CURRICULUM VITAE

1. PERSONAL DATA

Name:	Qingde Wang		
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	Biomedical Science Tower		
	Department of Surgery		
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2. EDUCATION

Baccalaureate:

Date Attended	Name and Location of	Degree Received	Major
	Institution	and Year	Subject
1981-1987	Henan Medical University,	M.D.	Clinical
	Zhengzhou, China	1987	Medicine

Graduate:

Date Attended	Name and Location of	Degree Received	Major
	Institution	and Year	Subject
1989-1992	Beijing Medical University	M.S.	Histology
	Beijing, China	1992	Biochemistry
1992-1995	Pekin Union Medical	MD. Ph.D.	Ob/Gyn
	College,	1995	Molecular
	Beijing, China		Biology

3. POSDOCTORAL TRAINING

Date Attended	Name and Location of Institution	Name of Program Director and Discipline
1997-2001	The Wistar Institute, University of Pennsylvania,	Dr. Kazuko Nishikura, Molecular Biology, RNA processing
	Philadelphia, PA	and editing

4. APPOINTMENTS

a. VA appointments

Years	Name and Location of Institution	Grade/Step	Title
Inclusive			
2012-2018	VA Pittsburgh Health System	WOC	Research
			Staff
2019.3-	VA Pittsburgh Health System	Grade: 13	Research
			Health
			Scientist

b. University appointments

Years Inclusive	Name and Location of Institution	Title
1987-1989	Xinxiang Medical College,	Under graduate Lecturer
	Henan, China	
1992-1995	Pekin Union Medical College	Physician, Dept of
	Beijing, China	OB/Gyn
1996-1997	Pekin Union Medical College	Attending physician
	Beijing, China	Dept OB/Gyn
2001-2005	The Wistar Institute,	Research Associate
	University of Pennsylvania,	
	Philadelphia, PA 19104	
2006-2007	University of Pittsburgh Cancer Institute	Visiting research assistant
	Pittsburgh, PA 15232	professor
2008-2010	University of Pittsburgh Cancer Institute	Research assistant
	Pittsburgh, PA 15232	professor
2011-2019	University of Pittsburgh School of	Assistant Professor
	Medicine	
	Pittsburgh, PA 15213	

c. Other professional employment

N/A

5. PROFESSINAL AFFILIATEION AND MEMBERSHIP IN SCIENTIFIC SOCIETIES

Organization	Years
American Association of Immunology (AAI)	2014-Present
International Society for Stem Cell Research (ISSCR)	2006-Present
International Society for Neurochemistry (ISN)	2006-Present

6. SERVICE TO LOCAL VA MEDICAL CENTER

- a. Collaboration with VA Pittsburgh health system investigators (with Dr. Alex F. Chen on projects of diabetic wound healing and angiogenesis in diabetes; with Dr. Jie Fan on project of acute lung injuries).
- b. Serve as a PI to conduct VA Merit Review Award supported studies (supported by VA RR&D service).
- c. Serve as Peer/Colleague Reviewer on VA Merit Review applications.

7. SERVICE TO NATINAL VA

N/A

8. SERVICE TO AFFILIATED UNIVERSITY

- 2011- Serve as animal study and animal model preparation consultant to Department of Surgery, University of Pittsburgh School of Medicine.
- 2011- Preparation of transgenic and Knockout animal models for multiple projects conducted in Department of Surgery, including model design, preparation, screening and analysis.
- 2012- Serve in Research committee of Department of Surgery
- 2012- Organize annual Simmon's research conference of Surgery together with the members of the research committee.
- 2017- Teaching activity and course director: organized, designed and conducted a course "Experimental animal model preparation in surgery studies" for research fellows, postdoc and visiting scholars.

9. SERVICE TO PROFESSIONAL ORGANIZATIONS

a. Referee for Peer-reviewed Journals

Cell Reports Brain Research Hypertension Molecular and Cellular Biochemistry American Journal of Pathology Scientific Reports Genes International Journal of Endocrinology American Journal of Translational Research International Journal of Molecular Sciences Cellular and Molecular Life Sciences International Journal of Respiratory and Pulmonary Medicine Experimental and Therapeutic Medicine Molecular Medicine Reports Molecular BioSystems Austin Journal of Gastroenterology Annals of Clinical Case Reports Biomedical Reports Oncology Letters Molecular Immunology

b. Study section/grant reviewer

Austrian Science Fund (FWF) 2018 Austrian Science Fund (FWF) 2019 The Czech Science Foundation, 2016 Chinese Nature Science Foundation, 2017

10. PROFESSINAL AWARDS AND HONORS

Title of Award	Year
Ching Jer Chen Award for outstanding research	2001
Hillman foundation Research Award	9/2006-8/2008
Samuel & Emma Winters Foundation research Award	6/2008-9/2008
Elsa Pardee Foundation Research Award	9/2008-10/2009
Hillman foundation Research Award	9/2008-8/2010
NIH R21 Exploratory/Developmental Research	6/2009-9/2011

Pittsburgh Center for Kidney Research Pilot Award	10/2010-9/2011
NIH R21 Exploratory/Developmental Research	6/2012-5/2014
NIH R21 Exploratory/Developmental Research	4/2016-3/2019

11. FUNDED RESEARCH PROJECT

a. Current Projects

NIH: R01AI139544, National Institute of Diabetes and Digestive and Kidney Diseases(NIDDK), 2/2019-1/2024

Title: Role of ADAR1-mediated RNA editing / RNA sensing axis in sterile inflammation **Role:** PI

The specific aims of this project are to define the mechanism by which endogenous RNA activates the RNA sensing signaling pathway, which is regulated by RNA editing, and to determine the role and mechanism of the RNA editing / RNA sensing axis in sterile inflammation caused by lipid metabolic stress.

NIH: 1R21DA046144-01, National Institute on Aging, 4/2018-3/2020

Title: ADAR1-Mediated HIV RNA Modification

Role: Co-PI

The goal of this study is to identify ADAR1-mediated RNA editing events and to characterize how addictive substances regulate ADAR1 expression in cells.

NIH: R01 HL139547-01, National Heart, Lung, and Blood Institute, 7/2018-6/2022 Title: Macrophage Pyroptosis Mechanism of Post-Trauma Acute Lung Injury; Role: Co-I

This project is to determine the molecular mechanism through which trauma induces $M\phi$ pyroptosis.

VA: I01 Rx001455, US Department of Veterans Affairs, 1/2017-12/2020

Title: MicroRNA regulation of angiogenesis in aging **Role:** PI

The goal of this study is to determine whether and how miR-34a regulates the function of endothelial progenitor cells during aging using aged animal models and in angiogenesis animal models.

NIH: R21AG052912, National Institute on Aging, 6/2017-5/2019 Title: Role of ADAR1 in endothelial cells for angiogenesis Role: PI The goal of this study is to delineate the critical function and mechanism of ADAR1 in endothelial cell angiogenesis. It studies the function of ADAR1 in endothelial cells and focuses on the specific aspect of angiogenesis.

b. Completed Grant

9/2006-8/2008	Title: Study of NF-kB pathway in leukemia stem cells. Funding source: Hillman foundation Role: PI
9/2008-8/2010	Title: Functional study of ADAR1 in biological land pathological conditions
6/2008-9/2009	Funding source: Hillman foundation grant Role, PI
	Title: Test a new strategy for leukemia therapy by targeting RNA editing protein ADAR1. Funding source: Samuel & Emma Winters Foundation Role, PI
9/2008-10/2009	Title: New strategy for leukemia treatment. Funding source: Elsa Pardee Foundation Role, PI
6/2009-9/2011	Title: Study the roles of RNA editing enzyme ADAR1 in the regulation of cell death Funding source: NIH: 1R21AI078094-01A1 Role, PI
10/2010-9/2011	Pilot Study: ADAR1 function in kidney Funding source: NIH 5P30DK079307-03 Role, PI (Project Title: Pittsburgh Center for Kidney Research; PI: Thomas Kleyman)
6/2012-5/2014	Title: Function of ADAR1 in hematopoietic and leukemia stem cells Funding source: NIH 1R21CA158650-01 Role, PI

12. TRAINING AND MENTORING RELATIONSHIP

a. Teaching

Undergraduate Course entitled "Human Histology and Cell Biology" Class Participants: Undergraduate students, second year Location: Xianxiang Medical College, XinXiang, Henan, China 1988-1989, 9 hours of lecture/per week, 20 weeks/year

Undergraduate Course entitled "Advanced Histology of Human tissue" Class Participants: Undergraduate student, senior technician, graduate student Location: Beijing Medical University, Beijing, China, 1990-1991, 4.5 hours of lecture/per week, 16 weeks/year

Graduate Course entitled "Experimental animal model preparation in surgery studies" Class Participants: Research fellows, Postdoc and Visiting scholars. Location: University of Pittsburgh School of Medicine, Dept of Surgery, 2017-2018, 3 hours/per week, 7 weeks

b. Mentorship and Student training

Mentorship for Postdoctoral fellow: 2007- present.

Academic field: RNA biology, Gene expression and regulation, RNA process and RNA editing, RNA sequencing analysis, innate immune and inflammatory signaling transduction pathway.

Mentorship for Undergraduate Student: 2008, 2009.

Undergraduate students from University of Pittsburgh and Carnegie Mellon University.

High School Student training program: 2009-2011, 2013

Summer program for local high school student. Provide opportunities to the student to learn basic concept of biomedical research and perform basic experiments.

c. Past and current students

Student name	Trainee status	Inclusive dates	VA or non-VA	Degree	Current Position
Byoung Kwon	Р	2007-	Non-VA	PhD	
Yoo		2008			

Qiong Yang	Р	2008- 2010	Non-VA	PhD	Associate Professor, Northeast University, China
Yujuan Wang	Р	2008- 2009	Non-VA		Research Associate, The University of Chicago
Rohee Romar	Р	2009- 2010	Non-VA	PhD	Yale University
Yang Xiang	U	2007- 2008	Non-VA	BS	Research specialist, University of Pittsburgh School of Pharmacy
Stephany Guo	Н	2010	Non-VA	PhD	Cornell University
Hui Wang	Ρ	2012- 2013	Non-VA	MD. PhD	Professor, Wuhan Union hospital, Huazhong University of Science and Technology, Wuhan, China
Carol Y Wang	Н	2013	Non-VA	MD.	Perelman School of Medicine, University of Pennsylvania
Nicole R. Qi	U	2017- 2018		PhD	PhD student, Hongkong University, Hongkong
Guoliang Wang	G	2015- 2016	Non-VA	PhD	PhD student, The University of Edinburgh, Germany
Qin Zhou	G	2016- 2017	Non-VA	MD. PhD	Assistant Professor, Central South University, Xiangya 3 rd Hospital, Changsha, China
Jiehua Li	U	2015- 2016	Non-VA	MD. MS	Assistant Professor, Central South University, Xiangya 3 rd Hospital, Changsha, China
Rongzhen Jiang	Р	2013- 2014	Non-VA	MD	Associate Professor, Shanghai 6 th hospital, Shanghai, China
Zhaowei Zhu	Ρ	2013- 2014	Non-VA	MD. PhD	Assistant Professor, Central South University, Xiangya 2nd Hospital, Changsha, China

Jikui Chen	G	2013-	Non-VA	PhD	
		2014			
Jingjing Cai	Р	2013-	Non-VA	MD.	Associate Professor,
		2015		PhD	Central South
					University, Xiangya 3 rd
					Hospital, Changsha,
					China
Weifeng Chen	Р	2016-	Non-VA	MD.	Associate Professor,
		2017		PhD	Shanghai Eastern
					Hepatobiliary Hospital,
					Shanghai, China
Xiaoni Li	Р	2017-	Non-VA	PhD	Postdoc, Aging Institute,
		2018			University of Pittsburgh
Xiaolin Wang	G	2018	Non-VA	G	Central South
					University,
					Cardiovascular disease
					Institute, Changsha,
					China
Rose Ru Yan	G	2018-	Non-VA	MS	Visiting Scholar,
		2019			Dept. Surgery,
					University of Pittsburgh
Guangzhi	Р	2018-	Non-VA	PhD	Visiting Scholar,
Cong		2019			Dept. Surgery,
					University of Pittsburgh

Abbreviations: HS, high School; U, Undergraduate; G, Graduate; P, post-doctoral

13. EXTRAMURAL ACTIVITIES

a. Invited Presentation

Date	Title	Location
6/2001	Requirement of the RNA Editing Deaminase ADAR1 Gene for Embryonic Erythropoiesis	Wistar Institute, University of Pennsylvania, PA
5/2002	Targeting strategies for Knock Out mouse- designs and analysis	Wistar Institute, University of Pennsylvania, PA
3/2005	Mouse embryonic cell line establishment and its application in function studies of RNA editing proteins	Hillman Cancer Center Pittsburgh, PA

4/2006	Alternative strategies for inducible transgenic mouse preparation	University of Pittsburgh at Johnstown, PA
6/2006	Human AML stem cell analysis at single cell/colony level	Hillman Cancer Center Pittsburgh, PA
3/2007	Roles of RNA editing enzyme ADAR1 in the regulation of NFk-B pathway	Hillman Cancer Center Pittsburgh, PA
5/2008	Genetically engineered mouse models and applications in RNA editing study	Hillman Cancer Center Pittsburgh, PA
11/2009	RAN editing enzyme ADAR1 and T cell development	Hillman Cancer Center Pittsburgh, PA
12/2009	An essential role of the RNA editing enzyme ADAR1 in T cell development	2009 Annual Meeting of American Society of Hematology, New Orleans, Louisiana
1/2010	Rapidly elimination of leukemia cells in mouse model by targeting ADAR1	Hillman Cancer Center Pittsburgh, PA
5/2010	Animal Models in RNA editing study	Starzl Transplantation Institute, UPMC, Pittsburgh, PA
3/2011	Function of RNA editing Enzyme ADAR1 in Pancreatic Beta Cell	Dept Endocrinology, University of Pittsburgh, PA
3/2011	Function of RNA editing Enzyme ADAR1 in Kidney	Kidney Research Center, UPMC Dept of Urology, Pittsburgh, PA
5/2011	Animal models for Surgery	Dept Surgery, PUMC, Pittsburgh, PA
4/2012	Skin Homeostasis Requires RNA Editing Enzyme ADAR1	Wound Healing Research Seminar Series, The McGowan Institute for Regenerative Medicine, UPMC, Pittsburgh, PA
5/2012	RNA in Hepatocytes	Simmons Research Conference, University of Pittsburgh, PA

4/2013	Cellular RNA signaling regulated by ADAR1 in inflammatory response	Simmons Research Conference, University of Pittsburgh, PA
10/2013	Trend of medical practice and research	Zhengzhou University, Zhengzhou, China
12/2013	Regeneration, Inflammation and animal models	6th International Forum of MIS, Wuhan, China
10/2014	Cellular RNA pathway and diseases	Xiangya Medical School, Changsha, China
2/2015	RNA signaling in diseases	Pekin Union Medical University, Beijing, China
10/2015	RNA Pathways and The Trend Of Biomedical Research	Jin-Yang Hospital, Gui-Yang, Gui Zhou, China
3/2016	Cytosol RNA sensing pathway and RNA editing in angiogenesis	Xianya Medical School, Changsha, China
11/2016	RNA Editing in Hepatocytes and Endothelial Cells	Liver Research Retreat Seminar, University Clube, University of Plttsburgh
3/2017	RNA Singling In Fatty Liver	Pittsburgh Liver Research Center, University of Pittsburgh, PA
4/2018	RNA editing in angiogenesis	Wound Healing Research Seminar Series, The McGowan Institute for Regenerative Medicine, UPMC, Pittsburgh, PA
5/2018	RNA Editing Is Required for Innate Immune Homeostasis Through Inhibiting MDA-5 Activated by Cellular Endogenous RNAs	The American Association of Immunology Annual Meeting 2009, Austin, TX
2/2019	Hepatocyte RNA Signaling Activates Innate Immunity	Simmons Research Conference, University of Pittsburgh, PA
7/2019	Sterile Inflammation trigged by cellular RNAs	Speaker, Rheumatology Grand Rounds, Rheumatology and Clinical Immunology, UPMC, Pittsburgh, PA

b. Session Chair/Moderator

5/2016 Simmons Research Conference and Surgery Research Day Seminar Session Title: Trauma and Sepsis

University Club, Pittsburgh, PA 15213

5/2017 Simmons Research Conference and Surgery Research Day Seminar

Session Title: Trauma and Sepsis

University Club, Pittsburgh, PA 15213

5/2018 Simmons Research Conference and Surgery Research Day Seniors

Session Title: Basic Science session

University Club, Pittsburgh, PA 15213

14. BIBLIOGRAPHY

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Aneja RK, Alcamo AM, Cummings J, Vagni V, Feldman K, Wang Q, Dixon CE, Billiar TR, Kochanek PM. Lack of Benefit on Brain Edema, Blood-Brain Barrier Permeability, or Cognitive Outcome in Global Inducible High Mobility Group Box 1 Knockout Mice Despite Tissue Sparing after Experimental Traumatic Brain Injury. **J Neurotrauma**. 2018 Sep 5. PMID: 30045665

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Guoliang Wang1, Pei Zhou1, Yujuan Wang1, Shengyong Yang1, Sucha Singh2, Zhaowei Zhu1, Alex Chen1, Timothy Billiar1, Satdarshan P Monga2,3#, Qingde Wang1. ADAR1 prevents liver injury from inflammation and suppresses interferon production in hepatocytes. **J. Am. Pathology**, 2015 Dec;185(12):3224-37. PMID: 26453800.

Jiang R, Cai J, Zhu Z, Chen D, Wang J, Wang Q, Teng Y, Huang Y, Tao M, Xia A, Xue M, Zhou S, Chen AF. Hypoxic trophoblast HMGB1 induces endothelial cell hyperpermeability via the TRL-4/caveolin-1 pathway. **J Immunol**. 2014 Nov 15;193(10):5000-12. PMID: 25339669

Yang Shengyong, Deng Peng, Zhu Zhaowei, Zhu Jianzhong, Wang Guoliang, Zhang Liyong, Chen Alex, Tony Wang, Sarkar Saumen, Timothy Billiar and Wang Q. ADAR1 Limits RIG-I RNA detection and Suppresses IFN Production responding to viral and endogenous RNAs. **Journal of Immunology**, 2014, Oct.1;193(7):3436-45. PMID:25172485

Rui Kang1, Qiuhong Zhang, Wen Hou1, Zhenwen Yan, Ruochan Chen, Jillian Bonaroti, Preeti Bansal, Timothy R. Billiar, Allan Tsung, Qingde Wang, David L.

Bartlett, David C Whitcomb, Eugene B. Chang, Xiaorong Zhu, Haichao Wang, Ben Lu, Kevin J. Tracey, Lizhi Cao, Xue-Gong Fan, Michael T. Lotze, Herbert J. Zeh, III1, Daolin Tang. Hmgb1 Prevents Nuclear Catastrophe and Release of Inflammatory Nucleosomes in Pancreatic Tissues of Mice. **Gastroenterology**. 2013 Dec 17. pii: S0016-5085(13)01799-X

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