Skin. **Proceedings of International Society of Magnetic Resonance in Medicine** 9 (2001).
9. **Guanglong He**, Sergey Petryakov, Periannan Kuppusamy, Alexandre Samouilov, Jay L. Zweier. 750 MHz in vivo whole body small animal EPR spectroscopy and imaging system with automatic tuning and coupling functions. **Proceedings of ICAS**, August (2001).
10. Jay L. Zweier, **Guanglong He**, Alexandre. Samouilov, Pariannan Kuppusamy, and M. Davies, In vivo EPR imaging of human skin: A non-invasive technique to map skin redox metabolism, **XXI, IFSCC International Congress 2000 Berlin**, Abstract PO 3.
11. **Guanglong He**, Yuanmu Deng, Haihong Li, Periannan Kuppusamy, Jay L. Zweier. Proton MRI Co-Imaging of Living Mice with EPR Functional Imaging of Free Radicals. Oral Presentation at Tenth Scientific Meeting and Exhibition, 18-24 May 2002, **ISMRM**.
12. Yuanmu Deng, **Guanglong He**, Periannan Kuppusamy, Jay L. Zweier. A Deconvolution Algorithm for EPR Imaging Based on Optimal Cutoff Frequency Estimate. Tenth Scientific Meeting and Exhibition, 18-24 May 2002, **ISMRM**.
13. **Guanglong He**, Sathesh Porur Evalappan, Hiroshi Hirata, Sergey Petryakov, Periannan Kuppusamy, Jay L. Zweier. B1 mapping of a Surface Coil Resonator using EPR Imaging. Tenth Scientific Meeting and Exhibition, 18-24 May 2002, **ISMRM**.
14. **Guanglong He**, Kutala VK, Kuppusamy P, Zweier JL. In vivo measurement and mapping of skin redox stress induced by ultraviolet light exposure. **Free Radical Biology and Medicine**. 35: 450 Suppl. 1 2003.
15. **Guanglong He**, Kutala VK, Zweier JL, and Kuppusamy P. Imaging of myocardial ischemia and regional pO₂ alterations in the perfused heart. **Free Radical Biology and Medicine**. 35: 451 Suppl. 1 2003.
16. **Guanglong He**, Xue Zhao, Kuppusamy Periannan, and Jay L. Zweier. Endothelium-derived nitric oxide regulates in vivo oxygen consumption in postischemic myocardium. **Free Radical Biology and Medicine**. 37: S97 Suppl. 1, 2004.
17. Xue Zhao, **Guanglong He**, Yeong-Renn Chen, Jay L. Zweier. Endothelium-derived nitric oxide regulates in vivo oxygen consumption in postischemic myocardium. **Circulation**. Vol. 110, No. 17, Suppl. III-206, 2004.
18. **Guanglong He**, Sergey Petryakov, Yuanmu Deng, Periannan Kuppusamy, and Jay L. Zweier. In vivo EPR Spectroscopy and Imaging of Rat Skin Redox Status after SOD Mimic and UV Treatment. **Proceedings of ISMNA (Invited guest speaker)**. 2005.
19. **Guanglong He**, Xue Zhao, Yeong-Renn Chen, Periannan Kuppusamy, Jay L. Zweier. Nitric Oxide Regulates In Vivo Oxygen Consumption and Redox In The Postischemic Myocardium. **EPR and Spin Trapping Conference**. 2005.
20. Mark G Angelos, Vijay K Kutala, Carlos A Torres, **Guanglong He**, Jason D Stoner, Marwan Mohammad, Periannan Kuppusamy. Hypoxic Reperfusion of the Ischemic Heart and Oxygen Radical Generation. **EPR and Spin Trapping Conference**. 2005.
21. Yuanmu Deng, **Guanglong He**, Sergey Petryakov, Periannan Kuppusamy, and Jay L. Zweier. Accelerating EPR Imaging Using Spinning Magnetic Field Gradients and Adaptive Projection Acquisition. **EPR and Spin Trapping Conference**. 2005.
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