



John H. Zhang, M.D., Ph.D.

Director of Neurosurgical Research, Professor of Neurosurgery, Professor of Physiology at Loma Linda University, in Loma Linda, California

Dr. Zhang attended medical school at Chongqing University of Medical Sciences in Chongqing China. He completed a neurology residency and did two years postdoctoral research training in Beijing Neurosurgical Institute. He then completed a graduate student program under Drs. David Cook and Bryce Weir and obtained a Ph.D. in the study of cerebrovascular diseases at the University of Alberta Medical Center in Edmonton Canada. He finished his postdoctoral training in Physiology & Pharmacology at the McMaster University under Dr. Ed Daniel in Hamilton Canada. He was an Assistant Professor of Surgery (research) at the University of Chicago and later a Research Scientist and Head of Biochemical Pharmacology Department at the Deborah Research Institute in New Jersey. Dr. Zhang became an Associate Professor of Neurosurgery, and Physiology & Biophysics at the University of Mississippi Medical Center in Jackson and was the Director of Research in the Research Division from 1997-2001. Dr. Zhang was appointed as the Schumpert Endowed Medical Center Chair in Neurosciences, Vice-Chairman and Director of Neuroscience Research, Professor of Neurosurgery, Professor of Molecular & Cellular Physiology, and Professor of Pharmacology & Therapeutics at the Louisiana State University Health Science Center at Shreveport before joining the faculty at Loma Linda University at the summer of 2004.

Dr. Zhang's research interests include cerebral vascular biology, cerebrovascular diseases, neonatal hypoxia, spinal cord injury and brain tumor. He has special interest in stroke research especially cerebral vasospasm after subarachnoid hemorrhage. Dr. Zhang served as Chairman for the 8th International Conference on Cerebral Vasospasm in Chicago 2003. Some of Dr. Zhang's recent research interests are the use of hyperbaric oxygen in the treatment of cerebral vascular disorders especially neonatal hypoxia and cerebral palsy.

Dr. Zhang's research efforts are supported by grants from American Heart Association, National Institute of Health, and Louisiana Board of Regents. Dr. Zhang is a member of the International Society of Cerebral Blood Flow and Metabolism, the Society for Neuroscience, the American Stroke Association, and the American Association for the Advancement of Science, and the American Physiology Society.

A. Overview of Dr. Zhang's Team

Focusing on Cerebral Vascular Diseases

Director of Research	John H. Zhang, MD, PhD
Neurobiologist:	Robert Ostrowski, MD, PhD (Warsaw, Poland)
Cerebrovascular Biologist:	Vikram Jadhav, MD, PhD (Southern Illinois)
Visiting Neurosurgeon:	Hiroshi Yatsushige, MD (Tokyo, Japan) Julian Cahill, MD (Cork, Ireland) Norihito Shimamura, MD (Hirosaki, Japan) Ihsan Solaroglu, MD (Ankara, Turkey) Tamiji Tsubokawa, MD (Tokyo, Japan)
Visiting Neurologist:	Kenichiro Yada (Nagoya, Japan)
Anesthesiology Fellow:	Gerald Matchett (California) Mike Zhou (Hangzhou, China)
Graduate Student:	John W. Calvert, BS (PhD candidate) (Mississippi) Joe Chen, MS (PhD candidate) (Shanghai, China)
Research Coordinator:	Suzanne Marcantonio (California)

B. Research Grant Overview - John Zhang*As Principle Investigator*

<u>National Institute of Health</u>	\$4,350,000 (three awards)
<u>NIH Center Grant (project PI)</u>	\$35,000 (one award)
<u>American Heart Association</u>	\$582,000 (three awards)
<u>Institutional Foundation</u>	\$100,577 (six awards)
<u>Industry (Upjohn)</u>	\$5,000 (one award)
<u>Student Sponsor (VA)</u>	\$8,000 (four awards)
<u>Postdoctoral Sponsor (UMMC)</u>	\$100,000 (two institutional match-up funds)
<u>Institutional Startup Fund</u>	\$1,901,000 (Six funds from Four institutes)

As Co-PI or Co-Investigator

<u>National Institute of Health</u>	\$4,091,546 (three awards)
<u>Louisiana Board of Regents</u>	\$1,530,000 (two awards)
<u>China Natural Science Foundation</u>	\$20,000 (one award)
<u>Institutional Foundation</u>	\$40,670 (three awards)

Endowment

<u>Louisiana Board of Regents</u>	\$2,000,000 (Schumpert Endowed Chair in Neuroscience)
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C. Research Directions

Subarachnoid Hemorrhage and Cerebral Vasospasm

We use an established canine double hemorrhage model to study the signaling pathways (AHA grant) and apoptosis (NIH grant) in cerebral vasospasm after subarachnoid hemorrhage. In the same dog model, we test gene therapy by using adenovirus as vector (grant from Louisiana Gene Therapy Consortium).

We use an endovascular puncture model in rats and transgenic mice to study the signaling pathways in “early brain injury” after subarachnoid hemorrhage and explore anti-apoptotic and hyperbaric therapeutic strategies (grant from Louisiana Board of Regents).

In Loma Linda U, a clinical study is under planning with Dr. Colohan in Neurosurgery.

In addition, a computer model of cerebral vasospasm is being planned for the next two years. External funding will be explored in 2005.

Neonatal Hypoxia-Ischemia

We use an established rat pup model of neonatal hypoxia/ischemia and test the effect of hyperbaric oxygen treatment (NIH grant). Oxygen sensitive genes, apoptosis, and neurological evaluations are investigated.

A long-term study of “silent injury” after neonatal hypoxia is planed and the grant is funded by the United Cerebral Palsy Foundation from January 2004 to December 2005 for two years.

In addition, we have exciting data of erythropoietin in brain protection in neonatal hypoxia and Dr. Zhang plans to write a NIH grant in 2004.

In Loma Linda U, with collaborative efforts from Drs. Michelson and Ashwal from Peds Neurology, two letters of intend have been submitted to Mitochondria Foundation regarding future use of hyperbaric oxygen in mitochondrial disorders.

Focal Cerebral Ischemia

We use an established suture focal cerebral ischemia rat model and evaluate the mechanism of hyperbaric oxygen treatment (NIH grant).

In addition, role of integrins in focal cerebral ischemia is under study at the early stage.

Global Cerebral Ischemia Model

We use an established global cerebral ischemia-hypotension rat model and test the therapeutic effect of hyperbaric oxygen and its molecular mechanisms.

Intracerebral Hemorrhage

We use two established rat models of ICH: blood injection and collagenase injection. Our current interests are on the gastric complications. No additional studies are planned at present.

In addition, we use this same modeling in transgenic mice and studying the genetic regulation of brain edema, blood-brain barrier permeability, intracranial pressure, and cerebral blood flow. One grant has been submitted to NIH (PI: Tang, Co-I: Zhang)

Lobectomy - Neurosurgery-related Brain Injury

We established an animal model of front lobectomy and are testing neuroprotective agents in the prevention of neurosurgical complications.

Spinal Cord Injury

We studied the effect of hyperbaric oxygen on the morphology, molecular biology and functional recovery in spinal cord injury in rats.

Currently not active

Brain Tumor

We studied signaling pathways and inhibition of Ras in the treatment of brain tumor growth.

Currently not active

CURRICULUM VITAE

John H. Zhang, M. D., Ph. D.

**Division of Neurosurgery
Loma Linda University Medical Center
11234 Anderson Street, Room 2562 B
Loma Linda, California 92354**

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11234 Anderson Street, Room 2xxx
Loma Linda, California 92354**

**Department of Physiology & Pharmacology
Loma Linda University School of Medicine
Risley Hall, Room 219
Loma Linda California 92350**

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Position Director for Neurosurgical Research
Professor of Neurosurgery
Professor of Physiology
Professor of Anesthesiology

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Risley Hall, Room 223
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Fax: 909-558-0119
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Loma Linda University Medical Center
Loma Linda University
Loma Linda, California
Phone: 909-558-4723
Fax: 909-558-0119

Research Interest

Cerebral Vascular Diseases
Cerebral Vascular Biology
Hyperbaric Oxygen Therapy
Neonatal Hypoxia

Education

1992.5 Ph. D., Experimental Surgery
Thesis: Cerebrovascular Effects of Potassium Channel Modulators and Their Possible Role against Cerebral Vasospasm
Advisors - Professor David Cook, Ph. D., Professor Bryce K. A. Weir, M. D.
University of Alberta, Edmonton, Alberta, Canada

1987.6 M. S., Neurology/Neurosciences
Thesis: Anticonvulsants and Peripheral Neuropathy in Epileptics
Advisor - Professor Dinglie Shen, M. D., Ph. D.
Chongqing University of Medical Sciences, Chongqing, China

1983.6 M. D., Medicine
Chongqing University of Medical Sciences, Chongqing, China

Academic Appointment

- 1995.1 - 1997.1 *Assistant Professor of Surgery (Research)*
Section of Neurosurgery
Department of Surgery
University of Chicago
Chicago, IL
- 1997.2 - 1997.8 *Research Scientist (Associate Professor)*
Department of Biochemical Pharmacology
Deborah Research Institute
Browns Mills, NJ
- 1997.9 - 2001.6 *Associate Professor of Neurosurgery*
Department of Neurosurgery
University of Mississippi Medical Center
Jackson, MS
- 1997.11 - 2001.12 *Associate Professor of Physiology & Biophysics*
Department of Physiology & Biophysics
University of Mississippi Medical Center
Jackson, MS
- 2001.7 - 2001.12 *Professor of Neurosurgery*
Department of Neurosurgery
University of Mississippi Medical Center
Jackson, MS
- 2002.1 - 2004.6 *Christus Schumpert Endowed Chair in Neurobiology*
Louisiana State University Health Science Center
Shreveport, LA
- 2001.1 *Tenured Professor*
Louisiana State University Health Science Center
Shreveport, LA
- 2002.1 - 2004.6 *Professor of Neurosurgery*
Department of Neurosurgery
Louisiana State University Health Science Center
Shreveport, Louisiana
- 2002.1 - 2004.6 *Professor of Molecular & Cellular Physiology*
Department of Molecular & Cellular Physiology

Louisiana State University Health Science Center
Shreveport, Louisiana

2002.1 – 2004.6

Professor of Pharmacology & Therapeutics
Department of Pharmacology & Therapeutics
Louisiana State University Health Science Center
Shreveport, Louisiana

2004.7 -

Professor of Neurosurgery
Division of Neurosurgery
Loma Linda University Medical Center
Loma Linda, California

2004.7

Professor of Physiology
Department of Physiology & Pharmacology
Loma Linda University
Loma Linda, California

2005.3

Professor of Anesthesiology
Department of Anesthesiology
Loma Linda University Medical Center
Loma Linda, California

Administration Appointment

1997.2 – 1997.8

Head
Department of Biochemical Pharmacology
Deborah Research Institute
Browns Mills, New Jersey

1997.9 – 2001.12

Administrative Director
Neurosurgery Research Program
Department of Neurosurgery
University of Mississippi Medical Center
Jackson, Mississippi

2002 – 2004.6

Director of Neuroscience Research
Louisiana State University Health Science Center
Shreveport, Louisiana

2003 - 2004

Vice-Chairman for Neuroscience Research
Department of Neurosurgery

Louisiana State University Health Science Center
Shreveport, Louisiana

2004.7 - *Director of Neurosurgical Research*
Division of Neurosurgery
Loma Linda University Medical Center
Loma Linda, California

2005.6 - *Director of Basic Science Research*
Department of Anesthesiology
Loma Linda University Medical Center
Loma Linda, California

University Committee

1997.11 – 2001.12 *Graduate Faculty*
University of Mississippi Medical Center
Jackson, MS

2002.1 – *Graduate Faculty*
Louisiana State University Health Science Center
Shreveport, Louisiana

2002.4 – *Board of Directors for Neuroscience*
Louisiana State University Health Science Center
Shreveport, Louisiana

2002 – 2003 *Research Advisory Committee*
Louisiana State University Health Science Center
Shreveport, Louisiana

2002 - 2004 *Tumor Invasion and Metastasis Scientific Program*
Feist-Weiller Cancer Center
LSUHSC-S

2003 - 2004 *Neuroscience Research Day Committee*
LSUHSC-Shreveport

2003 - 2004 *External Advisory Board for a NIH NCMRR T32 NSRA*
Institutional Training Grant
"Rehab Engineering, Science, and Technology Training?"

2004 *Search Committee for Director of Animal Care*

Loma Linda University

Visiting Professorship

- 2000.10 – *Visiting Professor*
Xian Jaotong University School of Medicine
Xian, China
- 2000.10 – *Visiting Professor*
The Third Military Medical University
Chongqing, China
- 2000.10 – *Visiting Professor*
The First Military Medical University
Guangzhou, China
- 2001.6 – *Visiting Professor*
Chongqing University of Medical Sciences
Chongqing, China

Award & Honor

- 1991.2 *Honorable Mention*
Robert G. Siekert Young Investigator Award in Stroke
The 16th International Joint Conference on Stroke and
Cerebral Circulation
AHA Stroke Council
San Francisco, California
- 1992.5 *Distinguished Service Certificate*
Department of Surgery
University of Alberta
Edmonton, Canada
- 1996.3 *Gold Medal*
Department of Neurosurgery
Mie University
Mie, Japan
- 1996.3 *Certification Plate*
Department of Physiology
Showa University

Tokyo, Japan

- 1997.1 *Distinguished Service Certificate*
Section of Neurosurgery
Department of Surgery
University of Chicago
Chicago, Illinois
- 1999.11.25 *Invited Speaker*
*The 6th Keio International Symposium for Life Sciences and
Medicine: Ischemic Blood Flow in the Brain.*
Keio University
Tokyo, Japan
- 2000.6 *First Prize Poster Award*
Poster Presenter: Dr. Meguro (Research Fellow)
The 7th International Conference on Cerebral Vasospasm
Interlaken, Switzerland
- 2000.7 *Invited Speaker*
*8th International Symposium on Pharmacology of Cerebral
Ischemia.*
Marburg, Germany
- 2000.10 *Invited Speaker*
Neuro-update in Xian
Xian Neurosurgical Society
Xian, China
- 2000.10 *Golden Key of Xian City*
Xian Medical University
- 2000.10 *Invited Speaker*
Chongqing Neurosurgical Society Annual Conference
Chongqing, China
- 2000.10 *Invited Speaker*
Guangzhou Neurosurgical Society Annual Conference
Guangzhou, China
- 2001.4 *Spring Light Award*
Medical Delegation Member to Medical Schools in
Shanghai, Nanjing, Xuzhou, Jining, Qingdao
Funded by Chinese Government and Universities

- 2001.6 *Invited Speaker*
The First Beijing International Stroke Forum
Beijing, China
- 2001.6 *Invited Speaker*
The First Chongqing Stroke Research Seminar Series
Chongqing, China
- 2002.3 *The 23th Princeton Conference on Cerebrovascular Diseases*
Coronado, California
- 2002.4 *Invited Speaker*
Symposium of Vasospasm: in honor of Dr. Bryce Weir
AANS
Chicago, IL
- 2002.5 *Invited Speaker*
2002 Sino-US Symposium on Hi-Tech and Economic Developments & the Fourth Conference of Federation of Associations of Chinese Professionals in Southern USA
Houston, Texas
- 2002.6 *Invited Speaker*
The First International Forum on Cerebrovascular Surgery & Vasospasm
Chongqing, China
- 2002.7 *Invited Speaker*
9th International Symposium on Pharmacology of Cerebral Ischemia
Marburg, Germany
- 2002.10 *Invited Speaker*
Neuro-update 2002
Shreveport, Louisiana
- 2002.10 *Invited Speaker*
6th Hirosaki International Forum of Medicine Science Advances in Brain Research – Cerebrovascular Disorders & Neurodegeneration
Hirosaki, Japan
- 2002.10 *Medal*

Hirosaki University
Hirosaki, Japan

- 2002.12 *Invited Speaker*
NeuroBioTechnology-2002
Shreveport, Louisiana
- 2003.6 *Invited Speaker*
The 8th International Conference on Cerebral Vasospasm
Chicago, IL, USA
- 2003.12 *Invited Speaker*
Beijing Tiantan Hospital
Beijing, China
- 2004.1 NIH CNNT Regular Member
- 2004.3 *Invited Speaker*
The 1st Academic Conference of International Chinese
Neurosurgical Sciences
March 25-28, Boao, Hainan, China
- 2004.4 *The 24th Princeton Conference on Cerebrovascular Diseases*
Baltimore, Maryland
- 2004.4 *Invited Speaker*
Hyperbaric Medicine 2004
The Tenth Annual Advanced Symposium
Columbia, South Carolina
- 2004.5 *Paul Bert Award*
Undersea and Hyperbaric Medical Society
Annual Meeting, Sydney, Australia, May 26-29, 2004
- 2004.6 *Invited Speaker*
Advances in Neuroscience 2004
Guangzhou, China
- 2004.7 *Invited Speaker*
10th International Symposium on Pharmacology of Cerebral
Ischemia
Marburg, Germany
- 2004.7 *Invited Speaker*

*The 4th International Symposium on Cerebral Palsy and
Brain Injury*
Lauderdale, Florida

2004.8

Invited Speaker
Shanghai Neurosurgery Society
Shanghai, China

2004.8

Invited Speaker
Hangzhou Neurosurgery Society
Hangzhou, China

2004.9

Invited Speaker
The Second Beijing Stroke Forum
Beijing, China

2004.10

Invited Speaker
Hyperbaric Oxygenation for Neuro-Rehabilitation
International Hyperbarics Association
World Congress & Exposition on Disabilities
Orlando, FL

2004.10

Invited Speaker
Advance Workshop on Hyperbaric Medicine,
The 3rd International Medical Meeting of the Angeles Group
Tijuana, Mexico

2005.1

Invited Speaker
2005 Winter Symposium: HBO Medicine and Wound
Management
Breckenridge, Colorado

2005.3

Member at Large
Undersea and Hyperbaric Medical Society

2005.5

Visiting Professor
Anatomy & Cell Biology
University of Winnipeg
Canada

2005.7

Invited Speaker
The 3rd Beijing International Stroke Forum
Beijing, China

- 2005.9 *Invited Speaker*
Advanced Therapies for Central Nervous System
Disease in Children
Annual Symposium of Advocate HOPE Children's Hospital
Hamburger University, Oak Brook, Illinois
- 2005.9 *Invited Speaker*
*The Second Chongqing International Symposium on Cerebral
Vascular Diseases*
Chongqing, China

Award & Honor to My Students & Residents

- 2000.10.24-26 *Travel Award from North America*
59th Annual Meeting of the Japan Neurosurgical Society
Research Resident: Robert Tibbs
Fukuoka, Japan
- 2001.3.14-17 *Basic Science Award*
Southern Neurosurgical Society Annual Meeting
Research Resident: Robert Tibbs
Austin, Texas
- 2001.5.10 *Neuroscience Research Award for Graduate Student*
Mississippi Chapter Society for Neuroscience
Graduate Student: Alexander Zubkov
Jackson, MS
- 2001.5 *Graduate Student Research Award*
University of Mississippi Medical Center
Graduate Student: Alexander Zubkov
Jackson, MS
- 2002.1 *Key Stone Symposium Award*
Stroke - Molecular, Cellular, Pharmacological and
Development of New Therapeutics
Graduate Student: Yun Dai
Jackson, MS
- 2003.5 *Neuroscience Award to Postdoctoral Fellows*
Neuroscience Research Day
LSUHSC-Shreveport
Postdoctoral Fellow: Changman Zhou

Shreveport, LA

2005.4 *Selma Andrews Travel Award*
Student: John W. Calvert
Loma Linda University

National & International Meeting Committee

1997.5 International Committee member
The 6th International Conference on Cerebral Vasospasm
Sydney, Australia

1998.12 Chairman,
Stroke/Cerebral Vasospasm Symposium
The 5th Internet World Congress for Biomedical Science
McMaster University
Hamilton, Ontario, Canada

2000.2 Chairman
Stroke/Cerebral Vascular Physiology Symposium
The 6th Internet World Congress for Biomedical Sciences
Hospital of Ciudad Real, Spain

2000.11 Chairman
Concurrent Session IIIA: *New Advances in Vascular Disease*
Jackson Cardiovascular-Renal Meeting
Jackson, MS

2001.6 Organization Committee Member
The First Beijing International Stroke Forum
Beijing, China

2001.6 Co-Organizer
Chongqing Stroke Symposium
Chongqing, China

2001.7 Chairman
Oxidative Stress and Cerebral Vasospasm Section
The 7th International Symposium on Resistant Arteries
Muskoka Sands, Ontario, Canada

2001.7 Chairman

- Poster Oral Presentation: "Oxidative Stress and Vasospasm"
"Intercellular and Intracellular Signaling"
The 7th International Symposium on Resistant Arteries
Muskoka Sands, Ontario, Canada
- 2001.7 Judge for Young Investigator Award
The 7th International Symposium on Resistant Arteries
Muskoka Sands, Ontario, Canada
- 2002.6 Co-Chairman
International Forum on Cerebrovascular Surgery
Chongqing, China
- 2002.10 Faculty
Neuro-update02
Shreveport, LA
- 2002.10 *Chair*
Symposium I: Subarachnoid Hemorrhage and Vasospasm
The 6th Meeting of the Hirosaki International Forum of Medical Science, Advances in Brain Research
Hirosaki, Japan
- 2002.11 *Moderator for Poster Presentation*
Brain Edema 2002
Tokyo, Japan
- 2002.12 *Co-Organizer*
Symposium of Neurobiotechnology
Shreveport, LA
- 2003.6 *Executive Chairman*
The Second Beijing International Stroke Forum
Beijing, China
- 2003.6 *Organization Committee*
Hangzhou Stroke Forum
Hangzhou, China
- 2003.7 *Chairman*
The 8th International Conference on Cerebral Vasospasm
Chicago, IL, USA

- 2003.7 *Modulator*
Session on Signal Transduction
The 8th International Conference on Cerebral Vasospasm
Chicago, IL, USA
- 2004.3 *Co-Organizer*
Symposium of Neurobiotechnology
Shreveport, LA
- 2004.3 *Modulator*
Session on Cerebrovascular Diseases
The First Conference of International Chinese Neurosurgery Association
Boao, China
- 2004.3 *Executive Member*
Chinese Neurosurgical Society
- 2004.9 *Executive Chairman*
The Second Beijing International Stroke Forum
Beijing, China
- 2005.1 Abstract Reviewer for Brain 05
Amsterdam, June 30, 2005
- 2005.7 Co-Chair
Section of Hyperbaric Oxygen in Neurology
The Third Beijing International Stroke Forum
Beijing, China
- 2005.9 Co-Chair
The 2nd Chongqing International Conference on Cerebral Vascular Diseases
Chongqing, China
- 2006.6 Chair of Scientific Committee
The 9th International Conference on Cerebral Vasospasm
Istanbul, Turkey

Visiting Scientist in Other Institute

- 1995.4 *Department of Neurosurgery & Pharmacology*
University of Cincinnati
Cincinnati, Ohio
- 1996.3. *Department of Neurosurgery*
Mie University School of Medicine
Edobashi, Tsu, Mie, Japan
- 1996.3. *Department of Pharmacology*
Pola Corporation
Yokohama, Japan
- 1996.3. *Department of Physiology*
Showa University
Tokyo, Japan
- 1996.4. *Department of Pharmacology*
Sun Yat-Sen University of Medical Science
Guangzhou, China
- 1996.4 *Department of Physiology*
Hong Kong University
Hong Kong
- 1996.4. *Department of Neurosurgery & Pharmacology*
Chonbuk National University Medical School
Chonju, Korea
- 1996.10 *Deborah Research Institute*
Browns Mills, New Jersey
- 1996.11 *Department of Pediatrics and Cardiovascular Center*
Medical College of Wisconsin
Milwaukee, Wisconsin
- 1997.3 *Grand Rounds in Department of Neurology & Neurosurgery*
University of Mississippi
Jackson, Mississippi
- 1997.10. *Section of Neurosurgery*
Department of Surgery
University of Chicago
- 1998.7 *Smooth Muscle Research Program*

McMaster University
Hamilton, Ontario, Canada

1999.10

Department of Neurosurgery
University of Heidelberg
Manheim, Germany

1999.11

Department of Neurosurgery
Showa General Hospital
Tokyo, Japan

1999.11

Department of Neurosurgery
Toho University
Tokyo, Japan

1999.12

Center of Prenatal Biology
Loma Linda University
Loma Linda, CA

2000.10

Department of Neurosurgery
The Fourth Military Medical University
Xian, China

2000.10

Department of Neurosurgery
Xian Jotong University School of Medicine
Xian, China

2000.10

Department of Neurosurgery
The Third Military Medical University
Chongqing, China

2000.10

Department of Neurosurgery
The First Military Medical University
Guangzhou, China

2001.4.16

Re-Jin Hospital
Shanghai Second Medical College
Shanghai, China

2001.4.17

Nanjing Brain Hospital
Nanjing University School of Medicine
Nanjing, China

2001.4.18

First Affiliated Hospital

Xuzhou Medical University
Xuzhou, China

2001.4.19

First Affiliated Hospital
Jining Medical College
Jining, China

2001.4.20

First Affiliated Hospital
Qingdao University School of Medicine
Qingdao, China

2001.6

Department of Neurology & Neurosurgery
Beijing Neurosurgical Institute
Beijing, China

2001.6

Department of Neurology
Chongqing University of Medical Sciences
Chongqing, China

2001.9

Department of Physiology & Neurosurgery
LSU-Shreveport Medical Center
Shreveport, LA

2001.11.1

Department of Pharmacology & Neurosurgery
University of Vermont
Burlington, VT

2001.11.8

Neuroscience Program
Michigan State University
East Lansing, MI

2001.11.10

Department of Neurosurgery Research
University of Michigan
Ann Arbor, MI

2002.6

Department of Neurosurgery
The Third Military Medical University
Chongqing, China

2003.7

Visiting Professor
Department of Neurosurgery
Loma Linda University School of Medicine
Loma Linda, CA

- 2003.12 *Visiting Professor*
Beijing Tantan Hospital
Chinese Academy of Science
Beijing, China
- 2005.5 *Visiting Professor*
Department of Human Anatomy and Cell Science
University of Manitoba
Winnipeg, Canada

Professional Society

- 1996 - American Heart Association
Stroke Council (000108329160)
- 1997 - American Physiological Society (27673, online: 227673)
- 1997 - 1998 Mid-Atlantic Pharmacology Society
- 1998 - International Society of Cerebral Blood Flow and
Metabolism
- 2000 - Society for Neuroscience (ID: 100008902)
- 2001 - American Association for the Advancement of Science
- 2004.5 - Undersea and Hyperbaric Medical Association
- 2005.7 Associate Member,
Perinatal Center, Loma Linda University
- 2004 International Hyperbarics Association

Editorial Board

- 2001 - Associate Editor - Journal of Stroke (Chinese)
- 2004 - Board Member - Surgical Neurology
- 2003 - Editorial Board - Chinese Journal of Neuromedicine
- 2004 - Board Member - Neurological Research

2003 Guest Editor, Neurological Research
2004 Guest Editor, Neurological Research
2004 Guest Editor, Pathophysiology
2005 Editorial Board - International Journal of Hyperbaric
Medicine

AD HOC Reviewer

1993 - Journal of Neurosurgery
1994 - Pharmacology & Toxicology
1995 - Life Sciences
1996 - American Journal of Physiology
1997 - Brain Research
1997 - Stroke
1998 - Hypertension
2000 - Neurological Research
2000 - Journal of Clinical Investigation
2001 - Biochimica et Biophysica Acta (BBA)
2001 - Archives of Physiology and Biochemistry
2001 - Journal of Neuroscience
2001 - Neuroscience Letters
2001 - Medical Science Monitor
2001 - Journal of Cerebral Blood Flow & Metabolism
2001 - American Journal of Pathology

2001 - Experimental Brain Research
2002 - Brain Research Protocols
2002 - Microcirculation
2002 - Journal of Pharmacology Experimental Therapeutics
2002 - Circulation
2002 - Journal of Neuroscience Methods
2002 - Journal of Applied Physiology
2002 - Biological Procedures Online
2002 - British Journal of Pharmacology
2003 - Trends in Pharmacological Science
2003 - Molecular Neurobiology
2003 - Molecular Human Reproduction
2003 - Acta Neurochirurgica
2003 - J Neurol Chemistry
2003 - Neurochemistry International
2003 - Progress in Neuro-Psychopharmacology & Biological Psychiatry
2004 - Free Radical Biology & Medicine
2004 - Journal of Cardiovascular Pharmacology
2004 - Neurosciences
2004 - Molecular Vision
2004 - JAMA

2005 - NeuroSignals

Grant Reviewer

1997 Deborah Research Institute

1999 Veterans Affairs Medical Research Program
Consultant for External Review

2001.4 American Heart Association Brain Consortium Grant
Review

2001 Alzheimer's Association Grant Reviewer

2001 Veterans Affairs Medical Research Program
Consultant for External Review

2001.9 American Heart Association Bugher Award Study
Group

2002.4 AHA National Grant Review: Brain/Stroke2

2002 Alzheimer's Association Grant Reviewer

2003.4 AHA National Grant Review: Brain/Stroke2

2003.10 NIH BDCN-2

2004 - 2008 NIH BDCN-2, regular member

2004 - 2005 AHA, Brain-2

2004.5 External Assessor
Australian Government National Health and Medical
Research Council

2004.6 NIH CNNT (01) Study Section

2004.10 AHA Brain, Member

2004.11 NIH CNNT

2004.11 NIH/NIDCD, Special Emphasis Panel ZDC1 SRB Y 52

- 2004.12 Ad Hoc, Department of Veterans Affairs -
Neurobiology - C
- 2005.3 NIH/NCRR, Special Emphasis Panel for Centers of
Biomedical Research Excellence (COBREs)
- 2005.3 Career Development Grant Review, Department of
Veterans Affairs
- 2005.3 External Referee, Operating Grant Review Committee,
Manitoba Health Research Council, Canada
- 2005.4 AHA Brain 2
- 2005.6 Member, Department of Veterans Affairs
Neurobiology - C
- 2005.6 NIH CNNT (01) Study Section

Licensure and Certificate

- 1983 - 1989 **Medical Diploma & License**
The People's Republic of China, 1983
- 2001 - 2004 DEA License, Louisiana
- 2004 - DEA License, California

Teaching Experience

- 1986 - 1987 *Teaching Assistant*
Department of Neurology
Chongqing University of Medical Sciences
Chongqing, PR China
- 2004.2 Medical Neuroscience Course (Module II)
CSF & Ventricles
Louisiana State University Health Science Center
Shreveport, Louisiana

2005.9
Medical Physiology Course
Muscle System
Loma Linda University

2005
Graduate Course
Cardiovascular System
Loma Linda University School of Medicine

Seminar Organizer

1997.11 – 2001.12
Organizer
Brain Research Conference (weekly)
University of Mississippi Medical Center
Jackson, Mississippi

2002.1 –
Organizer
Neurosurgery Research Conference (weekly)
LSUHSC-SH
Shreveport, Louisiana

2004.7
Organizer
Neuroscience Research Conference (weekly)
Loma Linda University
Loma Linda, California

Pre- and Post-Doctoral Training

1978.9 - 1983.6
Medical Student
Chongqing University of Medical Sciences
Chongqing, China
Principal: De Qian, M. D.

1983.7 - 1987.6
Resident of Neurology
Department of Neurology
Chongqing University of Medical Sciences
Chongqing, China
Chairman: Dingle Shen, M. D., Ph. D.

1984.9 - 1987.6
Graduate Student
Department of Neurology
Post-Graduate School
Chongqing University of Medical Sciences

Chongqing, China
Supervisor: Dingle Shen, M. D., Ph. D.

1989.5 - 1992.5
Graduate Student
Departments of Experimental Surgery & Pharmacology
University of Alberta
Edmonton, Alberta, Canada
Supervisors: David A. Cook, Ph. D., Bryce K. A. Weir,
M. D.

1989.5 - 1992.5
Research Associate
Section of Neurosurgery
Department of Surgery
University of Alberta
Edmonton, Alberta, Canada
Supervisors: Bryce K. A. Weir, M. D.

1992.6 - 1993.2
Postdoctoral Fellow
Division of Physiology & Pharmacology
Department of Biomedical Sciences
McMaster University
Hamilton, Ontario, Canada
Supervisor: Edwin E. Daniel, Ph. D.

1993.3 - 1994.12
Research Associate
Section of Neurosurgery
Department of Surgery
University of Chicago
Chicago, IL
Supervisor: Bryce K. A. Weir, M. D.

Speaker/Visiting Speaker in My Lab & Division

1996.7
Yasushi Sakai, Ph. D. (Grand round speaker)
Professor and Chairman
Department of occupational Therapy
Showa University College of Biomedical Sciences
Yokohama, Japan

1996.9
Chuljin Kim, M. D., Ph. D.
Associate Professor & Chairman
Department of Neurosurgery

Chonbuk National University
Chonju, Korea

- 1997.7 *Rich Schultz, Ph. D.* (Seminar speaker)
Assistant Professor
Department of Pediatrics and Physiology
University of Alberta
Edmonton, Canada
- 1997.12 *David Bernanke*
Associate Professor of Anatomy
University of Mississippi Medical Center
- 1997.12 *Robin Rockhold*
Professor of Pharmacology
University of Mississippi Medical Center
- 1998.1 *James Hutchins*
Associate Professor of Anatomy
University of Mississippi Medical Center
- 1998.1 *Adam Lewis*
Assistant Professor of Neurosurgery
University of Mississippi Medical Center
- 1998.2 *Ben Clower*
Professor of Anatomy
University of Mississippi Medical Center
- 1998.2 *Michael LeBlanc*
Professor of Pediatrics
University of Mississippi Medical Center
- 1998.2 *George Mandybur*
Assistant Professor of Neurosurgery
University of Mississippi Medical Center
- 1998.3 *David Gordon*
Associate Professor of Neurology
University of Mississippi Medical Center
- 1998.4 *Satoshi Iwabuchi, M. D., Ph. D.*

Assistant Professor of Neurosurgery
Toho University
Tokyo, Japan

1998.5

Adam Lewis
Assistant Professor of Neurosurgery
University of Mississippi Medical Center

1998.7

Joseph Clark, Ph. D. (seminar speaker)
Director of Medical Research Council
Smooth Muscle Group
London, England

1998.12

Ben Clower
Professor of Anatomy
University of Mississippi Medical Center

1998.12

Mario Zuccarello, M. D. (grand round)
Professor of Neurosurgery
University of Cincinnati
Cincinnati, Ohio

1999.1

R. Loch Macdonald, M. D., Ph. D. (grand round)
Assistant Professor of Neurosurgery
University of Chicago
Chicago, Illinois

1999.1

Robert Smith
Professor of Neurosurgery
University of Mississippi Medical Center

1999.2

Louis Harkey
Professor of Neurosurgery
University of Mississippi Medical Center

1999.3

Ahmed Badr
Assistant Professor of Neurosurgery
University of Mississippi Medical Center

1999.4

Pieter Sipkema, Ph. D. (seminar)
Associate Professor of Physiology
Vrije University
Amsterdam, The Netherlands

- 1999.4 *Shokei Yamada, M. D., Ph. D.*
Professor and Chairman, Emeritus
Department of Neurosurgery
Loma Linda University
Loma Linda, California
- 1999.4 *Kenji Kanamaru, M. D., Ph. D. (seminar)*
Associate Professor of Neurosurgery
Mie University
Mie, Japan
- 1999.4 *Yoshihiro Takanashi, M. D., Ph. D.*
Assistant Professor of Neurosurgery
Yokohama University
Yokohama, Japan
- 1999.7 *Ahmed Badr*
Assistant Professor of Neurosurgery
University of Mississippi Medical Center
- 1999.7 *Shokei Yamada, M. D., Ph. D.*
Professor and Chairman, Emeritus
Department of Neurosurgery
Loma Linda University
Loma Linda, California
- 1999.7 *Vidyasagar Casikar, M. D., Ph. D. (seminar)*
Consultant Neurosurgeon
Department of Neurosurgery
King Khalid National Guard Hospital
Jeddah, Saudi Arabia
- 1999.10 *Shokei Yamada, M. D., Ph. D.*
Professor and Chairman, Emeritus
Department of Neurosurgery
Loma Linda University
Loma Linda, California
- 1999.10 *Dr. Hoye*
Assistant Professor of Rehabilitation
University of Mississippi Medical Center
- 1999.11 *Chul-Jin Kim, M. D., Ph. D. (seminar)*
Chairman and Associate Professor

Department of Neurosurgery
Chonbuk National University
Chonju, Korea

- 1999.11 *Geerten P. van Nieuw Amerongen, Ph. D. (seminar)*
Gaubius Laboratory, Leiden
Institute for Cardiovascular Research
Vrije Universiteit
Amsterdam, The Netherlands
- 1999.12 *Robert Bryan, Ph. D. (seminar)*
Professor & Director of Research
Department of Anesthesiology
Baylor College of Medicine
Houston, Texas
- 1999.12 *Rick Lin*
Professor of Anatomy
University of Mississippi Medical Center
- 2000.2 *Guohua Xi, M. D. (seminar)*
Assistant Professor
Department of Neurosurgery
University of Michigan
Ann Arbor, Michigan
- 2000.4 *Yong-Yuan Guan, M. D., Ph. D. (seminar)*
Professor of Pharmacology
Dean of Pre-clinical Medicine
Sun Yat-Sen University School of Medical Science
Guangzhou, China
- 2000.7 *Yasushi Sakai, Ph. D.*
Professor & Chairman
Department of occupational Therapy
Showa University College of Biomedical Sciences
Yokohama, Japan
- 2000.7 *Yoshiaki Maruyama, Ph. D. (Candidate)*
Department of Physiology
Showa University
Tokyo, Japan
- 2000.9 *Kazuya Nagata, M. D., Ph. D. (seminar)*

Chief of Neurosurgery
Showa General Hospital
Tokyo, Japan

- 2000.11 *Xuguang Liu, M.D., Ph.D.*
University Laboratory of Physiology
University of Oxford, England
- 2001.2 *William Pearce, Ph.D. (seminar)*
Professor of Physiology & Pharmacology
Loma Linda University
Loma Linda, California
- 2001.3 *David Busija, Ph.D. (seminar)*
Professor of Physiology & Pharmacology
Wake Forest University
Winston-Salem, North Carolina
- 2001.4 *Charles F. Stevens, M.D., Ph.D. (Wellcome speaker)*
Professor of Molecular Neurobiology
The Salk Institute
San Diego, California
- 2001.4 *Satoshi Inoha, M.D., Ph.D.*
Staff Neurosurgeon
Department of Neurosurgery
Kyusyu University, Fukuoka
- 2001.6 *Yashushi Miyagi, M.D., Ph.D.*
Staff Neurosurgeon
Department of Neurosurgery
Kyusyu University, Fukuoka
- 2001.9 *Tatsuo Mima, M.D., Ph.D. (seminar)*
Assistant Professor of Neurosurgery
Department of Neurosurgery
Kochi Medical School, Kochi
- 2001.9 *Shokei Yamada, M. D., Ph. D.*
Professor and Chairman, Emeritus
Department of Neurosurgery
Loma Linda University
Loma Linda, California

- 2001.10 *Vidyasagar Casikar, M. D., Ph. D.*
Consultant Neurosurgeon
Department of Neurosurgery
King Khalid National Guard Hospital
Jeddah, Saudi Arabia
- 2002.2 *Ajay Jawahar*
Instructor of Neurosurgery
LSUHSC-Shreveport
- 2002.3 Deborah Chervenak
Manager of Core Facility
LSUHSC-Shreveport
- 2002.4 Jiping Tang
Assistant Professor of Physiology
LSUHSC-Shreveport
- 2002.4 Juan Rodriguez
Assistant Professor of Physiology
Centenary College, Shreveport
- 2002.5 *Dick Traystman, PhD (grand round)*
Professor of Anesthesiology
Johns Hopkins Institute
Baltimore, Maryland
- 2002.6 *Steve Alexander, Ph.D.*
Associate Professor of Physiology
LSUHSC-Shreveport
2002. 7 *Kenichi Ohtani, PhD*
Research Scientist
Sunitomo Pharmaceuticals Co., Ltd
Osaka Japan
- 2002.8 *Dalton Dietrich, PhD (grand round)*
Professor and Director
Department of Neurosurgery
University of Miami
- 2002.7 *Kenneth Wagner, PhD (grand round)*
Associate Professor of Neurology
Department of Neurology

University of Cincinnati
Cincinnati

- 2002.10 *Gjumrakch Aliev, M.D., Ph.D. (faculty candidate)*
Co-Director of Microscopy Research Center
Institute of Pathology
Case Western Reserve University
Cleveland, Ohio
- 2002.10 *Jinqian Chen, Ph.D. (faculty candidate)*
Assistant Professor (Research)
Johns Hopkins
Baltimore, Maryland
- 2002.11 *Seema Tiwari-Woodruff (faculty candidate)*
Postdoctoral Researcher
Department of Neurology
UCLA, Los Angeles
- 2002.12 *John Hallenbeck, PhD (Neurobiotech speaker)*
Director of Stroke Branch
NIH/NINDS
Bethesda, Maryland
- 2002.12 *Yang Li, M.D., Ph.D. (faculty candidate)*
Research Assistant Professor
NIH, Bethesda, Maryland
- 2003.6 *Marilyn Cipolla, Ph.D. (grand round)*
Assistant Professor of Neurology
University of Vermont, Vermont
- 2003.7 *Shigeru Nishizawa, M.D., Ph.D*
Associate Professor of Neurosurgery
Hamamazu University School of Medicine
Hamamazu, Japan
- 2004.9 *David Michelson, M.D. (Neurosci Seminar)*
Assistant Professor
Pediatric Neurology
Loma Linda University
- 2004.12 *Andre Obenaus, Ph.D. (Neurosci Seminar)*
Assistant Professor

Radiation Oncology
Loma Linda University

- 2005.1 *Jaroslaw A. Aronowski, Ph.D.* (Grand Round)
Associate Professor of Neurology
University of Texas HSC
Houston, TX
- 2005.2 *Danilyn Angeles, Ph.D.* (Neurosci Seminar)
Assistant Professor
Physiology
Loma Linda University
- 2005.3 *Paul Jacobson, M.D.* (Neurosci Seminar)
Assistant Professor
Radiology
Loma Linda University
- 2005.4 *Wolff Kirsch, M.D.* (Neurosci Seminar)
Professor
Neurosurgery Research Center
Loma Linda University
- 2005.5 *Toshihiko Kuroiwa, M.D.* (Neurosci Seminar)
Professor of Neurosurgery & Pathology
Department of Neuropathology
Tokyo Medical & Dental University
Tokyo, Japan
- 2005.9 *Patricia Hurn, Ph.D.* (Basic Science Seminar)
Professor and Vice chair
Anesthesiology & Perioperative Medicine
Oregon Health Science University
Portland
- 2005.10 *Kenji Kanamaru, M.D., Ph.D.* (Neurosci Seminar)
Vice President and Chief of Neurosurgery
Mie, Japan
- 2006.3 *Eng Lo, Ph.D.* (Basic Science Seminar)
Associate Professor of Neurology
Harvard Medical School
Boston

2006.5
Valina Dawson, Ph.D. (Basic Science Seminar)
Professor of Neurology
Johns Hopkins University
Baltimore

Researcher in My Laboratory & Division

Faculty

1997.2 – 1997.7
Adebayo A. Laniyonu, Ph. D.
Senior Research Associate (Assistant Professor)
Deborah Research Institute
Browns Mills, NJ

2001.7 – 2001.12
Eddi Perkins, M. S.
Instructor
University of Mississippi Medical Center
Jackson, MS

Visiting Professor

1993.5 – 1995.4
Chul-Jin Kim, M. D., Ph. D.
Assistant Professor of Neurosurgery
Chonbuk National University
Chonju, Korea

1996.6 – 1997.8
Satoshi Iwabuchi, M. D., Ph. D.
Assistant Professor of Neurosurgery
Toho University
Tokyo, Japan

1998.1 – 2000.1
Kazuya Aoki, M. D.
Instructor of Neurosurgery
Toho University
Tokyo, Japan

1999.6 - 2001.8
Wei Yin, M. D., Ph. D.
Assistant Professor of Neurology
Physician-in-Charge
Neurological Institute
Shanghai University of Medical Science

Shanghai, China

- 1999.9 - 10
Yoshihiro Takanashi, M. D.
Assistant Professor of Neurosurgery
Yokohama University
Yokohama, Japan
- 1999.9 – 2002.4
Liyan Miao, M. D., Ph. D.
Assistant Professor of Medicine
Internal Medicine (Cardiology)
The 1st Affiliated Hospital of Suzhou Medical College
Suzhou, China
- 2000.2 – 2000.4
Yong Liu, M. D., Ph. D.
Professor of Anatomy
Executive Director
Research Center for Neurobiology
Xian Medical University
Xian, China
- 2000.3
Yoshihiro Takanashi, M. D.
Assistant Professor of Neurosurgery
Yokohama University
Yokohama, Japan
- 2000.4 – 2000.7
Shi Wei, M. D.
Professor and Chairman
Department of Neurosurgery
Xian Medical University
Xian, China
- 2000.3 – 2001.3.
Joo-Kyung Sung, M. D.
Assistant Professor of Neurosurgery
Kyungpook National University Hospital
Chungku, Taegu, Korea
- 2001.2 – 2001.5
Lixin Huang, M. D., Ph. D.
Assistant Professor of Orthopedics
The 1st Affiliated Hospital of Suzhou University
Suzhou, China
- 2001.12 – 2003.4
Yun Li, M.D., Ph.D.
Professor of Neurology & Chair of Emergency Medicine
Jinan Medical University

Jinan, Shangdong, China

2002.8 – 2004.7

Changman Zhou, M.D., Ph.D.
Professor of Neurobiology & Vice-Chair of Anatomy
Beijing University School of Medicine
Beijing, China

2005.4 -

Mike Dachun Zhou, M.D.
Chair of Anesthesiology
Sir Run Run Shaw Hospital
Zhejiang University
Hangzhou, China

Visiting Neurosurgeon

1997.9 – 1998.11

Kotaro Ogihara, M. D.
University of Okayama Medical School
Okayama, Japan

1997.9 – 2001.6

Alexander Y. Zubkov, M. D.
A.L. Polenov Neurosurgery Institute
St. Petersburg, Russia

1998.10 – 2000.10

Toshinari Meguro, M. D.
University of Okayama Medical School
Okayama, Japan

1999.4 – 2000.6

Yasushi Miyagi, M. D., Ph. D.
University of Fukuoka, Kaizuka Hospital
Fukuoka, Japan

2000.1 – 2001.10

Hitoshi Kimura, M. D.
Toho University School of Medicine
Tokyo, Japan

2000.9 – 2002.4

Yoshimoto Satoh, M. D.
Okayama University School of Medicine
Okayama, Japan

2000.11- 2001.12

Iiker Gules, M. D.
Istanbul University
Istanbul, Turkey

- 2001.7 – 2002.4
Dali Yin, M.D., Ph.D.
Zhengzhou Medical University
Zhengzhou, China
- 2001.9 – 2003.5
Gen Kusaka, M.D.
Toho University School of Medicine
Tokyo, Japan
- 2003.4 -
Mitsuo Yamaguchi, M.D.
Department of Neurosurgery
Hamamachu Medical University
Hamamachu, Japan
- 2003.9 -
Hiroshi Yatsushige, M.D.
Department of Neurosurgery
Tokyo Medical Dental University
Tokyo, Japan
- 2003.11 -2004.6
Hakan Tuna, M.D.
Department of Neurosurgery
Ibn-i Sina Hospital
University of Ankara, School of Medicine
06100 Samanpazarı, Ankara-TURKEY
- 2004.9
Julian Cahill, MD
Department of Neurosurgery
Cork University
Cork, Ireland
- 2004.9 -
Norihito Shimamura, M.D.
Department of Neurosurgery
Hirosaki University School of Medicine
Hirosaki, Japan
- 2004.10
Tamiji Tsubokawa, MD.
Department of Neurosurgery,
Kyorin University School of Medicine,
Shinkawa, Mitaka-city,
Tokyo
- 2005.4 -
Ihsan Solaroglu, M.D.
Department of Neurosurgery
Ankara Numune Research and Educational Hospital
Ankara, Turkey

Visiting Neurologist

2004.10
Kenichiro Yata, M.D.
Chief Department of Neurology
Vice Chairman Stroke Center
Suzuka Kaisei Hospital
Koh 112, Suzuka 513-0836,
Japan

Neurosurgery Resident

1998.7 – 1999.6
Robert E. Tibbs, Jr. M. D.
Department of Neurosurgery
University of Mississippi Medical Center
Jackson, Mississippi

1999.7 – 2000.6
Donnie Taylor, M. D.
Department of Neurosurgery
University of Mississippi Medical Center
Jackson, Mississippi

2001.1 – 2001.6
Eric Akin, M. D.
Department of Neurosurgery
University of Mississippi Medical Center
Jackson, Mississippi

2002.12
Ravish Patwardhan, M.D.
Department of Neurosurgery
LSUHSC-S
Shreveport, Louisiana

Anesthesiology Resident & Fellow

2000.1- 2000.3
Amar Kasarla, M. D.
Department of Anesthesiology
University of Mississippi Medical Center
Jackson, MS

2000.10- 2001.4
Mariana Dimitrova, M. D.
Department of Anesthesiology

University of Mississippi Medical Center
Jackson, MS

2000.10- 2001.2

Sanjay Shah, M. D.
Department of Anesthesiology
University of Mississippi Medical Center
Jackson, MS

2001.5 – 2001.12

Lixin Huang, M. D., Ph. D.
Senior Research Associate
Department of Anesthesiology
University of Mississippi Medical Center
Jackson, MS

2005.7 -

Gerald Matchett, M.D.
Department of Anesthesiology
Loma Linda University

Postdoctoral Fellow

1992.7 – 1993.6

Masato Inazu, Ph. D.
Tokyo Medical College
Tokyo, Japan (with Daniel)

1993.1 – 1993.6

Wei Peng, M. D., Ph. D.
University of Utah
Salt Lake City

1998.3 – 1999.6

Anita Patlolla, Ph. D.
Jackson State University
UMMC, Jackson, MS

2002.1 – 2003.5

Ikuyo Kusaka, M.D., Ph.D.
Jichi University School of Medicine
Jichi, Japan

2002.10 – 2003.6

Dianne Allen, PhD
LSUHSC, Anatomy
Shreveport, LA

2003.6 -

Robert P. Ostrowski MD, PhD
Laboratory of Experimental Nuclear Medicine
Mirosław Mossakowski's Medical Research Centre

The Polish Academy of Sciences (MRC-PAS)
Warsaw, Poland

2004.10 -

Vikram Jadhav, MD, PhD
Southern Illinois University
Springfield, Illinois

Research Associate

1997.9 - 2001.3

Charolette Morgan, B. S.
Clinical Coordinator

1997.9 - 2001.6

Eddi Perkins, M. S.
University of Mississippi Medical Center
Jackson, MS

1999.4 - 2001.4

Virginia L. Overman, AAS, B. S., M. S.
Mississippi College
Clinton, MS

2002.1 - 2002.8

John W. Calvert, B. S.
Research Associate
University of Mississippi (Ole Miss)
Oxford, MS

2002.7 - 2004.6

Yun Sun, MD
Research Associate
LSUHSC, Microbiology
Shreveport, LA

2004.11 -

Suzanne Marcantonio, BS
Research Coordinator
Anesthesiology
UC-Davis

Research Technician

1997.2 - 1997.8

Kai Fu, B. S.
Research Technician
Deborah Research Institute
Browns Mills, New Jersey

- 1997.2 – 1997.8
Frank Lutterodt, B. S.
Research Technician
Deborah Research Institute
Browns Mills, New Jersey
- 1997.9 – 2001.12
Betty Chen, B. S.
Research Technician
University of Mississippi Medical Center
Jackson, MS
- 1997.9 – 2001.12
Shadon Rollins, B. S.
Research Technician
University of Mississippi Medical Center
Jackson, MS
- 1997.10 – 1998.9
Phoni Tumu, B. S.
Research Technician
University of Mississippi Medical Center
Jackson, MS
- 1998.7 – 1999.8
Robin Carpenter, B. S.
Research Technician
Mississippi State University
Jackson, MS
- 2000.8 – 2001.12
John W. Calvert, B. S.
Research Technician
University of Mississippi (Ole Miss)
Oxford, MS
- 2000.10 – 2001.8
Amanda Burton, B. S.
Research Technician
Mississippi College
Jackson, MS
- 2002.6 – 2002.9
Joseph R. Whatley
Research Technician
Louisiana State University in Shreveport
Shreveport, LA
- 2002.6 – 2004.6
Christopher Smelley
Research Technician
Louisiana State University in Shreveport
Shreveport, LA

PhD Student
Chairman of Committee

1998.12 – 2000.12

Alexander Y. Zubkov, M. D.
A.L. Polenov Neurosurgery Institute
St. Petersburg, Russia
Awarded Ph. D. in 12/2000
Department of Physiology & Biophysics
University of Mississippi Medical Center
Jackson, MS

Resident in Neurology, 2001
Assistant Professor in Neurology at U Miss 2005

1999.8 – 2001.12

Yuan Dai, M. D., M. Sc.
China Medical University
China-Japan Friendship Institute of Clinical Medical
Sciences
Beijing, China (transferred to Dr. John Hall due to my
moving to Shreveport)
Department of Physiology & Biophysics
University of Mississippi Medical Center
Jackson, MS

2002.8 -

John W. Calvert, B. S.
University of Mississippi (Ole Miss)
Oxford, MS
Expected in June 2006
Department of Molecular & Cellular Physiology
LSUHSC-SH
Shreveport, LA

Transferred to Loma Linda University 2004.7

2003.3 - 2004

Sunyoung Park, B.S.
Exchange Student
Department of Herbal Pharmacology
Graduate School of East-West Medical Science
Kyunghee University
Seoul, Korea

2004 -

Grant Mc Auley, MS, BS

Department of Physiology & Pharmacology
Loma Linda University
Loma Linda, CA

2004 -

Joe Wanqui Chen, MS
Department of Biological Science and Technology
Nanchang University, P. R. China

Master Student

2002.6 – 2004.6

Christopher Smelley
Research Technician
Louisiana State University in Shreveport
Shreveport, LA
Graduated May 2004

Research Student

2002.3 – 2002.12

January DuBroc
LSU-Shreveport
Shreveport, LA

2002.10 – 2003.7

Jennifer L. Fulton
LSU-Shreveport

2003.10 – 2004.6

Yun Zhou
LSU-Shreveport

2004.10 – 2005.7

Joseph Hahn
Loma Linda University School of Medicine

Medical Student

1993.6 – 1993.9

Hongshik Han, B. S.
2nd Year Medical Student
University of Chicago
Chicago, IL

1995.7 – 1996.6

Kamil Karkar, B. S.
4th Year Medical Student
University of Chicago

Chicago, IL

1995.6 – 1995.9

Bogdan Sima, B. S.
4th Year College Student
University of Chicago
Chicago, IL

1996.6 – 1996.9

Bogdan Sima, B. S.
1st year Medical Student
Rush Medical School
Chicago, IL

1998.6 – 1998.9

Rex Williams, B. S.
1st year Medical Student
UMMC, VA Research Fellowship

1998.6 – 1998.9

Brady Richardson, B. S.
1st year Medical Student
UMMC, VA Research Fellowship

1999.6 – 1999.9

George J. Blair, B. S.
1st Year Medical Student
UMMC, VA Research Fellowship

1999.6 – 1999.9

Robert G. (Greg) Browning, B. S.
1st Year Medical Student
UMMC, VA Research Fellowship

1999.12 – 2000.3

Mohammad Afzal Khan, B. S.
4th Year Medical Student
UMMC

Summer Student

1998.6 – 1998.9

Stacy Sloan
High School, Jackson

1998.6 – 1998.9

Michael Briggs
2nd Year College, University of Mississippi

1999.6 – 1999.8

Yale Johnson
2nd Year College, University of Mississippi

1999.6 – 1999.8	<i>Bennett MeGehee</i> Jackson Preparatory School
2000.6 – 2000.8	<i>Bennett MeGehee</i> Washington Lee University
2000.6 – 2000.8	<i>Joe Jordan Powell, IV</i> Millsap College
2000.6 – 2000.8	<i>John Thomas Saxon</i> Washington Lee University
2000.6 – 2000.8	<i>Ryan Pratt</i> University of Mississippi
2001.5 - 2001.8	<i>Mona Patel</i> Vanderbilt University
2001.5 - 2001.8	<i>Oliver Garrett</i> University of Southern Mississippi
2001.6 - 2001.8	<i>Dominic Esposito</i> Lincoln Hight, FL
2001.6 – 2001.8	<i>John Thomas Saxon</i> Washington Lee University
2002.5 – 2002.7	<i>Lindsey Garner</i> Centenary College of Louisiana Shreveport, Louisiana
2002.6 - 2002.8	<i>Meeli Ghandi</i> Middlebury College Vermont, VT
2002.6 - 2002.7	<i>Chris Dekey</i> University of Colorado Boulder, Colorado
<i>Minority Student</i>	
1999.6 – 1999.7	<i>Herman Sylvester, II</i> High School NIH-sponsored Summer Student

1999.6 – 1999.7
Frederick Howard, II
High School NIH-sponsored Summer Student

1999.6 – 1999.7
Jelani Griffin
High School NIH-sponsored Summer Student

Office Person

1997.9 – 2001.12
Lucia Griffin
Editorial Secretary

1998.1 – 1999.2
Lisa Griffin
Senior Research Secretary

1999.3 – 2001.12
Phyllis Stevens
Administrative Research Secretary

1999.11 – 2000.3
Nancy Vernaske, B. A.
Senior Research Secretary

2000.10 – 2001.8
Amanda Burton, B. A.
Research Secretary/Research Technician

2002.2 – 2002.3
Cheryal Pearson, B. A.
Research Secretary/Editorial Consultant

2002.4 – 2004.6
Caraline Domb, B. A.
Research Manager/Editorial Consultant

Attended Workshop

1990.3
Animal Care Workshop
University of Alberta
Edmonton, AB, Canada

1990.9
Regulation of Smooth Muscle, Progress in Solving the Puzzle
The 6th Annual Research Symposium
Philadelphia, PA

1995.5
International Conference on Receptor Regulated Ca²⁺ Entry
Pacific Grove, CA

- 1996.5 *Analytical & Quantitative Light Microscopy*
Marine Biological Laboratory
Woods Hole, Massachusetts
- 1997.9 *Workshop*
Advanced Electro-physiological Localization for Pallidotomy
and Deep Brain Stimulation
Atlanta, GA
- 1997.10 *Purines and Their Receptors*
The 5th Annual Neuropharmacology Conference
New Orleans, LA
- 1998.3 *Cerebral Vascular Biology & BBB 98*
Portland, Oregon
- 1999.4.17 *Basic Science of Cerebral Vasospasm*
Chicago, Illinois
- 2000.2.25 *Breaking Through Barriers for Writing Proposals*
UMMC, Jackson, MS
- 2000.3.11-13 *2000 Young Surgical Investigators Conference*
Chantilly, VA
- 2000.3.28-30 *NIH Workshop*
Update on Policies, Procedures, and Funding Opportunities
Jackson, MS
- 2000.11.20-21 *Intraoperative Neurophysiological Monitoring in*
Neurosurgery
New York, NY
- 2001.9.39-10.05 *HBO Workshop*
Birmingham, AB

Miscellaneous

Date of Birth: Oct. 25, 1955

Marriage: Married, Wife Jiping
Daughter Jennifer (16)

Citizenship: Canadian, American
 Foreign Language: Chinese (native language)
 Hobbies: Golf, Swimming, and Reading

BIBLIOGRAPHY

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Abstract (partial)

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152. J. Calvert, W. Yin, A. Badr, A. Parent & **J. Zhang.** Protective Effect of Hyperbaric Oxygen on Hypoxia-ischemia in Neonatal. *Keystone Conference on Stroke*. Taos, New Mexico. March 9-14, 2002
153. Y. Dai, **J. Zhang.** Cl⁻ Flux in Histamine-induced Contraction in Rabbit Basilar Artery. *Keystone Conference on Stroke*. Taos, New Mexico. March 9-14, 2002
154. **J. Zhang.** Signal Transduction in Cerebral Vasospasm. *Vasospasm Symposium in Honor of Dr. Bryce Weir*. Chicago, IL. April 9, 2002
155. **J. Zhang.** Experimental Therapy for Cerebral Vasospasm. *2002 Sino-US Symposium on Hi-Tech and Economic Developments & the Fourth Conference of Federation of Associations of Chinese Professionals in Southern USA*. Houston, Texas. May 10-12, 2002
156. **J. Zhang.** Hyperbaric Oxygen Therapy for Focal Cerebral Ischemia. *2002 Chongqing Forum on Cerebrovascular Surgery & Vasospasm*. Chongqing, China. June 1-3, 2002
157. **J. Zhang.** Gene Therapy and Signal Transduction in Cerebral Vasospasm. *9th International Symposium on Pharmacology of Cerebral Ischemia*. Marburg, Germany, July 23-26, 2002

158. **J. Zhang**. Hyperbaric Oxygen Therapy in Neonatal Hypoxia-Ischemia. *Neuro-Up date-2002*. Shreveport, Louisiana, October 4, 2002
159. **J. Zhang**. New Frontier in Cerebral Vasospasm: Signaling Pathway. *Hirosaki Medical Association*. October 15-16, 2002
160. **J. Zhang**, D. Yin, A. Parent, A. Nanda. Long-term effect of HBO on cerebral ischemia. *32st Annual Meeting Society for Neuroscience*. Orlando, FL. November 2-7, 2002
161. **J. Zhang**, L. Huang, M. P. Mehta, John H. Eichhorn, A. Nanda. Optimal HBO Therapeutic Windows for Acute Spinal Cord Injury in Rats. *XII International Symposium on Brain Edema and Brain Tissue Injury*, Hakone, JAPAN, November 10-13, 2002
162. **J. Zhang**, I. Gules, M. Satoh, A. Nanda. Role of Apoptosis in Microvascular Permeability Increase after SAH. *XII International Symposium on Brain Edema and Brain Tissue Injury*, Hakone, JAPAN, November 10-13, 2002
163. **J. Zhang**, M. Satoh, J. Tang, A. Nanda. Heat Shock Protein Expression in the Brain Stem after SAH in rats. *XII International Symposium on Brain Edema and Brain Tissue Injury*, Hakone, JAPAN, November 10-13, 2002
164. J. Calvert, W. Yin, A. Badr, A. Parent & **J. Zhang**. Protective Effect of Hyperbaric Oxygen on Hypoxia-ischemia in Neonatal. *NeuroBioTechnology*, Shreveport, Louisiana, December 4, 2002
165. Y. Li, C. Zhou, A. Nanda, **J. Zhang**. Hyperbaric Oxygen Reduces HIF1 α Expression and Prevented Brain Injury after Global Ischemia. *NeuroBioTechnology*, Shreveport, Louisiana, December 4, 2002
166. G. Kusaka, I. Kusaka, A. Nanda, **J. Zhang**. Src is an Important Signaling Factor in Cerebral Vasospasm after Subarachnoid Hemorrhage. *NeuroBioTechnology*, Shreveport, Louisiana, December 4, 2002
167. C. Smelley, J. Tang, A. Nanda, **J. Zhang**. Intracerebral Hemorrhage Induced Gastrointestinal Ulcer in Rats. *NeuroBioTechnology*, Shreveport, Louisiana, December 4, 2002
168. **J. Zhang**, J. Calvert, C. Zhou, A. Nanda. Transient Oxygen Therapy for Neonatal Hypoxia. *Louisiana State Neurosurgery Conference*, New Orleans, Louisiana, January 17-18, 2003
169. J. Calvert, A. Nanda & **J. Zhang**. Protective Effect of Hyperbaric Oxygen on Hypoxia-ischemia in Neonatal. Barlow Symposium, Shreveport, Louisiana, February 28, 2003

170. Y. Sun, C. Zhou, D. Allen, A. Nanda, **J. Zhang**. Erythropoietin Prevents Brain Injury after Neonatal Hypoxia. Barlow Symposium, Shreveport, Louisiana, February 28, 2003
171. C. Zhou, Y. Li, A. Nanda, **J. Zhang**. Expression of NOGO family members in injured brain tissues after Global Ischemia in rats. Barlow Symposium, Shreveport, Louisiana, February 28, 2003
172. J. Calvert, A. Nanda & **J. Zhang**. Protective Effect of Hyperbaric Oxygen on Hypoxia-ischemia in Neonatal. *Neuroscience Retreat*, New Orleans, Louisiana, March 1, 2003
173. Y. Dai, **J. Zhang**. Chloride in 5-HT-induced Contraction of the Rabbit Basilar Artery. *Experimental Biology03*, San Diego, California, April 11-15, 2003
174. Y. Dai, **J. Zhang**. NKCC1 Expression in Injured Cortex after Neonatal Hypoxia in Rats. *Experimental Biology03*, San Diego, California, April 11-15, 2003
175. J. Calvert, A. Nanda & **J. Zhang**. Hyperbaric Oxygen reduces Apoptosis in Neonatal Hypoxia-ischemia. *Brain 2003*, Calgary, Canada, June 30- July 4, 2003
176. Y. Sun, C. Zhou, D. Allen, A. Nanda, **J. Zhang**. Erythropoietin Prevents Brain Injury after Neonatal Hypoxia. *Brain 2003*, Calgary, Canada, June 30- July 4, 2003
177. Y. Li, C. Zhou, A. Nanda, **J. Zhang**. Hyperbaric Oxygen Reduces HIF1 α Expression and Prevented Brain Injury after Global Ischemia. *Brain 2003*, Calgary, Canada, June 30- July 4, 2003
178. G. Kusaka, A. Nanda, **J. Zhang**. New Method for Cerebrospinal Fluid Pressure Measuring after Subarachnoid Hemorrhage. *Brain 2003*, Calgary, Canada, June 30- July 4, 2003
179. I. Kusaka, J. Tang, A. Nanda, **J. Zhang**. AT₁ receptor antagonist inhibits Diabetes-enhanced Cerebral Ischemia Brain Injury. *Brain 2003*, Calgary, Canada, June 30- July 4, 2003
180. M. Ishikawa, D. Cooper, J. Russell, **J.H. Zhang**, A. Nanda, D.N. Granger. Contributions of platelet- and endothelial cell-associated P-selectin to platelet- and leukocyte-adhesion in mouse cerebral microvasculature after focal ischemia/reperfusion. *Brain 2003*, Calgary, Canada, June 30- July 4, 2003
181. C. Zhou, Y. Li, A. Nanda, **J. Zhang**. NOGO Expression after Global Ischemia. *Brain 2003*, Calgary, Canada, June 30- July 4, 2003
182. C. Smelley, J. Tang, A. Nanda, **J. Zhang**. Intracerebral Hemorrhage Induced

- Gastrointestinal Ulcer in Rats. *Brain 2003*, Calgary, Canada, June 30- July 4, 2003
183. **J. Zhang**. Signal Transduction in Cerebral Vasospasm. *The 8th International Conference on Cerebral Vasospasm*. Chicago, July 11-13, 2003
184. G. Kusaka, E. Perkins, A. Nanda, **J. Zhang**. Role of Src in the development of Cerebral Vasospasm. *The 8th International Conference on Cerebral Vasospasm*. Chicago, July 11-13, 2003
185. H. Kimura, I. Gules, B. Chen, A. Parent, **J. Zhang**. Cytokines induce Apoptosis in Cerebral Endothelial Cells. *The 8th International Conference on Cerebral Vasospasm*. Chicago, July 11-13, 2003
186. Y. Takanashi, T. Ishida, **J.H. Zhang**, I. Yamamoto. Prevention of Experimental Cerebral Vasospasm by Intrathecal Delivery of Liposomal Fasudil. *The 8th International Conference on Cerebral Vasospasm*. Chicago, July 11-13, 2003
187. R. Patwardhan, J. Calvert, G. Kusaka, I. Kusaka, **J. Zhang**, A. Nanda. Can Electroconvulsive Therapy Control a Seizure by "Pacing" It? *53rd Annual Meeting of Congress of Neurological Surgeons*. Denver, Colorado, October 18-23, 2003
188. C. Zhou, Y. Li, A. Nanda, **J. Zhang**. NOGO Expression after Global Ischemia. *Neuroscience 2003*. New Orleans, November, 2003
189. **J. Zhang**, L. Miao, A. Zubkov. Signaling Pathways of ET-1 induced Contraction in Rabbit Basilar Artery. *The 8th International Conference on Endothelin*. Tsukuba, Japan. November 23-26, 2003
190. **J. Zhang**, Y. Dai. Chloride Efflux Involved in ET-1 and 5-HT induced Contraction in Rabbit Basilar Artery. *The 8th International Conference on Endothelin*. Tsukuba, Japan. November 23-26, 2003
191. R. Patawardhan, J. Calvert, W. Besio, G. Kusaka, I. Kusaka, **J. Zhang**, A. Nanda. Electroconvulsive Therapy for Seizure Control: Preliminary Data in a New Seizure Generation and Control Model. Louisiana Neurosurgical Society. Lake Charles, LA. January 24, 2004
192. M. Shaya, A. Dubey, E. Gonzales-Toledo, G. Caldito, **J. Zhang**, A. Nanda. Factors Influencing Outcome in Intracerebral Hematoma: A Simple, Reliable, and Accurate Method to Grade ICH. Louisiana Neurosurgical Society. Lake Charles, LA. January 24, 2004
193. G. Kusaka, M. Ishikawa, A. Nanda, D.N. Granger, **J.H. Zhang**. Signaling Pathways for Early Brain Injury after Subarachnoid Hemorrhage. *The 29th American Heart Association*

International Stroke Conference. San Diego, February 2004

194. J. Calvert, C. Zhou, A. Nanda, **J. Zhang**. HBO Reduces Apoptosis in Neonatal Hypoxia-Ischemia Model. *Key Stone Symposium on Hypoxia*. Steamboat Springs, CO, March 25-30, 2004
195. **J. Zhang**. Experimental Therapies for SAH and Cerebral Vasospasm. The 1st Academic Conference of International Chinese Neurosurgical Sciences. Boao, China, March 25-28, 2004
196. Y. Miyagi & **J. Zhang**. CPP Enhances P2Y4-Contraction in Rabbit Cerebral Arteries. *Experimental Biology*. Washington April 17-21, 2004
197. C. Zhou, Y. Li, **J. Zhang**. HBO Reduces Brain Injury by Suppressing HIF-1 α in Global Ischemic Rat Model. *Experimental Biology*. Washington April 17-21, 2004
198. J. Tang, J. Liu, A. Nanda, D.N. Granger, **J. Zhang**. Deficiency of MMP-9 Aggravates Brain Injury in Collagenase-induced ICH. *Experimental Biology*. Washington April 17-21, 2004
199. M. Yamaguchi, C. Zhou, C. Schonholz, A. Nanda, **J. Zhang**. Anti-apoptosis Therapy Reduces Cerebral Vasospasm. *AANS*. Orlando, FL, May 2004
200. J. Calvert, C. Zhou, A. Nanda, **J. Zhang**. Hyperbaric Oxygen Treatment Decreased Brain Injury Induced By Hypoxia-Ischemia In A Neonatal Rat Model By Reducing Apoptosis. *Undersea and Hyperbaric Medical Society-2004*. Sydney, Australia, May 26-29, 2004
201. J. Calvert, C. Zhou, A. Nanda, **J. Zhang**. Exposure of Newborn Rat Pups to A Single Treatment of Hyperoxia at Normobaric and Hyperbaric Pressures Does Not Cause Retinopathy of Prematurity. *Undersea and Hyperbaric Medical Society-2004*. Sydney, Australia, May 26-29, 2004
202. D. Yin, J. Calvert, C. Zhou, **J. Zhang**. Hyperbaric Oxygen Therapy for Ischemic Stroke: Mechanisms and Multiple Applications. *Undersea and Hyperbaric Medical Society-2004*. Sydney, Australia, May 26-29, 2004
203. **J. Zhang**. Apoptosis in Subarachnoid Hemorrhage. *The 10th Symposium of Pharmacology of Cerebral Ischemia*. Marburg, Germany, July 25-28, 2004
204. **J. Zhang**. Experimental Therapy for SAH and Cerebral Vasospasm. *Department of Neurosurgery, Shanghai Huashan Hospital, Fudan University*. Shanghai, China, August 12, 2004

205. **J. Zhang**. Experimental Therapy for SAH and Cerebral Vasospasm. *Hangzhou Neurosurgical Society*. Hangzhou, China, August 15, 2004
206. Yamaguchi, **J. Zhang**. Gene Therapy for Cerebral Vasospasm. 7th Annual Symposium in Loma Linda University. September 2, 2004
207. Yamaguchi, **J. Zhang**. New 4-VO Model for Global Ischemia. 7th Annual Symposium in Loma Linda University. September 2, 2004
208. J. Calvert, **J. Zhang**. Neonatal Hypoxia and HBO. 7th Annual Symposium in Loma Linda University. September 2, 2004
209. R. Ostrowski, **J. Zhang**. HBO in SAH. 7th Annual Symposium in Loma Linda University. September 2, 2004
210. J. Tang, **J. Zhang**. MMP-9 in ICH. 7th Annual Symposium in Loma Linda University. September 2, 2004
211. **J. Zhang**. HBO in Neonates. *The Second Tiantan Stroke Forum*. Beijing, China, September 24-28, 2004
212. C. Zhou, M. Yamaguchi, E. Yu#, **J. H. Zhang**. Inhibition of p53 Attenuated Cerebral Vasospasm in a Dog Model of Experimental Subarachnoid Hemorrhage. *Neuroscience*, San Diego, CA, Oct 23-27, 2004
213. **J. H. Zhang**. HBO in Stroke. 2005 *Winter Symposium: Hyperbaric Medicine and Wound Management*. January 29-February 2, 2005
214. **J. H. Zhang**. HBO in SAH. 2005 *Winter Symposium: Hyperbaric Medicine and Wound Management*. January 29-February 2, 2005
215. J.W. Calvert & **J.H. Zhang**. Hyperbaric Oxygenation Restores Energy Status following Hypoxia-ischemia in a Neonatal Rat Model. *Experimental Biology 2005*. San Diego, California, April 1-5, 2005
216. R.P. Ostrowski & **J. Zhang**. Hyperbaric Oxygen Inhibits Brain NADPH Oxidase Expression And Lipid Peroxidation In A Rat Model Of Subarachnoid Hemorrhage. *Brain Edema XIII*, Ann Arbor, Michigan. May 30-June 3, 2005
217. H. Yatsushige, M. Yamaguchi, C. Zhou, J.W. Calvert, A. R.T. Colohan, **J. H. Zhang**. Role of c-Jun N-terminal Kinase in Cerebral Vasospasm of Subarachnoid Hemorrhage. *XXIId International Symposium on Cerebral Blood Flow, Metabolism, and Function & VIIth International Conference on Quantification of Brain Function with PET*. June 7 - June 11, 2005, Vrije Universiteit, Amsterdam, The Netherlands

218. M. Yamaguchi, J.W. Calvert, G. Kusaka, **J.H. Zhang**. One-Stage Operation Using Anterior Approach for Bilateral Hemispheric Ischemia: Modified Four-Vessel Occlusion Rat Model. *XXIId International Symposium on Cerebral Blood Flow, Metabolism, and Function & VIIth International Conference on Quantification of Brain Function with PET*. June 7 - June 11, 2005, Vrije Universiteit, Amsterdam, The Netherlands
219. Y. Sun, J.W. Calvert, **J.H. Zhang**. Erythropoietin Down-Regulates Inflammatory Cytokines Induced by Hypoxia-Ischemia in Neonatal Rats. *XXIId International Symposium on Cerebral Blood Flow, Metabolism, and Function & VIIth International Conference on Quantification of Brain Function with PET*. June 7 - June 11, 2005, Vrije Universiteit, Amsterdam, The Netherlands
220. Y. Dai, J. Tang, **J.H. Zhang**. Role of Cl⁻ in Cerebral Vascular Tone and Expression of Na⁺-K⁺-2Cl⁻ Co-transporter after Neonatal Hypoxia- Ischemia. *Ed Daniel International Smooth Muscle Conference*. August 4-6, 2005
221. J. Tang, S. M. Fitzgerald, B. N. Boughtman, S.W. Cole, M. W. Brands, **J. H. Zhang**. Decreased RhoA Expression in Myocardium of Diabetic Rats. *Ed Daniel International Smooth Muscle Conference*. August 4-6, 2005
222. **J. Zhang**. Chicago Symposium, September 7, 2005
223. R. Ostrowski, A. Colohan, **J. Zhang**. Neuroscience Society Conference, October, Washington DC

Invited Lecture

1. Patch-clamp Studies of Potassium Channel Openers in Vascular Smooth Muscle. *Medical Surgical Research Institute, University of Alberta, Edmonton, Alberta, Canada*. Nov. 9, 1990
2. Glibenclamide Relaxes Contractions Produced By Prostaglandins in Rat Aorta. *Department of Pharmacology & Cardiovascular Disease Research Group, University of Alberta, Edmonton, Alberta, Canada*. Dec. 3, 1990
3. Glibenclamide Inhibits The Contractile Response Of Canine Middle Cerebral Artery To Prostaglandins And Oxyhemoglobin. *Medical Surgical Research Institute, University of Alberta, Edmonton, Alberta, Canada*. May 3, 1991
4. The Relaxation Effects of Potassium Channel Openers in Canine Cerebral Arteries. *Smooth Muscle Research Program, McMaster University, Hamilton, Ontario, Canada*. Oct.

30, 1992

5. Calcium Homeostasis and Cerebral Vasospasm. *Neurology Research Conference Series*, University of Chicago, Chicago, Illinois. March 31, 1995
6. Mechanisms of Hemolysate-Induced Calcium Elevation in Cerebral Vascular Smooth Muscle Cells. *Pharmacology & Cell Biophysics Seminar*, University of Cincinnati, Cincinnati, Ohio. April 10, 1995
7. ATP Mediated The Effect Of Hemolysate on $[Ca^{2+}]_i$ in Cerebral Vascular Smooth Muscle Cells. *Second Annual Charles Huggins Research Conference*. Chicago, IL. May 6, 1995
8. Etiology of Cerebral Vasospasm. *Grand Round. Department of Neurosurgery*, Mie University School of Medicine, Edobashi, Tsu, Mie, Japan. March 26, 1996
9. P₂-purinoceptor, A Light in the Tunnel for Cerebral Vasospasm. *Department of Pharmacology*, POLA Corporation, Yokohama, Japan. March 27, 1996
10. ATP in Erythrocyte Lysate, A New Aspect in Pathophysiology of Cerebral Vasospasm. *2nd Department of Physiology*, Showa University, Tokyo, Japan. March 28, 1996
11. P₂-purinoceptors and Cerebral Vasospasm. *Department of Pharmacology*, Sun Yat-Sen University of Medical Sciences, Guangzhou, PR China. April 8, 1996
12. Role of P₂-Purinoceptors in Cerebral Vasospasm. *Department of Physiology*, Hong Kong University, Hong Kong. April 10, 1996
13. Extracellular ATP and Cerebral Vasospasm. *Department of Pharmacology*, Chonbuk National University Medical School, Chonju, Korea. April 21, 1996
14. Mechanism of Erythrocyte Lysate Induced $[Ca^{2+}]_i$ Elevation and Contraction in Cerebral Smooth Muscle: Significance For Cerebral Vasospasm. *Deborah Research Institute*, Browns Mills, New Jersey. Oct. 2, 1996
15. Mechanism of Erythrocyte Lysate Induced $[Ca^{2+}]_i$ Elevation and Contraction in Cerebral Smooth Muscle: Significance For Cerebral Vasospasm. *Department of Pediatrics and Cardiovascular Center*, Medical College of Wisconsin, Milwaukee, Wisconsin. Nov. 20, 1996
16. Purinoceptors and Pathophysiology of Cerebral Vasospasm. *Grand Rounds in Department of Neurology & Neurosurgery*, University of Mississippi, Jackson, Mississippi. March 14, 1997
17. Cerebral Vasospasm. *Critical Care Series in Department of Pulmonary Medicine*, Deborah

- Heart and Lung Center, Browns Mills, New Jersey. April 14, 1997
18. Tyrosine Kinases in Cerebral Vasospasm. *Section of Neurosurgery, Department of Surgery, University of Chicago, Chicago, Illinois.* October 21, 1997
 19. Cerebral Vasospasm, A Tale of Two Factors. *Department of Physiology & Biophysics. University of Mississippi Medical Center.* Jackson, MS. March 4, 1998
 20. Cerebral Vasospasm: A Tale of Two Factors. *Smooth Muscle Research Group, McMaster University, Hamilton, Ontario, Canada.* July 23, 1998
 21. P₂ Receptors in Cerebral Arteries. *Cerebral Artery Pharmacology and Physiology Symposium, 5th Internet World Congress in Biomedical Sciences.* McMaster University, Hamilton, Ontario, Canada. December 9-16, 1998. *JVR* 35:suppl 3, 1998
 22. Oxyhemoglobin Produced Apoptosis in Cultured Endothelial. *Stroke/Cerebral Vasospasm Symposium, 5th Internet World Congress in Biomedical Sciences.* McMaster University, Hamilton, Ontario, Canada. December 9-16, 1998. *JVR* 35:suppl 3, 1998
 23. Tyrosine Kinase in Cerebral Vasospasm. *Department of Physiology & Biophysics, University of Mississippi Medical Center.* Jackson, MS. February 10, 1999
 24. Role of Apoptosis in Cerebral Vasospasm. *Grand Round in Department of Neurology & Neurosurgery, University of Mississippi Medical Center, Jackson, MS.* September 22, 1999
 25. Apoptosis in Cerebral Endothelial Cells during Cerebral Vasospasm. *Grand Round in Department of Neurosurgery, University of Heidelberg, Germany.* October 1, 1999
 26. Role of Apoptosis in Cerebral Vasospasm after Subarachnoid Hemorrhage (*ad hoc speaker*). *The 6th Keio International Symposium for Life Sciences and Medicine: Ischemic Blood Flow in the Brain.* Keio University, Tokyo, Japan. November 25, 1999
 27. Apoptotic Changes in Endothelium of Cerebral Arteries during Cerebral Vasospasm. *Grand Round in Department of Neurosurgery & Neurology, Showa General Hospital, Tokyo, Japan.* November 25, 1999
 28. Cell Death: Mechanism of Cerebral Vasospasm. *Grand Round in Department of Neurosurgery, Toho University, Tokyo, Japan.* November 30, 1999
 29. Extracellular ATP: A Good Guy or A Bad Guy? *Research Seminar, Center for Perinatal Biology, Loma Linda University, Loma Linda, CA.* December 16, 1999
 30. Apoptosis in Endothelial Cells: Role in Vasospasm. *Department of Neurosurgery, Loma Linda University, Loma Linda, CA.* December 17, 1999

31. Signal Transduction in Cerebral Vasospasm after Subarachnoid Hemorrhage. *Perinatal Biology Seminar*, Loma Linda University, Loma Linda, CA. December 17, 1999
32. Role of Protein Kinase C in Cerebral Vasospasm: Past and Future. *Stroke/Cerebral Vasculr Physiology Symposium, 6th Internet World Congress on Biomedical Sciences'00* at Hospital of Ciudad Real, Diudad Real, Spain.
33. Cerebral Vasospasm, Clinical and Bench Studies. *Department of Physiology & Biophysics*, University of Mississippi Medical Center. Jackson, MS. March 1, 2000
34. Vasospasm & Apoptosis, Structure vs. Function. *Mississippi Chapter of the Society for Neuroscience*, Jackson, Mississippi. May 2, 2000
35. Vasospasm and Apoptosis in Penetrating Arteries in a Dog Model (invited speaker). *8th International Symposium on Pharmacology of Cerebral Ischemia*. Marburg, Germany. July 26, 2000
36. ATP in Cerebral Vasospasm. *Sino-American Neurosurgery Conference*, Xian Jao-Tong University Second Clinical School of Medicine. Xian, China. October 16, 2000
37. Apoptosis in Cerebral Vasospasm. *Department of Neurosurgery*, The fourth Military Medical University. Xian, China. October 19, 2000
38. Cerebral Vasospasm and Apoptosis. *The 2nd Annual Conference of Chongqing Neurosurgery Society*, The Third Military Medical University. Chongqing, China. October 22, 2000
39. Cerebral Vasospasm. *Annul Conference of Guangdong Neurosurgery Society*, The First Military Medical University. Guangzhou, China. October 26, 2000
40. ATP in Stroke: Jekyll or Hyde. *University of Mississippi Medical Center Seminar Series*, Jackson, MS. December 7, 2000
41. Subarachnoid Hemorrhage and Cerebral Vasospasm. *Shanghai Second Medical College, Ren-Ji Hospital*. Shanghai, China. April 16, 2001
42. Signaling Pathways of Spasmogens: New Insight of Cerebral Vasospasm. *Nanjing Medical University, Brain Hospital*. Nanjing, China. April 17, 2001
43. Mechanism of Hyperbaric Oxygen Induced Brain Protection. *Nanjing Medical University, Brain Hospital*. Nanjing, China. April 17, 2001
44. Current Understanding of Cerebral Vasospasm: Molecular Biology and Treatment. *Xuzhou Medical College, The First Affiliated Hospital*. Xuzhou, China. April 18, 2001

45. Cerebral Vasospasm: An Update. *Jining Medical College, The First Affiliated Hospital*. Jining, China. April 19, 2001
46. Cerebral Vasospasm: A Self-Perpetuating Circle. *Qingdao University School of Medicine, The First Affiliated Hospital*. Qingdao, China. April 20, 2001
47. Mechanisms of Hyperbaric Oxygen-induced Brain Protection in Cerebral Ischemia. *Cross Strait Symposium on Cerebral Circulation, Brain-01*. Taipei, Taiwan. June 8, 2001
48. Hyperbaric Oxygen Therapy for Cerebral Ischemia. *Beijing Stroke Forum*, Beijing, China. June 17, 2001
49. Signal Transduction in Cerebral Vasospasm. *Chongqing Stroke Symposium*, Chongqing, China. June 20, 2001
50. The Role of ATP in Cerebral Vasospasm. *7th International Symposium on Resistance Arteries*. Muskoka Sands, Ontario, Canada. July 4-8, 2001
51. Role of ATP/P2 Receptors in Cerebral Vasospasm. *The 7th World Congress for Microcirculation*, Sydney, Australia. August 19-23, 2001
52. P₂ Receptors in Stroke: Jekyll or Hyde. *Department of Physiology & Neurosurgery*. LSU, Shreveport, LA. September 4, 2001
53. Cerebral Vasospasm: Hunting for the Silver Bullet. *Pharmacology Lecture Series*, University of Vermont, Burlington, VT. November 1, 2001
54. Vectors for Vasospasm-Busters. *Department of Neurosurgery*, University of Vermont, Burlington, VT. November 1, 2001
55. ATP in Stroke: Jekyll or Hyde. *Neuroscience Program*, Michigan State University, East Lansing, MI. November 8, 2001
56. Cerebral Vasospasm: Hunting for the Silver Bullet. *The Crosby Neurosurgical Institute*, University of Michigan, Ann Arbor, MI. November 9, 2001
57. Signal Transduction in Cerebral Vasospasm. *Vasospasm Symposium in Honor of Dr. Bryce Weir*. Chicago, IL. April 9, 2002
58. ATP in Stroke: Jekyll or Hyde. *Department of Anatomy*. LSUHSC-SH, Shreveport, LA. April 15, 2002
59. Experimental Therapy for Cerebral Vasospasm. *2002 Sino-US Symposium on Hi-Tech and*

Economic Developments & the Fourth Conference of Federation of Associations of Chinese Professionals in Southern USA. Houston, Texas. May 10-12, 2002

60. Hyperbaric Oxygen Therapy for Focal Cerebral Ischemia. *2002 Chongqing Forum on Cerebrovascular Surgery & Vasospasm.* Chongqing, China. June 1-3, 2002
61. Signal Transduction and Gene Therapy for Cerebral Vasospasm (invited speaker). *9th International Symposium on Pharmacology of Cerebral Ischemia.* Marburg, Germany. July 20-22, 2002
62. HBO in Neonatal Hypoxia: Teaching an Old Tool a New Game. *Department of Pharmacology & Therapeutics.* LSUHSC-SH. Shreveport, LA. September 11, 2002
63. Effect of Hyperbaric Oxygen on Experimental Neonatal Hypoxia/Ischemia. *Neruol-Update-2002.* LSUHSC, Shreveport, LA. October 4, 2002
64. New Frontier in Cerebral Vasospasm: Signaling Pathway (Invited Speaker). *The 6th Meeting of the Hirosaki International Forum of Medical Science. Advances in Brain Research-Cerebrovascular Disorders and Neurodegeneration.* Hirosaki, Japan. October 15-16, 2002
65. Stroke and Stroke Animal Models. *Neurobiotechnology Conference.* Shreveport, LA. December 4, 2002
66. Mechanisms of Hyperbaric Oxygen induced Brain Protection. *Department of Physiology & Biophysics,* LSUHSC, Shreveport, LA, February 24, 2003
67. Signal Transduction in Cerebral Vasospasm. *The 8th International Conference on Cerebral Vasospasm.* Chicago, Illinois. July 9, 2003
68. Signal Transduction in Subarachnoid Hemorrhage. *Neuroscience Grand Round,* Loma Linda Medical Center, CA. July 23, 2003
69. New Method of ICP Monitoring: from Spine. *Lecture to Neurosurgery Residents.* Loma Linda Medical Center, CA. July 23, 2003
70. Erythropoietin: Neuroprotection Effect in Neonatal Asphyxia. *Neuroscience Seminar,* Perinatal Center, Loma Linda Medical Center, CA. July 24, 2003
71. New Experimental Therapies for Neonatal Hypoxia-Ischemia. *Beijing Tiantan Hospital Seminar Series,* Chinese Academy of Neurological Science. Beijing. December 1, 2003
72. Experimental Therapies for SAH and Cerebral Vasospasm. *The 1st Academic Conference of International Chinese Neurosurgical Sciences,* Boao, China. March 25-28, 2004

73. Rebirth of HBO in Neonatal Brain Injury. *Hyperbaric Medicine 2004. The Tenth Annual Advanced Symposium*. Columbia, South Carolina. April 15, 2004
74. Apoptosis in Subarachnoid Hemorrhage. *The 10th International Symposium on Pharmacology of Cerebral Ischemia*. Marburg, Germany, July 25-28, 2004
75. HBO in Neonatal Hypoxia. The 4th International Symposium on Cerebral Palsy and Brain Injury. Lauderdale, FL, July 28-30, 2004
76. Ground Zero: The First 72 hrs after SAH. Neuroscience Grand Round. Loma Linda University. Loma Linda, CA August 4, 2004
77. New Experimental Therapies for Neonatal Hypoxia-Ischemia. Hangzhou Neurosurgery Society. Hangzhou, China. August 9, 2004
78. Experimental Therapies for SAH and Cerebral Vasospasm. Symposium on Cerebral Vascular Disorders. Huashan Hospital, Fudan University. Shanghai, China. August 12, 2004
79. Hyperbaric Oxygen in Neonatal Hypoxia. 7th Annual Symposium in Loma Linda University. Loma Linda, California September 2, 2004
80. Experimental Hyperbaric Oxygen Therapy in Neonatal Hypoxia. The Second Beijing Stroke Forum. Beijing, China. September 25-28, 2004
81. Ground Zero: the First 24 hr after Subarachnoid Hemorrhage. Hyperbaric Oxygenation for Neuro-Rehabilitation Workshop, International Hyperbarics Association, *World Congress & Exposition on Disabilities*, Orlando, FL 2004.10
82. Experimental Hyperbaric Oxygen Therapy in Neonatal Hypoxia. Advance Workshop on Hyperbaric Medicine, *The 3rd International Medical Meeting of the Angeles Group*. Tijuana, Mexico. October 29, 2004
83. HBO in Stroke. 2005 *Winter Symposium: Hyperbaric Medicine and Wound Management*. Breckenridge, Colorado. January 29-February 2, 2005
84. HBO in SAH. 2005 *Winter Symposium: Hyperbaric Medicine and Wound Management*. Breckenridge Colorado. January 29-February 2, 2005
85. Apoptosis in Subarachnoid Hemorrhage. Seminar. *Center for Molecular Biology and Gene Therapy*. Loma Linda University. February 28, 2005
86. Neuroscience Program. Grand Round. *Department of Anesthesiology, LLU*. March 30, 2005

87. ATP in Stroke, Jekyll or Hyde? *Basic Science Seminar Series*. LLU. April 7, 2005
88. ATP in Stroke, Jekyll or Hyde? *Anatomy & Cell Biology Seminar Series*. University of Winnipeg, Canada. May 24, 2005
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