

## CURRICULUM VITAE

**DATE:** 04/22/2024

**NAME:** Pingping Hou, PhD

**PRESENT TITLE:** Assistant Professor

**HOME ADDRESS:** 134 Passaic Ave Apt A19  
Nutley, NJ 07110

**OFFICE ADDRESS:** 205 South Orange Ave., Room F1230  
Newark, NJ 07103

**TELEPHONE NUMBER/E-MAIL ADDRESS:** 973-972-3615/ph413@njms.rutgers.edu

**CITIZENSHIP:** USA Permanent Resident

### **EDUCATION:**

- A. Undergraduate Graduate and Professional  
*China Agricultural University*  
*Beijing, China*  
*B.S. (Molecular Biology)* *July 2007*
  
- B. Graduate and Professional  
*Perking University*  
*Beijing, China*  
*Ph.D. (Cell Biology)* *January 2014*

### **POSTGRADUATE TRAINING:**

- A. Internship and Residencies  
*N/A*
  
- B. Research Fellowships  
*College of Life Sciences, Peking University, Beijing, China*  
*Cell Biology (mentor: Dr. Hongkui Deng)*  
*09/2007-01/2014*
  
- C. Postdoctoral Appointments  
*University of Texas, MD Anderson Cancer Center, Houston, TX, US*  
*Cancer Biology (mentor: Dr. Ronald A. DePinho)*  
*06/2014-08/2021*

**MILITARY:** N/A

### **ACADEMIC APPOINTMENTS:**

*Assistant Professor*  
*Department of Microbiology, Biochemistry and Molecular Genetics*  
*Center for Cell Signaling*  
*New Jersey Medical School, Rutgers Biomedical and Health Sciences of Rutgers*  
*09/2021-present*

**HOSPITAL APPOINTMENTS:** N/A

**OTHER EMPLOYMENT OR MAJOR VISITING APPOINTMENTS:** *None*

**PRIVATE PRACTICE:** *N/A*

**LICENSURE:** *N/A*

**DRUG LICENSURE:** *N/A*

**CERTIFICATION:** *N/A*

**MEMBERSHIPS, OFFICES AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES:**

*American Association for Cancer Research  
Active Member  
06/2014-present*

*Rutgers Cancer Institute of New Jersey  
Full Member  
09/2021-present*

*Center for Immunity & Inflammation (CII)  
RBHS-New Jersey Medical School  
Associate member  
9/13/2021-present*

*Institute for Infectious & Inflammatory Diseases (i3D)  
RBHS-New Jersey Medical School  
Associate member  
12/28/2021-present*

**HONORS AND AWARDS:**

*2024 Faculty of the Year  
Rutgers NJMS  
04/2024*

*New Investigator Award  
NIH/CINJ  
04/2023*

*Career Development Award  
Lustgarten Foundation and AACR  
07/2022*

*Career Transition Award K22  
The National Cancer Institute  
12/2021*

*Wall of Science Awardee  
University of Texas, MD Anderson Cancer Center  
05/2021*

*Thomas H. and Mayme P. Scott Fellowship in Cancer Research  
University of Texas, MD Anderson Cancer Center  
05/2021*

*Odyssey Outstanding Research Publication Award*  
*University of Texas, MD Anderson Cancer Center*  
*02/2021*

*Harold C, and Mary L. Dailey Endowment Fellowship*  
*University of Texas, MD Anderson Cancer Center*  
*05/2020*

*AACR Scholar-in-Training Award*  
*Aflac, Inc.*  
*08/2018*

*Outstanding Graduate of Beijing City (No. 201410001y014, 2014)*  
*Beijing Municipal Commission of Education*  
*01/2014*

*Outstanding Graduate of Peking University*  
*Peking University*  
*01/2014*

*National Scholarship for Graduate Students (No. 2013-00346, 2013)*  
*Educational Department of China*  
*10/2013*

*Innovation Award (Academic)*  
*Peking University*  
*10/2013*

*PROTEINTECH Scholarship*  
*Peking University*  
*10/2011*

*PEPROTECH Research Leadership Award*  
*Peking University*  
*01/2010*

*YU CAIFAN Scholarship*  
*Peking University*  
*10/2009*

*Outstanding Graduate of China Agricultural University*  
*China Agricultural University*  
*07/2007*

*NIBS Scholarship*  
*China Agricultural University*  
*09/2006*

*English Outstanding Award*  
*China Agricultural University*  
*09/2005*

*Learning Excellence Award, Grand Prize*  
*China Agricultural University*  
*09/2005*

*Mathematics Competitions, Third Prize*

*China Agricultural University*  
09/2005

*Kerry Oil & Grains Scholarship*  
*China Agricultural University*  
09/2005

*National Mathematics Competitions of China*  
*Educational Department of China*  
10/2003

**BOARDS OF DIRECTORS/TRUSTEES POSITIONS:** *None*

**SERVICE ON NATIONAL GRANT REVIEW PANELS, STUDY SECTIONS, COMMITTEES:**

*Ad-hoc reviewer*  
*Oak Ridge Associated Universities (ORAU)*  
07/2023

*Ad-hoc reviewer*  
*Mechanisms of Cancer Therapeutics C (MCTC)*  
*NIH-CSR*  
06/2023

*Ad-hoc reviewer*  
*Lustgarten Foundation*  
04/2023

**SERVICE ON MAJOR COMMITTEES:**

- A. International: *none*
- B. National: *none*
- C. Medical School/University:  
*Rutgers NJMS Faculty Affairs Committee (FAC) Member (2022-present),*  
*North Campus Institutional Animal Care and Use Committee (North Campus IACUC) Voting*  
*Scientist Member (2024-present)*
- D. Hospital: *none*
- E. Department: *none*
- F. Editorial Boards: *none*
- G. AdHoc Reviewer: *Nature Cancer, 03/2024-present; Cancers, 03/2024-present; Cell Death*  
*Discovery, 12/2023-present; Cancer Letters, 11/2023-present; Cell Reports, 10/2023-present;*  
*Cancer Research 09/2023-present; iScience 06/2023-present; Signal Transduction and*  
*Targeted Therapy, 04/2023-present; Cell Communication and Signaling, 03/2023-present;*  
*Current Oncology 01/2023-present; Laboratory Investigation 12/2022-present; Molecular*  
*Biology Reports 12/2022-present; Bioprocess and Biosystems Engineering 09/2022-present;*  
*cancer research communications, 01/2022-present; PNAS, 11/2021-present; Theranostics,*  
*05/2020-present; Cell Journal, 10/2014-present; Scientific Reports, 10/2014-present; PLoS*  
*ONE, 10/2014-present; Cells Tissues Organs, 10/2014-present.*

**SERVICE ON GRADUATE SCHOOL COMMITTEES:**

- (1) *Varsha Gadiyar, thesis advisory committee member, Rutgers, 2023-present*
- (2) *Christopher Varsanyi, thesis advisory committee member, Rutgers, 2023-present*
- (3) *Christopher Galifi, candidacy examination committee member, Rutgers, 2023*
- (4) *Kristy Fu, qualifying exam committee, 2023*
- (5) *Jong Hyun Cho, qualifying exam committee, 2022*
- (6) *Eliezer Rovira-Diaz, qualifying exam committee, 2022*

**SERVICE ON HOSPITAL COMMITTEES:** *none*

**SERVICE TO THE COMMUNITY:**

*Speaker for Community Science Café hosted by CINJ (05/15/2023)*

**SPONSORSHIP (Primary Mentorship) OF CANDIDATES FOR POSTGRADUATE DEGREE:**

- (1) *Ryan Jin, MD candidate, Rutgers NJMS-Cancer Center Research Elective-Oncology Basic Science Course, 01/2024-02/2024*
- (2) *Kevin Herrera, Masters student, Research Rotation Program, 2023*
- (3) *Yaritza Rodriguez Vazquez, Masters Student, Virtual Research Rotation Program, 2022*
- (4) *Luis Garza, PhD candidate, Primary Advisor for Doctoral Thesis, Rutgers-SGS (MGBC track), 2021 – 2022 (passed the qualifying exam at 7/22)*

**SPONSORSHIP (Primary Mentorship) OF POSTDOCTORAL FELLOWS:**

- (1) *Parichehr Maleki, PhD, postdoctoral fellow, Rutgers, 04/2024-present*
- (2) *Yuemeng Huang, PhD, postdoctoral fellow, Rutgers, 02/2024-present*
- (3) *Rim Ouni, PhD, postdoctoral fellow, Rutgers, 12/2023-present*
- (4) *Habeebunnisa Begum, PhD, postdoctoral fellow, Rutgers, 05/2023-present*
- (5) *Nader Mahmoudzadeh, PhD, postdoctoral fellow, Rutgers, 05/2023-present*
- (6) *Daiyong Deng, PhD, postdoctoral fellow/senior scientist, Rutgers, 11/2021-present*

**TEACHING RESPONSIBILITIES:** (Teaching effectiveness should be addressed in nominating letter)

- A. Lectures or Course Directorships
  - (1) *Seminars in Biomedical Sciences (MSBS-5910Q), Lecture: Cancer, 12/2023*
  - (2) *Seminars in Biomedical Sciences (MSBS-5910Q), Lecture: Cancer, 12/2022*
  
- B. Research Training (other than Primary Mentorship)
  - (1) *2024: Cole Santucci, Rutgers-SGS (MBGC track), research rotation*
  - (2) *2024: Brian Nyiro, Rutgers-SGS (I3 track), research rotation*
  - (3) *2024: Ting-yu Chu, Rutgers-SGS (MBGC track), research rotation*
  - (4) *2024: Mohammed Danish, Rutgers University-New Brunswick, undergraduate research volunteer*
  - (5) *2023: Aaron Lemmer, Rutgers MD/PhD program, summer rotation*
  - (6) *2023: Jiangyan Zhang, Rutgers-SGS (I3 track), research rotation*
  - (7) *2022: Anne Iannucci, Rutgers-SGS (MGBC track), research rotation*
  - (8) *2022: Rachael Pulica, Rutgers-SGS (MGBC track), research rotation*
  - (9) *2022: Kristy Fu, Rutgers-SGS (I3 track), research rotation*
  - (10) *2022: Jason Xiong, undergraduate summer research volunteer*
  - (11) *2022: Riya Patel, undergraduate summer research volunteer*
  - (12) *2022: Roma Agarwal, high school student summer intern*

**CLINICAL RESPONSIBILITIES:** *none*

**GRANT SUPPORT:** (Please list newest or most current first)

- A. Principal Investigator

Current

- (1) *The Rutgers HealthXpress grant, Develop anti-PS CAR macrophage cell therapy, 01/22/2024-10/22/2024, \$50,000 (direct cost)*
- (2) *The National Cancer Institute, ESI R01 grant, 1R01CA275761, Develop Conditionally Armored CAR Macrophage Therapy for Pancreatic Cancer, 09/05/2023-09/04/2028, \$1,911,853 (direct cost)*
- (3) *The CINJ New Investigator Award, Understand and Prevent KRAS targeted therapy resistance in pancreatic cancer, 04/11/2023-04/10/2024, \$50,000 (direct cost)*

- (4) *The 2022 Lustgarten Foundation-AACR Career Development Award, 22-20-67-HOU, Anti-KRAS therapy resistance and pancreatic tumor immune microenvironment, 7/1/2022-6/30/2025, \$300,000 (direct cost)*
- (5) *The National Cancer Institute, Career Transition Award K22, 1K22CA251491, Tumor-TAMs crosstalk enables bypass of oncogenic KRAS dependency in pancreatic cancer, 12/1/2021-11/31/2024, \$556,335 (direct cost)*

Completed

- (1) *The Rutgers Core Facility Utilization Grant 2023, Dissect resistance mechanisms to KRASi, 04/17/2023-12/31/2023, \$5,000 (direct cost)*
- (2) *The Rutgers Core Facility Utilization Grant 2022, Dissect resistance mechanisms to KRASi, 04/22/2022-12/31/2022, \$5,000 (direct cost)*
- (3) *The Hirshberg Foundation Seed Grant, Identification of USP21 as a novel oncogene to drive Kras\*-extinction resistance in pancreatic cancer, 11/15/2016-11/14/2017, \$40,000 (direct cost)*

B. Co-Investigator *none*

C. Pending

- (1) *NIH-NCI R01 grant (PI), Uncovering NFAT5 as a Novel Regulator in Cell Plasticity-Driven Therapy Resistance and Pancreatic Tumorigenesis, 09/01/2024-08/31/2029, \$2,499,995 (direct cost)*
- (2) *NIH-NCI R21 grant (PI), Develop universal CAR macrophage cell therapy for pancreatic cancer, 07/01/2024-06/30/2026, \$275,000 (direct cost)*
- (3) *DoD IDA grant (PI), Develop universal CAR macrophage cell therapy for pancreatic cancer, 07/01/2024-06/30/2027, \$500,000 (direct cost)*
- (4) *ACS RSG grant (PI), Uncovering NFAT5 as a Novel Regulator in Cell Plasticity-Driven Therapy Resistance and Pancreatic Tumorigenesis, 01/01/2025-12/31/2028, \$850,000 (direct cost)*

**PUBLICATIONS:** *(Please list in chronological order; published or accepted for publication only; should be segregated into the following categories)*

A. Refereed Original Article in Journal

1. *Gulhati P, Schalck A, Jiang S, Shang X, Wu CJ, **Hou P**, Ruiz SH, Soto LS, Parra E, Ying H, Han J, Dey P, Li J, Deng P, Sei E, Maeda DY, Zebala JA, Spring DJ, Kim M, Wang H, Maitra A, Moore D, Clise-Dwyer K, Wang YA, Navin NE, DePinho RA. "Targeting T cell checkpoints 41BB and LAG3 and myeloid cell CXCR1/CXCR2 results in antitumor immunity and durable response in pancreatic cancer." *Nat Cancer*. 2023 Jan;4(1):62-80. doi: 10.1038/s43018-022-00500-z.*
2. ***Hou P**, Ma X, Yang Z, Zhang Q, Wu CJ, Li J, Tan L, Yao W, Yan L, Zhou X, Kimmelman AC, Lorenzi PL, Zhang J, Jiang S, Spring D, Wang YA, DePinho RA. USP21 deubiquitinase elevates macropinocytosis to enable oncogenic KRAS bypass in pancreatic cancer. *Genes Dev*. 2021 Oct 1;35(19-20):1327-1332.*
3. *Zhu M, Peng R, Liang X, Lan Z, Tang M, **Hou P**, Song JH, Mak CSL, Park J, Zheng SE, Huang A, Ma X, Chen R, Chang Q, Logothetis CJ, Jain AK, Lin SH, Katayama H, Hanash S, Wang G. P4HA2-induced prolyl hydroxylation suppresses YAP1-mediated prostate cancer cell migration, invasion, and metastasis. *Oncogene*. 2021 Sep 1.*
4. ***Hou P**, Kapoor A, Zhang Q, Li J, Wu CJ, Li J, Lan Z, Tang M, Ma X, Ackroyd JJ, Kalluri R, Zhang J, Jiang S, Spring DJ, Wang YA, DePinho RA; "Tumor microenvironment remodeling enables bypass of oncogenic KRAS dependency in pancreatic cancer."; *Cancer Discovery*, Volume 10: 1058-1077, 2020.*
5. *Chakravarti D, Hu B, Mao X, Rashid A, Li J, Liao W, Whitley EM, Dey P, **Hou P**, LaBella KA, Chang A, Wang G, Spring DJ, Deng P, Zhao D, Liang X, Lan Z, Lin Y, Sarkar S, Terranova C, Deribe YL, Blutt SE, Okhuysen P, Zhang J, Sanchez EV,*

- Nielsen OH, Dupont A, Younes M, Patel KR, Shroyer NF, Rai K, Estes MK, Wang YA, Bertuch AA, DePinho RA; "Telomere dysfunction activates YAP1 to drive tissue inflammation."; *Nature Communications*, Volume 11(1):4766; 2020.
6. **Hou P**, Ma X, Zhang Q, Wu CJ, Liao W, Li J, Wang H, Zhao J, Zhou X, Guan C, Ackroyd J, Jiang S, Zhang J, Spring DJ, Wang YA, DePinho RA; "USP21 deubiquitinase promotes pancreas cancer cell stemness via Wnt pathway activation."; *Genes and Development*, Volume 33: 1361-1366; 2019.
  7. Yao W, Rose JL, Wang W, Seth S, Jiang H, Taguchi A, Liu J, Yan L, Kapoor A, **Hou P**, Chen Z, Wang Q, Nezi L, Xu Z, Yao J, Hu B, Pettazoni PF, Ho IL, Feng N, Ramamoorthy V, Jiang S, Deng P, Ma GJ, Den P, Tan Z, Zhang SX, Wang H, Wang YA, Deem AK, Fleming JB, Carugo A, Heffernan TP, Maitra A, Viale A, Ying H, Hanash S, DePinho RA, Draetta GF; "Syndecan 1 is a critical mediator of macropinocytosis in pancreatic cancer."; *Nature*, Volume 568(7752):410-414, 2019.
  8. Wang G, Lu X, Dey P, Deng P, Wu CC, Jiang S, Fang Z, Zhao K, Konaparthi R, Hua S, Zhang J, Li-Ning-Tapia EM, Kapoor A, Wu CJ, Patel NB, Guo Z, Ramamoorthy V, Tieu TN, Heffernan T, Zhao D, Shang X, Khadka S, **Hou P**, Hu B, Jin EJ, Yao W, Pan X, Ding Z, Shi Y, Li L, Chang Q, Troncoso P, Logothetis CJ, McArthur MJ, Chin L, Wang YA, DePinho RA; "Targeting YAP-Dependent MDSC Infiltration Impairs Tumor Progression." *Cancer Discovery*, Volume 6(1):80-95, 2016.
  9. **Hou P**, Li Y, Zhang X, Liu C, Guan J, Li H, Zhao T, Ye J, Yang W, Liu K, Ge J, Xu J, Zhang Q, Zhao Y, Deng H; "Pluripotent Stem Cells Induced from Mouse Somatic Cells by Small-Molecule Compounds." *Science*, Volume 341(6146): 651-4; 2013.
  10. Li Y, Zhang Q, Yin X, Yang W, Du Y, **Hou P**, Ge J, Liu C, Zhang W, Zhang X, Wu Y, Li H, Liu K, Wu C, Song Z, Zhao Y, Shi Y, Deng H. "Generation of iPSC from mouse fibroblasts with a single gene, Oct4, and small molecules."; *Cell Research*, Volume 21(1):196-204, 2010.
  11. Liu H, Zhu F, Yong J, Zhang P, **Hou P**, Li H, Jiang W, Cai J, Liu M, Cui K, Qu X, Xiang T, Lu D, Chi X, Gao G, Ji W, Ding M, Deng H; "Generation of induced pluripotent stem cells from adult rhesus monkey fibroblasts."; *Cell Stem Cell*, Volume 3(6):587-90, 2018.
  12. Zhao Y, Yin X, Qin H, Zhu F, Liu H, Yang W, Zhang Q, Xiang C, **Hou P**, Song Z, Liu Y, Yong J, Zhang P, Cai J, Liu M, Li H, Li Y, Qu X, Cui K, Zhang W, Xiang T, Wu Y, Zhao Y, Liu C, Yu C, Yuan K, Lou J, Ding M, Deng H; "Two supporting factors greatly improve the efficiency of human iPSC generation."; *Cell Stem Cell*, Volume 3(5):475-9, 2008.
  13. Zheng A, Yuan F, Li Y, Zhu F, **Hou P**, Li J, Song X, Ding M, Deng H; "Claudin-6 and claudin-9 function as additional coreceptors for hepatitis C virus."; *Journal of Virology*, Volume 81(22):12465-71, 2007.

B. Books, Monographs and Chapters  
none

C. Patents Held

1. **Hou P**. "Compositions and methods for targeting solid tumors with chimeric antigen receptor (CAR) macrophages." April 14, 2023. U.S. Provisional Patent Appl. No.: 63/496,286.
2. Deng H, Zhao Y, **Hou P**, Li Y, Zhang X, Liu C, Guan J, Li H. "Compositions and methods for reprogramming non-pluripotent cells into pluripotent stem cells." Patent Number: WO2015003643 A1, and CN104278008A, 01/15/2015,

D. Other Articles (Reviews, Editorials, etc.) In Journals; Chapters; Books; other Professional Communications

1. Deng D, Patel R, Chiang C.-Y, **Hou P**. "Role of the Tumor Microenvironment in Regulating Pancreatic Cancer Therapy Resistance." *Cells*. 2022, 11, 2952. <https://doi.org/10.3390/cells11192952>. (corresponding author, review article)

2. **Hou P\***, Wang YA. “Conquering oncogenic KRAS and its bypass mechanisms.” *Theranostics* 2022; 12(13):5691-5709. doi:10.7150/thno.71260. (\*corresponding author, review article)

E. Abstracts

1. **Hou P**, Ma X, Ackroyd J, Zhang J, Jiang S, Wang AY, DePinho RA; “USP21 promotes stemness of pancreatic cancer cells and bypass of KRAS extinction”. *AACR Special Conference on Pancreatic Cancer: Advances in Science and Clinical Care, September 21-24, 2018, Boston, Massachusetts; Abstract # A60.*
2. **Hou P**, Ma X, Ackroyd J, Zhang J, Jiang S, Wang AY, DePinho RA. “USP21 promotes stemness of pancreatic cancer cells and bypass of KRAS extinction”. *Targeting RAS-Driven Cancers Special Conference, December 9–12, 2018, San Diego, CA; Abstract # A28.*

F. Reports

none

**PRESENTATIONS:**

A. Scientific (*Basic Science*):

1. *Understand and Prevent KRAS Targeted Therapy Resistance in Pancreatic Cancer. In-House Seminar in the Department of Microbiology, Biochemistry and Molecular Genetics, March 6, 2024, Newark, NJ.*
2. *Understand and prevent KRAS targeted therapy resistance in pancreatic cancer. The Lustgarten Foundation Scientific Meeting, October, 24-25, 2023, Cold Spring Habor, NY (oral presentation).*
3. *Develop Novel Therapeutics for Pancreatic Cancer. Rutgers Community Science Café, May 15, 2023.*
4. *Understand and overcome KRAS targeted therapy resistance in pancreatic cancer. SU2C summit, January 29-31, 2023, San Diego, CA (oral presentation).*
5. *Develop novel therapeutics for pancreatic cancer: Understand and overcome KRAS targeted therapy resistance in pancreatic cancer. Rutgers CINJ Cancer Pharmacology Research Program Seminar Series, December 20, 2022.*
6. *Develop Novel Therapeutics for Pancreatic Cancer. Rutgers Undergraduate Summer Research Experience (USRE) summer seminar series, August 08, 2022.*
7. *Develop Novel Therapeutics for Pancreatic Cancer. Rutgers MSTP Summer Series, September 20, 2022.*
8. *USP21 promotes stemness of pancreatic cancer cells and bypass of KRAS extinction. Targeting RAS-Driven Cancers Special Conference, December 9–12, 2018, San Diego, CA (poster presentation).*
9. *USP21 promotes stemness of pancreatic cancer cells and bypass of KRAS extinction. AACR Special Conference on Pancreatic Cancer: Advances in Science and Clinical Care, September 21-24, 2018, Boston, Massachusetts (poster presentation).*

B. Professional (*Clinical*): n/a