

Introducing the AASLD President: Anna S.F. Lok

Grace L. Su and Robert J. Fontana

It is a great honor and privilege for us to introduce Anna S.F. Lok, M.D., as the 68th President of the American Association for the Study of Liver Diseases (AASLD). As two hepatologists who have worked closely with her for the past 20 years, we cannot imagine anyone who is more capable or deserving to lead our great organization. Anna has all the “right stuff” to make her a successful president of the AASLD, including fantastic organization and administrative skills, unparalleled work ethic, and extensive research, teaching, and mentoring experience that she unselfishly and skillfully shares with others.

Born in Hong Kong, Anna was the second of 4 siblings with 2 brothers and 1 sister. Her father worked in a bank and her mother was a homemaker. Not surprisingly, Anna excelled academically at a young age and had a particular passion and interest for science, which was not “recommended” for girls of her time. After completing eleventh grade, she made the bold move to apply to a boy’s school with a strong reputation for science education. Despite being the only girl in a class of 31 boys, she graduated with top honors and was

quickly accepted to the University of Hong Kong School of Medicine. Following 5 years of intense training, she graduated as the most outstanding medical student of the year. She made all of her friends and family very proud as the first and only physician in her family.

Anna continued on with her internship and residency training in Internal Medicine at the Queen Mary Hospital in Hong Kong. It was during her first rotation as a resident that she fell in love with hepatology. Influenced by Drs. K.C. Lam and Rudi Schmid (who was a visiting professor at the time), Anna made the decision to travel abroad to London to gain further expertise and knowledge. She was very fortunate to train under the premier hepatologist of the time, Prof. Dame Sheila Sherlock, at the Royal Free Hospital in London from 1982 to 1983. It was at the Royal Free that Anna began her lifelong quest to become a leader in hepatology research. Seminal work there included the first study of thrice-weekly interferon (IFN) for chronic hepatitis B as well as a randomized trial of adenine arabinoside, an oral antiviral agent, which proved

Abbreviations: AASLD, American Association for the Study of Liver Diseases; CDC, Centers for Disease Control and Prevention; GI, gastrointestinal; HBV, hepatitis B virus; IFN, interferon; NIDDK, National Institute of Diabetes and Digestive and Kidney Diseases; VA, Veterans Affairs.

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From the Division of Gastroenterology, Michigan Medicine, University of Michigan, Ann Arbor, MI.

ADDRESS CORRESPONDENCE AND REPRINT REQUESTS TO:

Grace L. Su, M.D.
Gastroenterology Section, VA Ann Arbor Healthcare System
2215 Fuller Road
Ann Arbor MI, 48105
E-mail: gsu@med.umich.edu
Tel: +1-734-845-5865



FIG. 1. Dr. Lok shown in the middle with her siblings and sister-in-law on a family reunion tour.

to be associated with peripheral neuropathy. From this experience, Anna developed a keen eye for medication-induced side effects and the importance of detailed observation of patients. The years spent at the Royal Free were highly productive for Anna on the academic front, with a total of 23 papers and book chapters. But more important was the invaluable mentorship she received from Howard Thomas and Dame Sheila, enrollment into the “Sherlock Liver Family”, and the lifelong friendships she established with other fellow trainees, including Patrizia Farci, David Novick, Dirk van Leeuwen, Deirdre Kelly, James Dooley, and the late Andy Burroughs.

After returning to Hong Kong in 1983, she rose through the ranks at the University of Hong Kong until 1992 when she was promoted to Reader in Medicine (Equivalent to Professor of Medicine in the United States). It was during that time that her passion and devotion to improve the care of patients with hepatitis B virus (HBV) blossomed. She established a large biorepository and clinical database of HBV patients, which would later prove to be an invaluable resource for molecular studies that helped determine the basis for precore stop codon mutations, HBV genotypes, and predictors of response to IFN-based therapies. Following this string of successes at a young age, Anna turned west to look for new challenges and adventures.

Anna successfully crossed the Pacific to take a post as an Associate Professor at Tulane University, where she worked closely with the late Michael Gerber. In the United States, she also began to train a litany of fellows, including Marc Ghany who went on to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) as an intramural investigator. In 1995, she was recruited by the late Keith Henley to the University of Michigan as one of the few female Professors of Medicine at that time. As the Chief of Hepatology, Anna has built a tremendous liver program at Michigan starting with a small group of five hepatologists to now 15. As Chung Owyang, our gastrointestinal (GI) division chief, recently said, “Anna single handedly built the Michigan Hepatology Program.” In addition to the current team, she also served as mentor of Jorge Marrero, now at University of Texas Southwestern, and Michael Volk at Loma Linda. Furthermore, she has trained countless medical students, medical residents, and GI fellows. Many international fellows, including Henry Chan from Hong Kong, have chosen to come to Ann Arbor to work with Anna either in the lab, the clinic, or on public health initiatives.

Anna is world renowned for the volume and quality of her research work. Over the past 30 years, significant contributions to the field have included helping to

define the clinical stages of HBV infections and deciphering the role of viral genotypes/variants on disease progression. Since 2008, she has been the Chair of the NIDDK-funded Hepatitis B Research Network. Although Anna's first love was HBV, she has also contributed to the field of hepatology in many other areas. She published the first paper on the successful use of an all-oral direct-acting antiviral regimen in a different virus entirely—hepatitis C. She was also the inventor of the aspartate aminotransferase to platelet ratio index and Lok Index, some of the first noninvasive methods to determine the presence of advanced fibrosis and cirrhosis. This has benefited innumerable patients, and its utility can be demonstrated by the fact that the World Health Organization, the Centers for Disease Control and Prevention (CDC), and numerous research groups around the world have adopted them into their staging algorithms.

As a foreign medical graduate, Anna successfully secured a Veterans Affairs (VA) Merit Award 1 year after arriving in the United States and has been continuously funded by the VA/National Institutes of Health since. Her accomplishments and awards are too innumerable to list; more recent ones include: AASLD Distinguished Service Award (2011), American Liver Foundation Distinguished Scientific Achievement award (2015), and AGA William Beaumont Prize in Gastroenterology (2016). She will be the recipient of the Canadian Association for the Study of Liver Gold Medal Award and an Hon. D.Sc. degree from her alma mater later this year. Her stature in the world of hepatology is unparalleled. She has published more than 400 peer-reviewed papers and 15 chapters in the widely used UpToDate series. She is co-editor of the *Sherlock Hepatology* text book and has an H Index of 96 (Scopus). During the period of 2002-2012, she was in the top 1% of researchers cited worldwide. In recognition of her outstanding research and administrative skills, she has also served as the Associate Chair for Clinical Research in the Department of Internal Medicine and, more recently, was appointed as Assistant Dean for Clinical Research to oversee the Clinical Trials Transformation Initiative.

With all of her clinical and scientific contributions to academic hepatology, what is really remarkable is Anna's devotion to the AASLD, which she considers the premier society in the field of hepatology. Anna's service to the AASLD has been immense. She has been a member of the society since 1988, and in that time, she has served on innumerable committees,

chaired and moderated countless numbers of sessions at the Annual Meeting, as well as single-topic conferences. In addition, she co-authored the AASLD Practice Guidelines for Hepatitis B from 2001 to 2009. One of the highlights of Anna's career has been her 5-year tenure as an associate editor for *HEPATOLOGY* during the tenure of the late Andy Blei.

Anna's service to hepatology goes well beyond her investigative work. As a busy clinical hepatologist, Anna has provided invaluable service to her patients, many of whom are very grateful for her services. As a testament of how much her patients and their families appreciate her care, the Andrews family endowed a chair and several other patients have established named research funds in honor of Anna. Anna was among the first group of faculty inducted into the Department of Internal Medicine's Clinical Excellence Society. Beyond her clinical service, Anna has also been active in community service through her work in the Asian Health Foundation and the Asian Pacific American Medical Student Association, bringing advocacy and education regarding liver disease to the community at large. Anna also worked tirelessly with the CDC and the Hepatitis B Foundation to change the recommendations regarding scope of practice and to eliminate discrimination against medical/dental students and health care workers with HBV.

What is less well known is Anna's unswerving willingness to help colleagues in need of hepatology clinical care advice. Anna gets several e-mails per week from physicians all over the world asking her questions regarding diagnostic or therapeutic dilemmas. What is extraordinary is that whether it is in Australia or Africa, Anna finds time in her incredibly busy schedule to answer these e-mails so as to help these physicians take better care of their patients with liver disease.

Those of us who are fortunate enough to spend time with Anna know her incredibly generous nature and her selfless devotion to her colleagues and mentees. She is the type of mentor and colleague where you may send her a manuscript or request thinking that if you got a response within a few days that would be excellent, even though the norm is 2-3 weeks for someone with her responsibilities. What you find is that within hours, the manuscript is back and edited with her meticulous eye. As mentors ourselves now, we can tell you that this level of involvement and caring is incredibly inspiring. One mentee remembers "the shock of getting his first paper back from her, and seeing the sea of red with very few of his original words or phrases

remaining.” He now recognizes how valuable it is to have a detail-oriented and constructively critical mentor who notices all mistakes before the paper or grant is submitted.

This level of dedication is what has made Anna an exceptional mentor for so many at the University of Michigan, Tulane, Hong Kong, and beyond. Anna’s mentoring extends to many who have not directly worked with her, her adopted children who span the globe. Kyong-Mi Chang at the University of Pennsylvania has considered Anna an important mentor since the 1990s. She describes how truly selfless Anna is in encouraging and guiding so many young people (her “children” as she calls them who, over the years, graduate to being her “siblings”). She still remembers when Anna agreed by email (sight unseen) to meet her, a “mere GI fellow” at the time, to talk about career development. As Kyong-Mi says: “She’s like a Mom who won’t suffer nonsense, but would be there for you and push you to do your best.” Anna’s mentees also include nonhepatologists such as Jessica Hwang, an internist at MD Anderson, who has dedicated her career to preventing HBV reactivation.

To many of us, Anna is a serious person who is all about work. For those of us who know her well, Anna is our own “Tiger Mom.” Anna is single, but she has many “children” all over the world whom she fosters and nurtures. She pushes us academically, but is also there for us at all our games, even if it is something out of her nature, such as roller derby matches. Anna’s biological family is dispersed in Canada, Australia, and Hong Kong, but they are tightly knit. After their mother passed away 2 years ago, Anna set aside a fund for annual family reunions to bond and to just have fun together (Fig. 1).

In conclusion, it is apparent that Anna Lok has the credentials, energy, and skills to lead the AASLD going forward. Her unwavering passion to improve the care of patients with liver disease worldwide, coupled with her administrative, organizational, and academic skills, will benefit all members of the society. Although she is a person of high standards, she helps pull others around her up in an effort to improve things for the greater good. Congratulations Anna. We are so excited about your tenure as the new AASLD president and look forward to making great strides under your leadership.