# **CURRICULUM VITAE**

Date of Revision: July 6, 2022

Name: Xiaojia (Sasha) Guo, PhD

Proposed for Promotion to: Research Scientist, Department of Internal Medicine, Section of Nephrology

Term: July 1, 2022 – June 30, 2025

School: Yale School of Medicine

## **Education:**

BA, Jiangxi University Microbiology 1982

MSc, University of Western Ontario Biochemistry 1990

PhD, Rutgers University Cell and Developmental Biology 1994

## **Career/Academic Appointments:**

1994 - 2000 Postdoctoral fellow, Pharmacology, Weill Medical College of Cornell Univ, New York, NY

2000 - 2002 Research Scientist, Drug Discovery, CuraGen Corp., Branford, CT

2002 - 2005 Senior Research Scientist, Drug Development, CuraGen Corp., Branford, CT

2005 - 2009 Associate Research Scientist, Cardiology (Medicine), Yale School of Medicine, New Haven, CT

2009 - 2014 Associate Research Scientist, Oncology, Yale School of Medicine, New Haven, CT

2014 - present Associate Research Scientist, Nephrology (Medicine), Yale School of Medicine, New Haven, CT

## **Professional Honors & Recognition:**

### **International/National/Regional**

2000 U.S. Army Medical Research and Material Command, Traineeship Award

1998 - 2000 New York State Dept. of Health, Breast Cancer Research fellowship

1995 - 1998 National Institute of Health, NIH postdoctoral fellowship

1986 - 1990 Medical Research Council of Canada, International Youth Year Special Studentship Award

### **Yale School of Medicine**

2011 - 2014 Department of Surgery, Yale Medical School, OHSE Award

### **Other**

1991 Rutgers University, The Anne B. and James H. Leathem Scholarship

## **Patents:**

### **Issued**

1. Lorraine J. gudas, **Xiaojia Guo**. 2004. Detection of epithelial cell cancers and precancerous conditions.. United States US6,706,506, filed July 24, 2000, and issued March 16, 2004.
2. Anderson, David W., John P. Alsobrook II, Ferenc L. Boldog, Catherine E. Burgess, Stacie J. Casman, Shlomit R. Edinberg, **Guo, Xiaojia (Sasha)**. 2005. Therapeutic polypeptides, nucleic acids encoding same, and methods of use.. United States US 6,974,684 B2, filed August 08, 2001, and issued December 13, 2005.
3. David W. Anderson, Jason Baumgartner, Ferenc Boldog, Stacie J. Casman, Shlomit R. Edinger, Esha A. Gangolli, Valerie Gerlach, Linda Gorman, **Xiaojia Guo**, Tord Hjalt, Ramesh Kekuda, Li Li, John R. MacDougall, Uriel M. Malyankar, Isabelle Millet, Muralidhara Padigaru, Meera Patturajan, Carol Pena, Luca Rastelli, Richard Shimkets, David Stone, Kimberly Spytek, Corine Vernet, Edward Voss, Bryan Zerhusen. 2006. Nucleic acid sequences that encode G-coupled protein-receptor related polypeptides. United States US7034132B2, filed June 04, 2001, and issued April 25, 2006.

## **Grants/Clinical Trials History:**

### **Current Grants**

Agency: NCI

I.D.#: R44CA224463

Title: Novel Target, New Therapy: Anti- Renalase Antibody for Tumors Resistant to PD-1Inhibitors

P.I.: Barry Berkowitz, Gary Desir, Harriet Kluger

Role: staff scientist

Percent effort: 90%

Direct costs per year: $1,327,758.00

Total costs for project

period: $1,327,758.00

Project period: 8/12/2021 – 8/11/2026

Agency: NCI

I.D.#: R01 CA216846-05

Title: Renalase inhibition for treatment of unresectable melanoma

P.I.: Harriet Kluger, Gary Desir

Role: staff scientist

Percent effort: 10%

Direct costs per year: $481,477.00

Total costs for project

period: $481,477.00

Project period: 4/1/2021 – 3/31/2022

### **Past Grants**

Agency: Yale University School of Medicine

I.D.#: Ohse Foundation Research Award

Title: Role of Adrenomedullin 2 in tumor angiogenesis using a knockout mouse model

P.I.: Xiaojia Guo

Role: Principle Investigator

Percent effort: 5%

Direct costs per year: $32,000.00

Total costs for project

period: $32,000.00

Project period: 7/1/2013 - 2/1/2014

Agency: Yale University School of Medicine

I.D.#: Ohse Foundation Research Award

Title: Role of Adrenomedullin 2 in Breast Cancer

Role: Principal Investigator

Percent effort: 5%

Direct costs per year: $40,000.00

Total costs for project

period: $40,000.00

Project period: 7/1/2012 - 6/30/2013

Agency: Yale University School of Medicine

I.D.#: Ohse Foundation Research Award

Title: Role of Intermedin in Hepatocellular Carcinoma

Role: Principal Investigator

Percent effort: 5%

Direct costs per year: $20,000.00

Total costs for project

period: $20,000.00

Project period: 7/1/2011 - 6/30/2012

## **Invited Speaking Engagements, Presentations, Symposia & Workshops Not Affiliated With Yale:**

### **Regional**

2003: Cornell University Medical College, New York, NY. "Role of Adrenomedullin 2 in Breast Cancer"

## **Peer-Reviewed Presentations & Symposia Given at Meetings Not Affiliated With Yale:**

### **National**

2021: American Pancreatic Association, 51st Annual Meeting of the American Pancreatic Association. "Utility of Renalase as a Novel Biomarker to Stratify Pancreatic Adenocarcinoma Candidates for Surgery"

2021: American Society of Nephrology, ASN annual conference Kidney Week 2021. "Heightened Innate Immune Response to COVID-19 Infection in CKD: Implications to Poorer Outcome During CKD."

2020: American Society of Nephrology, Kidney Week, 2020 Annual Meeting of American Society of Nephrology. "mRNA editing via Apobec-1 limits regulated necrosis from cisplatin (CP)-induced Acute Kidney Injury (AKI) by regulating the disposal of pro-ferroptotic triglycerides"

2020: American Society of Nephrology, Kidney Week, 2020 Annual Meeting of American Society of Nephrology. "A Renalase Peptide Encapsulated in Renal-selective Mesoscale Nanoparticle Protected Cisplatin-induced Chronic Kidney Disease"

## **Professional Service:**

### **Yale University Service**

#### **Government and NGO Committees**

2011 - Present Committee Member, West Haven VA Medical Center, Biosafety Subcommittee member

## **Bibliography:**

### **Peer-Reviewed Original Research**

1. **Guo XJ**, Chambers AF, Parfett CL, Waterhouse P, Murphy LC, Reid RE, Craig AM, Edwards DR, Denhardt DT. Identification of a serum-inducible messenger RNA (5B10) as the mouse homologue of calcyclin: tissue distribution and expression in metastatic, ras-transformed NIH 3T3 cells. Cell Growth & Differentiation : The Molecular Biology Journal Of The American Association For Cancer Research 1990, 1:333-8.
2. Waterhouse P, Parhar RS, **Guo X**, Lala PK, Denhardt DT. Regulated temporal and spatial expression of the calcium-binding proteins calcyclin and OPN (osteopontin) in mouse tissues during pregnancy. Molecular Reproduction And Development 1992, 32:315-23.
3. Denhardt DT, **Guo X**. Osteopontin: a protein with diverse functions. FASEB Journal : Official Publication Of The Federation Of American Societies For Experimental Biology 1993, 7:1475-82.
4. **Guo X**, Zhang YP, Mitchell DA, Denhardt DT, Chambers AF. Identification of a ras-activated enhancer in the mouse osteopontin promoter and its interaction with a putative ETS-related transcription factor whose activity correlates with the metastatic potential of the cell. Molecular And Cellular Biology 1995, 15:476-87.
5. Chen AC, **Guo X**, Derguini F, Gudas LJ. Human breast cancer cells and normal mammary epithelial cells: retinol metabolism and growth inhibition by the retinol metabolite 4-oxoretinol. Cancer Research 1997, 57:4642-51.
6. **Guo X**, Gudas LJ. Metabolism of all-trans-retinol in normal human cell strains and squamous cell carcinoma (SCC) lines from the oral cavity and skin: reduced esterification of retinol in SCC lines. Cancer Research 1998, 58:166-76.
7. **Guo X**, Ruiz A, Rando RR, Bok D, Gudas LJ. Esterification of all-trans-retinol in normal human epithelial cell strains and carcinoma lines from oral cavity, skin and breast: reduced expression of lecithin:retinol acyltransferase in carcinoma lines. Carcinogenesis 2000, 21:1925-33.
8. **Guo X**, Morris P, Gudas L. Follicle-stimulating hormone and leukemia inhibitory factor regulate Sertoli cell retinol metabolism. Endocrinology 2001, 142:1024-32.
9. **Guo X**, Nanus DM, Ruiz A, Rando RR, Bok D, Gudas LJ. Reduced levels of retinyl esters and vitamin A in human renal cancers. Cancer Research 2001, 61:2774-81.
10. Cerignoli F, **Guo X**, Cardinali B, Rinaldi C, Casaletto J, Frati L, Screpanti I, Gudas LJ, Gulino A, Thiele CJ, Giannini G. retSDR1, a short-chain retinol dehydrogenase/reductase, is retinoic acid-inducible and frequently deleted in human neuroblastoma cell lines. Cancer Research 2002, 62:1196-204.
11. **Guo X**, Knudsen BS, Peehl DM, Ruiz A, Bok D, Rando RR, Rhim JS, Nanus DM, Gudas LJ. Retinol metabolism and lecithin:retinol acyltransferase levels are reduced in cultured human prostate cancer cells and tissue specimens. Cancer Research 2002, 62:1654-61.
12. Touma SE, Goldberg JS, Moench P, **Guo X**, Tickoo SK, Gudas LJ, Nanus DM. Retinoic acid and the histone deacetylase inhibitor trichostatin a inhibit the proliferation of human renal cell carcinoma in a xenograft tumor model. Clinical Cancer Research : An Official Journal Of The American Association For Cancer Research 2005, 11:3558-66.
13. Sadeghi MM, Esmailzadeh L, Zhang J, **Guo X**, Asadi A, Krassilnikova S, Fassaei HR, Luo G, Al-Lamki RS, Takahashi T, Tellides G, Bender JR, Rodriguez ER. ESDN is a marker of vascular remodeling and regulator of cell proliferation in graft arteriosclerosis. American Journal Of Transplantation : Official Journal Of The American Society Of Transplantation And The American Society Of Transplant Surgeons 2007, 7:2098-105.
14. **Guo X**, Nie L, Esmailzadeh L, Zhang J, Bender JR, Sadeghi MM. Endothelial and smooth muscle-derived neuropilin-like protein regulates platelet-derived growth factor signaling in human vascular smooth muscle cells by modulating receptor ubiquitination. The Journal Of Biological Chemistry 2009, 284:29376-82.
15. **Guo X**, Schmitz JC, Kenney BC, Uchio EM, Kulkarni S, Cha CH. Intermedin is overexpressed in hepatocellular carcinoma and regulates cell proliferation and survival. Cancer Science 2012, 103:1474-80.
16. Nie L, **Guo X**, Esmailzadeh L, Zhang J, Asadi A, Collinge M, Li X, Kim JD, Woolls M, Jin SW, Dubrac A, Eichmann A, Simons M, Bender JR, Sadeghi MM. Transmembrane protein ESDN promotes endothelial VEGF signaling and regulates angiogenesis. The Journal Of Clinical Investigation 2013, 123:5082-97.
17. **Guo X**, Wang L, Velazquez H, Safirstein R, Desir GV. Renalase: its role as a cytokine, and an update on its association with type 1 diabetes and ischemic stroke. Current Opinion In Nephrology And Hypertension 2014, 23:513-8.
18. Nicholson AD, **Guo X**, Sullivan CA, Cha CH. Automated quantitative analysis of tissue microarray of 443 patients with colorectal adenocarcinoma: low expression of Bcl-2 predicts poor survival. Journal Of The American College Of Surgeons 2014, 219:977-87.
19. Hollander LL, **Guo X**, Salem RR, Cha CH. The novel tumor angiogenic factor, adrenomedullin-2, predicts survival in pancreatic adenocarcinoma. The Journal Of Surgical Research 2015, 197:219-24.
20. **Guo X**, Hollander L, MacPherson D, Wang L, Velazquez H, Chang J, Safirstein R, Cha C, Gorelick F, Desir GV. Inhibition of renalase expression and signaling has antitumor activity in pancreatic cancer. Scientific Reports 2016, 6:22996.
21. Hollander L, **Guo X**, Velazquez H, Chang J, Safirstein R, Kluger HM, Cha C, Desir G. Renalase Expression by Melanoma and Tumor-Associated Macrophages Promotes Tumor Growth through a STAT3-Mediated Mechanism. Cancer Research 2016, 76:3884-94.
22. Wang Y, Safirstein R, Velazquez H, **Guo XJ**, Hollander L, Chang J, Chen TM, Mu JJ, Desir GV. Extracellular renalase protects cells and organs by outside-in signalling. J Cell Mol Med. 2017 Jul;21(7):1260-1265.
23. Safdar B, **Guo X**, Johnson C, D'Onofrio G, Dziura J, Sinusas AJ, Testani J, Rao V, Desir G. Elevated renalase levels in patients with acute coronary microvascular dysfunction - A possible biomarker for ischemia. International Journal of Cardiology 2019, 279:155-161.
24. Landau SI, **Guo X**, Velazquez H, Torres R, Olson E, Garcia-Milian R, Moeckel GW, Desir GV, Safirstein R. Regulated necrosis and failed repair in cisplatin-induced chronic kidney disease. Kidney International 2019, 95:797-814.
25. Chang J, **Guo X**, Rao V, Gromisch ES, Chung S, Kluger HM, Cha C, Gorelick F, Testani J, Safirstein R, Crowley S, Peixoto AJ, Desir GV. Identification of Two Forms of Human Plasma Renalase, and Their Association With All-Cause Mortality. Kidney International Reports 2020, 5:362-368.
26. Gao Y, Wang M, **Guo X**, Hu J, Chen TM, Finn SMB, Lacy J, Kunstman JW, Cha CH, Bellin MD, Robert ME, Desir GV, Gorelick FS. Renalase is a novel tissue and serological biomarker in pancreatic ductal adenocarcinoma. PLoS One. 2021 Sep 29;16(9): e0250539. doi: 10.1371
27. **Guo X**, Xu L, Velazquez H, Chen T, Williams RM, Heller DA, Burtness B, Safirstein R, Desir GV. Kidney-targeted renalase agonist prevents cisplatin-induced chronic kidney disease by inhibiting regulated necrosis and inflammation. Journal of the American Society of Nephrology. J Am Soc Nephrol. 2022 Feb;33(2):342-356
28. **Guo X**, Jessel S, Qu R, Kluger Y, Chen T, Hollander L, Safirstein R, Nelson B, Cha C, Bosenberg M, Jilaveanu LB, Rimm D, Rothlin CV, Kluger HM, Desir GV. Inhibition of renalase signaling drives tumor rejection by promoting development of cytotoxic activity in tumor-reactive T cells. Eur J Cancer. 2022 Apr; 165:81-96.
29. Safdar B, Wang M, **Guo X**, Cha C, Chun HJ, Deng Y, Dziura J, El-Khoury JM, Gorelick F, Ko AI, Lee AI, Safirstein R, Simonov M, Zhou B, Desir GV. (2022) Association of renalase with clinical outcomes in hospitalized patients with COVID-19. PLoS ONE 2022 17(3): e0264178.
30. Chaurasia R, Salovey A, **Guo X**, Desir G and Vinetz JM. Vaccination With Leptospira interrogans PF07598 Gene Family-Encoded Virulence Modifying Proteins Protects Mice From Severe Leptospirosis and Reduces Bacterial Load in the Liver and Kidney. Front. Cell. Infect. Microbiol. 2022 12:926994