**Academic Resume, 2025-01-08**

**Xinghua Pan, PhD, MD, Professor**

Born in May 1963, in China.

Naturalized US citizenship as an alien of extraordinary ability (EB1a)

Permanent Resident Visa in China

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<https://scholar.must.edu.mo/scholar/106820>, Macau Univ of Science and Technology

<https://portal.smu.edu.cn/jcyxy/info/1114/2389.htm>, SMU official website:

**EDUCATIONS AND TRAININGS**

**Postdoc Associate, Postdoc Fellow (term #2) in Genomics 1997-1999**

Department of Genetics, Yale University School of Medicine, New Haven, CT, USA

**Project**: Development of a method for genome-wide mutation scanning based on enzymatic mismatched-DNA capture, differential gel display and Sanger sequencing (GADAV); Cloning, modification, over-expression, purification and characterization of thymine DNA glycosylases, MutS, H and L, and endonucleases V and VII for mutation scanning and gene cloning method Allele Frequency Distortion.

**Supervisor**: Dr. Sherman Weissman, a member of National Academy of Sciences, USA (NAS USA), and Sterling Professor of Yale University.

**Postdoc Associate, Postdoc Fellow (term #1) in Molecular Oncology 1993-1994**

National Laboratory of Molecular Oncology, Cancer Institute and Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College (CAMS & PUMC), Beijing, China.

**Project**: Cloning and Charecterization of candidate tumor suppressing genes (esp. RA538).

**Supervisor**: Dr. Min WU, a Member of Chinese Academy of Sciences (CAS), China.

Participated UICC (International Union Against Cancer) training course on molecular oncology in Melbourne University and Ludwig Cancer Institute, Australia, with UICC Scholarship, 1994.

**Ph.D. in Human Genetics 1989-1993**

National Laboratory of Genetic Engineering, Institute of Genetics, and Department of Genetics and Genetic Engineering, School of Life Science, Fudan University, Shanghai, China.

**Dissertation**: Genetic susceptibility of HLA-DQA alleles to 3 autoimmune diseases (systemic lupus erythematosus, myasthenia gravis, high myopia); and Molecular evolution of MHC.

**Supervisor**: Dr. JiaZhen Tan (CC Tan), an Academician of CAS, and a foreign member of NAS USA, the founder of Fudan University Institute of Genetics, and Department of Genetics. He was president of the Genetics Society of China, the Environmental Mutagens Society of China, and the Biotechnology Society of China. He was an officer, usually vice president, of the International Genetics Congress. Prof. Dr. Zhenchen Geng was the secondary supervisor of Dr. Pan.

**M.M. (MSc).** (Master of Medicine) **in Cytogenetics 1985-1988**

Department of Basic Medicine, Southern Medical University (previous name: The First Military Medical University, or FMMU), Guangzhou, China.

**Supervisor**: Prof. Lin He

Visiting and being trained for 1 month at Peking University Department of Biology (1987).

**Bachelor of Medicine (M.D. equivalent)**  **1980-1985**

Southern Medical University (SMU, and previous FMMU), Guangzhou, China, including an Internship at Nanfang Hospital (1 year, 1984-1985)

**WORKING EXPERIENCES**

**Precision Regenerative Medicine Research Center (MRDRC), Medical Science Division (MSD) and State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology (MUST), Macao 999078, China**

**Professor 2024.8-Present**

**Dept Biochemistry and Molecular Biology (previously called as, and known as: Institute of Genetic Engineering), School of Basic Medical Sciences, Southern Medical University (SMU),** Guangzhou, Guangdong Province, China

**Distinguished Professor 2016-2024**

(2016-03-01 to 2017-02-28 acted as a consultant)

Head, Department Biochemistry and Molecular Biology (BMB) (2 terms) 2016-2023.12

Head, Guangdong Pearl River Scholar for BMB (2 terms) 2019-2024

Director, Guangdong Province Key Lab of Biochip 2016-2017

Director, Guangdong Province Key Lab of Sing Cell Tech & App 2017-now

Member, Academic Committee of SMU School of Basic Med Sciences (2 terms) 2017-now

Joint PI of South China Infectious Disease Prevention and Control Key Laboratory (in SMU Nanfang Hospital) of China Ministry of Education.

Joint PI of Key Laboratory of Mental Health (in SMU) of China Ministry of Education.

Open Project PI of Shenzhen Bay Laboratory.

Adjunct Professor of SMU affiliated Nanfang Hospital, Zhujiang Hospital, the First People's Hospital of Guangdong Province, and Dongguan Maternal and Child Health Hospital.

Visiting Professor of Sichuan University/West China Medical College, Jiujiang University, Guangdong Pharmaceutical University.

Adjunct Scientist of Hangzhou Cancer Hospital (2014-2017).

* Management of dept faculty in variant of fields: research, teaching, faculty recruiting and training, services, and being responsible for other department affairs (safety, hygiene, attendance).
* Managing dept teaching mission for undergraduates and graduates (~10000 hours/yr).
* Personally, giving lecture around 65 class hours for ~1,500 students/year, for Introduction of BMB, Omics and Single Cell Technology, Medical Research and Development.
* Personally, training PhD and MS candidates, postdoctors and undergraduates.
* Personally leading researches: method development for multiplex single cell DNA methylation sequencing, multiplex single cell CNV sequencing, multiplex micro-bulk RNA sequencing, single cell co-measurement of RNA and telomere length; single cell omics study for variants of tumors (osteosarcoma, lung cancers, colorectal cancer /CRC, esophageal cancer, gastric cancer, hepatocarcinoma, thyroid cancer, acute myeloid leukemia /AML, acute lymphoid leukemia /ALL, myelodysplastic syndrome /MDS, for their heterogeneity, evolution, biomarker, tumor microenvironment, stem cell and plasticity), stem cells (hematopoietic stem cells /HSC, mesenchymal stem cells /MSC, induced pluripotent stem cell /iPSC, hair follicle stem cell), organoids (brain cortex organoid, ovary organoid); functional regeneration of ovary, liver regeneration; immune system; application of single cell technology in cancer liquid biopsy (esp. circulating cancer cells /CTCs); genetic test for preimplantation and prenatal fetus.

**Dept Genetics, School of Medicine, Yale University,** New Haven, CT

**Consultant** 2017-2019

**Research Scientist** **2014-2016**

**Associate Research Scientist** 2004-2014

A joint Research Scientist of Yale Center Excellence in Genomic Sciences, Yale Cancer Center, Yale Stem Cell Center, and Boyer Center for Molecular Medicine.

As a **Project PI and a team leader** (5-8 team members in most of the time), working with Dr. Sherman Weissman (a member of NAS USA and Yale Sterling Professor) and collaborating with Dr. Michael Snyder (a member of NAS USA, Yale and Stanford Univ Genetics Prof.), leading ~ 10 national-wide and international collaborative projects, including:

* A key member in NIH major projects such as ENCODE of human genomics, key project of stem cells and cancers; a PI for NIH R21 project and polit project.
* As one of the earliest explorers for innovation of technology for single cell analysis. Designing and development of Whole DNA Pool Amplification for single cells (WPA), single cell full length RNA-seq (2 methods: PMA and SMA), single cell DNA methylation sequencing (scCGI-seq), single cell closed-chromatin sequencing, single cell telomere length measurement (SCT-pqPCR), the 1st method for single cell multiomics (simultaneous sequencing of DNA and RNA in a single cell), etc.
* Study of stem cells, immune system, tumors and other diseases, such as: HSC, iPSC, MSC, CRC, melanoma, aging; stem cell renewal and differentiation; CRISPR/cas9 analysis of gene regulation network.

**Molecular Staging, Inc. (MSI,** acquired by **Qiagen** in 2004),New Haven, CT

Working with Dr. Roger Lasken (RD Director and Section Head)

**Research Scientist** and **Enzymology Leader** (Genomics section) **2000-2004**

* Method and kit development (REPLIg) for whole genome amplification based on MDA (multiple displacement amplification) and RCA (rolling circle amplification) strategies with phi29 DNA polymerase (product transferred to Qiagen, and being used worldwide);
* Research support for Section of Genomics and Section of Proteomics: designed / conducted enzyme unit assay, activity features, thermo-stabilization, and shelf-life studies for phi29 DNA polymerase, and many other enzymes/antibodies/reagents.
* Meanwhile, as a Visiting Research Scientist at Yale University Dept Genetics for the RD.

**Dept Biology (Cell Biology and Genetics), Navy Medical University**, Shanghai, China

**Associate Professor** (Executive Director for Research) **1995-1997**

* Conceiving projects, securing funds, and directing research on molecular oncology (gene p53 and nm23, EBV bhrf1), on establishment of disease model (whole HBV genome, nm23 gene for cancer metastasis) and dissection of gene function with transgenic mouse and knockout mouse.
* Conduction of courses in Medical Genetics, and Medical Cell Biology for Bachelor of Medicine (M.D. equivalent), MS and PhD students, and practically co-supervised 2 Ph.D., 3 M.Sc. Candidates.
* Being supported by Cold Spring Harbor Laboratory (CSHL, NY, USA) scholarship for YAC (Yeast Artificial Chromosome) technology training course at CSHL, 1995.

**ACADEMIC SERVICES AND HONORS**

**Committee Member and Honors:**

* CastUSA Single-Cell Genomics Pioneer Award (2022).
* Chairman of Board (2024-), former Chairman of Governor, and former President, Chinese Association of Science and Technology in USA (2018-2020).
* Founding Board Chairman, former President of Connecticut Chapter of Chinese Association of Science and Technology in USA (2002-2015).
* Vebleo Fellow (2021).
* Jiangxi Province Ganpo Talent in 2012 (as Senior Distinguished Prof. in Jiujiang Univ.: honorary position or called soft services).
* Advisor to Guangdong Overseas Chinese Innovation and Entrepreneurship Alliance.
* Vice President of Guangzhou Overseas Chinese Federation.
* Honorary Chairman of Biochemical Branch Committee of the Guangdong Medical Education Association.
* Vice Chairman of the Guangdong Biochemical and Molecular Biology Society, the Chinese Society of Biochemistry and Molecular Biology (CSBMB).
* Member of the 7th Board of Directors of Guangzhou Huangpu Overseas Friendship Association.
* Standing Committee Member of the Guangdong Medical Genetics Society
* Member of the Biomedical Professional Committee of the All-China Federation of Overseas Chinese (ACFROC), and Distinguished Expert of the Federation.
* Member, Basic Medical Professional Committee of CSBMB.
* Member, Tumor Markers Professional Committee of the China Anti-Cancer Association,
* Member, Academic Committee of the Key Laboratory of Precision Medicine in Sichuan Province.
* Editorial Board Member for the core textbook "Molecular and Cellular Genetics" of the 101 Basic Medicine Program of the Ministry of Education (2024).
* Chief-Consultant of the Academic Committee of the Jiangxi Provincial Key Laboratory of Systemic Biomedical Sciences (former Chief of the Academic Committee for 2 terms).
* Bing interviewed by PNAS (Proceedings of the National Academy of Sciences) Journal Club in 2013, GEN (Genetic Engineering and Biotechnology News) (USA) in 2015, and TechnologyNetworks (UK) in 2018.

**Grant and Achievement Reviewer:**

* Medical Research Council (MRC, UK),
* Foundation against Cancer Belgium (i.e. Stichting tegen Kanker / Fondation contre le Cancer)
* Numerous scientific and technological foundations in China, including National Natural Science Foundation of China (NNSF China), China MOST (Minister of Science and Technology) funds, Guangdong Provincial Department of Science and Technology, and a variety of local RD and talent funds, particularly from Guangdong, Guangzhou, Shenzhen, Guangxi, Foshan, Dongguang, Fujian, Nanjing, Shanghai, Hangzhou, and other regions, and particularly including an evaluation of the finding /project for Macao (MUST) and Hongkong professor team supported by China MOST or Shenzhen government.
* Evaluation of professorship titles and PhD degrees (committee for dissertation and degree defense) for Shanghai Jiaotong University, Qinghua University (Shenzhen Institute), Sun Yat-sen University, Jinan University, South China University of Technology, Guangzhou Medical University, Guangdong Medical University, and some other institutions and universities.

**Editor and Paper Reviewer for Academic Journals:**

* A founding Associate Editor for *Precision Clinical Medicine* (PCM, published by Oxford University Press, funded in 2016; IF=5.3 in 2023), the founding Associate Editor for *Monocytomics* (2023), and the founding Editor-in-Chief for *Single Cell Biology* (funded in 2014), and editor for *Frontiers journals*, *Life Science and Technology*, *Journal of Anatomy*, and a few other journals.
* An invited reviewer for approximately 30 academic journals internationally, including *Nature* series*, BMC* series*, BBA* series and others, such as *Nature Communication, Nature Protocols, Molecular Psychiatry, Nuclear Acids Research, Genome Biology, Genome Research, Genome Medicine, Genes, Aging Cell, Bone Research, Molecular Cancer, Scientific Data, Science Reports, BBA Reviews on Cancer, Cancer Biology & Medicine, Protein and Cell, Genomics Proteomics and Bioinformatics, BMC Genomics, BMC Biotechnology, BMC Medical Genetics, Frontiers in Cell and Developmental Biology, Frontiers in Genetics, Frontiers in Bioengineering and Biotechnology, Computational and Structural Biotechnology Journal, Cell and Development Biology, Biology of Reproduction, Molecular Ecology Resource, Journal of Clinical Genomics, Cell Biology and Medicine, Giga Science, Computational and Structural Biotechnology Journal, Cancer Communication, STAR protocols, Journal of Anatomy, Clinical and Translation Medicine, Science in China Life Sciences, Journal of Genetics and Genomics, Hereditas (Beijing), Science Bulletin, Zoological Research, Chinese Journal of Cell Biology* (in Chinese)*, Acta Academiae Medicinae Sinicae, JNCC (J National Cancer Center), Oncology Reports, Drug Discovery, Genome, Cancers*, etc.

**Organizer of Academic Conferences:**

Besides the co-organization of a series of scientific meetings, such as the 1st to 9th Chengdu Academic Forum on Precision Medicine International, the Annual Conferences of the Single Cell Science Branch of Guangdong Precision Medicine Association, and the Annual Academic Meetings of the SMU School of Basic Medical Sciences, Pan X as the major leader, organized and chaired:

* the 1st international conference on single cell and spatial omics (TICSSO) in March 2023 with more than 2,000 onsite attendees, and 530,000 online audiences (person-time); and the 2nd TICSSO, held on March 29-30, 2024, in Shenzhen with more than 2,000 onsite attendees, and 1000,000 online audiences (person-time).
* the Forum for Single Cell Elite (FOSCE), a series virtual forum for international scientists in the field of single cell and spatial omics, concentrating the young elites worldwide; by now the Session #1 to 10 completed from 2021 to 2023 has got overall approximately 50 speakers from the top scientists with new breakthrough achieved recently, and has benefit more than 50,000 audiences (person-time).
* the Global Innovation Summit Forum and the 26th Annual Meeting of the China Association of Science and Technology in the United States (2018, at Yale University, New Haven, CT). The speakers included Professor Shing-Tung Yau from Harvard University, Professor Lieping Chen from Yale University, Professor Dennis Lo from CUHK School of Medicine, and more than 10 members of NAS USA, with hundreds of scientists from US national wide and overseas joined.
* Giving keynote speak or session speak for more than 50 times in the past 10 years.

**RESEARCH FIELDS AND ACHIEVEMENTS:**

**Technology Innovations: Single cell technology for multi-omics**

Pan’s lab co-pioneered the exploration of single cell sequencing in early 2000s, among a limited number of scientists world-wide. He has innovated a dozen of technologies for single-cell omics, including：

**Single cell genomics** (whole genome amplification and sequencing /WPA; multiplex copy- number- variation sequencing /msCNV-seq and mCNV-seq);

**Single cell epigenomics** (DNA methylation scCGI-seq; chromatin architecture; msRRBS)；

**Single cell transcriptomics** (2 methods for full length scRNA-seq: PMA; SMA)；

**Single cell telomere length measurement** (SCT-pqPCR; USC-STELA);

**Single cell multiomics** (co-sequencing DNA and RNA in single cells), the 1st method for single cell multiomics;

**Single cell co-measurement of RNA and telomere length;**

**Single cell Dual-Multiplexing sequencing** (NAMUL-seq) for high-efficient single cell sequencing and in-parallel comparison of a panel of complex samples.

**Scientific Research: Omics dissection of human health and disorders**

Pan’s laboratory has conducted research on a variant of human systems and diseases, combining experimental, next generation sequencing, and computational (bioinformatics) methods to study single cell atlas of health and genetic disorders (Cohen disease, Thalassemia), variants of cancers (colorectal cancer, lung cancer, hepatocarcinoma, osteosarcoma, thyroid carcinoma, esophageal cancer) and leukemias (acute myeloid leukemia /AML, myelodysplastic syndrome /MDS, acute lymphocytic leukemia /ALL), stem cells (hematopoietic stem cells/HSCs, mesenchymal stem cells/MSCs, induced pluripotent stem cella /iPSCs, hair follicle stem cells, leukemia stem cells/LSCs, cancer stem cells/CSCs), organoid (T21 cerebral organoids, ovary organoids), development and aging, degeneration and regeneration (vascular degeneration and regeneration in stroke, functional reconstruction of ovary with organoid), immune profile (in defense malaria, and in variants cancers -microenvironment) and neuron cells, and the exploration for application of single cell technology in cancer liquid biopsy (esp. circulating cancer cells /CTCs) and genetic test for preimplantation (PGT) and prenatal fetus (NIPD).

Leveraging single cell technologies and collaborating with other institute scientists and hospital doctors, Pan’s laboratory dissects the subpopulation and diversity of cells, their dynamic relationship; cellular microenvironments, cell-cell communication, and regulation; multiomics regulation at Central Dogma levels; stem cell heterogeneity, niche, and plasticity; intratumor heterogeneity (ITH) and evolution, and their functional mechanism. They identify the specific cell clusters and genes and signal pathways responsible for drug resistance, invasive and metastatic process, and biomarker of tumors for precision diagnosis, and monitoring and improved therapy of the diseases.

These works have been supported previously by NIH of USA, Connecticut government, US industrials, and currently by the National Natural Science Foundation of China, Guangdong Natural Science Foundation (China), and Guangahou and Shenzhen municipal government.

**Publications Summary:** According to Google Scholar (by 24-05-25), **Pan X has published ~160 articles/papers/patents,including a series of in internationally referred journals with the total impact factors (IFs) of 1018, citations of 7132, H-index 39 and i10-index 66.** Among these Pan X has led as first author or (co-) corresponding author is 88, of which 19 papers has an IF 10 or higher (in total co-authored 34 papers IF>10). The representative journals with Pan X’s leading author and co-author papers are as the follows: *Nature Communication* x3 (IF 17.7), *Nucleic Acids Research* x3 (IF 19.1), *PNAS* x7 (IF 12.8), *Cell Discovery* x1 (IF 38.1), *Adv Science* x2 (IF 17.5), *Cancer Research* x2 (IF 13.3), *Oncogene* x1 (IF 9.87), *Cell Mol Life Sci* x3 (5 year IF 10.8), *Mol Ther Nucleic Acids* x2 (IF 10.18). In addition, he has co-authored papers in *Nature* x 4 (as a member of ENCODE Consortium and PsychENCODE consortium in 3 papers, IF 64.8), *Stem Cell Reports* x3 (IF7.3), *Cell* x1 (IF 64.5), *Cell Res* x1 (IF 44), *Developmental Cell* x1 (IF 13.4), and *Mol Cancer* x1 (IF 41.4), etc. Pan X has also contributed 8 books /chapters, including as the Leading Editor for a research topic in Frontiers, which was collected as an ebook: Introduction to Single Cell Omics, published by Lausanne (Switzerland): Frontiers Media, 2019, which has been read for more than 330,000 person-times world-wide.

**SELECTED ARTICLES**

ORCID: <https://orcid.org/0000-0002-7421-8155>

Google Scholar: <https://scholar.google.com/citations?user=64M5V5wAAAAJ>

1. Yingwei Huang 1, Qiqi Wang 2, Weiwei Zhou 3, Yawei Jiang 4, Kai He 5, Wei Huang 6, Yating Feng 3, Hong Wu 4, Lijuan Liu 3, Yue Pan 4, Yihua Huang 4, Zirui Chen 4, Wei Li 4, Yaowei Huang 4, Guanchuan Lin 3, Yulong Zhang 3, Yongyan Ren 7, Kaibiao Xu 4, Yanlin Yu 8, Yuping Peng 9, **Xinghua Pan** 10#, Suyue Pan 11#, Hailiang Hu 12#, Yafang Hu 13#. Prenatal p25-activated Cdk5 induces pituitary tumorigenesis through MCM2 phosphorylation-mediated cell proliferation. ***Neoplasia***. 2024 Nov; 57:101054. doi: 10.1016/j.neo.2024.101054. PMID: 39366214 PMCID: PMC11489071.
2. Bohong Cen,1,2# Jian Zhang,1# **Xinghua Pan,3#** Zhongyuan Xu,2 Rong Li,1 Chengcong Chen,1 Baiyao Wang,1 Zhiyong Li,4 Guoqian Zhang,1 Aimin Ji,5 Yawei Yuan1. Stimuli-Responsive Peptide/siRNA Nanoparticles as a Radiation Sensitizer for Glioblastoma Treatment by Co-Inhibiting RELA/P65 and EGFR. ***International Journal of Nanomedicine***. 2024 Nov 9. 2024(19): 11517—11537. doi: 10.1021/acsnano.3c01452. PMID: 39539970 PMCID: PMC11559232
3. Jingyu Gao 1 2, Yongzhang Wu 2 3, Jieming Yu 2 4, Yinbin Qiu 2, Tiantian Yi 1 2, Chaochao Luo 2, Junxiao Zhang 5, Gary Lu 6, Xu Li 7, Fu Xiong 8, Xuedong Wu 1 2, Xinghua Pan 1 2 3 9. Impact of genomic and epigenomic alterations of multigene on a multicancer pedigree. Cancer Med. 2024 Jul;13(13):e7394. doi: 10.1002/cam4.7394. PMID: 38970307 PMCID: PMC11226725 DOI: 10.1002/cam4.7394
4. Chen F, Zhang K, Wang M, He Z, Yu B, Wang X, **Pan X**, Luo Y, Xu S, Lau JTY, Han C, Shi Y, Sun YE, Li S, Hu YP. VEGF-FGF Signaling Activates Quiescent CD63(+) Liver Stem Cells to Proliferate and Differentiate. ***Adv Sci (Weinh)***. 2024 Jun 17; e2308711. doi: 10.1002/advs.202308711. Online ahead of print. PMID: 38881531
5. Guanchuan Lin, Bin Peng, Caiming Chen, Zhanying Dong, Mengchang Xu, Jinyu Gao, Jie Yu, Bei Jia, Chen Luo, Rui Hua, Changtai Xiao, Linlin Wang, Liyao Mai, Yulong Zhang, Yuanfang Lu, Yuanqiao He, Yali Song, Sadie L Marjani, Weimin Zhang, Junxiao Zhang, Mei Zhong, Song Quan, Sherman M Weissman, Hao Zhu, **Xinghua Pan**. msCNVS: medium throughput single cell copy number variation sequencing with barcoded library construction free of preamplification toward clinical implementation. ***BioXriv***, April 02, 2024. doi: <https://doi.org/10.1101/2024.04.01.587505>
6. Longlong Wang, Yong Zhou, Heyang Cui, Xuehan Zhuang, Chen Cheng, Yongjia Weng, Huijuan Liu, Shubin Wang, **Xinghua Pan\***, Yongping Cui\* and Weimin Zhang\*. IGH repertoire analysis at scale: deciphering the complexity of B cell infiltration and migration in esophageal squamous cell carcinoma. ***Cancer Gene Therapy***. 2023 Jul 21;23(1):145. doi: 10.1186/s12935-023-02987-7. *PMID: 37985722.*
7. Fengfei Wu, Fangting Wu, Qian Zhou, Xi Liu, Jieying Fei, Da Zhang, Weidong Wang, Yi Tao, Yubing Lin, Qiaoqiao Lin, **Xinghua Pan**, Kai Sun, Fang Xie & Lan Bai. A CCL2+DPP4+ subset of mesenchymal stem cells expedites aberrant formation of creeping fat in humans. ***Nature Communications***. 2023 Sept. 20; 14: 5830. doi: 10.1038/s41467-023-41418-z. *PMID: 37730641 PMCID: PMC10511504.*
8. Liyao Mai, Zebin Wen, Yulong Zhang, Yu Gao, Guanchuan Lin, Zhiwei Lian, Xiang Yang, Jingjing Zhou, Xianwei Lin, Chaochao Luo, Wanwan Peng, Caiming Chen, Jiajia Peng, Duolian Liu, Sadie L. Marjani, Qian Tao, Yongping Cui, Junxiao Zhang, Xuedong Wu, Sherman M. Weissman, and **Xinghua Pan**\*. Shortcut barcoding and early pooling for scalable multiplex single-cell reduced-representation CpG methylation sequencing at single nucleotide resolution. ***Nucleic Acids Research***. 2023 Nov. 27;51(21):e108. DOI: 10.1093/nar/gkad892. *PMID: 37870443, PMCID: PMC10681715.*
9. Wenzhi Zhan, Wei Luo, Yulong Zhang, Keheng Xiang, Xiaomei Chen, Shuirong Shen, Chuqing Huang, Tingting Xu, Wenbin Ding, Yuehan Chen, Mingtong Li, **Xinghua Pan**\*, Kefang Lai1\*. Sputum transcriptomics reveals FCN1+ macrophage activation in asthma compared with non-asthmatic eosinophilic bronchitis. ***AAIR*** (***Allergy, Asthma and Immunology Research***). 2024 Jan;31(1):131-147. doi: 10.1038/s41417-023-00689-w. PMCID: *PMC10823142, PMID: 38262391*.
10. Xiaojun Zhang, Wanwan Peng, Jie Fan, Ruihua Luo, Shanting Liu, Wei Du, Chaochao Luo, Jiawen Zheng, **Xinghua Pan\*** and Hong Ge\*. Regulatory role of Chitinase 3-like 1 gene in papillary thyroid carcinoma proved by integration analyses of single-cell sequencing with cohort and experimental Validations. ***Cancer Cell International.*** 2023 July 21;23(1):145. DOI: 10.1186/s12935-023-02987-7. *PMID: 37480002 PMCID: PMC10362555.*
11. Wang F, Zhang Z , Zeng Z , Zhu X , Mai L , Yin Y , Zhang C , Kang W , Wu X , Jiang H , Zeng S , Xiao J , Xu S , Ding Y , **Pan X** , Liang L. CCL5 and GLUT1 define leader cells in collective invasion of colorectal cancer. Preprint from ***Research Square***, 07 Apr 2023 https://doi.org/10.21203/rs.3.rs-2766632/v1 PPR: PPR642474
12. Xue Bai, Ze-Qin Guo, Yan-Pei Zhang, Zhen-zhen Fan, Li-Juan, Li Liu, Li-Li Long, Si-Cong Ma, Jian Wang, Yuan Fang, Xin-Ran Tang, Yu-Jie Zeng, **Xinghua Pan\***, De-Hua Wu\*, Zhong-Yi Dong\*. CDK4/6 inhibition triggers ICAM1-driven immune response and 4 sensitizes LKB1 mutant lung cancer to immunotherapy. ***Nature Communication.*** 04 Mar 2023:14:1247. doi.org/10.1038/s41467-023-36892-4. *PMID: 36871040, PMCID: PMC9985635***.**
13. Li-Li Long, Si-Cong Ma, Ze-Qin Guo, Yan-Pei Zhang, Zhenzhen Fan, Li-Juan Liu, Li Liu, Duan-Duan Han, Meng-Xin Leng, Jian Wang, Xue-Jun Guo, Jia-Le Tan, Xiao-Ting Cai, Yan Lin, **Xinghua Pan**, De-Hua Wu, Xue Bai, Zhong-Yi Dong. PARP inhibition induces synthetic lethality and adaptive immunity in LKB1-mutant lung cancer. ***Cancer Res.*** 2023 Feb 15;83(4):568-581. doi: 10.1158/0008-5472.CAN-22-1740. *PMID: 36512628*.
14. Vassily Trubetskoy, Antonio F. Pardiñas, Ting Qi, ...**Xinghua Pan** (as a member and co-author of the PsychENCODE consortium), ...Stephan Ripke, James T. R. Walters, Michael C. O’Donovan & Schizophrenia Working Group of the Psychiatric Genomics Consortium. Mapping genomic loci implicates genes and synaptic biology in schizophrenia. **Nature**. 2022 April 8; 604(7906):502–508. doi: 10.1038/s41586-022-04434-5. *PMID: 35396580*.
15. Rongmei Qu, Kai He, Yuchao Yang,Tingyu Fan, Bing Sun,Asmat Ullah Khan,Wenhua Huang\*,Jun Ouyang\*, **Xinghua Pan**\* and Jingxing Dai\*. The role of serum amyloid A1 in the adipogenic differentiation of human adipose-derived stem cells basing on single-cell RNA sequencing analysis. ***Stem Cell Research & Therapy****.* 2022 May 7;13(1):187. doi: 10.1186/s13287-022-02873-5. *PMID: 35525990, PMCID: PMC9080218***.**
16. Han Zhang, Lei Wang, Yinbin Qiu, Fahui Gong, Baoting Nong and **Xinghua Pan**\*. Discovery of 194 Unreported Conopeptides and Identification of a New Protein Disulfide Isomerase in Conus caracteristicus Using Integrated Transcriptomic and Proteomic Analysis. ***Front. Mar. Sci.*** 2022 March 1;9:792908. doi.org/10.3389/fmars.2022.792908.
17. Han Zhang , Anwen Liang and **Xinghua Pan**\*. Preparation and Functional Identification of a Novel Conotoxin QcMNCL-XIII0.1 from Conus quercinus. ***Toxins******(Basel)***. 2022 Jan 26;14(2):99. doi.org/10.3390/toxins14020099. *PMID: 35202127 PMCID: PMC8877388*.
18. Han Zhang, Lei Wang, Xiang Yang, Zhiwei Lian, Yinbin Qiu, Zhanying Dong, Xuedong Wu\* and **Xinghua Pan**\*. Identification of Novel Conopeptides and Distinct Gene Superfamilies in the Marine Cone Snail Conus quercinus. ***Front. Mar. Sci.*** 2021 November 12;8:766792. doi.org/10.3389/fmars.2021.766792.
19. Rongmei Qu, Kai He, Tingyu Fan, Yuchao Yang, Liyao Mai, Zhiwei Lian, Zhitao Zhou, Yan Peng, Asmat Ullah Khan, Bing Sun, Xiaolan Huang, Jun Ouyang, **Xinghua Pan\***, Jingxing Dai\*, Wenhua Huang\*. Single-cell transcriptomic sequencing analyses of cell heterogeneity during osteogenesis of human adipose-derived mesenchymal stem cells. ***Stem Cells****.* 2021 Nov; 39(11):1478-1488. doi: 10.1002/stem.3442. *PMID: 34346140*.
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