

# *Message from Osamu Hataji*

*At the Matsusaka City Hospital Respiratory Center, we diagnose and treat various respiratory and lung diseases, including lung cancer, pneumonia, respiratory failure, asthma, chronic obstructive pulmonary disease, interstitial lung diseases, collagen diseases, and sleep apnea. In the Respiratory Center, we carry out multidisciplinary treatment in all areas including respiratory medicine, respiratory surgery, radiology and rehabilitation.*

*Also, with the consent of patients and approval of the Institution's Ethic Committee, we perform a variety of clinical trials for respiratory diseases for promoting the development of new drugs, including clinical phase II and III trials. We not only support treatment of disease, we also actively promote policies to support social activities together with patients.*

*Our prefecture, Mie, may not be well known outside of Japan. And we may not even be that well-known within Japan. However, our goal is to make our Respiratory Center the best in Japan. This is not something that can be achieved easily. However, we believe that making such a lesser-known, remotely-located hospital the greatest is a much more meaningful and far bigger challenge than doing the same at a major state-run hospital or university hospital located in large cities.*

*Though I might sound a little flip, as an individual, I have become No.1 in a certain domain. Through my work, our institution is gaining annually about twelve million dollars from billable procedures performed by myself, which I am pretty sure is the highest among doctors serving in Japanese public hospitals. It is important to remind that one million dollar, per doctor per year, is the figure that it said to be sufficient for keeping a hospital in black figures.*

*However, this is not my primary goal. What I truly call "the best" is being able to do a job that I can feel proud of from the bottom of my heart. In order to make this happen, clinical research is indispensable. We cannot claim to be doing our best to support our patients if we are*

***not involved in the process of finding cures. In other words, providing quality medical care is not enough. Respiratory patients face severe quality of life issues and so our challenge isn't only about fixing their immediate problems, but also about finding long-term solutions. And this is where research plays a vital role.***

***Matsusaka Municipal Hospital Respiratory Center was established about 3 years ago. Before then, I was the only doctor overseeing respiratory medicine and must have had a workload equal to that of several doctors. Fortunately, the hospital recognized the situation and decided to establish the center. We now have on staff 5 pulmonologists and 2 respiratory surgeons, and each one of them is extremely motivated. We are truly fortunate to have such a dedicated team. Having such a motivated and dedicated team ensures we will always be able to conduct and share high-quality clinical studies. One of the indispensable factors in conducting clinical research is to secure a sufficient number of cases, and among our outpatients currently receiving treatment, we have about 700 lung cancer patients, 500 COPD patients, 500 asthma patients, 150 interstitial pulmonary disease patients, and about 200 non-tuberculosis mycobacterium (NTM) patients. One would think that obtaining enough subjects for our research would be simple given such numbers, but it isn't always easy. However, our team has developed an excellent reputation which allows close and smooth communication with our patients. We have thus been able to receive patients' cooperation relatively easily.***

***Now, please allow me to introduce our COPD clinical trials. For COPD patients, it is commonly understood that physical activity is the factor most closely associated with improved life expectancy. Thankfully modern technology allows us to devise better ways to study and improve our understanding of our patients' needs. For example, as part of our trials, patients' physical activity is continuously measured using an accelerometer. As a result, we could find that the physical activity of COPD patients (especially those 3.5 MET and up) improves significantly with inhaled indacaterol. This is a finding that had never before been validated, and we were able to do so by exploiting***

***modern technology. Currently the mainstream COPD treatments are beta stimulators and anticholinergic drugs. We are trying to see if physical activity improves by administering anticholinergic drugs without or in combination with a beta stimulator. As we conduct such research, we're especially concerned about the efficacy of the combination of anticholinergic drugs and beta stimulator. These medications may sometimes have adverse effects, especially when used in combination. And so this is something we have to be sure to keep an eye on.***

***On the other hand, as it is well known, the advancement of wearable technology has come a long way. I believe this technology will provide improvements in the future of cardiovascular and respiratory medicine where physiological function matters much. For example, personal EKG and PSG will probably be made possible via applications on smartphones or Apple Watch. However, the literature is currently scarce on such matters. To address this, we have published research in which we verify the performance of Apple Watch in measuring the physical activity of our COPD patients and also in motivating the patients to increase their physical activity. This is very exciting research for us, especially given the current trend in the popularity of such devices. We are also planning to assess what other kinds of clinical applications might be possible in this field.***

***Though Matsusaka Municipal Hospital Respiratory Center is only 3 years old, we are comparable to any other major medical facility regarding the provision of medical services. In addition, we publish and share interesting and attractive medical articles and reports. Our work has been quite well received and we are very positive about the future. And while we are still much to do in order to get close to our goal of becoming the best in Japan, we feel we are well on our way.***

***To get there, however, we will need more support. We sincerely hope more and more ambitious young doctors will come and join us.***