



C H I N A A E R O S P A C E S T U D I E S I N S T I T U T E

Thoughts from the Chairman The Next Battlefield is Within

For centuries, nations measured power through armies, fleets, and factories. Those things remain important, but the next great competition among nations will be fought at a different level. The nations that can understand life itself, improve it, manufacture it, and control it will possess advantages that previous generations could scarcely imagine.

China cannot allow itself to fall behind in this competition.

The West often speaks about biotechnology as a medical or commercial endeavor. They see new medicines, improved crops, and economic opportunities. We see those things as well, but we also recognize something more important. Biotechnology is becoming a strategic emerging technology, a foundational driver of new quality productive forces, much like electricity, aviation, computers, and artificial intelligence before it. Whoever seizes the commanding heights of biotechnology and strengthens national strategic scientific and technological capabilities will help shape the future.

This is why the Party has placed such emphasis on biotechnology, neuroscience, genomics, synthetic biology, biomanufacturing, and brain science. These are not isolated fields. They are part of a larger effort to ensure that China possesses the scientific and technological capabilities required to achieve the great rejuvenation of the Chinese nation, promote high-quality development, strengthen the new development pattern, and achieve scientific and technological self-reliance and self-strengthening.

The Party understands that scientific progress cannot be left to chance. Innovation requires direction. It requires resources. Most importantly, it requires unity of purpose under the centralized and unified leadership of the Party. This is why China has built a system that links the Party, government, universities, research institutes, industry, and the military. While other countries allow competition among institutions to slow progress, China aligns them toward a common objective through civil-military fusion and the development of integrated national strategic capabilities.

The result is clear. Chinese biotechnology companies are growing rapidly. Chinese scientists are making breakthroughs across multiple disciplines. Chinese laboratories are expanding their capabilities. Most importantly, China is reducing its dependence on foreign technologies and foreign supply chains while strengthening indigenous innovation and building secure and resilient industrial chains.

This is not simply an economic issue. It is a matter of national security.

History teaches us that dependence creates vulnerability. Nations that rely on others for critical technologies can be pressured, contained, or denied access when tensions arise. Guided by the Holistic Approach to National Security, the Party will never allow China's future to be determined by decisions made in foreign capitals. China must possess the ability to develop, manufacture, and deploy critical biological and medical technologies on its own while safeguarding national security, development interests, and strategic initiative.

As biotechnology advances, its military significance will also increase.

The People's Liberation Army must prepare for the character of future warfare, not the wars of the past. Previous generations mastered mechanization and informatization. Today's generation must master intelligentization and accelerate the development of emerging domains of strategic competition, including advances in the biological sciences. The future battlefield may not always be defined by bombs and bullets. It may be shaped by information, cognition, genetics, and biological effects that influence societies long before conventional forces are employed.

The nation that understands the human body, the human brain, and biological systems better than its competitors will possess powerful advantages. These advantages may improve resilience, enhance readiness, strengthen deterrence, and create new options for national defense. China cannot afford to be surprised by such developments. We must prevent strategic surprise, strengthen risk awareness, and seize the initiative in future competition.

This is why military and civilian innovation must advance together. The same scientific breakthroughs that improve human health can strengthen national defense. The same manufacturing capacity that produces medicines can provide strategic resilience in times of crisis. The same researchers who advance scientific understanding contribute to the security of the nation. Through deepening civil-military fusion, scientific and technological achievements can be transformed into comprehensive national strength and strategic capabilities.

Looking toward 2035, China must possess a world-class biotechnology ecosystem. We must lead in genomics, synthetic biology, neuroscience, pharmaceutical innovation, brain-computer interfaces, and advanced biomanufacturing. These technologies will influence economic growth, national security, military capability, and international competition for decades to come. They will also contribute to the goal of building a world-class military and strengthening China's position in global strategic competition.

Some nations will view this progress with concern. They will attempt to slow China's development just as they have attempted to slow our progress in other strategic technologies. But history moves in only one direction.

The Chinese nation has entered a period of changes unseen in a century. The Party must strengthen awareness of potential dangers, adhere to bottom-line thinking, and prepare for worst-case scenarios while maintaining confidence in China's path of development. We must ensure that China is prepared not only for the competitions of today, but for those of tomorrow. Biotechnology is one of the keys to that future.

The nation that masters the science of life will help shape the next era of human civilization. China must strive to become a leading scientific and technological power in this field, contributing both to national rejuvenation and to the progress of humanity.

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