**LISHU HE**

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# Professional Summary

➔ Self-motivated scientist with extensive experience in physiology, **effective communication** with internal collaborators and leadership, and **project management** well adapted to tackle various therapeutic challenges.

➔ 5+ years of experience in independent experimental design, execution, and data analysis.

➔ Strong knowledge in intellectual property, regulatory affairs, and business-oriented consultation through participation in **technology transfer** projects and various innovation, law, and business-related courses.

# Highlight of Skills

**Extensive biomedical research experience** demonstrated in mastery of experimental design, *in vitro* cell culture assays, DNA/RNA/protein handling, animal surgery and tissue handling, molecular cloning, western blot, multi-color flow cytometry, confocal microscopy, statistical analysis (R and python), network pharmacology analysis, and GraphPad Prism.

**Cross-functional project management and business development** exemplified by managing collaborations with 2 international research groups as well as organizing and communicating complex biomedical information to various KOL stakeholders involved in the project.

**Advanced scientific writing and communication skills** based on preclinical data (peer-reviewed manuscripts, abstracts, posters, meeting reports, SOPs). established through 4 peer-reviewed manuscripts, 10 presentations at symposia and conferences, multi-media science outreach, and science and technical writing.

# Education

**Medical College of Wisconsin (MCW) – Milwaukee, WI** Expected 2024  
Ph.D.in Physiology (in progress)

**Syracuse University – Syracuse, NY** Class of 2018  
B.S. in Biology and Visual Culture

**Bard College at Simon’s Rock – Great Barrington, MA** Class of 2016  
A.A.with Distinction in Chemistry and Film

# Related Experience

**Graduate Research Assistant** |Dept. of Physiology, MCW, Milwaukee Aug ‘22-present

* + Lead a cross-functional, inter-department research project on transcriptional characterization of podocyte-specific response to hypertensive renal injury.
  + Collaborate with multidisciplinary teams in preparation of shared experiments and documents and publications, resulting in successful creation and organization of 10 SOPs and protocols.

**Technology Transfer Intern** | Versiti Blood Center of Wisconsin, Milwaukee Dec ‘21-present

* + Participate in pre-disclosure meetings and interview processes for Technology Transfer Office personnel.
  + Assist the technology transfer officer in prior art search, patent analysis, and market research.
  + Contribute to evaluation of disclosure commercial potential as well as patentability.
  + Liaise with Quarles & Brady, venture fund investors, and inventors to review claim sets and draft patents.

**Graduate Research Assistant** | Dept. of Pharmacology, MCW, Milwaukee Aug ‘18-Aug ‘22

* + Led a research project on screening of pharmacological inhibition of histone methyltransferases and nodes in DNA damage repair signaling or other genetic/epigenetic pathways as candidates for pancreatic cancer treatment.
  + Developed, implemented, and validated 3 custom *in vitro* assays to analyze effects of drug treatment, resistance, and sensitivity in combination with other cancer treatment modalities, as evidenced by the optimization of assay protocol and creation of corresponding SOPs for laboratory and collaborator use.
  + Collaborated with multidisciplinary teams in preparation of shared experiments, documents, publications, and seminars, resulting in successful creation and organization of 20+ SOPs, protocols, seminars, and templates.

**Pathology Intern** | Shenzhen University Health Science Center, Shenzhen, CHINA Jul ’17 – Sep ‘17

* + Actively led the development of SOPs, data analysis, quality control measures, and manuscript review pipeline with a team of 10 researchers to analyze, interpret results from preclinical assays, leading to a manuscript published in PLoS ONE.

# Leadership

**Committee Service**

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| 2021-2023 | **Communications Chair** | Interdisciplinary Doctoral Program (IDP) International Students Committee |
| 2020-2023 | **Member** | Driving Equity and Inclusion for Students in Science |
| 2019-present | **Member** | Graduate Student Wellness Committee |
| 2019 | **Representative (**Title IX, IDP, Community Outreach**)** | Graduate Student Association (GSA) |
| 2019 | **Chair** | IDP Big Sibling Program |
| 2018-2020 | **Member** | Committee for Enhancing Scholarly Culture |

**Professional Activities**

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| 2022 | **Judge** | MCW Summer Programs Symposium |
| 2022 | **Moderator, Presenter** | Equity in the Learning Environment Summit |
| 2020-current | **International Event Coordinator** | Cheeky Scientists |
| 2019-2021 | **Curator** | STEMbase.org |

# Publications

# 1. **He, L.**, Urrutia, G. and Lomberk, G. (2022), Inhibition of PRMT5 Disrupts Cell Cycle Progression and DNA Damage Signaling, Revealing a Potential Novel Combination Therapy for Pancreatic Cancer. *FASEB J.*, 36: https://doi.org/10.1096/fasebj.2022.36.S1.0R678. 2. **He L**. (2021) Refining pancreatic ductal adenocarcinoma molecular subtype and precision therapeutics with single-nucleus RNA-seq. *BMC Med*. 19, 182. 3. **He L** and Lomberk G. (2021) Collateral Victim or Rescue Worker? - The Role of Histone Methyltransferases in DNA Damage Repair and Their Targeting for Therapeutic Opportunities in Cancer. *Front. Cell Dev. Biol*. 9:735107. 4. Wang N\*, **He L\***, Lin H, Tan L, Sun Y, Zhang X, et al. (2020) MicroRNA-148a regulates low-density lipoprotein metabolism by repressing the (pro)renin receptor. PLoS ONE 15(5): e0225356. (\*co-first author)

# Selected Presentations (3/10)

1. “Inhibition of PRMT5 Disrupts Cell Cycle Progression and DNA Damage Signaling, Revealing a Potential Novel Combination Therapy for Pancreatic Cancer.” **Oral and Poster Presentations.** April 2022, Experimental Biology 2022 (ASPET Young Investigators Symposium), Philadelphia, PA.

2. “Targeting epigenetics with pharmacological inhibitors.” **Oral Presentation.** June 2021, Reaching the Peak: A Science & Technology Career Summit Flash Talk Competition (Finals), Virtual.

3. “Inhibition of PRMT5 Activates the ATR DNA Damage Response Pathway, Revealing a Potential Novel Combination Therapy for Pancreatic Cancer.” **Poster Presentation**. March 2021, MCW Research Week, Milwaukee, WI.

# Professional Associations

American Society of Nephrology (2016-2017, 2022-)  
American Physiological Society (2022-)  
American Society of Clinical Oncology (2020-2022)  
American Association for Cancer Research (2020-2022)  
American Association for the Advancement of Science (2018-2020)