

Testimony of Jonathan Cohen*
Committee on Small Business & Entrepreneurship
United States Senate

NIH Funding for Small Businesses

Field Hearing—Rockville, MD--June 22, 2009

Thank you Senator Cardin. I am Jonathan Cohen, president and CEO of 20/20 GeneSystems, a small biotechnology company based in Rockville, Maryland focused on developing and bringing to market innovative diagnostic tests for cancer and biodefense.

20/20 hopes to commence marketing of a first generation blood test for the early detection of lung cancer this Fall. Furthermore, our patented *BioCheck*® field test for screening suspicious powders is routinely used by nearly a dozen federal agencies and hundreds of fire departments and other first responder organizations nationwide. That product was developed by us after the 2001 anthrax incidents with the support of only about \$100,000 in government funding. Since then it has likely saved tens of millions of dollars to the U.S. economy when banks, post offices, government facilities, and other places of business can reopen and continue operations following a suspicious powder incident.

SBIR & the America's Economic Recovery

Much of the Recovery Act funding is going to “shovel ready” projects like road improvements, building construction, etc. While important, these projects will expand employment only temporarily. Once the federal dollars stop flowing, most of the jobs will be lost. Permanent job creation requires the creation of new products and technologies that can be made, sold, and improved upon for years after they are developed. This is primarily the domain of entrepreneurial companies. For example, the 20/20 *BioCheck*® product that I mentioned will have created 6-8 new jobs each year over a 20+ year timeframe with the support of only about \$100,000 in government assistance.

As this example illustrates, increasing federal investments in small biotech firms would pay both immediate *and* long-term dividends for our economy. Biotechnology companies receiving these funds would immediately make new hires and procure needed supplies and services in the same manner as firms tasked with improving our nation's infrastructure. However, as innovative products are launched this creates a new jobs multiplier in manufacturing, sales, marketing, etc. that does not occur to the same extent when roads are repaved or buildings enhanced. In other words, technology innovation creates economic “gifts that keep on giving” years after the federal subsidies end.

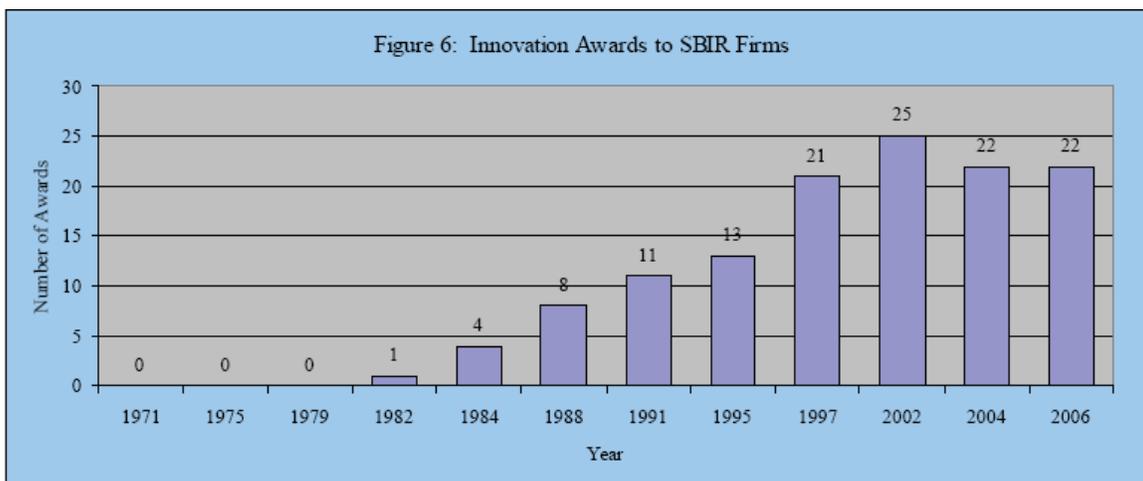
Regarding the NIH, no amount of academic research will advance cures for most diseases unless this is followed by significant investment by private firms. While NIH funded

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university research often provides a foundation for new biotechnology that research almost always ends very early in the development process with a scientific publication. Last week the Science Editor of *Newsweek* had a column lamenting the failure of the NIH to meet its promise to translate more medical research “from bench to bedside.” (See article attached) This has been a chronic problem with NIH funded academic research. In my nearly 20 years of involvement of the biotech industry I cannot recall coming across any university research that was more than 10% along the development pathway no matter how much funding the project has received. Thus, companies are typically left with the burden and expense completing nearly 90% of the R&D required to bring a safe and effective drug, medical device, or diagnostic test to market.

Emerging biotech companies typically finance their R&D through two sources: private capital and government grants. Private capital comes from either institutional sources—venture capital—or more commonly from individual investors known as “Angels.” Unfortunately the economic downturn has dramatically reduced available capital from both venture capitalists and Angel investors. NIH grants therefore play a critical role for biotech companies during this recessionary period. However, less than 3% of the NIH’s external grants budget is dedicated funding R&D by business who, as stated, typically must undertake nearly 90% of the R&D effort to bring a biomedical product to market. This gross imbalance in funding priorities must be rectified if we are ever to defeat cancer, Alzheimer’s disease, and other diseases.

Numerous studies by the National Academies of Sciences and others have concluded that SBIR has been extremely effective in advancing the R&D missions of the agencies and in developing innovative technologies. Last year researchers at the University of California analyzed *R&D Magazine*’s top 100 innovations of the year over the last four decades.[†] (See bar chart below)



[†] Block and Keller, *Where do Innovations Come From*, Information Technology & Innovation Foundation, July, 2008.

The study revealed a significant growth in recent years in the number of award winning inventions coming from small businesses with SBIR grants relative to those coming from Fortune 500 companies and universities. The authors conclude that “SBIR-nurtured firms consistently account for a quarter of all U.S. R&D 100 Award winners—a powerful indication that the SBIR program has become a key force in the innovation economy of the United States.” That SBIR funded companies could constitute a quarter of award winning innovations while receiving a mere 2.5% of federal R&D grants strongly suggests that the program is giving taxpayers more “bang for their buck” and that Congress should substantially increase this set aside significantly, perhaps to 5% or more. This increase is particularly important during recessionary periods when private sources of venture capital are significantly curtailed.

Remedying the Exclusion of the SBIR Set-Aside from the NIH Stimulus Funding

ARRA provided an additional \$10 billion to the NIH. Not enough of this is going to support small biotech companies despite the enormous decline in private equity financing. Rockville Maryland is home to one of the largest biotech clusters in the country. Yet biotech companies here and in other regions are downsizing everywhere. “Lab space available” signs are visible all around us. This will not only eliminate jobs but will kill lifesaving innovations that have been in development for years. Many of these products would not only improve patient outcomes but can reduce healthcare costs by tailoring treatments to patients in a more personalized manner. *While AIG may have been too big to fail, America’s biotech industry is too important to fail.*

To avert or mitigate these unacceptable losses to our healthcare system and to create sustainable new jobs I respectfully urge that Congress pass emergency legislation to double the NIH SBIR set aside for FY 2010 and 2011 to five percent (5%). This would not increase the federal deficit at all since it would require no new spending. Furthermore it would not necessarily result in a reduction in university research if it were accompanied by a mere 1% reduction in overhead (indirect costs) by NIH grantees over this two year period.

I also urge the full Senate to pass S.1233 (SBIR Reauthorization) in its present form which is a much more balanced and well conceived bill than its counterpart bill in the House of Representatives, especially in connection with the long-simmering dispute over access to the SBIR program by VC owned firms.

Thanks for considering my testimony this afternoon.

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Attachment: “From Bench to Bedside: *Academia Slows the Search for Cures*”
<http://www.newsweek.com/id/200599>