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### **EDUCATION:**

2002	<b>M.D.</b> , Westphalian Wilhelm University of Münster, Germany,
1990	<b>M.S.</b> , Tongji Medical University (Pathology), China,
1985	<b>M.D.</b> , Hebei Medical College, China

### **PROFESSIONAL APPOINTMENTS:**

8/2007-	Assistant Professor, Department of Surgery, University of Kentucky
2004-2007	Research Fellow, Department of Surgery, University of Texas Medical Branch
1998-2001	Postdoctoral Research Fellow, Institute of Arteriosclerosis Research, Westphalian Wilhelm University of Münster, Germany
1990-2004	Resident, attending physician and assistant professor, Department of Internal Medicine, Union Hospital, Tongji Medical University, China
1985-1987	Resident, Department of Pathology, Hebei Medical College, China

### **PROFESSIONAL MEMBERSHIPS:**

1990-present:	Chinese Medical Academy
2005-present:	ASAIO (American Society of Internal Artificial Organ)

### **SELECTED PUBLICATIONS AND ABSTRACTS:**

Wang D, Lick SD, **Zhou X**, Liu X, White R, Zwischenberger JB. Ambulatory OxyRVAD for Total Right Heart and Respiratory Support. *Ann Thorac Surg.* 2007; 84(5): 1699-703

Schmalstieg FC, Keeney SE, Rudloff HE, Palkiwetz KH, Cevallos M, **Zhou X**, Cox RA, Halkins HK, Traber DL, Zwischenberger JB. Arteriovenous CO<sub>2</sub> removal improves survival compared to high frequency percussive and low tidal volume ventilation in a smoke /burn sheep acute respiratory distress syndrome model. *Ann Surg.* 2007; 246(3):512: 21

Wang D, **Zhou X**, Lick SD, Liu X, Qian K, Zwischenberger JB. An ambulatory pulmonary and right heart assist device (OxyRVAD) in an ovine survival model. *J Heart Lung Transplant.* 2007; 26(10): 974-9

Wang D, Zwischenberger JB, **Zhou X**, Loran D, Topaz S, Nix C, Traber DL, Qian KX, Kolff WJ. Development of "Plug and Play" TransApical to Aorta VAD. *ASAIO J.* 2007; 53: 171-175.

**Zhou X**, Wang D, Castro C, Hawkins H, Lick SD, Zwischenberger JB. Severe Chronic Pulmonary Hypertension Sheep Model Induced by Continuous Pulmonary Air Embolization. *Chest* 2006;130 (4 Suppl): 262S

- Wang D, **Zhou X**, Liu X, Lick SD, Zwischenberger JB. OxyRVAD for total right heart and respiratory support. Conf Proc IEEE Eng Med Biol Soc. 2006; 1: 5390-1
- Zhou X**, Wang D, Sayers R, Campbell KM, Cevallos M, Smolarz C, Chambers SD, Zwischenberger JB. 96 Hours Evaluation of a Compact Gas Exchanger for Ambulatory Arterio-Venous Carbon Dioxide Removal (AVCO<sub>2</sub>R). ASAIO J 2006; 52: 69A
- Wang D, **Zhou X**, Lick SD, White R, Zwischenberger JB. Compact OxyRVAD for two weeks total respiratory and right heart assistance. J ASAIO 2006; 52 : 69A
- Zhou X**, Hamani I, Wang D, Zwischenberger JB. Embolic pulmonary hypertension sheep model by continuous venous air infusion. ASAIO J. 2005; 51: 55A
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- Zhou X**, Loran DB, Wang D, Hyde BR, Lick SD, Zwischenberger JB. Seventy-two hour gas exchange performance and hemodynamic properties of NOVALUNG<sup>®</sup>iLA as a gas exchanger for arteriovenous carbon dioxide removal. Perfusion 2005; 20:303-308
- Wang D, Savage C, Xiao S, Yamani H, **Zhou X**, Sun Z, Zwischenberger JB. St Thomas Hospital Cardioplegia #2 fails to suppress slow reaction pacemaker cell electrical activity. J Surg Res. 2004; 120: 56-63.
- Zhou X**, Dong Y, Yuan Y. Effect of glybenclamide on apolipoprotein E secretion from macrophages. Herald of Medicine 2004; 2: 821-823
- Von Eckardstein A, **Zhou X**, Wybranska I, Langer C, Lorkowski S, Cullen P, Assmann G. Different effects of high density lipoprotein (3) and lipid-free apolipoprotein A-I on the release of eicosanoids and cytokines by human monocyte-derived macrophages. Circulation 1999; 100 (18 Suppl): 2099.
- Xin J, Hu D, Zhang J, **Zhou X**, Xiang M, Ru L. Expression of Type IV collagenase in pulmonary tissue in rabbit model of small airway inflammation-emphysema. Acat Univ Med Tongji 1999; 28: 486-8
- Xin J, **Zhou X**, Xiong X, LI Y, Liu J, Zhang Z. Clinical testificaton of compound dextromethorphan granule vs Meiyuweima Jiaonang. Chinese Journal of New Drugs and Clinical Remedies 1999; 8: 29-31
- Xin J, Hu D, Xiang M, **Zhou X**, Fu W, Ru Li. Expression of MMPs and TIMP in pulmonary tissue of emphysematous rabbit. Chin Tuberc Respir Dis 1999; 22: 364
- Zhou X**, Deng Z, Qu Z. Tetrandrine on monocyte migration induced by endothelial cell-derived chemotactic factor. National Medical Journal of China (Chinese Medical Journal currently) 1992; 72: 424-426
- Chu H, **Zhou X**. Relationship between cellular immunity and prostacyclin/thromboxane in laryngeal squamous cell carcinoma. J Huazhong Univ Sci Tech [Med Sci] 2002; 33(3):366-368
- Uehara Y, Engel T, Li Z, Goepfert C, Rust S, **Zhou X**, Langer C, Schachtrup C, Wiekowski J, Lorkowski S, Assmann G, von Eckardstein A. Polyunsaturated fatty acids and acetoacetate downregulate the expression of the ATP-binding cassette transporter A1. Diabetes 2002; 51: 2922-8
- Zhou X**, Von Eckardstein A. Effect of high density lipoprotein and apolipoprotein AI on PGE<sub>2</sub> production by monocyte-derived macrophages. J Huazhong Univ Sci Tech [Medical Sci (English /German edition)] 2002; 22: 270-272
- Zhou X**, Engel T, Goepfert C, Erren M, Assmann G, von Eckardstein A. The ATP binding cassette transporter ABCA1 contributes to the secretion of interleukin 1 from macrophages but not from monocytes. Biochem Biophys Res Comm 2002; 291: 598-604
- Von Eckardstein A, Langer C, Engel T, Schaukal I, Cignarella A, Reinhardt J, Lorkowski S, Li Z, **Zhou X**, Cullen P, Assmann G. The ATP binding cassette transporter ABCA1 modulates the secretion of apolipoprotein E from human monocyte-derived macrophages. FASEB Journal, 2001; 15: 1555-1561

## SELECTED PRESENTATIONS:

**Zhou X**, Wang D, Liu X, Merz S, Zwischenberger JB. 96 Hour Performance of a Gas Exchanger for Ambulatory Arterio-Venous Carbon Dioxide Removal. 53<sup>rd</sup> Annual Conference of ASAIO, Chicago, Jun 6 - 9, 2007

Wang D, **Zhou X**, Liu X, Sidor B, Zwischenberger JB. Wang-Zwische Double Lumen Cannula (DLC): Single Site Venous Cannulation of a Pump-Artificial Lung. 53<sup>rd</sup> Annual Conference of ASAIO, Chicago, Jun 6 - 9, 2007

Zwischenberger JB, Cevallos ME, Campbell KM, Keeney SE, Traber DL, Rudloff HE, Palkowetz KH\*, **Zhou X**, Schmalstieg FC. Arteriovenous Carbon Dioxide Removal Improves Survival In An Ovine Model of Severe Smoke and Burn Injury. American Surgical Association 127<sup>th</sup> annual Meeting, Colorado Springs, April26-28, 2007

**Zhou X**, Cagle PT, Castro CY, Garza, L. Wang D, Lick SD, Zwischenberger JB. HIF-1, VEGF and NFκB in a Pulmonary Hypertension (PH) Sheep Model. United States and Canadian Academy of Pathology Annual Meeting, San Diego, Mar 24-30, 2007

**Zhou X**, Wang D, Liu X, Merz S, Robin Sayers, Zwischenberger JB. 96-hour Performance Study of a Compact Gas Exchange for Ambulatory Arterio-Venous Carbon Dioxide Removal (AVCO<sub>2</sub>R). 24<sup>th</sup> Annual Houston Conference on Biomedical Engineering Research, Houston, Feb 8-9, 2007

Song G, Zhao X, Wang D, **Zhou X**, Liu X, Zwischenberger JB. A Fiber Optical Sensor for Measurement of Myocardial Contraction. 24<sup>th</sup> Annual Houston Conference on Biomedical Engineering Research, Houston, Feb 8-9, 2007

Wang D, **Zhou X**, Liu X, Sidor B, Zwischenberger JB. Wang-Zwische double lumen cannula: a novel way to attach a pump-artificial lung with single site venous cannulation. 24<sup>th</sup> Annual Houston Conference on Biomedical Engineering Research, Houston, Feb 8-9, 2007.

Wang D, **Zhou X**, Liu X, Lick SD, Cevallos ME, Zwischenberger JB. Compact OxyRVAD for two weeks total respiratory and right heart assistance. Society of Thoracic Surgeon of America 53<sup>rd</sup> Annual Meeting, Tuscon, Nov 9-11, 2006

**Zhou X**, Wang D, Castro C, Hawkins H, Lick SD, Zwischenberger JB. SEVERE CHRONIC PULMONARY HYPERTENSION SHEEP MODEL INDUCED BY CONTINUOUS PULMONARY AIR EMBOLIZATION. 72<sup>nd</sup> Annual Conference of American College of Chest Physicians, Salt Lake City, Oct 21-26, 2006

Wang D, **Zhou X**, Liu X, Lick SD, Zwischenberger JB. OxyRVAD for total right heart and respiratory support. 28<sup>th</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society, New York City, Aug 30-Sep 3, 2006

**Zhou X**, Wang D, Sayers R, Campbell KM, Cevallos M, Chambers SD, Zwischenberger JB. 96 Hours Evaluation of a Compact Gas Exchanger for Ambulatory Arterio-Venous Carbon Dioxide Removal (AVCO<sub>2</sub>R). 52<sup>nd</sup> Annual Conference of ASAIO, Chicago, Jun 8-10, 2006

Wang D, **Zhou X**, Lick SD, White R, Zwischenberger JB. Compact OxyRVAD for two weeks total respiratory and right heart assistance. 52<sup>nd</sup> Annual Conference of ASAIO, Chicago, Jun 8-10, 2006

**Zhou X**, Wang D, Sayers R, Campbell KM, Cevallos M, Chambers SD, Zwischenberger JB. 96 Hours evaluation of a compact gas exchanger for Ambulatory Arterio-Venous Carbon Dioxide Removal (AVCO<sub>2</sub>R). 23<sup>rd</sup> Annual Houston Conference on Biomedical Engineering Research, Houston, Feb 9-10, 2006

**Zhou X**, Wang D, Castro C, Hawkins H, Zwischenberger JB. Severe chronic pulmonary hypertension sheep model by continuous intravenous air infusion induced pulmonary air embolism. 23<sup>rd</sup> Annual Houston Conference on Biomedical Engineering Research, Houston,,Feb 9-10, 2006

Wang D, **Zhou X**, Lick SD, White R, Zwischenberger JB. Compact OxyRVAD for respiratory and right heart assistance. 23<sup>rd</sup> Annual Houston Conference on Biomedical Engineering Research, Houston, Feb 9-10, 2006

Wang D, **Zhou X**, Qian KX, Topaz S, Zwischenberger JB. A Novel Rotary TAH with Hybrid Passive Permanent Maglev Impellers. 23<sup>rd</sup> Annual Houston Conference on Biomedical Engineering Research, Houston, Feb 9-10, 2006

Wang D, **Zhou X**, Qian KX, Topaz S, Zwischenberger JB Development of Centrifugal Pump with Hybrid Passive Maglev Bearings. 23<sup>rd</sup> Annual Houston Conference on Biomedical Engineering Research, Houston, Feb 9-10, 2006

Wang D, Zwischenberger JB, **Zhou X**, Loran D, Topaz S, Qian K, Nix C, Kolff W. " Plug and Play" Transventricular Pump Completely Unloads Left Ventricle (LV) And Generates Pulsatile Flow in Sheep. 13<sup>th</sup> Congress of the International Society for Rotary Blood Pumps. HAPPO-En, Tokyo, Japan, Sep 14-16, 2005

**Zhou X**, Hamani I, Wang D, and Zwischenberger JB: Embolic pulmonary hypertension sheep model by continuous venous air infusion. 51<sup>st</sup> Annual Conference of ASAIO, Washington DC., Jun 9-11, 2005

Wang D, **Zhou X**, Qian KX, Lick SD, Scott SK, Donald DJ, Chambers SD, JB Zwischenberger: Compact Paracorporeal Right Heart and Lung Assistant Device (RH&LAD) for Total Right Heart and Respiratory Support in Awake Sheep. 51<sup>st</sup> Annual Conference of ASAIO, Washington DC., Jun 9-11, 2005

**Zhou X**, Hamani I, Wang D, and Zwischenberger JB: Embolic pulmonary hypertension sheep model by continuous venous air infusion. 22<sup>nd</sup> Annual Houston Conference on Biomedical Engineering Research, Houston, Feb 10-11, 2005

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Langer C, Von Eckardstein A, Engel T, Lorkowsky S, Li Z, **Zhou X**, Cullen P, Assmann G. ATP binding cassette transporters 1 and 8 modulate the secretion of apoE from macrophages. 10<sup>th</sup> atherosclerosis Symposium in Erfurt, Germany, Jun 15-16, 2001

**Zhou X**, Engel T, Langer C, Assmann G, Von Eckardstein A. The ATP binding cassette transporter A1 contributes to the secretion of IL1b from early-differentiated macrophages but not from monocytes or fully-differentiated macrophages. 10<sup>th</sup> atherosclerosis Symposium in Erfurt, Germany, Jun 15-16, 2001

**Zhou X**, Wybranska I, Lorkowski S, Langer C, Von Eckardstein A, Assmann G. HDL stimulates the release of prostaglandins from human monocyte-derived macrophages. XIIth International Symposium on Atherosclerosis, Stockholm, Sweden, Jun 25-29, 2000

**Zhou X**, Wybranska I, Langer C, Lorkowski S, Cullen P, Assmann G, Von Eckardstein A. Different effects of high density lipoprotein 3 and lipid-free apolipoproteins on the production of eicosanoids and cytokines in human monocyte-derived macrophages. 22<sup>nd</sup> Annual Conference of European Lipoprotein Club, Tutzing, Germany, Sep 13-16, 1999

Von Eckardstein A, **Zhou X.Q**, Wybranska I, Langer C, Lorkowski S, Cullen P, Assmann G. Different effects of high density lipoprotein (3) and lipid-free apolipoprotein A-I on the release of eicosanoids and cytokines by human monocyte-derived macrophages. 72<sup>nd</sup> Scientific Sessions of the American Heart Association, Atlanta, Nov 7-10, 1999

**Zhou X**, Deng Z, Xu Z, Qu Z. Monocyte migration induced by endothelial cell derived chemotactic factor and its reduction by calcium antagonists. 5<sup>th</sup> Chinese National Symposium on Pathology, Chengdu, China, Oct 1990.