"The doctor should doctor; the teacher should teach; the researcher should research"—an indepth interview with Prof. Qing Zhou

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Introduction

The ancient Greek aphorism "know thyself" engraved on the forecourt of the Temple of Apollo epitomizes the human desire for the exploration into the unknown. In fact, never has mankind dragged their feet in understanding themselves, as in the achievements scientists have made all these years in the studies of disease and pathology.

Ere the 2017 WCLC journey, AME Editors were sent across China to conduct in-depth interviews with an army of distinguished experts in the field of lung cancer. Together we learned how these soldiers fought for the nation that has the largest number of patients, and how they dedicated their lives to inventing the most-advanced weapons and probing into the enemy camp. From the past, they reflect and learn from mistakes; at present, they work hard and make changes; for the future, they make plans and improvements.

May this issue take you to the innermost world of these Chinese scholars, where you can delve into their wealth of knowledge and be inspired.

Expert's introduction

Qing Zhou (*Figure 1*), Professor, MD, PhD, is a medical oncologist and the director of Pulmonary Oncology in Guangdong Lung Cancer Institute of Guangdong General Hospital & Guangdong Academy of Medical Sciences, Guangzhou, China. She is the deputy secretary-general of Chinese Society Clinical Oncology (CSCO) and the secretary-general of Chinese Thoracic Oncology Group (CTONG). She is a Member of the Chinese Society of Lung Cancer (CSLC). She is the Fellowship Committee Member of International Association for the Study of Lung Cancer (IASLC) since 2012, and reviewed the Young Investigator Awards and Fellowship Awards of IASLC since then. She worked as the Editor of the Chinese edition of the *Journal of Clinical Oncology (JCO)* since 2015 and organized the Chinese edition of *JCO*.

She graduated from Norman Bethune Medical University



Figure 1 Professor Qing Zhou.

in Jilin Province, China, in 1997, and completed her PhD training in Sun Yat-sen University of Medical Sciences in 2006 and studied Phase I clinical trials in Cancer Centre of Colorado University, US, in 2009. Her main research interests are the multidisciplinary synthetic therapy on lung cancer from basic science to bedside and evidence-based medicine in oncology. She published more than 50 SCI research papers in the past five years and one of them was published in *Journal of Clinical Oncology* (*JCO*) (IF =20.8). She leads some scientific research projects including National Key Research and Development Program of China and National Natural Science Foundation of China. She participates more than 120 multicenter clinical trials in lung cancer field and acts as Principle Investigator (PI) of 13 clinical trials.

Scientific awards: (I) Science and Technology Awards of Guangdong Province in 2011 and 2013; (II) Skilled Physician of Guangdong Province in 2010; (III) Science and Technology Stars of Guangzhou in 2011; (IV) Outstanding Youth Medal of Guangdong Province in 2012; (V)



Figure 2 Prof. Qing Zhou in the interview.

Outstanding Youth of China in 2012; (VI) Excellent Female Scientific Worker of Guangdong Province in 2015.

Foreword

Recorded in the Chapter of Yan Yuan from *the Analects of Confucius*¹, the King of Qi² once asked Confucius how to rule a country. Confucius replied, "The ruler should rule, the minister should minister, the father should be a father and the son should behave as a son." That is to say, everyone should perform their own roles and focus on their specialties.

Mimicking the saying, one of Professor Qing Zhou's students commented, "The doctor should doctor; the teacher should teach; the researcher should research." As a doctor, teacher, and researcher, Professor Zhou has made her every effort to accomplish the responsibilities and obligations of all these roles. She is a competent doctor, teacher and researcher! After savoring the words of that student, I find them aptly reflect Professor Zhou's attitude toward work and charm in personality. Therefore, it's more than suitable to use those words as the title.

Prologue

Before this interview, I have met Professor Zhou a couple of times. She impressed me most at the 2017 Annual Meeting

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of Chinese Thoracic Oncology Group (CTONG) in early August this year. At the noon of the meeting day, my colleague couldn't enter the meeting's dining room because having no lunch voucher. While we were worried about this problem, I found Professor Zhou standing nearby the elevator which was not far from our opposite. Given that she might be able to offer some help since she was the director of the conference, I went towards her to explain the situation. To my surprise, Professor Zhou passed her lunch voucher onto our hands without hesitation, "Please take this voucher. I won't have time for lunch, so it will be wasted on me," she said. "No. If you gave us the voucher, you could not have lunch." I must decline since I was aware that it was the only voucher she had. I was kind of ashamed as she insisted. Fortunately, our friend Professor Zhong came with another lunch voucher to solve this problem. Since then, her kindness and generosity are ingrained in my heart.

My mind flashed back to that day when I arrived for the interview. Thanks to that incident, we felt much closer when we met again.

We set the interview at the CTONG office in Weilun Building of Guangdong General Hospital (GGH), where Professor Zhou works most of the time (*Figure 2*). "*Please have a seat. Take easy!*" said when she showed up. With her amiability, I said straightforwardly, "Today we come here to listen to your story."

Growth: gratitude is more than hardship on the path of studying

I followed my curiosity and started the interview with the first question, "Where are you from?" To my surprise, Professor Zhou is from Inner Mongolian of China. "I was born and raised in Inner Mongolia Autonomous Region, although lots of people regard me as northeasterner since I once studied in Changchun City, Jilin Province. I moved from Inner Mongolia to Changchun for studying. For me, Inner Mongolia is my first hometown, while Changchun is my second hometown and Guangzhou is the third." Coming across from northernmost China to the southernmost turned the little girl from Inner Mongolia into a successful woman with the roles of PhD.

¹*The Analects of Confucius* is a collection of sayings and ideas attributed to the Chinese philosopher Confucius and his contemporaries, traditionally believed to have been compiled and written by Confucius' followers. It is believed to have been written during the Warring States period (475–221 BC), and it achieved its final form during the mid-Han dynasty (206 BC–220 AD). ²Qi, was one of the small countries in the Spring and Autumn Period of ancient China, from the year of 770 BC to 403 BC.

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Figure 3 Prof. Qing Zhou and her tutor Prof. Yilong Wu.

supervisor, Director of the 3rd Pulmonary Department of Guangdong Lung Cancer Institute, and Secretary-General of CTONG. With regard to this change, I wondered what had triggered its start button.

"What was your dream in childhood? To become a doctor?"

She said she was an "A" student who did everything according to routine; however, she had no defined dream to pursue when she was still a little child. Just like many others, she was once at a loss. Coincidentally, when she was hesitating about the university to go, her father got ill. "Perhaps it will be more convenient if having a doctor in the family." With this forthright idea, she applied to Norman Bethune Medical University. Little did she know the decision would lead her to the path of medicine and go further and further. In 1997, Qing Zhou graduated from Norman Bethune Medical University, then gained her Master's Degree from Jilin University in 2002, and completed her PhD training in Sun Yat-sen University of Medical Sciences in 2006, under the instruction of Professor Yilong Wu, a well-known thoracic oncologist at home and abroad. How much bitterness she has swallowed while spending more than a decade on pursuing knowledge? Instead of bitterness, she had more gratitude in her memories of studying. She said, "I've encountered more luck than hardship. I always found myself a lucky person. Why do I say that? Every step I took, especially at some turning points of my life, I met many opportunities and benefactors. That's why I think there was no bitterness on my path of studying. Recalling the past, not only did everything go smoothly but also did I obtain much help. So I have always been grateful."

"Who do you think helped you the most?"

"As mentioned earlier, I always got help at every important moment. I would not be who I am today without

He and Lin. In-depth interview with Prof. Qing Zhou

all the help. The one who has affected and changed every aspect of me the most is undoubtedly my current teacher, Professor Yilong Wu." (Figure 3). In her mind, Professor Wu is unsurpassable. "His outstanding achievements put the rest of us to shame. It's hard to expect that I will become someone as successful as he is, but I'll work hard toward his direction." What makes she admire Professor Wu more is given the fact that Professor Wu still devotes wholeheartedly to work, such as pulling an all-nighter to revise students' articles or working all the way on the plane for business trips in spite of his great success and international fame. Qing Zhou not only absorbs the influence from Professor Wu, but also shares the important influence with her students. "Although we don't have the same wisdom as Professor Wu, we could learn from his hardworking spirit." She motivates herself and students all the time.

As a teacher: success is in the details

Qing Zhou always believes that success is in the details. "Instead of focusing on a rough frame, paying attention to details is more important. The framework is nearly all the same no matter who designs it, but it's different in details. Paying attention to details is the key to perfection." This concept has a great influence on her, making her can't help but focus on little things. When revising manuscripts for students, not only does she give guidance on an article's direction, but also correct punctuation marks. With such a character, what she has brought to her students is not pressure, but happiness. "She cares about both our learning and daily life. For instance, she is so meticulous that even an incorrect punctuation mark would be corrected. She not only teaches us the academic knowledge but also the skills for interview, speech, and some useful tips in life. I am happy to have such a good teacher." One of her postgraduate students said (Figure 4).

Scholarly exchange (I): the gap between overdemands from patients and limited medical resources in China

In 2009, Professor Zhou went to University of Colorado Cancer Center (UCCC) as a visiting scholar (*Figure 5*). Instead of being in laboratory, she followed an American doctor to perform clinical work and learn the design and implementation of Phase I clinical trials, which directly exposed her to the way American doctors work in clinic. "Given the fact that there are few patients in the United States, doctors can have 30-40 minutes to diagnose a



Figure 4 Prof. Qing Zhou and her students.



Figure 5 Prof. Qing Zhou and her tutor Ross Camidge as well as the colleagues at University of Colorado Cancer Centre.

patient at ease. From 8 a.m. to the afternoon, there might only be 6-8 patients in total. When turning to the eighth patient, the doctor would even think it's an overloaded day, reflecting why he has so many appointments for that day. This situation is impossible to occur in China." In Qing Zhou's case, the numbers of outpatients in the morning is up to 30-40, which keeps her busy from 8 a.m. to 1p.m. From the significant difference of doctor's working conditions between the United States and China, Qing Zhou realized the root behind many problems in China's medical industry: The medical resources in China are limited while the demands of patients are overlarge. "China is conducting reform in health care system. However, many problems can't be solved owing to this big gap. We have limited medical resources, e.g., a fixed number of good doctors, hospital beds, and the limited investment on medical insurance. But there are too many patients. That's the root of many problems. If we couldn't resolve it, we won't be able to deal with many others. This is the situation we face at present and the feature of our country. That's the reason why we couldn't act like American

doctors spending 30–40 minutes diagnosing one patient leisurely." she emphasized, "Now, I usually don't express my opinions when others comment on the different experiences of seeing doctors in China and in the United States. But I know it's unfair to compare two countries under totally different conditions."

Scholarly exchange (II): breaking ignorance by first translating *Phase I Cancer Clinical Trials:* A *Practical Guide*

Moreover, Qing Zhou has done another meaningful thing during her visiting term. Soon after she went back to China in 2011, Phase I Cancer Clinical Trials: A Practical Guide, the book she translated, was published as the first Chinese guidebook on the use of antineoplastic drugs in Phase I cancer clinical trials (Figure 6). The book was inspired by her visiting experience. The story began from why she went miles across the sea to USA for learning. At the beginning of the 21st Century, most Chinese researchers focused on Phase II/III clinical trials, the mature trials with a fixed pattern, while few people researched on original studies of Phase I clinical trials. Phase I clinical trial is challenging and variable, especially for the first-in-man study. There were lots of uncertainty in design and implementation. Then in China none was experienced in coping with the problems emerging in this kind of new experiment. Fortunately, the director Professor Yilong Wu, foresaw that China would need more than just mature Phase II/III clinical trials in the future, and should embrace the challenges of Phase I clinical trials. The great step could never be taken if staving ignorance and unpracticed. Therefore, Professor Wu dispatched Qing Zhou to study Phase I clinical trials at UCCC. However, things were different from her imagination when arriving UCCC. Even then UCCC had rich experience in conducting Phase I clinical trials, its knowledge and information of Phase I clinical trials was scattered and fragmented. Without systematic teaching materials, Qing Zhou could only learn by following the instruction of her mentor, observing and asking questions. Qing Zhou couldn't help but wonder, "This time I am lucky to acquire the knowledge of Phase I clinical trials, what about the others? The knowledge of Phase I clinical trials could only be passed from the instructor to his students?" This way was too inefficient. So she asked the mentor Ross Camidge who is experienced with clinical trials for many years, "Is there any material regarding Phase I clinical trials?" Disappointingly, the answer was "No". Not willing to give up, Qing Zhou called on friends from home and

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Figure 6 The Chinese version of the book *Phase I Cancer Clinical Trials: A Practical Guide* for which Prof. Qing Zhou served as one of the leading translators.

abroad to look for related books. Heaven helps those who help themselves. Finally, Professor Li Yan from Sino-US Anti-Cancer Association, recommended her with the book Phase I Cancer Clinical Trials: A Practical Guide, which was written by Elizabeth A. Eisenhauer, Chris Twelves, and Marc Buyse, the three well-known experts from Canada, UK and Belgium respectively. This book was manna for Qing Zhou. Though it doesn't cover every aspect of Phase I clinical trials, it's still much better than learning unsystematically. Qing Zhou right away contacted the author Elizabeth A. Eisenhauer, and its publishing company Oxford University Press (OUP), to express her eagerness of translating it into Chinese for China's scholars. With the approval of both its author and publishing company and the assistance of her postgraduates, Qing Zhou finally completed this masterpiece after six months and launched it officially in 2011 in China. Qing was so meticulous that she double-checked the manuscript word by word even though then the editor kept reminding her of the deadline. "After all, this is a translated work finished hastily. It is a pity for me. I'm concerned that someone could still find some slipups if he is going to read the book word by word." Perhaps

this is inevitable, but could not hide her kind heart. "Being a researcher of clinic trials, I know more than anyone else that researchers really need the learning materials. I truly hope this book can help those who want to learn Phase I clinical trials." Qing said. From this story, I discovered another two charming characters of Qing: putting herself in others' shoes all the time and never giving up easily.

Scientific research (I): as virtue rises one foot, vice rises ten

There is no boundary in the academic community. Wherever she is, Qing always pays close attention to international research frontier. As the Director of the 3^{rd} Pulmonary Department in Guangdong Lung Cancer Institute, she is adept at Targeted Therapy and Immunotherapy, which happen to be the hot topics in international lung cancer research (*Figure 7*).

In Qing's opinion, new targeted drugs keep coming out with different attractions. For example, some are developed to overcome drug resistance while some are to prevent metastatic brain tumor. They are more and more adaptable to clinical needs and develop rapidly. In the past decade, not only have targeted drugs changed lung cancer but also made a great leap in therapeutic concept, action and outcome of cancer treatment. In spite of its controversy in the issues of price and drug resistance, there is no denying that targeted drugs did make a great contribution to cancer treatment. "All targeted drugs will eventually develop resistance. It's not the disadvantage of targeted drugs; instead, it's the feature of tumors. Tumors are formidable enemies. They keep growing as we go forward, so they develop drug resistance. As Virtue rises One Foot, Vice rises Ten, and so we need to study their resistance mechanisms and develop new medicines continually. That's also the reason why oncology is so challenging. There is no difference among other diseases. We can't expect patients to recover by simply taking the same drug. The battle against cancer is tough, therefore drug resistance in this field is more notable." Qing Zhou explained.

As to the high expense of targeted drugs, Qing Zhou thinks this is understandable because every new targeted drug has taken a long process of research and trials and huge cost before its launch to the market. How to adjust its price to the affordable range of ordinary people? This is the puzzle that requires government, corporations, and other parties in society to coordinate and resolve. "It comes back to the same dilemma again, that is, the gap between the overlarge demands from patients and limited medical resources in China. Some rich small countries with few patients and abundant



Figure 7 The lung cancer research team in Guangdong Lung Cancer Institute.



Figure 8 Prof. Qing Zhou was introducing Chinese drug researches on the WCLC 2015.

resources can cover the cost of new drugs with Medicare. However, we are on the opposite." Qing said with frustration.

With the development of Next Generation Sequencing (NGS) and newfound driver gene, is there any possibility that the targeted drugs cover all lung cancer patients?

"I would say it is our ideal vision. It's hard to achieve in the near future. The fact is that the proportion of lung cancer patients covered by targeted drugs is increasing." She explained, "The most important (or the most common) driver gene have been discovered, and it's unlikely to discover another chief driver gene section in the future. NGS allows us to find more driver gene and increases the targeted drug coverage for lung cancer patients from 30–40% to 50–60%, or even to 70%. In particular, I think there is no problem to reach more than 80% in lung adenocarcinoma. But to some tumor types, the key is not to discover its driver gene, but to change our angles of thinking. Take squamous-cell carcinoma (SCC) as an example, the causes for its growth is multifactorial and scrambled, without a trunk oncogene. Regarding this fact, how can it be possible to find the so-called 'driver gene?" For us to better understand, Qing Zhou made a metaphor, "For a palm, we can easily tell where its trunk is. But for a bush, you'll never find one no matter how hard you try since it is born with no trunk. Therefore, the ways of diagnosis and treatment should be different between the palm-characterized tumor and the bush-characterized tumor. We should develop different treatments for different tumor types as we acquire more and more knowledge of tumor itself and tumor microenvironment, rather than dream that a bush will turn into a

palm one day."

As the Secretary-General of Chinese Thoracic Oncology Group (CTONG), Qing Zhou keeps up with the latest developments of thoracic oncology in China, especially the advances of clinical trials in lung cancer. When talking about the international status of China's lung cancer clinical trials, Qing said with confidence, "Compared with other countries, China ran neck and neck with United States and the European Countries in the research of targeted drugs in the past decade, and sometimes we even took a lead. Basically, every significant clinical trial on the existing three generations of targeted drugs was accomplished under the 'participation or even leading' of Chinese experts. Therefore, it is no doubt that we have occupied a leading position in the research of targeted drug. But in the research of immunotherapy, China started a bit late. Immunotherapy has been approved in other countries and has developed rapidly. Though we are running a little behind, we are taking fast steps to catch up by participating in international clinical trials and developing new immunotherapy drug, striving to 'overtake in the corner'" (Figure 8).

Scientific research (II): CTONG, the glory and arduousness

"Chinese Thoracic Oncology Group (CTONG)", is a word that could not be neglected in Qing Zhou's career. In July 2006, Qing Zhou just graduated with doctorate degree. While in 2007, the "Chinese Thoracic Oncology Group (CTONG)" was established by Yilong Wu, Caicun Zhou, Shun Lu, and Li Zhang, the four leading thoracic oncologists of China. As the favorite student of Professor Wu, Qing was assigned to carry out the specific work of CTONG. Naturally, she became the first Secretary-General of CTONG. Up to now, she is the only Secretary-General of CTONG in the past ten years during which CTONG has grown to be a noted research group worldwide.

What is CTONG? Briefly speaking, it's a free platform which gathers all Chinese aspiring researchers to explore the clinical issues that they are interested in. However, it's S1254

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Figure 9 Prof. Qing Zhou and her work partner and good friend Bin Gan (director, research nurses group in Guangdong General Hospital cancer center and deputy director of research nurses group of Professional Drug Clinical Trial Committee in Guangdong Pharmaceutical Association).

not easy to be a competent Secretary-General of CTONG. Every clinical trial of CTONG is initiated by investigators in order to answer a clinical or academic question. Without funding or support from corporation, they had to look for sponsors at the very beginning. Fortunately, CTONG with 10 years' development now grows with 33 group members and 54 research projects undergoing, although only three full-time staffs. Being the Secretary-General of the big family of CTONG, Qing Zhou needs to coordinate not only with all the 33 member hospitals but also with sponsors and other related institutions. "I am the knot connecting the network. I have to coordinate with all parties and pool the resources together, and then coordinate with each CTONG member and make sure all the research projects are implemented. Clinic trails spend us tremendous time and efforts, but coordination is important too." she said (Figure 9).

Every first Friday of August is the annual meeting date for CTONG. The up-to-date progress of all significant CTONG research projects and the hot spots of lung cancer are to be shown on the day. Certainly, Qing Zhou as the Secretary-General needs to fully prepare for the day. "What you can see is the academic content for just one day, but we have to prepare for months." Qing said, "Especially the CTONG annual meeting was reformed this year. There were dozens of pharmaceutical companies to exhibit their new findings in clinical trials and features of their new products. Actually it took us several months on coordination in order to perfectly present the meeting content, to make the speeches fit in the meeting theme, and to promote the meeting for academic forefront instead of commercial purpose. We were strict with slide content and time control. We even had unified the slide's template. There were 33 presentations and 6 discussion sections. To our surprise, it was only 10 minutes later than scheduled when the whole meeting came to an end! The feedback of the meeting was strong as many attendees said they had a fruitful harvest and were impressed by many detailed arrangements during the meeting. Once again, my rule works, 'success is in the details'!"

With the leadership of principal investigators like Professor Yilong Wu, and the lasting efforts of every group member and those who work behind like Qing Zhou, CTONG has constantly refreshed the research outcomes of thoracic oncology on the international arena, and its highlevel evidence is changing the clinical practice in China or even the world. It has brought the voices from Chinese researchers to be heard by the world.

"CTONG 0802: OPTIMAL, reported by Oral Presentation on ESMO 2010 and WCLC 2011; published in *Lancet Oncology*.

CTONG 0803: reported by Mini-Oral Presentation on WCLC 2011 and Oral Presentation on ESMO 2012, presented in Poster Session on ASCO 2011; published in *Annals of Oncology*.

CTONG 0804: INFORM, reported by Oral Presentation on ASCO 2011; published in *Lancet Oncology*.

CTONG0901: presented in Poster Session on WCLC 2013; published in *British Journal of Cancer*.

CTONG0902: FAST ACT-II, reported by Oral Presentation on ASCO 2012, published in *Lancet Oncology*.

CTONG 0904: TFINE, presented in Poster Session on ASCO 2013 and WCLC 2013.

CTONG 1002: presented in Poster Session on ASCO 2014. CTONG 1101: presented in Poster Session on WCLC 2013. CTONG 1102: ISCAN, presented in Poster Session on

ASCO 2015, reported by Oral Presentation on WCLC 2015. CTONG 1201: BRAIN, reported by Oral Presentation

in the Plenary Session on WCLC 2016; published in *Lancet Respiratory Medicine*...... "

Extracted from the book: *The Past Decade of CTONG* (1).

Above are the great achievements that CTONG has made over the past ten years. Each time when the research results are presented on international conferences and successfully published in the influential international



Figure 10 Prof. Zhou Chaired a session during the international meeting ESMO ASIA.

journals, is the glorious moment for the CTONG researchers, because it is filled with their hard work and dedication of innumerable days and nights. "The most lustrous moment is when you present your reports on the stage, audience would admire your accomplishment and appreciate your contribution. However, they do not know how much effort you have put in behind, from the research's designing, conducting, evaluating to the final step, publishing." In Qing's words, "Discussing problems after you close the door while demonstrating your glories when you open the door." (Figure 10). As Secretary-General, Qing Zhou goes through both sides of the "door". She has been flattered because of her achievements in research, but also suffered by various difficulties. Every year, CTONG holds a closed-door meeting for half day, during which CTONG researchers will get together to discuss the problems they encountered. Qing Zhou said she always had many problems to share on that half of the day.

Under the identity of Secretary-General, Qing is also a scientific researcher. Clinical trial is an important part of her job. The clinical trials she works on including those in CTONG, Guangdong General Hospital, and Guangdong Lung Cancer Institute. "It requires one to withstand the loneliness and hardships for conducting clinical trials. Only by continuous accumulation, can one finally have a good outcome. Sometimes, the outcome may even fail to meet your expectation. The process of doing clinical trials is never easy."

Owing to the dual identities, Qing Zhou has witnessed the hard time that CTONG had been through, and also experienced the difficulties as a scientific researcher. Nevertheless, she is still proud of what she is doing and the team that she works in. "Under the leadership of Professor Yilong Wu such an appealing core leader of the team, many lung cancer experts and research teams in China are united and work together on the same boat. It's a big deal! As Secretary-General of CTONG, I am proud of it. Internationally speaking, it's very rare for a team to unite that tremendous power and resources in such a short time, and has created that great value within ten years.

As a doctor: communication ability is as important as medical skills and academic proficiency

If 10 is the full score to rank the highest communication skill, then 10 must be given to Qing Zhou without doubt. Her outstanding communication ability has been strongly proved by her successful coordination when she works for CTONG. As a medical oncologist, Qing also puts great emphasis on the communication with patients and relatives, which is her way of getting along with them. "From the perspectives of patients and their families, medicine is strange to them. They truly need doctors' help when getting a serious disease without related medical knowledge. In my opinion, doctor is basically all about helping others. The question is how to offer your help and how to make patients and relatives aware of your help. At this point, communication plays a key role." Qing Zhou said, "You need to talk with the patients and their families, letting them understand that you really care them and have designed the treatment based on their disease, financial situation, mental status, and the families' needs." In her point of view, effective communication and poor communication will bring different feelings and therapeutic effects to patients even with the same therapy. Without good communication with patients, it is impossible to be a good doctor no matter how proficient a doctor is. Therefore, she instructed her students by words and deeds, "To some extent, communication ability is as important as medical skills and academic proficiency." It is the good communication that wins her the trust of patients and relatives. She has a very high reputation among patients. Some patients said, "She is one of few responsible doctors who treat patients with parental heart, always considering for patients, tolerant and attentive. She is knowledgeable, courteous, cultivated with scholarliness." "Dr. Zhou had treated my lung cancer with passionate attention in the past two years. Her diagnosis and analysis on the disease is so accurate, scientific and reasonable. Besides, she treats patients heartily, making me feel warm and encouraged. As the words on a silk banner hanging in her office, she is indeed a 'good person'. My gratitude to her is beyond words," another patient said. And other said, "I appreciate Dr. Zhou's careful treatment. She is an exceptionally good doctor who has professional medical skills,

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Figure 11 Prof. Qing Zhou was teaching on a clinical trial training course.



Figure 12 Prof. Qing Zhou and her son Dandan.

patience, and sound medical ethics. Even though I am just an ordinary man, she still handled my case with great care. I can't be more thankful to Dr. Zhou. You saved me and also my family." On the Haodf website (http://www.haodf.com/, a website for Chinese patients to evaluate doctors), Dr. Zhou's personal page is full of praises as "very satisfied." Her good reputation is spread far, and many patients come specially for her.

The interest in communication with patients, students and colleagues is another advantage of Qing Zhou. "Sounds like my such character suitable for a teacher, so I would be a qualified teacher if I weren't a doctor" she joked (Figure 11).

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At the end of the interview, we had a small talk about the future. I am curious whether she has set a higher goal for the future. Again, to my surprise, she answered, "I have no higher goal to pursue, just want to do everything best at present. I have lots of roles. As a doctor, I shall be a good doctor; as a scientific researcher, I shall do my research intently and hope to have some valuable findings; as a mentor, I shall take care of my students; as a mother, I want to be a good mother... (Figure 12). It's already not easy for me to achieve all those expectations. I don't want to put myself in a more difficult position by setting a higher goal." Indeed, it's only 24 hours a day. Without superpower, it has been uneasy for one to be competent for all these roles. She kept saying, "I am the kind of person who focuses on a short-term goal. Accomplish it step by step first, and then plan the next." She has no lofty goal but progresses steadily and firmly. Doesn't think too much, but just do it. That's Qing Zhou, a simply doer.

Perhaps by the next time to meet her, CTONG will have released another new finding, and Qing will have started a new chapter in life. Sincerely wish all the best to this meticulous, practical, competent, surefooted, kind-hearted and beautiful woman!

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Footnote

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References

 Song Z, Zhou Q. The Past Decade of CTONG. Nanchang City: Jiangxi Science and Technology Press, 2017.

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