OKLAHOMA
Office of Science
and Innovation

Testimony by

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Testimony

Madam Chair Stevens and Ranking Member Waltz, House Science Committee Ranking Member Lucas, thank you for the opportunity to speak today. My name is Elizabeth Pollard, and I have the honor of serving as Secretary of Science and Innovation for the state of Oklahoma. In addition, I serve as a C-Suite executive with decades of experience working in venture tech in Silicon Valley and understand how to bring capital and investment together to meet market needs.

I am here today to discuss Oklahoma, and its expanding innovation ecosystem. There is a confluence of forces within state leadership, industry partners, higher education, and the philanthropic community to grow Oklahoma's innovation economy.

Our state is currently in the planning stages of establishing an Office for Science and Innovation to advance Oklahoma's health, welfare, and prosperity, through scientific discovery and the development of a strong innovation economy. Innovation is the key driver of economic growth and prosperity, and by prioritizing investment in an innovation economy, we will accelerate competitiveness, diversify, and grow our state's economy and create large scale, high paying jobs for Oklahomans.

To ensure this vision for our state becomes a reality, the state of Oklahoma released its new 2021-2026 Science and Innovation Strategic Plan. Under the Governor's leadership, this plan outlines the vision for establishing Oklahoma as a global leader in scientific research and innovation economy, through state-of-the-art research facilities, cutting edge technology and progressive partnerships.

The Oklahoma economy is at an inflection point. Disruptive technology is changing the face of every industry and forcing all states to reassess how best to compete and remain relevant in a knowledge-based innovation economy.

Our state ranks 1st among other states in terms of cost of living and 2nd best in terms of cost of doing business. Oklahoma also ranks 3rd in economic outlook for 2021, with low-income tax rates

ranking 6th in the nation for tax burden per capita. And the state has developed a strategic plan to leverage these assets.

The Oklahoma plan is focused on three key sectors:

- **Energy Diversification**
  - Oklahoma has a long and rich history as a leader in oil and gas research and exploration and the state continues to lead the way in these areas.
  - Oklahoma is also increasing its focus on efficient and environmentally friendly, alternative energy solutions to support the changing needs of the globe.
    - Ranked best state to own an electric vehicle for several years running.
    - Ranked 3rd in the nation in 2020 for electricity generated by wind.
  - Oklahoma's energy expertise extends well beyond traditional energy to geothermal, solar and wind and is leading the way with a diverse energy plan.
  - The OSU Discovery Center will allow researchers and students to collaborate with industry experts to innovate and advance key technologies in engineering for the field.
- **Aerospace and Autonomous Systems**
  - Research and development activity related to aerospace has been underway for decades in the state, and in the most recent decade for unmanned systems.
  - Today, Oklahoma is home to the FAA's Mike Monroney Aeronautical Center, one of the largest FAA organizations and sites outside of Washington D.C. The state is also home to Tinker Air Force Base and the Sustainment Headquarters of the United States Air Force and to many large and small aviation, aerospace, and cyber-related companies.
  - We have strong university programs around aerospace, including Oklahoma State University's rocket test site and international space station projects through NASA's EPSCoR program.
  - Aviation is now – and has always been – an important part of the Oklahoma economy. Oklahoma is well positioned to grow nationally in the aerospace industry.
- **Biotechnology and Life Sciences**
  - Oklahoma has had significant biotechnology research and development activity underway for decades.
  - Some examples include:
    - The University of Oklahoma's comprehensive health system and NCI Cancer Center.
    - Oklahoma State University's human and animal schools of medicine with a focus on a One Health approach (human, animal, agriculture).
    - Biotech and life science related companies and nonprofits (Oklahoma Medical Research Foundation, Oklahoma Blood Institute, Noble Research) that provide the state with a firm foundation for growth.
  - Oklahoma is poised to emerge as a leading state for the biotechnology industry.

The Science and Innovation Strategic Plan also lays out Oklahoma's innovation opportunities and recommends seven strategic goals to ensure a solid foundation and serve as a catalyst for growth.

- **Recommendation #1** – **Establish the Office of Science and Innovation** to facilitate meaningful collaborations across industry, academia, government, and nonprofits to create an integrated support system to stand up incubators and accelerators, as well as collection and analysis of data.
- **Recommendation #2** – **Identify strategic industries for large scale, focused investments, and partnerships** to ensure investment in the state's higher education, technology transfer of university R&D, public/private partnerships for workforce and technology development, venture capital ecosystem for emerging technologies, and infrastructure.
- **Recommendation #3** – **Establish centers of excellence in research** to ensure Oklahoma's economic competitiveness and leadership, developing diverse funding sources: federal, state, university, industry, and nonprofits.
- **Recommendation #4** – **Create superclusters of innovation and support systems** to ensure Oklahoma has a leading mindset which leverages our universities and the States growing incubators and accelerators ecosystem. As part of our plan to create more opportunities across the state, we have identified focus areas in both urban and rural communities to develop as superclusters for innovation. This includes locations from Tulsa and OKC to Stillwater and Fort Sill.
- **Recommendation #5** – **Establish a federally funded research lab** anchored in our state, leveraging the unique technology capabilities of Oklahoma.
- **Recommendation #6** – **Invest in education, workforce development, and internship programs** to ensure critical access to an educated and diverse workforce.
- **Recommendation #7** – **Secure public and private financing to fund recommendations** to modernize and transform the state economy to meet the challenges of a technologically driven global economy.
    - The State of Oklahoma funds entrepreneurs, researchers, and companies to help commercialize their technologies, launch, and grow new businesses, and access capital through entities like the Oklahoma Center for the Advancement of Science and Technology (OCAST), i2e — a nationally recognized private not-for-profit corporation, and the Oklahoma Manufacturing Alliance.
    - Oklahoma also has several emerging boutique venture capital firms. However, our state needs to develop more capital to launch and grow capital-intensive startups from idea to impact.

These bold, long-term strategies work together to build a dynamic research infrastructure and attract, retain, and empower a diverse and talented workforce in our state. We believe a key component to ensuring lasting, positive societal impact is providing all Oklahomans — rural, urban, and tribal — access to immersive STEM education and skills training. Through fueling the

state's innovation environment, and modernizing the way we teach and learn science, we are setting the stage for a decade of advancement with new discoveries, products, and services.

The Oklahoma City Innovation District, Tulsa Innovation Labs, the OSU Discovery Building, and the Oklahoma Pandemic Center for Innovation and Excellence also known as OPCIE are recent examples of Oklahoma's commitment to creating an environment that embraces and nurtures innovative thinking.

One specific case example is the recently established OPCIE which was created in response to the Covid-19 pandemic — a first of its kind collaborative and immersive campus located in the heart of the U.S., bringing cutting-edge science to the fields of human, animal, and environmental health. With innovation at its core, it leverages partnerships between public and private entities to bridge the gap between laboratory and clinical practices, to create improved public health response while incorporating the unique needs of rural, urban, and tribal communities. Through a One Health approach, recognizing the health of people is closely connected to the health of animals and the environment, the OPCIE will be a global leader in promoting and preserving public health.

The OPCIE will serve as an anchor in the nation's future pandemic response efforts and is an emerging leader in improving health outcomes, positioning Oklahoma as a Top 10 state in health science and innovation. Partnerships with global bioscience leaders will attract bright minds and top talent together in one place to live, study and solve the world's most pressing public health threats through experiential, hands-on research and development efforts. With in-house support from the state of Oklahoma, this organic lifestyle-campus will be able to improve our ability to measure health outcomes in the state, nation, and across the globe.

As a largely rural and agricultural state, Oklahoma is uniquely positioned to capture the benefits of animal science insights as a tool to improve human health and prevent the spread of animal disease to humans. Oklahoma's central location and position as a top livestock producing state means we play a key role in stopping the spread of disease in a potential outbreak scenario. Investing in protection of agriculture in our state results in better protection for Oklahomans and all Americans, our economy, and our natural resources — and this comprehensive approach to public health has garnered broad-based support.

Dynamic partnerships are vital to achieving our mission — such as the Department of Commerce, Congress, federal and state agencies, higher education collaborators, private-sector partners, industry stakeholders, nonprofits, and the public. To become a national and global leader in science, technology and innovation, we must engage new stakeholders and collaborations, as well as leverage existing capital and partnerships. Additional investments will ensure the successful development and expansion of our state's innovation ecosystem to achieve our goal of becoming a Top 10 State.

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Closing

Madam Chair Stevens and Ranking Member Waltz, House Science Committee Ranking Member Lucas, thank you again for the opportunity to speak today.

Thank you for your efforts to explore ways federal agencies can support the development of regional innovation economies in states like Oklahoma. We urge you to consider funding timelines to better align with smaller states' needs, their legislative cycles, and to invest in diverse states with rural, urban, and tribal representation — like Oklahoma. This is a new era in Oklahoma, one that embraces and leverages our state's unique assets to make Oklahoma a Top 10 state for innovation. I appreciate your consideration and welcome any questions you may have.