Statement of

Robert Eugene Anderson, MD, PhD
Professor of Ophthalmology and Cell Biology
University of Oklahoma Health Sciences Center

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Mr. Chairman and Members of the Subcommittee; thank you for the opportunity to submit this statement regarding FY 2016 funding for the National Institutes of Health's Institutional Development Award or "IDeA" Program. My name is Robert Eugene Anderson. I am Professor of Cell Biology, Ophthalmology, and Geriatric Medicine at the University of Oklahoma Health Sciences Center in Oklahoma City. The IDeA program is funded by NIH's National Institute of General Medical Sciences (NIGMS), and was authorized by the 1993 NIH Revitalization Act (P.L. 103-43). I submit this testimony on behalf of the University of Oklahoma Health Sciences Center (OUHSC) and the Coalition of EPSCoR/IDeA States[1]. The Coalition of EPSCoR/IDeA States respectfully requests that the Subcommittee provide $310 million for the IDeA program in FY 2016.

The IDeA program increases our nation's biomedical research capability by improving research in states that have historically been less successful in obtaining biomedical research funds. Twenty-three states and Puerto Rico are eligible. The program funds only merit-based, peer-reviewed research that meets NIH's biomedical research objectives. While IDeA was authorized by the 1993 NIH Revitalization Act (P.L. 103-43), sizable increases in funding only began in FY 2000. The IDeA program then grew rapidly, due in large part to the thoughtful actions of this Subcommittee. Funding increases permitted the launch of two key program

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[1] Alabama**, Alaska, Arkansas, Delaware,** Guam**, Hawaii, Idaho, Kansas, Kentucky, Louisiana, Maine, Mississippi,** Missouri**, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Puerto Rico, Rhode Island, South Carolina, South Dakota, Vermont,** Virgin Islands, **West Virginia, and Wyoming**

States in **bold** letters are eligible for the IDeA program. All of the states listed above are also eligible for the EPSCoR program.

elements: the COBRE and the BRIN/INBRE programs. The COBRE program or "Centers of Biomedical Research Excellence," are research clusters targeting specific biomedical research problems. The COBRE program is designed to increase the pool of well-trained investigators in the IDeA states by expanding research facilities, equipping laboratories with the latest research equipment, providing mentoring for promising candidates, and developing research faculty through support of a targeted multi-disciplinary center, led by an established, senior investigator with expertise in the research focus area of the center.

The BRIN or "Biomedical Research Infrastructure Networks," targeted key areas such as bioinformatics and genomics, and facilitated the development of cooperative networks between research-intensive universities and primarily undergraduate colleges. The BRIN grants underwent competitive renewals in 2004 and were funded under the new name of "IDeA Networks of Biomedical Research Excellence," or INBRE. The INBRE programs are designed to increase the pipeline of outstanding students, enhance the quality of science faculty in the IDeA states by research-intensive networking with undergraduate institutions, support research infrastructure and mentoring of young investigators, and finally, prepare students for graduate and professional schools as well as careers in the biomedical sciences.

Finally, the IDeA program has established a third mechanism named the IDeA-Clinical and Translational Research (IDeA-CTR) program. This program encourages and supports IDeA states to develop infrastructure for mentoring and training young clinician scientists to do clinical and translational research, which is a key step in moving basic science discoveries forward into clinical treatments.

Impact of the IDeA Program on Oklahoma. Since the year 2000, Oklahoma has received more than $278 million in awards from the IDeA program. Oklahoma has seven

COBRE awards currently and has received 11 awards since 2000 totaling $192 million. Oklahoma also has a current INBRE award totaling $66.2 million and a current IDeA-CTR award totaling $20.3 million. These IDeA investments have greatly enabled our researchers to secure National Institutes of Health grants and more than double the amount of NIH funding coming into Oklahoma. Even more impressive is the economic impact of the IDeA program in Oklahoma as it has had a staggering $1.11 billion economic impact in the State.[2]

The COBRE, INBRE and IDeA-CTR programs generate, complement, and enrich Oklahoma's research strengths by leveraging NIH investment in personnel, equipment, core facilities and student programs to solve health problems, build research capacity, and build a better student pipeline for the next generation of physicians, healthcare workers, and scientists. The IDeA program increases Science, Technology, Engineering and Mathematics (STEM) degrees in Oklahoma through literally thousands of teacher and student interactions every year through INBRE-funded activities and is essential to building the necessary infrastructure for junior clinical and research investigators to launch their careers. Clinical and translational research supported by the Oklahoma Shared Clinical and Translational Research (OSCTR) program seeks to reduce health disparities in underserved and understudied populations as well as enhance best practices in rural communities.

The IDeA program has contributed to building a skilled workforce in Oklahoma by producing scientists, educators, and healthcare workers for Oklahoma and the entire country by leading biotechnology program development in the State, and by working with tribal groups to train health care workers to improve healthcare for Oklahoma tribes. Furthermore, the contributions of the IDeA program to overall public health in Oklahoma have also been

[2] *Batelle Technology Partnership Practice study estimated $2.24 economic impact per $1 of NIH funding.

significant and include participation as a lead institution in the National Cancer Institute's (NCI) National Clinical Trials Network, a $6 million award that our Cancer Center was recently awarded. A COBRE award led by one of our Cancer Center investigators also is helping us to be more competitive as we aim to achieve NCI Cancer Center Designation. Improving health and healthcare for underserved and underrepresented populations and for all citizens through clinical and translational research; and leveraging a $14.9 M award from the Agency for Healthcare Research and Quality to disseminate best practices to reduce cardiovascular disease through a partnership with 300 physicians and clinics throughout Oklahoma.

I would like to describe for you my own personal involvement with the IDeA programs as the lead Principal Investigator for a COBRE grant at the University of Oklahoma Health Sciences Center, entitled "Mentoring Vision Research in Oklahoma". The Vision Research COBRE grant, which expired in 2013, significantly improved and enhanced both the quality and quantity of vision-related fundamental research in Oklahoma. The project more than exceeded the goal of developing a new generation of NIH-funded independent principal investigators. One of the goals of the IDeA program is for PIs supported by IDeA funding to compete successfully for mainstream NIH funding. Seven PIs supported under the Vision Research COBRE by $8,397,345 in COBRE funding have successfully competed for another $30,253,225 million in research funding, mostly from the NIH. All seven have received and maintained NIH R01 funding, the "gold standard" by which research funding is measured. Of the seven, only two were on a tenure track career path. Now all are tenure track, five are tenured, and four have endowed chairs/professorships. COBRE programs in all eligible states have similar stories of success in launching the research careers of outstanding young scientists. The NIH investment in the Vision Research COBRE has contributed to enhanced knowledge and the translation of that

knowledge to better treat and prevent debilitating and blinding eye diseases, which benefits all of the people in Oklahoma, the nation, and the world. Additionally, the nature of the problems investigated under the Vision Research COBRE and using the eye as a model of disease, made much of our research immediately applicable to more generalized areas such as neurodegeneration, cancer, gene therapy, and pathogenesis of bacterial infectious diseases, to name only a few. Thus, in addition to intrinsic benefits to vision science, the collateral impact of the Vision Research is substantial.

Conclusion

We request that this Subcommittee recommend the program be funded in FY 2016 at $310 million, which constitutes just 1% of the total FY 2016 Budget Request for NIH. This level of funding would continue funding for COBRE, INBRE, and IDeA-CTR programs. I want to express my gratitude to this Subcommittee for the efforts it has made over the years to provide increased funding for IDeA, in particular this committee's recommendations under former Chairman Dennis Rehberg to increase IDeA program funding by $100 million and for the successful inclusion of a $50 million increase for the program in FY 2012. I hope that you will continue to invest in this biomedical research program, which is so important to almost half of the states in the Union. Every region of the country has talent, expertise, and unique patient populations that can contribute to our nation’s biomedical research efforts – and every region of the country must participate if we are to increase our nation’s biomedical research capacity substantially. On behalf of the EPSCoR/IDeA Coalition, the University of Oklahoma Health Sciences Center and our partner institutions across Oklahoma, I thank the Subcommittee for the opportunity to submit this testimony.