4/20/2024

**Zheng Jenny Zhang, M.D. M.S.**

**CONTACT INFORMATION**

Business Address: Organ Transplantation, Department of Surgery

Northwestern University Feinberg School of Medicine

Chicago campus, 320 E. Superior, Tarry Building, 11-723

Email: zjzhang@northwestern.edu

**EDUCATION**

1983/07 M.D. Wuhan Medial College/Tongji Medical University (TMU), Wuhan, Hubei, China

[Certified by the Educational Commission for Foreign Medical Graduates (ECFMG) in 2010 (passed USMLE step 1/step 2 2011)]

1988/08 M.S. Transplant immunology, TMU, Wuhan, Hubei, China

**ADDITIONAL EDUCATION**

1999/02 – 2000/05 Continuing Studies (GPA 3.828): Comm\_ST101, STAT202, Finance364 (3.825), Comp\_STU 120

**POSTGRADUATE TRAINING**

1983/08 – 1988/09 Resident training, General Surgery, Transplant Surgery

Tongji Hospital (a TMU affiliated hospital), Wuhan, China

1984/06 – 1985/08 Postdoctoral Research Fellow, Department of Immunology, TMU, China

1990/10 – 1993/07 Postdoctoral Research Fellow, Department of Surgery, UWO and Multi-Organ Transplantation, UH, London, ON, Canada

1991/07 – 1991/05

**ADDITIONAL TRAINING/CERTIFICATIONS**

2000/05 Project Management – Theory and Fundamentals, Kellogg School of Management. Northwestern University

2014/12 Leadership and Management in Core Facilities, Executive Education Programs,

Kellogg School of Management, Northwestern University

**ACADEMIC APPOINTMENTS**

1989/09 – 1990/10 Attending Surgeon/Lecturer, Tongji Hospital, Tongji Medical University, Wuhan, China

1995/01 – 1998 /03 Instructor/Lecturer, Department of Surgery, LHSC, London, Canada

1998/03 – 2014/09 Research Assistant Professor /Research Associate Professor, Division of Organ Transplantation, Department of Surgery, Northwestern University, Feinberg School of Medicine, Chicago, IL, USA

2009/09 – present Director, Microsurgery & Preclinical Research Core (Previous Microsurgery Core), Comprehensive Transplant Center, Northwestern University, Feinberg School of Medicine, Chicago, IL, USA

2015/09 – present Research Professor of Department of Surgery, Northwestern University, Feinberg School of Medicine, Chicago, IL

2021/12 – present Faculty Member, Simpson Querrey BioNanotechnology Institute, Northwestern University

2023/05 – present Faculty Member, the Robert H. Lurie Comprehensive Cancer Center, Northwestern University

2023/11 – present Faculty member, the Center for Human Immunobiology (CHI), Northwestern University

**HONORS AND AWARDS**

1. **Elected Society Memberships**

2014 – Board member/Councilor, International Society of Experimental Microsurgery (<www.myisem.org>)

2016 – present Treasurer, International Society of Experimental Microsurgery

2023 – present President elect, International Society of Experimental Microsurgery

1. **International/National/Regional**

1989 Young Investigator Research Award, Chinese National Nature Science Foundation, China

1996 Young Investigator Travel Award, XVI International Congress of the Transplantation Society

1997 International Young Investigator Award, American Transplantation Society

2016 Distinguished Service Award (in Recognition of her consistent extraordinary services. Tongji Medical College Overseas Alumni Association (NPO, US)

2021 The Sun Lee Award by the International Society for Experimental Microsurgery for the outstanding, pioneering contribution to the progress of experimental microsurgery

1. **University**

2019 2018-2019 Excellence in Research Mentorship Award Winner, department of Surgery, Northwestern University

2020 2020 Research Mentor Award, Department of Surgery, Northwestern University

2021 2020-2021 FSM Teaching Award

2023 2023 Research Mentor Award! Department of Surgery

2024 2024 Research Mentor Award! Department of Surgery

**INTERNAL INSTITUTIONAL SERVICE** (Committees, Councils, Task Forces)

2013 Review Panel for the Office for Research's Spring 2013 Equipment Proposal competition, NU OSR

2016 Review Panel for the Office for Research's Spring 2016 Equipment Proposal competition, NU OSR

2018 Review Panel for the Office for Research's Spring 2018 Equipment Proposal competition, NU OSR

2020 Review Panel for the Office for Research's Spring 2020 Equipment Proposal competition, NU OSR

2022 – Co-director for DOS SURgeons Promoting Academic Surgeons & Scientists (SURPASS) CME conference.

2023 Participant, the Research strategic priority work group

2024 Judge for 2024 DOS Kanavel Scholarship for Research Excellence (due 5/6/2024)

**TEACHING AND MENTORING**

2000 – present Mentoring 1) undergraduates (n=7), Postdoctoral fellows/Trainees (n=17, 4 received young investigator awards (1 by international society of intestinal transplantation, 3 by American Transplant Society)

2015 – present Northwestern University, Graduate student course “Introduction to Immunology -DGP 440”.

2016 – 2018 MS/PhD student advisory Committee (for Rong Wang, Xiaoai Chen), Master of Biomedical Engineering, Department of Radiology, NU

2021 – Present Mentor, CTC Summer Student Immersion Program

2023 – present PhD student Advisory Committee, for Ei Hadji Arona Mbaye (Evan Scott), Dept. Bioengineering

**OTHER COMMUNITY SERVICE**

2013-present, Treasurer, Tongji Medical College Overseas Alumni Association (NPO, USA)

**PROFESSIONAL SOCIETY MEMBERSHIP**

1996 – present Member, International Transplantation Society

2002 – present Member, American Association of Immunologist

2009 – present Member, International Society of Experimental Microsurgery

2011 – present Member, American Society of Transplantation

2020 – present Member, American Heart Association

2021 – present Member, American Society of Nephrology

**EXTERNAL PROFESSIONAL LEADERSHIP AND SERVICE**

Leadership

2014 – present Board member/Councilor, International Society of Experimental Microsurgery (<www.myisem.org>)

2016 – present Treasurer, International Society of Experimental Microsurgery

2023 – present President elect, International Society of Experimental Microsurgery

Service

1991 Instructor, International Microsurgery Transplantation Workshop, UH, London, Canada

1998 Program Director, International Mouse Organ Transplantation Workshop, London, Ontario (July 22-23, 1998)

1998 Member, Local Organizing Committee for the 4th Congress of International Society of Experimental Microsurgery (July 19-21, 1998)

1998 Moderator, Scientific Session in the 4th Congress of International Society of Experimental Microsurgery, London, Canada (July 19-21, 1998)

2001 Moderator, for the 6th Congress of the International, Xenotransplantation Association, Sept 29 – Oct 3, 2001

2001 Member of Local Organizing Committee for the 6th Congress of the International Xenotransplantation Association, Sept 29 – Oct 3, 2001

2012 Moderator, Scientific Session at American Transplant Congress 2012, Boston MA, June 2- 6.

2013 Moderator, Scientific Session at American Transplant Congress 2012, Seattle, WA, May 18-22.

2015 Moderator, Scientific Session at American Transplant Congress 2015, Philadelphia, May 2- 6.

2016 Moderator, Scientific Session at American Transplant Congress 2016, Boston MA, June 11-15, 2016

2016 Member of International Scientific Committee for the 13th Congress (online) of International Society for Experimental Microsurgery, Tianjing, China, 25-28 Aug. 2016

2017 Moderator, Scientific Session at American Transplant Congress 2017, Chicago, IL, April 29 - May 3, 2017

2018 Moderator, Scientific Session at American Transplant Congress 2017, Seattle, WA. June 2-6

2018 Member of International Scientific Committee, the 14th Congress of the International Society for Experimental Microsurgery

2021 Member of International Organizing Committee for the 15th Congress (online) of International Society for Experimental Microsurgery, Sept.2021

2022 Examiner, Thesis and Examination of Higher Degrees by Research, The University of Sydney

2022 Moderator, Scientific Session at American Transplant Congress 2022, Boston, June 4-8.

2023 Co-group leader, Department of Veterans Affairs VA-ORD BLR&D Field-Based Meeting: Microbiome-Immune-Systemic Disease Axia. Chicago, May 5th, 2023

2024 Moderator, Scientific Session at American Transplant Congress 2024, Philadelphia, June 1-5.

**EDITORSHIPS / EDITORIAL BOARD SERVICE**

2014 – present Editorial Board, Journal of Transplantation and Stem Cell Biology

2015 – present Editor/Associate Editor for Frontiers in Immunology-Alloimmunity and Transplantation

2023 Guest editor, Frontiers in Medicine/Nephrology/Research Topic: Recent advances on omics and biomarkers research in renal transplantation

**ABSTRACT AND MANUSCRIPT REVIEW RESPONSIBILITIES**

1. **Abstract reviewer**

2012 Abstract reviewer, American Transplant Congress 2012, Boston MA, June 2- 6.

2013 Abstract reviewer, American Transplant Congress 2013, Seattle, WA, May 18-22.

2015 Abstract reviewer, American Transplant Congress 2015, Philadelphia, May 2- 6.

2016 Abstract reviewer, American Transplant Congress 2016, Boston MA, June 11-15, 2016

2017 Abstract reviewer, American Transplant Congress 2017, Chicago, IL, April 29 - May 3, 2017

2018 Abstract reviewer, American Transplant Congress 2017, Seattle, WA. June 2-6

2022 Abstract reviewer, American Transplant Congress 2022, Boston, June 4-8.

2023 Abstract reviewer, American Transplant Congress 2023, San Diego, June 4-8.

2024 Abstract reviewer, American Transplant Congress 2024, Philadelphia, June 1-5.

1. **Manuscript reviewer**

2010 – present Transplant Immunology

2012 – present European Surgical Research

2012 – present PLOS One

2015 – present Frontiers in Immunology

2016 – present American Journal of Transplantation

2020 – present Science Direct

2018 – present Biomaterial

**GRANT REVIEW RESPONSIBILITIES**

2022/12 Scientist Reviewer, on the Immunosuppression (IS) peer review panel of the Reconstructive Transplant Research Program (RTRP) for the Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP).

2023/02 Scientist Reviewer, on the Concept - 2 (CON-2) peer review panel of RTRP for DOD CDMRP

2023/12Scientist Reviewer, on the Immunosuppression and Tolerance (IST) peer review panel of RTRP for DOD CDMRP.

**GRANT PROPOSALS SUBMITTED/PENDING/JIT**

NIH/NIAID

ID#: 1 R01 AI188902-01

Title: Mitigating IRI-induced CMV reactivation by targeting endothelial stress responses

Principal Investigators: ZHANG, ZHENG J (Contact), NADIG, SATISH N

Role on project: PI

Percent effort: 25%

Direct costs per year: $499,991,

Total costs for project period: $3,999,930

Project period: 09/2024 – 08/2029

NIH/NIAID

ID#: 1R01AI177776-01A

Title: Modulation of endothelial stress responses to prevent ischemia/reperfusion injury induced cytomegalovirus reactivation

Principal Investigators: ZHANG, ZHENG J (Contact), NADIG, SATISH N

Role on project: PI

Percent effort: 25%

Direct costs per year: $499,294,

Total costs for project period: $3,994,178

Project period: 04/2024 – 03/2029

NIH/NIDDK

ID#: 1R43DK138718-01A1 (JIT)

Title: A new drug to treat transplant-associated renal ischemia-reperfusion injury

Principal Investigator: Geng, Y.J. (DUPAGE MEDICAL TECHNOLOGY, INC.)

Role on project: Site PI

Percent effort: 9%

Direct costs per year: $72,958

Total costs for project period: $246,559

Project period: 04/2024 – 03/2025

NIH/NIAID

ID#: R01AI180118 (JIT)

Title: Computational Drug Repositioning for Antibody Mediated Renal Allograft Rejection

Principal Investigator: Sarwal, M. (UCSF)

Role on project: Site PI

Percent effort: 10%

Direct costs per year: $65,000

Total costs for project period: $ $326,265

Project period: 07/2025 – 06/2028

NIH/NIDDK

ID#: R01DK141138

Title: Immunologic Mechanisms Underlying Adipose Tissue Dysfunction and Insulin Resistance After Kidney Transplantation

Principal Investigator: Sarwal, M. (UCSF)

Role on project: Site PI

Percent effort: 10%

Direct costs per year: ~$80,000

Total costs for project period: $426,792 (NU site)

Project period: 07/2024 – 06/2028

NIH/NIDDK

ID#: R01AI188423

Title: Single Cell Spectral Analysis for Causal Reclassification of Acute Kidney Transplant Rejection

Principal Investigator: Sarwal, M. (UCSF)

Role on project: Site PI

Percent effort: 10%

Direct costs per year: ~50,000

Total costs for project period: $240,000 (NU site)

Project period: 07/2024 – 06/2028

NIH/NIDDK

ID#: R01DK138403

Title: Soluble ACE2 protein kidney delivery for the treatment of Delayed Graft Function in kidney transplantation

Principal Investigator: Batlle, D. (Dept. Medicine)

Role on project: co-investigator

Percent effort: 10%

Direct costs per year: ~$480,000

Total costs for project period: $3,489,639

Project period: 07/2024 – 06/2029

NIH/NIAID

ID#: R01AI187578

Title: The pathogenesis of antiphosphatidylethanolamine autoantibodies

Principal Investigator: Zhao, M. (Dept. Medicine)

Role on project: co-investigator

Percent effort: 4%

Direct costs per year: ~$450,000

Total costs for project period: $3,980,362

Project period: 09/2024 – 08/2029

NIH/STTR

ID#: n/a

Title: AGT001 for Delayed Graft Function in Kidney Transplantation

Principal Investigator: Wysocki, J. (Dept. Medicine)

Role on project: co-investigator

Percent effort: 10%

Direct costs per year: n/a

Total costs for project period: $152,426

Project period: 09/2024 – 08/2025

DOD/Office of Naval Research and Army Research Office

ID#: n/a

Title: DURIP: Advancing Basic Research in Reconstructive and Transplant Medicine

Principal Investigator: Zhang ZJ

Role on project: PI

Percent effort: 0%

Direct costs per year: $183,750

Total costs for project period: $183,750

Project period: 12/2024 – 11/2025

**GRANTS AND SPONSORED AWARDS**

1. **Current**

DOD/Army

ID#: W81XWH2110862

Title: Sites-Specific Nanofiber-Coated Regulatory T Cells for the Induction of Tolerance in Vascularized Composite Allotransplants

Principal Investigator: Zhang ZJ

Role on project: PI

Percent effort: 15%

Direct costs per year: ~$150,000

Total costs for project period: $ 908,339

Project period: 09/2021 – 08/2024

NIH/NIAID

ID#: R21AI163876

Title: Targeting Ischemia/Reperfusion Stress to Inhibit Cytomegalovirus Reactivation After Lung Transplant

Principal Investigator: Zhang ZJ

Role on project: PI

Percent effort: 10%

Direct costs per year: ~$150,000

Total costs for project period: $440,000

Project period: 02/2022 – 01/2025

McCormick Foundation/Northwestern Memorial Hospital

ID#: Agr. 07/01/2014 Amnd 10

Title: Operation RESTORE (Rehabilitative Evaluation, Surgery and Transplant Options for Restoration): Advancing a Basic Science Program in the Development of Bioartificial Tissues and Organs, in order to Repair Battlefield-Acquired Severe Soft Tissue Injuries and Chronic Organ Failure Commonly Seen in United States Veterans

Principal Investigator: Zhang ZJ

Role on project: PI

Percent effort: 10%

Direct costs per year: $150,000

Total costs for project period: $ 1,813,991

Project period: 06/2014 – 05/2024

McCormick Foundation/Northwestern Memorial Hospital

ID#: Agr. 07/01/2014 Amnd 10

Title: Operation RESTORE: Immune assessment of a rodent model of extremity transplantation

Principal Investigator: Zhang ZJ

Role on project: PI

Percent effort: 5%

Direct costs per year: $ 100,000

Total costs for project period: $ 1,114,682

Project period: 06/2015 *–* 05/2024

NIH/NIAID

ID#: R21AI171739-02

Title: Allograft inflammatory factor-1 and immune tolerance

Principal Investigator: Sibinga, N (Albert Einstein College of Medicine, Inc)

Role on project: site PI

Percent effort: 5%

Direct costs per year: ~$150,000

Total costs for project period: $16,642

Project period: 06/2023 – 05/202

NIH/NIAID

ID#: R21AI166940-02

Title: Novel Short ACE2 variant for Delayed Graft Function

Principal Investigator: Batlle, Daniel (Dept Pathology)

Role on project: Co-investigator

Percent effort: 10%

Direct costs per year: ~$ 200,000

Total costs for project period: $ 440,000

Project period: 11/2021 – 10/31/2024

1. **Past (completed grant from 2018)**

Betalin Therapeutics, Ltd

ID#: Agmt 02/01/21

Title: Betalin Therapeutics, Ltd. - Pre-Clinical Evaluation of Bioengineered Micro-Pancreas (EMP)

Principal Investigator: Zheng ZJ.

Role on project: PI

Percent effort: 10%

Direct costs per year: $ 230,000

Total costs for project period: $ 595,752

Project period: 02/2021 – 01/2023

arGen-X BV

ID#: Agmt 11/30/20

Title: Betalin Therapeutics, Ltd. - Pre-Clinical Evaluation of Bioengineered Micro-Pancreas (EMP)

Principal Investigator: Gallon, L, Zheng ZJ.

Role on project: co-PI

Percent effort: 10%

Direct costs per year: $$ 80,000

Total costs for project period: $ 151,153

Project period: 11/2020 – 11/2023

NIH/NILBI

ID#: 5R01HL139812

Title: TAM-Kinases in Transplant

Principal Investigator: Thorp, EB (Dept Pathology)

Role on project: Co-investigator

Percent effort: 5%

Direct costs per year: $$357,919

Total costs for project period: $ 2,415,028

Project period: 01/2017 – 12/2023

NIH/NIAID

ID#: 5P01AI112522

Title: Integrating Mechanistic Insights from Diverse Models to Prevent CMV Reactivation following Transplantation

Principal Investigator: Abecassis, M.

Role on project: Core A Leader-Microsurgery and Histolpathology Core, Project 1 Leader

Percent effort: 50%

Direct costs per year: $1,510,998

Total costs for project period: $11,874,905

Project period: 07/2015 – 01/2021

Frankel Foundation Transplant Grants

ID#: Agmt 1/10/12

Title: Attenuation of graft injury following extremity transplantation in rodents

Principal Investigator: Zheng ZJ., Wertheim J(before2020)

Role on project: PI

Percent effort: 10%

Direct costs per year: $150,000

Total costs for project period: $941,452

Project period: 04/1/2016 – 03/2022

NIH/NIAID

ID#: 5P30DK114857

Title: Kidney Therapeutics: Translating Discoveries into Prevention, Treatment and Cures for Kidney Diseases

Principal Investigator: Quaggin SE.

Role on project: Navigator, Preclinical Models Core (Core A)

Percent effort: 0% (fee for core service)

Direct costs per year: $727,815 ($ 266,203)

Total costs for project period: $ 5,895,005

Project period: 08/2018 – 07/2023

NIH/NIAID

ID#: 5R01AI114824

Title: Modeling concurrent cytomegalovirus infection and transplantation tolerance

Principal Investigator: Luo, X.

Role on project: Co-Investigator

Percent effort: 10%

Direct costs per year: $175,000

Total costs for project period: $1,374,625

Project period: 03/2016 – 02/2021

NIH/NIAID

ID#: 5R01AI112911

Title: Mechanisms of MCMV reactivation in immunodeficient transplant recipients

Principal Investigator: Abecassis, M.

Role on project: Co-Investigator

Percent effort: 30%

Direct costs per year: $286,706

Total costs for project period: $1,725,172

Project period: 07/2014 – 06/2019

NIH/NILBI

ID#: 5R01HL127700

Title: Colony Stimulating Factor-1 in Graft Vascular Disease

Principal Investigator: Sibinga, N (Albert Einstein College of Medicine, Inc)

Role on project: Sits PI

Percent effort: 5%

Direct costs per year: $179,810

Total costs for project period: $ 2,415,028

Project period: 06/2015 – 12/2019

DOD/Office of Naval Research

ID#: N00014-17-1-2319

Title: Operating Microscope System for Translational Research in Regenerative and Transplant Medicine

Principal Investigator: Zhang ZJ

Role on project: PI

Percent effort: 0%

Direct costs per year: $150,000

Total costs for project period: $ 908,339

Project period: 06/2017 – 12/2018

**RESEARCH PROJECTS** (internal funding)

FY21 Dr. Michael M. Abecassis Transplant Innovation Endowment Grant Funding

Title: Impact of clinical relevant immunosuppression on immune response to COVID-19 in transplant recipients

Principal Investigator: Xingqiang Lai (Zhang’ postdoc)

Role on project: Mentor/sponsor for the PI

Total costs for project period: $ 908,339

Project period: 09/2020*–* 08/2022

FY22 Dr. Michael M. Abecassis Transplant Innovation Endowment Grant Funding

Title: Leveraging Nanocarrier Delivery Platforms for Tissue/Cell-Specific Targeting of Myd88 Pathways in Mitigating I/R Stress and MCMV Reactivation

Principal Investigator: Zhang ZJ

Role on project: PI

Total costs for project period: $ 38,700

Project period: 09/2021*–* 08/2023

FY22 NuGoKidney

Title: Targeting Regulatory T Cell Delivery using Nanofibers to Prevent Ischemia and Reperfusion Injury

Principal Investigator: Stupp S (SQI-nanotechnology and Gallon L (Dept. Medicine)

Role on project: co-investigator

Total costs for project period: $ 25,000 ($11,276 for the core)

Project period: 08/2021*–* 07/2022

FY23 NuGoKidney

Title: Anti-platelet and anti-inflammatory high-loading peptide nanoparticles for the preservation of kidney function following transplantation-associated ischemia-reperfusion injury

Principal Investigator: Berke J (University of Illinois Chicago, Pharmacology)

Role on project: co-investigator

Total costs for project period: $ 48,587 ($36,141.44 for the core)

Project period: 09/2022*–* 08/2023

FY23 Dr. Michael M. Abecassis Transplant Innovation Endowment Grant Funding

Title: Integration of spatial and single-cell transcriptomics for identifying intragraft factors in a mouse model of IRI induced delayed graft function

Principal Investigator: Mattew J

Role on project: co-investigator

Total costs for project period: $ 50,000

Project period: 09/2023*–* 08/2024

FY24 Dr. Michael M. Abecassis Transplant Innovation Endowment Grant Funding

Title: Integration of spatial and single-cell transcriptomics for identifying intragraft factors in a mouse model of IRI induced delayed graft function

Principal Investigator: Batlle D and Zhang ZJ

Role on project: co-PI

Total costs for project period: $ 47,500

Project period: 09/2023*–* 08/2024

FY24 Dr. Michael M. Abecassis Transplant Innovation Endowment Grant Funding

Title: Targeting VEGF/VEGFRs to mitigate kidney transplant IRI

Principal Investigator: Gallon L and Zhang ZJ

Role on project: co-PI

Total costs for project period: $ 47,500

Project period: 09/2023*–* 08/2024

**INVITED TALKS**

1. **International/National**

2014 Keynote speaker: ‘Experiment Microsurgery program in Northwestern University’. The 14th Congress of the International Society for Experimental Microsurgery (ISEM 2014), Kyoto, Japan, 4/ 2014

2016 Keynote speaker: ‘Applying Microsurgery for Translational Research’. ISEM2016 -The 13th

Congress of the ISEM, Tianjin, China, 8/ 2016

2018 Keynote speaker: ‘Kidney transplantation models for translational research’. ISEM2018 - The 14th Congress of the International Society for Experimental Microsurgery, Debrecen, Hungary, 8/ 2018

2017 Invited speaker: ‘Pre-Transplant Infusion of Donor Splenocytes Treated with Extracorporeal Photochemotherapy Leads to Long Term Allograft Survival and Donor Specific Tolerance’. The inaugural meeting of the American Council on ECP (ACE), held at the Lotos Club, 5 East 66th Street, Manhattan, on April 13th-14th. 2017

2021 Invited speaker: ‘Innovation portfolio Webinar Series at Mallinckrodt Pharmaceuticals: ‘Repurposing Extracorporeal Photochemotherapy for Induction of Donor Specific Hypo-responsiveness in Murine Organ Transplant Models’, 4/26/2021

2023 Keynote speaker: ‘Targeting cell stress responses to mitigate tissue injury and promote regeneration. The 16th Congress of the International Society for Experimental Microsurgery, Genoa, Italy, 6/22/2023

2023 Invited lecturer: ‘Surgical Techniques for Rodents’. 18th Congress of the Intestinal Rehabilitation and Transplant Association (CIRTA XVII)– Basic Science Postgraduate Course Renaissance Hotel, Chicago, IL , 6/30/2023

1. **Regional**

2016 Invited speaker: ‘Is Inositol-requiring Enzyme 1α (IRE-1a) a target for preventing chronic rejection’. XVI Great Lakes Transplant Immunology Forum, October 10-11, 2016, Chicago

2017 Invited speaker: Extracorporeal Photopheresis (ECP) as a New Strategy for Transplant Tolerance Induction, XVII Great lake transplant immunology forum, Medison, WI, 10/2017

2023 Invited speaker: Modulating Endoplasmic Reticulum (ER) Stress Response in Macrophages for  
Mitigating Kidney Transplant Injury. 22nd Great lake transplant immunology forum, Baltimore, Maryland, 10/24, 2023

1. **Local**

2019 – present Invited lecturer, CTC Summer Student Immersion Program, one-hour lecture during summer.

2020 Invited lecturer, CTC Lecture Series: ‘Modelling Kidney Transplant Ischemia/Reperfusion Injury and Allograft rejection’

2023 Invited lecturer, Jon Fryer MD CTC CTC Lecture Series: ‘Modulating Endoplasmic Reticulum (ER) Stress Response in Macrophages for Mitigating Kidney Transplant Injury.’ Oct 28, 2023

2023 Presenter, Specific Aims page review. SURgeons Promoting Academic Surgeons & Scientists ,Department of Surgery. April 5, 2023

**PUBLICATIONS AND SCHOLARLY WORKS**

1. **Journal Articles**
   1. ***Peer-reviewed Original Investigations***
2. **Zhang Z,** Xia SS. Cordyceps Sinensis-I as an immunosuppressant in heterotopic heart allograft model in rats. *J Tongji Med Univ*. 1990;10(2):100-3.
3. Zhong R, He G, Sakai Y, McAlister V, **Zhang Z**, Duff J, Stiller C, Grant D. Surgical technique for combined liver/intestine transplantation in rats. *Microsurgery.* 1992;13(3):126-31.
4. Quan D, Grant D, Zhong R, **Zhang Z,** Yin Z, Garcia B, Duff J and Jevnikar A: Semiquantitative analysis of cytokine gene expression during intestinal allograft rejectionin the mouse.  *Surgical Forum* XLIV: 429, 1993
5. Zhong R, **Zhang Z**, Quan D, Duff J, Stiller C, Grant D. Development of a mouse intestinal transplantation model. *Microsurgery*. 1993;14(2):141-5.
6. Zhong R, He G, Sakai Y, **Zhang Z,** Garcia B, Li XC, Jevnikar A, Grant D. The effect of donor-recipient strain combination on rejection and graft-versus-host disease after small bowel/liver transplantation in the rat. *Transplantation*. 1993 Aug;56(2):381-5.
7. Zhong R, **Zhang Z,** Quan D, Garcia B, Duff J, Stiller C, Grant D. Intestinal transplantation in the mouse. *Transplantation.* 1993 Oct;56(4):1034-7.
8. Quan D, Grant DR, Zhong RZ, **Zhang Z**, Garcia BM, Jevnikar AM. Altered gene expression of cytokine, ICAM-1, and class II molecules precedes mouse intestinal allograft rejection. *Transplantation.* 1994 Oct 15;58(7):808-16.
9. **Zhang Z**, Schlachta C, Duff J, Stiller C, Grant D, Zhong R. Improved techniques for kidney transplantation in mice. *Microsurgery.* 1995;16(2):103-9.
10. Lazarovits AI, Poppema S, Zhang Z, Khandaker M, Le Feuvre CE, Singhal SK, Garcia BM, Ogasa N, Jevnikar AM, White MH, Singh G, Stiller CR, Zhong RZ. Prevention and reversal of renal allograft rejection by antibody against CD45RB. *Nature.* 1996 Apr 25;380(6576):717-20.
11. Mukherjee R, **Zhang Z**, Zhong R, Yin ZQ, Roopenian DC, Jevnikar AM. Lupus nephritis in the absence of renal major histocompatibility complex class I and class II molecules. *J Am Soc Nephrol*. 1996 Nov;7(11):2445-52.
12. **Zhang Z**, Zhu L, Quan D, Garcia B, Ozcay N, Duff J, Stiller C, Lazarovits A, Grant D, Zhong R. Pattern of liver, kidney, heart, and intestine allograft rejection in different mouse strain combinations. *Transplantation*. 1996 Nov 15;62(9):1267-72.
13. Zhong R, Tucker J, Grant D, Wall W, Garcia B, Asfar S, **Zhang Z**, Sharpe M, Gelb A, Stiller C: Long-term survival and functional tolerance of baboon to monkey kidney and liver transplantation: a preliminary report. *Transplant proc.* 1996 Apr; 28(2): 762
14. Cagiannos C, Zhong R, **Zhang Z**, Jiang J, Garcia BM, Chakrabarti S, Jevnikar AM, Sinclair NR, Grant DR. Effect of major histocompatibility complex expression on murine intestinal graft survival. *Transplantation.* 1998 Nov 27;66(10):1369-74.
15. Kiyochi H, Kellersmann R, Blomer A, Garcia BM, **Zhang Z**, Zhong R, Grant DR. Rat-to-mouse small bowel xenotransplantation: a novel model for studying acute vascular and hyperacute xenograft rejection and xenogenic cell migration. *Xenotransplantation*. 1999 Feb;6(1):28-35.
16. Lazarovits AI, Visser L, Asfar S, LeFeuvre-Haddad CE, Zhong T, Kelvin DJ, Kong C, Khandaker MH, Singh B, White M, Jevnikar AM, **Zhang Z**, Poppema S. Mechanisms of induction of renal allograft tolerance in CD45RB-treated mice. *Kidney Int.* 1999 Apr;55(4):1303-10.
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110. **Patents and Intellectual Property**

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18. **Oral Abstracts / Presentations (selected from 2018 – present, \*denotes presenting author)**
19. Longhui Qiu\*, Jiao-Jing Wang, Xin Yi Yeap, Shulin Han, Feibo Zheng, Michael Abecassis, Deyu Fang, **Zheng Jenny Zhang.** Endoplasmic Reticulum Stress Sensor IRE1a Promotes the Polarization and Resolution of Graft Infiltrating Macrophages and leads to Long-term Allograft Acceptance in a Mouse Model of Kidney Transplantation. American Transplant Congress, June 2-9, 2018. Washington State Convention Center, Seattle, WA, USA. *Oral presentation*. **\*Young Investigator Award Winner**
20. Shuling Han\*, Zhikun Zheng, Miao He, Jiao­Jing Wang, Shixian Yan, Michael Abecassis; **Zheng Zhang.** Alveolar Macrophages Derived From MCMV Latently Infected Donors Drives the Viral Reactivation and Dissemination Following the Orthotopic Left Lung Transplantation in Mice. American Transplant Congress, June 2-9, 2018. Washington State Convention Center, Seattle, WA, USA.
21. Anil Dangi\*, Jiao-Jing Wang, Melanie Burnette, **Zheng Jenny Zhang**, Xunrong Luo. Transplantation Tolerance Prevents Murine CMV Reactivation and Preserve Kidney Allograft Function in a D+/R- Transplant Setting. American Transplant Congress, June 2-9, 2018. Washington State Convention Center, Seattle, WA, USA.
22. Gulua, G\*, Wysocki J, Ye M, Haney C, Zhao M Kanwar Y, **Zhang Z.J**, Batlle D. A novel short ACE2 variant causes ACE suppression and fosters Ang 1-7 formation in a murine model of CKD. ASN Kidney Week 2020 – annual meeting of American Society of Nephrology. Oct. 20-25, 2020
23. Gallon L\*, Carrow JK, He J, Sambandam Y, Mathew JM, Palmer LC, Leventhal JR,. **Zhang ZJ,** Stupp SI. Delivery of Extracellular Matrix-Targeted Regulatory T Cells by Novel Nanofiber Coatings for Transplantation Therapies. Oral Presentation. 2022 American Transplant Congress 2022, June 4-8, 2022, Boston, MA.
24. Lai XQ, Wang JJ, **Zhang Z\***. Intrinsic Tissue Factors Predispose Susceptibility of Ischemia/Reperfusion Injury by Influencing the Recruitment of Tregs into Kidney Allografts. Oral Presentation. International Transplant Science (ITS) Meeting 2022. 5/15-18, 2022, Berlin, Germany.
25. VanOsdol, LA\*, Kandpal, M, Wang, JJ, Han SL, Qiu L., **Zhang ZJ**. Exploring cell-specific mechanisms of ischemia/reperfusion injury mediated reactivation of cytomegalovirus from latency in the orthotopic mouse lung transplantation. Oral presentation. The 29th International Congress of The Transplantation Society (TTS 2022) | Buenos Aires - Argentina | September 10-14, 2022
26. Shukla S\*, Zheng X, Yuen W. Zhang ZJ. Targeting XBP-1 in Macrophages Mitigates Ischemic Reperfusion Injury. The 19th Annual Academic Surgical Congress. February 6-8, 2024 in Washington, DC.
27. **Poster Abstracts / Presentations (selected from 2018 – present, \*denotes presenting author)**
28. Xue-feng Liu\*, Suchitra Swaminathan, Shixian Yan, Flora Engelmann, Darryl Abbott, Longhui Qiu, Qing Chen, Andre lovane, **Zheng Zhang**, Michael Abecassis. A Novel Murine Model of Differentiation-mediated Cytomegalovirus Reactivation from Latently Infected Bone Marrow Hematopoietic Cells (4.35). The 44th Annual International Herpesvirus Workshop. Knoxville Convention Center, Tennessee, July 20-25, 2019
29. Vince Gerbasi\*, Eleonora Forte, Andre Iovane, Suchitra Swaminathan, **Zheng Zhang**, Mary Hummel, Qing Chen, Neil Kelleher, Michael Abecassis. Interrogating CMV Latency and Reactivation Pathways Using Targeted Proteomics. The 44th Annual International Herpesvirus Workshop. Knoxville Convention Center, Tennessee, July 20-25, 2019
30. Shuling Han, Zhikun Zheng, Longhui Qiu, Jiaojing Wang, Shixian Yan, Andre Lovane, Qing Chen, Michael Abecassis, **Zheng Zhang**. Depletion of Alveolar Macrophages in CMV seropositive Donors Prevents Viral Reactivation and Dissemination following Lung Transplantation, The 44th Annual International Herpesvirus Workshop. Knoxville Convention Center, Tennessee, July 20-25, 2019
31. **Zheng Zhang**\*, Longhui Qiu, Shixian Yan, Jiao-Jing Wang, Paul Thomas, Manoj Kandpal, Lihui Zhao, Andre Iovane, Qing Chen, Mary Hummel, Edward Thorp, Yashpal Kanwar, Michael Abecassis. Ischemia/Reperfusion Injury is Sufficient and Required for Reactivation and Dissemination of Cytomegalovirus Following Kidney Transplantation. The 44th Annual International Herpesvirus Workshop. Knoxville Convention Center, Tennessee, July 20-25, 2019
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33. Sahil Shah\*, Matthew DeBerge, **Jenny Zhang,** Xunrong Luo, Michael Abecassis, Edward Thorp. Infusion of Donor Apoptotic Cells Reprograms Anti-Viral Macrophages and Regulates Murine CMV Dissemination in a Model of Established Allograft Tolerance 4.50. The 44th Annual International Herpesvirus Workshop. Knoxville Convention Center, Tennessee, July 20-25, 2019
34. Lai, X.Q\*, Qiu, L.H., Want J.J., Han, SL, Shen, K, **Zhang Z.J.** Kidney-Intrinsic TLR/MyD88 Signaling Regulates the Susceptibility of Delayed Graft Function Following Kidney Transplantation. ASN Kidney Week 2020 – annual meeting of American Society of Nephrology. Oct. 20-25, 2020
35. Lai, X.Q\*, Qiu, L.H., Want J.J., VanOsdol, L.A., Yan, S.X., Kandpal, M, Abecassis M, **Zhang ZJ**. CD40/40L Pathway Is Critical In Controlling CMV Transmission Following Kidney Transplantation In Immunocompromised Mice. American Transplant Congress 2021, June 5-9, 2021
36. Lai, X.Q\*, Wang J.J., Qiu, L.H., Han, SL, Shen, K, **Zhang Z**. Augmented Responses of Donor Kidney Tubular Cells to TLR Signaling Correlate with Ameliorated Ischemia/reperfusion Injury and Long-term Allograft Protection. American Transplant Congress 2021, June 5-9, 2021
37. Fraser, L.A\*, Lee, S., Sambandam, Y, He J, Huang, X., Ivancic, D.Z., Mathew, J., **Zhang, Z.J**., Gallon, L., Leventhal, J.R., Stupp, S.I., Enhancement of Regulatory T Cell Therapy by Coating Single Cells in Peptide Amphiphile Nanofibers. American Transplant Congress 2021, June 5-9, 2021
38. VanOsdol, L.A\* Kandpal, M., Wang, J.J., Qiu, L., Abecassis, M., **Zhang, Z.J.** Investigating Ischemia and Reperfusion Injury and MCMV Reactivation Pathways Following Kidney Transplantation Using Single-cell RNA Sequencing. International Herpesvirus Workshop, August 2-6, 2021
39. Antala S\*, Gromer KD, **Zhang ZJ,** Wang JJ, Perlman H, Green RM, Taylor SA. Novel Murine Model of Neonatal Bile Duct Ligation Demonstrates Age-Specific Differences in the Macrophage Immune Response to Biliary Obstruction. Oral Presentation. The Liver Meeting® by the American Association for the Study of Liver Diseases (AASLD), Nov. 12-15, 2021.
40. Lai, X.Q\*, Wang J.J., Han, S, Chen CL, VanOsdol, L, Gallon L, Leventhal J, Zhang Z. Donor Genetic Background Predisposes Differentiation And Accumulation Of Regulatory T Cells In The Kidney Allografts. Poster presentation. 2022 American Transplant Congress 2022, June 4-8, 2022, Boston, MA

**MEDIA COVERAGE AND APPEARANCES**

Microsurgery and Preclinical Research Core

<https://www.feinberg.northwestern.edu/sites/transplant/research/research-cores/microsurgery-core.html>

07/26/2023 Meet the Faculty: Zheng Jenny Zhang

<https://sqi.northwestern.edu/news-and-events/news-and-announcements/2023/meet-the-faculty-zheng-jenny-zhang.html>

10/24/2023 Identifying Molecular Culprits Underlying Organ Rejection

<https://news.feinberg.northwestern.edu/2023/10/24/identifying-molecular-culprits-underlying-organ-rejection/>

09/07/2023 First device to monitor transplanted organs detects early signs of rejection. <https://news.northwestern.edu/stories/2023/09/first-device-to-monitor-transplanted-organs-detects-early-signs-of-rejection/>

A Northwestern sensor detects organ transplant rejection faster

<https://insights.globalspec.com/article/21122/a-northwestern-sensor-detects-organ-transplant-rejection-faster>