March 6, 2020

Thomas Lengauer, Ph.D.
President, International Society for Computational Biology

Dear Dr. Thomas Lengauer,

The COVID-19 epidemics started in Wuhan, China around the turn of the new year has become a major public health concern in the whole world. Latest data have shown that the situation in China is becoming better with the number of new cases declining quickly, but the rest of the world is observing a rapid increase in both the number of new cases and the number of countries with identified cases. Since the beginning of the epidemic, the community of computational biologists in China and myself has received warm solicitudes and good wishes from colleagues and friends throughout the world. I’m writing to you and to the global ISCB community through you to express our appreciation, and to brief the community on our situation in this battle against the virus.

Since the earliest report of the new pneumonia of unknown sources, scientists in China especially those in epidemiology, genomics and computational biology have been very active in studying the disease from multiple aspects. They quickly identified the pathogen as a new type of coronavirus and published its genome sequence in early January, when the threat of the disease to public health was not yet obvious. Their research and quick release of the viral genomic data have played a crucial role in helping to identify the disease as a major public health threat, and provided scientists in the world with the timeliest materials for investigating the virus and possible prevention and treatment measures. Now more than 200 genomes of the virus have been released by scientists in China and other countries. Computational biologists in China’s universities and industries, many of whom are members of ISCB, have been working closely with molecular biologists and medical scientists in developing and deploying technologies to verify the virus infection, analyzing sources and evolutionary traces of the virus, studying target proteins and cells of the virus in the human body, building mathematical models of the epidemics to assist decision-making, as well as developing vaccines and screening possible drug candidates for the infection, etc. They are also collaborating closely with scientists in other countries and are sharing their research results in the earliest possible time with the world through academic publications and preprints.

The Chinese government has taken comprehensive and stringent measures to prevent virus spreading at the levels of central, provincial, municipal governments as well as local neighborhoods and villages. The outbreak coincided with the traditional Chinese New Year (Spring Festival) when virtually the whole nation was expected to travel around the country for family reunions. The government has taken strong measures to stop the moving, which has now proven to be very effective in preventing the disease from spreading more quickly and widely. Such measures have huge costs for all families and for the nation’s economy, but have gained understanding and collaboration from the people. On the other hand, the central government have mobilized tens of thousands of medical workers, construction workers, the military and scientists from all over the nation to Wuhan and its neighboring cities to build makeshift hospitals and to help enhance the local medical service. Among them included
several of my personal collaborators and friends in Beijing’s top hospitals. Their sacrificing hard work is the engine that drove the epidemics under control.

The nation-wide measures have had big impact on everyone’s life and on everyone’s work. The new semester of universities and schools was assumed to open in mid-February after the Spring Festival Vacation, but now students cannot return to campus yet. However, all major universities in China including those in the heart of the epidemic have managed to resume our teaching activities through online teaching. Our university even opened several new courses on epidemiology and emergency psychology in response to the situation. One of my friends who is a professor of public health policy has been trapped in his hometown near Wuhan and hasn’t walked out of his home for >6 weeks. But he has managed to do research at home and teach lectures online to his students including international students in the Europe and the Middle East. Almost all labs in our university have resumed regular group meetings, journal clubs and research discussions online. But we regret to see many biological experiments have to be paused or even stopped. It is a great loss to many labs though we are working hard to minimize it. There are also many academic activities and travels having to be cancelled or postponed, including some planned national events on computational biology.

It is still too early to say when the epidemic can stop although the number of new cases in China has been shrunk dramatically in recent weeks. Before we are ready to take a breath on the situation in China, it is shocking to watch that the daily number of confirmed new COVID-19 cases outside China has outnumbered that in China by a factor >10 now and there are already more than 14,768 cases outside China in 85 countries, with 267 deaths. Although WHO has been cautious in using the term pandemic till now, many people feel the high risk. Viruses do not respect national boundaries and are the enemy of the whole humankind. Most of the important scientific questions with regard to COVID-19 are still unanswered. As scientists having lived with the epidemics for months, we are grateful for the support we received from the international scientific community especially from friends and colleagues in computational biology, and for the many efforts in studying the virus in labs around the world. We will keep close communications and collaborations with scientists in all countries in combating the possible pandemic.

With best regards

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