**CURRICULUM VITAE**

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|  | LU Xiaofan  1 Rue Laurent Fries, 67404 Illkirch, France  Tel: +33 (0)3 88 65 32 80; E-mail: <lux@igbmc.fr>  15/04/1994, 30 years old  Chinese, single |

**Current professional situation**

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| *Jan 2023*  *- Present* | Postdoctoral fellow, *Pr. Gabriel Malouf*  *Department of Cancer and Functional Genomics, IGBMC, 67400 Illkirch, France*  ***Team: Molecular and Translational Oncology*** |

**Professional experience**

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| *Nov 2021*  – *Oct 2022* | Visiting scholar, *Pr. Gabriel Malouf*  *Department of Cancer and Functional Genomics, IGBMC, 67400 Illkirch, France*  ***Comprehensive characterization of rare urothelial and renal carcinomas*** |
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| *Sep 2019*  – *Dec 2022* | PhD of Science, *Pr. Fangrong Yan*  *Research Center of Biostatistics, China Pharmaceutical University, Nanjing, China*  ***Multi-omics integrative profiling in urothelial carcinoma characterization*** |
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| *Feb 2018*  – *Jun 2018* | Visiting scholar, *Pr. Xiaoping Su*  *Department of Bioinformatics, MD Anderson Cancer Center, 77030 Texas, USA*  ***Advanced multi-omics data analysis techniques in oncogenomics*** |
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| *Sep 2016*  – *Jun 2019* | Master of Science, *Pr. Fangrong Yan*  *Research Center of Biostatistics, China Pharmaceutical University, Nanjing, China*  ***Joint modeling of longitudinal and survival data for ovarian cancer*** |
|  |  |
| *Sep 2012*  – *Jul 2016* | Bachelor of Management  *Faculty of science, China Pharmaceutical University, Nanjing, China*  ***Computing skills in medical information management and system*** |

**Diplomas**

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| 12/2022 | PhD (Bioinformatics), China Pharmaceutical University |
| 06/2019 | MSc (Biostatistics), China Pharmaceutical University |
| 07/2016 | BSc (Medical Information Management and System), China Pharmaceutical University |

**Language**

Mandarin, Chinese (native)

English (professional fluency)

Français (elementary; A1)

**Skills and personality**

Proficiency in R and Python; skilled in Adobe Illustrator and MS Office. Recognized for attention to detail, collaborative spirit, and a strong sense of responsibility. Effective in advancing multidisciplinary medical research concepts. Dedicated to excellence and persistent professional development.

**ACHIEVEMENTS**

**I. Contributions to science**

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| **Total PubMed Publications** | 47 |
| **h-index** | 18 |
| **i10-Index** | 27 |
| **Citations** (as of 09/09/2024 from Google Scholar) | 1772 |
| **Patent** | 3 |
| **High-Impact Publications**  (IF > 10, including roles as first and co-first author) | 13 |
| **Featured in Journals (IF > 10)**:  *Cell Reports Medicine*, *Nature Communications*, *Clinical Cancer Research*, *Genome Biology*, *EbioMedicine*, *Clinical and Translational Medicine*, *American Journal of Respiratory and Critical Care Medicine*, *Critical Care* | |
| **ORCID:** 0000-0003-2417-6548 | |

**II. Thesis**

**Molecular Classification of Urothelial Carcinomas**

* **Supervisor:** Pr. YAN Fangrong (co-directed by Pr. SU Xiaoping)
* **Defend date:** 29/09/2022

**III. Publications**

* **Ten representative original articles**

1. **Bioinformatic analysis: Unraveling cancer heterogeneity and immunotherapy insights**
2. **Lu X\***, Vano YA\*, Su X\*, Helleux A, Lindner V, Mouawad R, Spano JP, Rouprêt M, Compérat E, Verkarre V, Sun CM, Bennamoun M, Lang H, Barthelemy P, Cheng W, Xu L, Davidson I, Yan F, Fridman WH, Sautes-Fridman C, Oudard S, Malouf GG. Silencing of genes by promoter hypermethylation shapes tumor microenvironment and resistance to immunotherapy in clear-cell renal cell carcinomas. **Cell Rep Med**. 2023;4(11):101287. ***\*1st co-authors* (IF: 14.3)**
3. **Lu X\***, Vano Y\*, Helleux A\*, Su X, Lindner V, Davidson G, Mouawad R, Spano JP, Rouprêt M, Elaidi R, Compérat E, Verkarre V, Sun C, Chevreau C, Bennamoun M, Lang H, Tricard T, Cheng W, Xu L, Davidson I, Yan F, Fridman WH, Sautes-Fridman C, Oudard S, Malouf GG. An Enhancer Demethylator Phenotype Converged to Immune Dysfunction and Resistance to Immune Checkpoint Inhibitors in Clear-Cell Renal Cell Carcinomas. **Clin Cancer Res**. 2023;29(7):1279-1291. ***\*1st co-authors*  (IF: 11.5)**
   * **Editorial:** Zhou M, Kim WY. Viewing RCC with a DNA Methylation Lens ENHANCES Understanding of ICI Resistance. **Clin Cancer Res**. 2023;29(7):1170-1172.
4. Su X\*, **Lu X\***, Bazai SK\*, Dainese L\*, Verschuur A, Dumont B, Mouawad R, Xu L, Cheng W, Yan F, Irtan S, Lindner V, Paillard C, Le Bouc Y, Coulomb A, Malouf GG. Delineating the interplay between oncogenic pathways and immunity in anaplastic Wilms tumors. **Nat Commun**. 2023;14(1):7884. ***\*1st co-authors*  (IF: 16.6)**
5. Malouf GG\*, **Lu X\***, Mouawad R, Spano JP, Grange P, Yan F, Aractingi S, Su X, Dupin N. Genetic landscape of indolent and aggressive Kaposi sarcomas. **J Eur Acad Dermatol Venereol**. 2022;36(12):2343-2351. ***\*1st co-authors* (IF: 9.2)**
6. Su X\*, **Lu X\***, Bazai SK\*, Compérat E, Mouawad R, Yao H, Rouprêt M, Spano JP, Khayat D, Davidson I, Tannir NN, Yan F, Malouf GG. Comprehensive integrative profiling of upper tract urothelial carcinomas. **Genome Biol**. 2021;22(1):7. ***\*1st co-authors* (thesis-relevant, IF: 12.3)**
7. **Bioinformatic pipeline development: Innovations in cancer subtyping**
8. **Lu X**, Meng J, Zhou Y, Jiang L, Yan F. MOVICS: an R package for multi-omics integration and visualization in cancer subtyping. **Bioinformatics**. 2021;36:5539-5541. **(thesis-relevant, IF: 5.8)**
   * **Availability and implementation**:<https://github.com/xlucpu/MOVICS>
   * **Citation:** 90
   * **GitHub:** 133 stars and 42 forks
   * **RShiny App:** Zhu J, Zhu Y, Wang X, Cheng W, Wang S, Yang J, Wang W, Wang Y, Meng J\*, **Lu X\***, Yan F\*. MOVICShiny: An interactive website for multi-omics integration and visualisation in cancer subtyping. **Clin Transl Med**. 2024;14(3):e1606. ***\*co-correspondence***
9. **Biostatistics and epidemiology: Advancing public health through statistical analyses**
10. **Lu X**, Tawanaie Pour Sedehi N, Su X, Yan F, Alhalabi O, Tannir NM, Malouf GG. Racial Disparities in MiT Family Translocation Renal Cell Carcinoma. **Oncologist**. 2023:28(11):1009-1013. **(IF: 5.8)**
    * **Editorial:** Campbell P, Gebrael G, Agarwal N. Racial Disparities and Molecular Insights in Translocation Renal Cell Carcinoma: Advancing Understanding and Treatment Approaches. **Oncologist**. 2023:28(11):925-927.
11. **Lu X\***, Chen T\*, Wang Y\*, Wang J\*, Yan F. Adjuvant corticosteroid therapy for critically ill patients with COVID-19. **Crit Care**. 2020;24(1):241. ***\*1st co-authors* (research letter, IF: 15.1)**
12. **Lu X\***, Wang Y\*, Chen T\*, Wang J\*, Yan F. Classification of COVID-19 in intensive care patients. **Crit Care**. 2020;24(1):399. ***\*1st co-authors* (research letter, IF: 15.1)**
13. Wang Y\*, **Lu X\***, Li Y\*, Chen H\*, Chen T\*, Su N, Huang F, Zhou J, Zhang B, Yan F, Wang J. Clinical Course and Outcomes of 344 Intensive Care Patients with COVID-19. **Am J Respir Crit Care Med**. 2020;201(11):1430-1434. ***\*1st co-authors* (research letter, IF: 24.7)**

*During the COVID-19 pandemic, the above three representative publications were submitted as research letters to facilitate a faster peer review process. These submissions, while undergoing rigorous peer review, were expedited in comparison to original articles, allowing for swift dissemination of my valuable findings to the international community in a time-sensitive situation.*

* **Additional original articles**

1. **Lu X\***, Meng J\*, Wang H\*, Zhou Y, Zhou J, Ruan X, Chen Y, Ye Y, Su L, Fan X, Yan H, Jiang L, Yan F. DNA replication stress stratifies prognosis and enables exploitable therapeutic vulnerabilities of HBV-associated hepatocellular carcinoma: An *in-silico* precision oncology strategy. **The Innovation Medicine**. 2023;1(1), 100014. ***\*1st co-authors***
2. **Lu X\***, Meng J\*, Su L\*, Jiang L, Wang H, Zhu J, Huang M, Cheng W, Xu L, Ruan X, Yeh S, Liang C, Yan F. Multi-omics consensus ensemble refines the classification of muscle-invasive bladder cancer with stratified prognosis, tumour microenvironment and distinct sensitivity to frontline therapies. **Clin Transl Med**. 2021;11(12):e601. ***\*1st co-authors* (research letter, thesis-relevant, IF: 10.6)**
3. **Lu X\***, Meng J\*, Zhu J\*, Zhou Y, Jiang L, Wang Y, Wen W, Liang C, Yan F. Prognosis stratification and personalized treatment in bladder cancer through a robust immune gene pair-based signature. **Clin Transl Med**. 2021;11(6):e453. ***\*1st co-authors* (IF: 10.6)**
4. **Lu X\***, Ji C\*, Jiang L\*, Zhu Y, Zhou Y, Meng J, Gao J, Lu T, Ye J, Yan F. Tumour microenvironment-based molecular profiling reveals ideal candidates for high-grade serous ovarian cancer immunotherapy. **Cell Prolif**. 2021;54(3):e12979. ***\*1st co-authors* (IF: 8.5)**
5. **Lu X\***, Zhou Y\*, Meng J\*, Jiang L, Gao J, Fan X, Chen Y, Cheng Y, Wang Y, Zhang B, Yan H, Yan F. Epigenetic age acceleration of cervical squamous cell carcinoma converged to human papillomavirus 16/18 expression, immunoactivation, and favourable prognosis. **Clin Epigenetics**. 2020;12(1):23. ***\*1st co-authors* (IF: 6.7)**
6. **Lu X\***, Zhou Y\*, Meng J\*, Jiang L, Gao J, Cheng Y, Yan H, Wang Y, Zhang B, Li X, Yan F. RNA processing genes characterize RNA splicing and further stratify colorectal cancer. **Cell Prolif**. 2020;53(8):e12861. ***\*1st co-authors* (IF: 8.5)**
7. **Lu X\***, Jiang L\*, Chen T\*, Wang Y\*, Zhang B, Hong Y, Wang J, Yan F. Continuously available ratio of SpO2/FiO2 serves as a noninvasive prognostic marker for intensive care patients with COVID-19. **Respir Res**. 2020;21(1):194. ***\*1st co-authors* (IF: 5.9)**
8. **Lu X**, Jiang L, Zhang L, Zhu Y, Hu W, Wang J, Ruan X, Xu Z, Meng X, Gao J, Su X, Yan F. Immune Signature-Based Subtypes of Cervical Squamous Cell Carcinoma Tightly Associated with Human Papillomavirus Type 16 Expression, Molecular Features, and Clinical Outcome. **Neoplasia**. 2019;21(6):591-601.**(IF: 4.8)**
9. **Lu X\***, Wang Y\*, Jiang L, Gao J, Zhu Y, Hu W, Wang J, Ruan X, Xu Z, Meng X, Zhang B, Yan F. A Pre-operative Nomogram for Prediction of Lymph Node Metastasis in Bladder Urothelial Carcinoma. **Front Oncol**. 2019;9:488. ***\*1st co-authors* (IF: 4.7)**
10. **Lu X**, Zhang L, Zhao H, Chen C, Wang Y, Liu S, Lin X, Wang Y, Zhang Q, Lu T, Yan F. Molecular classification and subtype-specific drug sensitivity research of uterine carcinosarcoma under multi-omics framework. **Cancer Biol Ther**. 2019;20(2):227-235. **(IF: 4.2)**
11. **Lu X\***, Zhang Q\*, Wang Y\*, Zhang L, Zhao H, Chen C, Wang Y, Liu S, Lu T, Wang F, Yan F. Molecular classification and subtype-specific characterization of skin cutaneous melanoma by aggregating multiple genomic platform data. **J Cancer Res Clin Oncol**. 2018;144(9):1635-1647. ***\*1st co-authors* (IF: 3.8)**
12. Zhu J, Zhu Y, Wang X, Cheng W, Wang S, Yang J, Wang W, Wang Y, Meng J, **Lu X**, Yan F\*. MOVICShiny: An interactive website for multi-omics integration and visualisation in cancer subtyping. **Clin Transl Med**. 2024;14(3):e1606. ***\*co-corresponding authors* (research letter, IF: 10.6)**
13. Meng J\*, Jiang A\*, **Lu X\***, Gu D, Ge Q, Bai S, Zhou Y Zhou Jm Hao Z, Yan F, Wang L, Wang H, Du J, Liang C. Multiomics Characterization and Verification of Clear Cell Renal Cell Carcinoma Molecular Subtypes to Guide Precise Chemotherapy and Immunotherapy. **iMeta**. 2023 e147. ***\*1st co-authors***
14. Zhou Y\*, **Lu X\***, Chen H\*, Wang X, Cheng W, Zhang Q, Chen J, Wang X, Jin J, Yan F, Chen H, Li X. Single-cell Transcriptomics Reveals Early Molecular and Immune Alterations Underlying the Serrated Neoplasia Pathway Toward Colorectal Cancer. **Cell Mol Gastroenterol Hepatol**. 2023;15(2):393-424. ***\*1st co-authors* (IF: 8.8)**
15. Meng J\*, Chen Y\*, **Lu X\***, Ge Q, Yang F, Bai S, Liang C, Du J. Macrophages and monocytes mediated activation of oxidative phosphorylation implicated the prognosis and clinical therapeutic strategy of Wilms tumour. **Comput Struct Biotechnol J**. 2022;20:3399-3408. ***\*1st co-authors* (IF: 6.0)**
16. Meng J\*, **Lu X**\*, Jin C\*, Zhou Y, Ge Q, Zhou J, Hao Z, Yan F, Zhang M, Liang C. Integrated multi-omics data reveals the molecular subtypes and guides the androgen receptor signalling inhibitor treatment of prostate cancer. **Clin Transl Med**. 2021;11(12):e655. ***\*1st co-authors* (IF: 10.6)**
17. Meng J\*, **Lu X\***, Zhou Y\*, Zhang M, Ge Q, Zhou J, Hao Z, Gao S, Yan F, Liang C. Tumor immune microenvironment-based classifications of bladder cancer for enhancing the response rate of immunotherapy. **Mol Ther Oncolytics**. 2021;20:410-421. ***\*1st co-authors* (thesis-relevant, IF: 5.7)**
18. Zhou Y\*, **Lu X\***, Meng J\*, Wang Q, Chen J, Zhang Q, Zheng K, Rocha C, Martins C, Yan F, Li X. Specific epigenetic age acceleration patterns among four molecular subtypes of gastric cancer and their prognostic value. **Epigenomics**. 2021;13(10):767-778. ***\*1st co-authors* (IF: 2.5)**
19. Ruan X\*, **Lu X\***, Gao J, Jiang L, Zhu Y, Zhou Y, Meng J, Yan H, Yan F, Wang F. Multiomics data reveals the influences of myasthenia gravis on thymoma and its precision treatment. **J Cell Physiol**. 2021;236(2):1214-1227. ***\*1st co-authors* (IF: 5.6)**
20. Wu X\*, Jiang D\*, Liu H\*, **Lu X\***, Lv D, Liang L. CD8+ T Cell-Based Molecular Classification With Heterogeneous Immunogenomic Landscapes and Clinical Significance of Clear Cell Renal Cell Carcinoma. **Front Immunol**. 2021;12:745945. ***\*1st co-authors* (IF: 7.3)**
21. Zhou Y\*, **Lu X\***, Meng J\*, Wang X\*, Zhang Q, Chen J, Wang Q, Yan F, Li X. Neo-adjuvant radiation therapy provides a survival advantage in T3-T4 nodal positive gastric and gastroesophageal junction adenocarcinoma: a SEER database analysis. **BMC Cancer**. 2021;21(1):771. ***\*1st co-authors* (IF: 4.3)**
22. Wang Y\*, **Lu X\***, Zhang Y\*, Zhang X, Wang K, Liu J, Li X, Hu R, Meng X, Dou S, Hao H, Zhao X, Hu W, Li C, Gao Y, Wang Z, Lu G, Yan F, Zhang B. Precise pulmonary scanning and reducing medical radiation exposure by developing a clinically applicable intelligent CT system: Toward improving patient care. **EBioMedicine**. 2020;54:102724. ***\*1st co-authors* (IF: 11.1)**
23. Zhou Y\*, **Lu X\***, Meng L\*, Wang X\*, Ruan X, Yang C, Wang Q, Chen H, Gao Y, Yan F, Li X. Qualitative Transcriptional Signature for the Pathological Diagnosis of Pancreatic Cancer. **Front Mol Biosci**. 2020;7:569842. ***\*1st co-authors* (IF: 5.0)**
24. Meng J\*, **Lu X\***, Zhou Y\*, Zhang M, Gao L, Gao S, Yan F, Liang C. Characterization of the prognostic values and response to immunotherapy/chemotherapy of Krüppel-like factors in prostate cancer. **J Cell Mol Med**. 2020;24(10):5797-5810. ***\*1st co-authors* (IF: 5.3)**
25. Zhou Y\*, Zhu G\*, **Lu X\***, Zheng K, Wang Q, Chen J, Zhang Q, Yan F, Li X. Identification and validation of tumour microenvironment-based immune molecular subgroups for gastric cancer: immunotherapeutic implications. **Cancer Immunol Immunother**. 2020;69(6):1057-1069. ***\*1st co-authors* (IF: 6.1)**
26. Wang Y\*, Yan F\*, **Lu X\***, Zheng G, Zhang X, Wang C, Zhou K, Zhang Y, Li H, Zhao Q, Zhu H, Chen F, Gao C, Qing Z, Ye J, Li A, Xin X, Li D, Wang H, Yu H, Cao L, Zhao C, Deng R, Tan L, Chen Y, Yuan L, Zhou Z, Yang W, Shao M, Dou X, Zhou N, Zhou F, Zhu Y, Lu G, Zhang B. IILS: Intelligent imaging layout system for automatic imaging report standardization and intra-interdisciplinary clinical workflow optimization. **EBioMedicine**. 2019;44:162-181. ***\*1st co-authors* (IF: 11.1)**
27. Ye Y, Yang W, Ruan X, Xu L, Cheng W, Zhao M, Wang X, Chen X, Cai D, Li G, Wang Y, Yan F\*, **Lu X\***, Jiang L\*. Metabolism-associated molecular classification of gastric adenocarcinoma. **Front Oncol**. 2022;12:1024985. ***\*co-corresponding authors* (IF: 4.7)**
28. Ruan X, Ye Y, Cheng W, Xu L, Huang M, Chen Y, Zhu J, **Lu X\***, Yan F\*. Multi-Omics Integrative Analysis of Lung Adenocarcinoma: An in silico Profiling for Precise Medicine. **Front Med**. 2022;9:894338. ***\*co-corresponding authors* (IF: 3.9)**
29. Wang Y, Zhu J, Zhao J, Li W, Zhang X, Meng X, Chen T, Li M, Ye M, Hu R, Dou S, Hao H, Zhao X, Wu X, Hu W, Li C, Fan X, Jiang L, **Lu X\***, Yan F\*. Deep Learning-Enabled Clinically Applicable CT Planbox for Stroke With High Accuracy and Repeatability. **Front Neurol**. 2022;13:755492. ***\*co-corresponding authors* (IF: 3.4)**
30. Chen Y, Huang M, Zhu J, Xu L, Cheng W, **Lu X\***, Yan F\*. Identification of a DNA Damage Response and Repair-Related Gene-Pair Signature for Prognosis Stratification Analysis in Hepatocellular Carcinoma. **Front Pharmacol**. 2022;13:857060. ***\*co-corresponding authors* (IF: 5.6)**
31. Huang M, Liu L, Zhu J, Jin T, Chen Y, Xu L, Cheng W, Ruan X, Su L, Meng J\*, **Lu X\***, Yan F\*. Identification of Immune-Related Subtypes and Characterization of Tumor Microenvironment Infiltration in Bladder Cancer. **Front Cell Dev Biol**. 2021;9:723817. ***\*co-corresponding authors* (IF: 5.5)**
32. Chen Y, Meng J, **Lu X**, Li X, Wang C. Clustering analysis revealed the autophagy classification and potential autophagy regulators' sensitivity of pancreatic cancer based on multi-omics data. **Cancer Med**. 2023;12(1):733-746. **(IF: 4.0)**
33. Meng J, Gao J, Li X, Gao R, **Lu X**, Zhou J, Yan F, Wang H, Liu Y, Hao Z, Zhang X, Liang C. TIMEAS, a promising method for the stratification of testicular germ cell tumor patients with distinct immune microenvironment, clinical outcome and sensitivity to frontline therapies. **Cell Oncol**. 2023;46(3):745-759. **(IF: 6.1)**
34. Meng J, Ge Q, Li J, **Lu X**, Chen Y, Wang H, Zhang M, Du J, Zhang L, Hao Z, Liang C. Protective trend of anti-androgen therapy during the COVID-19 pandemic: A meta-analysis. **J Infect**. 2022;84(6):834-872. **(IF: 28.2)**
35. Meng J, Zhou Y, **Lu X**, Bian Z, Chen Y, Zhou J, Zhang L, Hao Z, Zhang M, Liang C. Immune response drives outcomes in prostate cancer: implications for immunotherapy. **Mol Oncol**. 2021;15(5):1358-1375. **(IF: 6.6)**
36. Zhu Y, Meng X, Ruan X, **Lu X**, Yan F, Wang F. Characterization of Neoantigen Load Subgroups in Gynecologic and Breast Cancers. **Front Bioeng Biotechnol**. 2020;8:702. **(IF: 5.7)**
37. Zhang L, Jiang Y, **Lu X**, Zhao H, Chen C, Wang Y, Hu W, Zhu Y, Yan H, Yan F. Genomic characterization of cervical cancer based on human papillomavirus status. **Gynecol Oncol**. 2019;152(3):629-637. **(IF: 4.7)**
38. Yang K, **Lu X**, Luo P, Zhang J. Identification of Six Potentially Long Noncoding RNAs as Biomarkers Involved Competitive Endogenous RNA in Clear Cell Renal Cell Carcinoma. **Biomed Res Int**. 2018;2018:9303486.

**IV. Economical and clinical transfer**

* **Economic evaluation**

My contributions extend to the involvement of developing three Chinese patents, each aiming to revolutionize the molecular classification of genitourinary system tumors. These include:

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| 2023 | **China Patent Application**, # CN116246709A - A molecular classification model for renal clear cell carcinoma based on multi-omics data and its establishment method (partner) |
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| 2023 | **China Patent Application**, # CN112530581A - A system of immune molecular classification for patients with prostate cancer and its applications (partner) |
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| 2021 | **China Patent Application**, # CN112735521A - An immune classification system for guiding the selection of patients suitable for anti-PD-1/PD-L1 immunotherapy in bladder cancer (partner) |

* **Clinical evaluation**

My involvement in the BIONIKK trial (NCT02960906) illustrates my dedication to advancing personalized medicine in metastatic ccRCC. In this pioneering trial, patients' responses to nivolumab, Ipi/Nivo, or sunitinib were assessed based on gene expression subgroups. My contributions included designing the study, analyzing data, and interpreting findings, particularly regarding epigenetic factors influencing immunotherapy response. Key discoveries include identifying the TED phenotype, marked by enhancer hypomethylation, and developing iMES, a quantitative index of epigenetic silencing that enables predicting primary resistance to frontline immunotherapy. These findings, published in ***Clinical Cancer Research*** and ***Cell Reports Medicine***, have been widely recognized for their impact. Notably, TED has been featured in a corresponding editorial, underscoring its significance in the biomarker field of immuno-oncology.

**FUNDING OF RESEARCH PROJECTS**

* During my PhD program, I significantly contributed to drafting three grant proposals under the guidance of my supervisor, Pr. YAN (grant applicant). I was involved as one of the ‘main participants’ in these grants, which were instrumental in funding all four components of my doctoral thesis. These grants included:

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| *Jan 2020*  – *Dec 2023* | Adaptive Phase I-II Clinical Trial Designs for Novel Cancer Therapies under the Precision Medicine Framework   * **Source:** National Natural Science Foundation of China * **Number:** 81973145 * **Role:** Partner * **Amount:** 600,000 CNY [115,000 EUR] |
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| *Jan 2020*  – *Dec 2022* | Construction and Optimization of "Human-Machine Coupled" Intelligent Accurate Clinical Diagnosis and Treatment System for Non-Small Cell Lung Carcinomas   * **Source:** Key R&D Program of Jiangsu Province, China (Social Development) * **Number:** BE2020694 * **Role:** Partner * **Amount:** 800,000 CNY [77,000 EUR] |
|  |  |
| *Jan 2020*  – *Dec 2021* | Study on Herb Molecular Markers & Chinese Herb Cloud Information Platform   * **Source:** National Key R&D Program of China * **Number:** 2019YFC1711000 * **Role:** Partner * **Amount:** 2,600,000 CNY [332,300 EUR] |

* During my postdoctoral research tenure, I am currently in the process of preparing a grant proposal for 'SIGN’IT 2024: Signatures en Immunothérapie’, with a focus on predicting response in immunotherapy. This grant application is currently in progress. Furthermore, I actively participated in writing another grant proposal titled 'Molecular Underpinnings of TFE3 Translation in Renal Cell Carcinoma (RCC)' for the 'Programmes Labellisés – Fondation ARC 2023’. I am eagerly awaiting the response for this grant application, which is expected by February 2024.

**SCIENTIFIC MANAGEMENT**

* **Academic involvement**

My academic involvement has been characterized by a collaborative and dynamic role, blending my expertise in bioinformatics and biostatistics with effective team leadership. As a crucial collaborator, I have actively engaged in project planning, data analysis, and interpretation, working closely with a diverse group of scientists, researchers, and oncologists. This has fostered a multidisciplinary approach to research projects. My responsibilities also extend to enhancing team dynamics, where I have led communication efforts, task coordination, and manuscript drafting and submission. My focus on clear scientific communication and data visualization has not only streamlined project execution but also enriched the team's innovation and productivity. This dual role in collaboration and team leadership reflects my commitment to advancing research goals through a cohesive and integrated academic approach.

* **Mentoring**

I am responsible for mentoring Master's students and co-mentoring PhD students, in collaboration with Pr. Malouf, especially those who have limited backgrounds in statistics or bioinformatics. My role includes teaching basic R programming skills, assisting in the interpretation of statistical results, and aiding in their understanding of multi-omics bioinformatics analyses. These mentoring activities are conducted within a multidisciplinary environment, where we jointly contribute to research projects. The students I have mentored or am co-mentoring include:

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| Since May 2023 | Antonin FATTORI, pathologist, 1st year of PhD, Strasbourg |
| Since Feb 2023 | Justine GANTZER, oncologist, 4th year of PhD, Strasbourg |
| Since Jan 2023 | Nassim TAWANAIE POUR SEDEHI, urologist, 2nd year of PhD, Strasbourg |
| Aug 2023 – Jan 2024 | Li XU, 3rd year of Master of biostatistics, China (6 months intern) |

* **Organization of the research group or team**
* **Director of the IGBMC: Frédéric Dardel**
* **Department of Molecular and Translational Oncology** (PI: *Pr. Gabriel Malouf*)
* Gabriel Malouf (PU-PH) (oncologist)
* Jean-Emmanuel Kurtz (PU-PH) (oncologist)
* Bernard Goichot (PU-PH) (internal medicine)
* Philippe Baltzinger (PHU) (endocrinologist)
* Sehrish Khan Bazai (post-doc)
* Xiaofan Lu (pos-doc)
* Justine Gantzer (PhD 4th year) (oncologist)
* Nassim Tawanaie Pour Sedehi (PhD 2nd year) (urologist)
* Antonin Fattori (PhD 1st year) (pathologist)
* Li Xu (PhD 1st year)
* Engineer (recruitment ongoing)

**TEACHING**

During my PhD program from 2019 to 2021 at the Research Center of Biostatistics and Computational Pharmacy, I served as a teaching assistant, conducting intensive statistical modeling training each summer from June to July. This training was tailored for undergraduate and graduate students from China Pharmaceutical University who registered for the National College Student Statistics Modeling Competition. Each week, I led three two-hour sessions, focusing on advanced statistical modeling techniques and their practical applications. In addition to these teaching responsibilities, I mentored and advised both undergraduate and graduate student teams in the three-day National College Student Statistics Modeling Competition, held in early August. Furthermore, I assisted the department director (Pr. YAN) in guiding junior master's students in areas such as large-scale genome analysis and the development of joint models for longitudinal data and survival outcomes. This role involved setting up research projects for the students and holding regular meetings to discuss and facilitate their research progress.

**SCIENTIFIC ANIMATION**

* **Presentations invited at conferences**

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| 28/04/2023 | An enhancer demethylator phenotype converged to immune dysfunction and resistance to immune checkpoint inhibitors in clear-cell renal cell carcinomas  Signatures in cancer immunotherapy, ARC Symposium, Paris, France  ***invited for poster presentation*** |
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| 10/07/2021 | Development of an R package for multi-omics integration: Application in urothelial carcinoma  7th International Statistical Genetics and Genomics Forum, Chongqing, China  ***invited for oral presentation*** |

* **Professional services**
* Editorial roles:
* Guest editor, Frontiers in Genetics (2023-Present)
* Guest editor, Frontiers in Cell and Developmental Biology (2023-Present)
* Reviewer roles:
* Reviewer for several renowned journals including *Briefings in Bioinformatics (IF: 9.5)*, *Bioinformatics (IF: 5.8)*, *Journal of Translational Medicine (IF: 7.4)*, *The Innovation Medicine*, *Scientific Reports*, *Journal of Cancer Research and Clinical Oncology*, *Frontiers in Oncology*, *Frontiers in Immunology*, *Life Sciences*, and *International Immunopharmacology* (2020-Present)
* **Preprints**

Authored six preprints on bioRxiv, all of which have been peer-reviewed and subsequently published in respected journals (<https://www.biorxiv.org/search/author1%3AXiaofan%2BLu%2B>).

* **Collaborations**
* **Principle scientific collaborations**
* Pr. Gabriel Malouf – IGBMC, Illkirch, France
* Pr. Wolf Herman Fridman – Equipe labellisée Ligue contre le Cancer, Paris, France
* Dr. Yann-Alexandre – Vano Institut du Cancer Paris CARPEM, Paris, France
* Pr. Xiaoping Su – MD Anderson Cancer Center, Texas, USA
* **International collaborations**
* Department of Urology, The First Affiliated Hospital of Anhui Medical University, China (Subject: *Multi-omics characterization on urothelial carcinoma*) - Collaborated with Dr. MENG Jialin on comprehensive molecular characterization of bladder and prostate cancer.
* Division of Gastroenterology and Hepatology, Shanghai Jiaotong University, China (Subject: *Single-cell transcriptome analysis of the serrated neoplasia pathway toward colorectal cancer*) - Collaborated with Dr. ZHOU Yujie on single-cell profiling of colorectal cancer.
* Department of Radiology, Drum Tower Hospital, Nanjing University, China (Subject: *Intelligent scanning system for precise diagnosis*) - Collaborated with Dr. WANG Yang to combine radiomics, modern statistics, and artificial intelligence to improve diagnostic precision.
* **Participation to the collective life of the lab**
* I am in charge of guiding new team members in basic statistical skills and the interpretation of bioinformatics results.
* I am responsible for ensuring the accuracy of the statistical methods used in the research of all laboratory members.
* I have been responsible for organizing the team's weekly academic seminars for three months.

**SCIENTIFIC PRIZES AND AWARDS**

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| 2021 | Doctoral first-class scholarship, China Pharmaceutical University |
| 2021 | Doctoral excellent scholarship, China Pharmaceutical University |
| 2020 | National Scholarship of the People’s Republic of China |
| 2020 | President Scholarship of China Pharmaceutical University |
| 2020 | Doctoral first-class scholarship, China Pharmaceutical University |
| 2020 | Doctoral excellent scholarship, China Pharmaceutical University |
| 2019 | Excellence award of the 6th National College Students Statistical Modeling Contest – Biomedical category |
| 2019 | Doctoral first-class scholarship, China Pharmaceutical University |
| 2019 | Doctoral excellent scholarship, China Pharmaceutical University |
| 2018 | Second prize of “HUAWEI Cup” – The 15th China Post-Graduate Mathematical Contest in Modeling |
| 2015 | Excellence Award of “Cisco Cup Information Technology Competition”, China Pharmaceutical University |
| 2014 | Second-class scholarship and “Excellent Student”, China Pharmaceutical University |
| 2013 | Third-class scholarship and “Excellent Student”, China Pharmaceutical University |