



## WEILI ZHAO

Professor of Hematology, First Deputy Director of Shanghai Institute of Hematology and Vice President of Shanghai Ruijin Hospital.



Prof. Weili Zhao is the doctoral supervisor of both Shanghai Jiao Tong University and University Paris VII, Vice President of Chinese Association of Hematology, and Secretary General of Chinese Society of Experimental Hematology. She mainly focuses on the molecular mechanism and targeted therapy of malignant lymphoma. She has been awarded National Award for Science and Technology Progress and published over 100 articles including those in *Cancer Cell*, *Nature Genetics*, *Blood*, with total impact factors over 1200.

**Q: You are from a family full of doctors and trained in the hematology department of Ruijin Hospital. How did that impact your career?**

Both my parents are physicians, and there are over 10 clinicians in my extended family. Medicine is the most talked about topic at family gatherings. Growing up in a medical family like mine planted the seed for a career in medicine. When I was a medical student, it seemed to me that hematological diseases presented many challenges waiting to be tackled. That's why I chose hematology as my specialty, hoping to make my own contribution.

During my training at the hematology department of Ruijin Hospital, I was lucky to be mentored by academicians such as Zhenyi Wang, Zhu Chen, Saijuan Chen, and Guoqiang Chen. Professor Saijuan Chen opened my eyes to the fascinating world of research. She encouraged me to establish a new division at Ruijin Hospital as well as to study in Paris to acquire more cutting-edge knowledge and learn more about the philosophy of scientific research. It was in Paris that I first saw pathological slides of lymphoma, and I immediately developed a strong interest in that disease. I strive, as did Professors Zhu Chen and Saijuan Chen, to integrate research on disease mechanisms and targeted therapies, which can ultimately benefit patients.

In clinical practice, Professors Zhenyi Wang and Zhixiang Shen have been my

role models. They taught me to listen to patients attentively, show empathy, and try to understand and address their suffering. Their guidance, as well as the research and clinical work, keep me moving forward. I always feel like I am standing on the shoulders of giants.

**Q: What are your major achievements so far in research?**

As a physician, I believe the ultimate goal of research is to serve patients and improve treatment efficacy. For this reason, all my research ideas are derived from clinical practice. Once we identify clinical questions during daily clinical work, we can perform basic research, translational research, and clinical research to bring about new and better treatment strategies. I call it disease mechanism-based precision treatment. This approach has improved patient care. Also, we are able to identify new problems and generate new research ideas in the virtuous cycle of bedside to bench. If we really dive into clinical research, we'll not only be treating a few individuals, we'll also be able to come up with new strategies or therapies that benefit a broader patient population.

My research focuses on the pathogenesis, prognosis, and biomarkers of lymphoma. Related findings have been published in a series of papers. We identified molecular subtypes of NK/T cell lymphoma, which have been included

in the latest WHO classification. Through DNA and RNA sequencing, we identified frequently mutated genes in patients with diffuse large B-cell lymphoma (DLBCL). Then, based on functional experiments and mathematical modeling, we constructed a simplified and clinically applicable molecular classification scheme called LYMPHPLEX to guide precision therapy for DLBCL patients. Having initially showed the effectiveness of this molecular subtyping strategy, we are now leading the GUIDANCE-02 trial, a multicenter clinical study to confirm the clinical utility of LYMPHPLEX.

Traditionally, patients with highly malignant lymphoma are advised to undergo chemotherapy. However, chemotherapy is often associated with severe side effects that would impose a substantial cost to quality of life; moreover, patients over 80 years old can hardly tolerate chemotherapy. Therefore, one of the most meaningful areas of clinical research to me is to modify existing therapies or develop new targeted therapies that prove efficacious without compromising patient quality of life. For example, based on previous studies, we proposed a therapy for NK/T cell lymphoma that targets cancer metabolism, and developed a regimen that doesn't require intravenous infusion. Innovations like these have the potential to change clinical practice and are thus highly valuable.

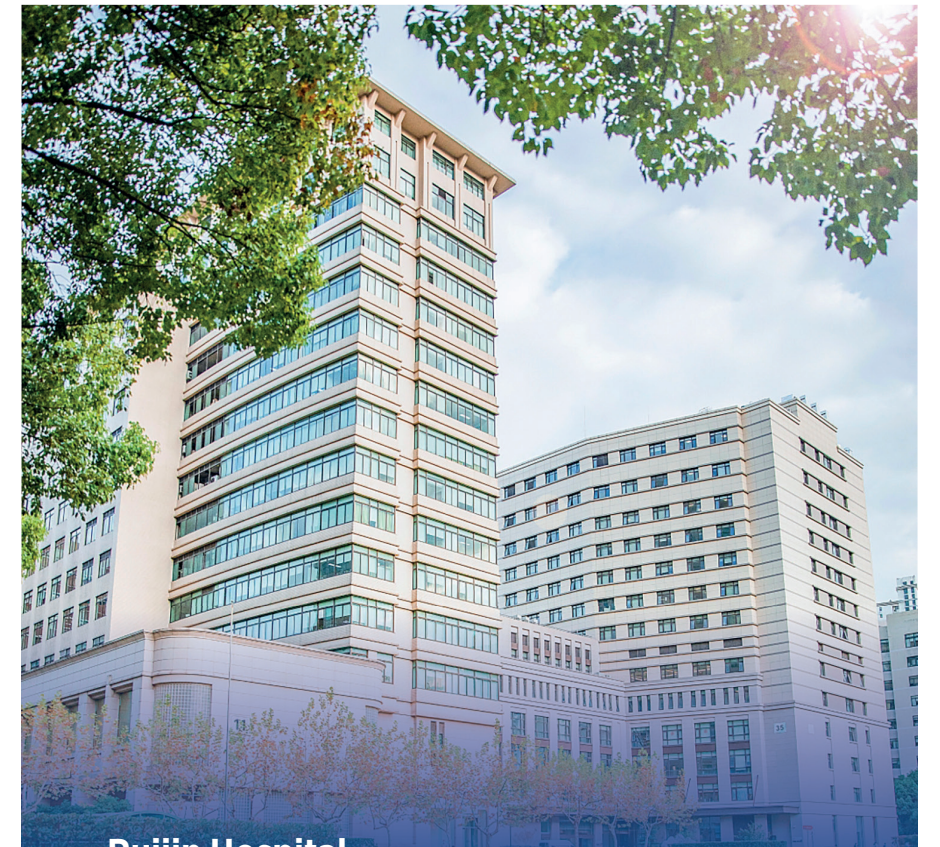
**Q: As Vice President of the Chinese Society of Hematology and an expert in lymphoid disorders, how do you plan to improve the diagnosis and treatment of blood diseases in China?**

One of my priorities in this position is to promote translational medicine that can integrate basic research and clinical research, boosting the quality of hematologists in China. We launched EXPECT, a real-world registry for extranodal lymphoma. Based on incidence, diagnosis, and treatment data provided by EXPECT, we can launch multidisciplinary collaborations and conduct high-quality cohort studies. Another priority is to organize national multicenter clinical studies. We have set up a clinical research platform to facilitate hematology trials across China. The goal is to produce more high-quality evidence and provide Chinese solutions for blood diseases. Using this platform, 10 multicenter clinical studies have been completed or are enrolling patients, and many more will be launched soon.

**Q: How can "Spirit of Discovery" of Ruijin Hospital be passed on to the next generation of physicians?**

I believe, if we can unite basic research and clinical research, we can empower clinicians with science and change the fate of patients. I often use this belief to encourage myself, and young physicians alike, to be a physician scientist.

Sometimes I would inspire my students with my own experience. I remember the time when we tried to have a particular paper published. After several rounds of revision and review, the data seemed perfect, but the reviewer still asked us to repeat a key experiment three times. Everyone on the team was somewhat discouraged. Learning this, Professor Zhu Chen cut short an important trip. He and Professor Saijuan Chen tried to cheer us up. They told us that diligence is one of the most essential qualities of a good researcher. Although research is never easy, they assured us that success belongs to the most persevering. After working around the clock, we were able to replicate the results. I can still vividly recall the joy I felt when I received a late-night text message from Professor Saijuan



## Ruijin Hospital

Founded in 1907 and formerly known as Kuang-tse Hospital, Ruijin Hospital has three campuses with a total land area of 290,667 square meters. It also has affiliated hospitals in Wuxi and Taicang (Jiangsu Province), Zhoushan (Zhejiang Province), and Boao (Hainan Province). The hospital runs 48 clinical specialties, 23 of which are selected as national key disciplines, and has one national key laboratory, one national center for clinical research, one basic science center of the National Natural Science Foundation of China, four key disciplines of the Ministry of Education, and six municipal-level research institutes. During the 14th Five-Year Plan period, Ruijin Hospital developed the "BE-QUIET" strategy for Branding, Evolving, Quality, Unity, Intelligent, Efficiency, and Technology.

Chen informing me the paper had been accepted. This kind of hard-earned reward is a treasure of life, which I often share with my students.

After studying and teaching in France, I realized that Chinese and Western students have their own strengths and weaknesses. Chinese students are smart, hardworking, meticulous, and perseverant, but, unlike Western students, they are not good at asking questions. Asking questions is a critical path to identifying and solving problems, and it also reflects

the spirit of discovery. That's why I always encourage my students to ask questions, and to make sure they ask the right questions.

**Contact Information**

**Address:** 197 Ruijin 2nd Road, Huangpu District, Shanghai  
**Phone:** 86-21-64370045  
**Email:** zw110909@rjh.com.cn  
**Website:** <http://www.rjh.com.cn>