Written Testimony Before the Select Committee on the Chinese Communist Party U.S. House of Representatives

Hearing on
Commanding Heights:
Ensuring U.S. Leadership in the
Critical and Emerging Technologies of the 21st Century

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Chairman Gallagher, Ranking Member Krishnamoorthi, and distinguished members of the Select Committee:

Thank you for inviting me to share my views about the importance of U.S. leadership in the development of critical and emerging technologies.

My name is Josh Wolfe, co-founder and managing partner of Lux Capital, a \$5 billion venture fund with offices in Silicon Valley and New York City. I was raised in Coney Island, Brooklyn, by a single, public school teacher mother, amidst towering public housing, with a dream to be one day amidst the towering intellects of scientists and investors who showed that American science and entrepreneurship can be a force for good in the world. Today, I have the tremendous privilege, alongside my Lux partners, to identify dreamers who are turning science fiction into science fact. Already, we have funded hundreds of America's finest scientific entrepreneurs.

Those entrepreneurs are inventing at the edge of America's technological frontier, turning the impossible into the inevitable by building in the literal and figurative stratosphere of air, land, sea, space, and cyberspace.

Lux invests in four core areas. We invest to secure our life and environment through companies like Anduril Industries, which is transforming and modernizing defense technology by <u>providing</u> state-of-the-art AI solutions to the U.S. national security community. And through Saildrone, which is <u>deploying</u> a fleet of unmanned and autonomous sailing drones to collect and analyze data from the far reaches of the

ocean and in hurricane conditions at a fraction of the cost and without risking human lives.

Lux invests to supercharge productivity through companies like Applied Intuition, which equips autonomous vehicle manufacturers and the Department of Defense with software for faster and better autonomous vehicle testing, as well as through Primer, which is building mission-ready AI to help analysts and operators make sense of vast amounts of data to improve the speed and success of decision-makers.

Lux invests to enable creativity and free expression through companies like Hugging Face, the world's <u>leading</u> community-oriented platform with the mission to democratize good machine learning through open science and open-source code.

And finally, Lux invests to reduce human suffering and advance human health, in companies like Kallyope, which <u>integrates</u> cutting-edge biotechnologies and Nobel Prize-winning research to understand gut-brain biology that will lead to transformational therapeutics to improve human health and nutrition.

America's open scientific culture and free speech are at the foundation of every one of our companies. That's why at Lux, we will not — and have never — funded startups in unaligned, antagonistic, and adversarial countries to America. We invest in matter that matters, not profit over principles.

"Matter that matters" is also the matter that I am here to discuss today. The scientific entrepreneurs whom we support are re-imagining the future, saving lives on the battlefield and at the patient's bedside, but to continue their work and effectively compete with our global competitors, Congress must support long-horizon science, help bridge the world to America and vice versa, and defend America's open values from foreign interference.

1. Support For Long-Horizon Science

None of Lux's companies would exist without decades of foundational work by scientists exploring the vast unknowns of human knowledge. Many of our startups have been built on career-spanning, Nobel Prize-winning research now being commercialized thanks to pioneering laws like the <u>Stevenson-Wydler Act</u> and <u>Bayh-Dole Act</u>. Laws like these provided U.S. innovators with new freedom and flexibility to commercialize and benefit from federally funded research and development.

Career biologists face debilitating competition for limited NIH basic science research grants, jeopardizing American science. Defense entrepreneurs similarly face the prospect of short-term funding programs, many of which have been musical chairs of leadership, reporting lines, and congressional authorities.

To compete with the CCP, we must remain united in our shared pursuit of scientific and technological development. Americans must put our partisan differences aside to lead the globe in discovery and in influence. Congress can do this by quieting the shifting winds of annual scientific research funding and by affording academic institutions, small businesses, entrepreneurs, and investors the stability of compromise in service of the greater good. We must be able to show the CCP — and the whole world — that, although pluralism can be messy, our diverse voices come together stronger than any authoritarian regime and our individual pioneers can propel us faster and further than any centralized plan.

America must commit to advancing scientific progress and its commercialization by upgrading current funding institutions and building new ones that cultivate long-term horizons of excellence. Constant funding deadlines, burdensome administrative overhead, and onerous publication requirements do not beget great science but rather extinguish American discoveries before they even start. America can and must do more to give our scientists the freedom they desperately need to consider the hardest questions — and answer them.

2. Americans in the Service of the Nation and in the Service of All Nations

I am fortunate to live my own version of the American Dream, a dream I work every day to share with hundreds of millions of my fellow citizens and billions of others across the globe. The American Dream is our greatest asset in the global competitive landscape, and we must continue our tradition of seeking and attracting ambitious individuals from everywhere.

Many of Lux's entrepreneurs and brightest contributors are immigrants, from Vietnam, Pakistan, India, Israel, and yes, even China. With intention, America should be attracting defectors and accelerating China's brain drain to our national benefit. Talent — human capital — like financial capital, goes where it is welcome and stays where it is well treated. We must continue to welcome the best talent on the planet to the U.S. by expanding exceptional talent and entrepreneur visas to qualified immigrants.

But even as we build up American prosperity and excellence at home, we must also look abroad to advance prosperity and opportunity for all people around the world.

America's technological advantage is strengthened through collaboration with our allies and should be vigilantly guarded from our adversaries.

The CCP, through its Belt and Road Initiative, has <u>offered</u> the world a model of development driven by centralized planning while spreading its surveillance and control with callous disregard for human and property rights. Even so, the CCP's sustained and often exploitative investments in the developing world have shifted the public and elite opinion of dozens of countries to its favor, particularly in Latin America and Africa.

While the CCP exports authoritarianism and disdain for human rights, the U.S. should export our technological ingenuity fostered right here at home with talent from anywhere. Through thoughtful engagement and sustained investments abroad, the U.S. can continue to help provide a clear choice for nations in search of a more prosperous future. We cannot afford to retreat from the world. Our country and our scientific prowess would suffer for it.

3. Defend Free Speech, Privacy, Open Science and American Values Against External Threats

America's greatest strength is the ability to speak freely, associate widely, and connect spiritually with others without legal restraint. These are Enlightenment values, and they are at the heart of what has made American science the most ambitious and successful in the world. It's why we call Lux, "Lux" – light in Latin. Radical proposals of new discoveries are quickly matched by extensive and informed scrutiny, ensuring that humanity progresses one argument at a time.

Americans vociferously disagree on the issues of the day, a normal and healthy function for any democracy that considers the voice of the people to be the power behind government. But what we can all agree on is that foreign interference in our universities, scientific institutions, companies, economy, and political systems has no place for a sovereign people who self-govern.

The CCP has leveraged an incredible array of tactics to sideline America's interests. It has attracted American scientists through the Thousand Talents program, offering its largess coupled with the *proviso* of political constraints. State-directed and state-financed cyberhackers have regularly infiltrated America's most innovative companies, exfiltrating our discoveries and know-how for its own benefit. And the CCP has regularly squelched overseas dissent by threatening human rights dissidents with extensive consequences if they don't toe the CCP line.

American science and American entrepreneurship rely on a system of open ideas, unfettered markets, and fair competition to ensure that the best inventions win over consumers and businesses. Meanwhile, the CCP has expanded its campaign against freedom beyond China's borders. Attempts by the CCP to silence its critics on our home soil and diminish the openness of American creativity threaten the very foundation of our model of governance and economics. We must respond to those threats head-on through coordinated efforts of law enforcement at all levels of government by sharing information, cultivating public-private partnerships, and educating the private sector on ways that anyone can find help when they need it.

Conclusion

Today, America's scientific entrepreneurs are inventing the future, a future that Lux finances every single day. There is not a moment when I question the strength of American ingenuity or the resolve of our best talent in building the American Dream I and all of our fellow citizens want to be a part of.

As a culture, we reap what we celebrate. If we fixate on celebrities, our kids want to grow up to be rich and famous. If we celebrate scientists and engineers, doers and creators, we inspire kids to pursue space exploration, seek cancer cures, solve for limited energy resources, sustain the habitability of our planet, and win Nobel Prizes.

What's needed right now is an enduring dedication to protecting what makes America different. Our openness to new ideas and new people allows us to discover the very fundamentals of the natural world. Our freedoms allow us to update old ways of thinking and build the foundational companies of the future. And our spirit of competition allows for the best ideas and products to win in a fair marketplace.

I believe that failure comes from a failure to imagine failure. To avoid failure, we need sustained commitment to long-term scientific funding, reflection on our bedrock principles of welcoming immigrants, and recommitment to fight for American values like freedom of speech and privacy worldwide. By doing those things, we will illustrate the clear contrast between a world led by the US and a world ruled by the CCP.