

Sent: Thu 10/20/2011 1:43 PM
Subject: Response to RFI re National Bioeconomy Blueprint

To the Office of Science and Technology Policy:

I am a former biomedical scientist, serial biotechnology entrepreneur, and management professor, and a current angel investor and adviser to operating companies and investment firms. I also co-founded and was the first president of the Industrial Biotechnology Association, which today is known as the Biotechnology Industry Organization.

I am responding to the Request for Information "regarding recommendations for harnessing biological research innovations to meet national challenges in health, food, energy, and the environment while creating high-wage, high-skill jobs." In particular, I would like to address the 8th question listed in the RFI, "What are the challenges associated with existing private-sector models (e.g. venture funding) for financing entrepreneurial bioeconomy firms and what specific steps can agencies take to address those challenges?"

In general, the real engine behind job growth is the entrepreneur because small businesses account for half of all private sector jobs, and those growing most rapidly require equity financing from angel investors and venture capital firms. Equity financing is especially important for the biotech industry, because most biotechnology products are heavily regulated and take one or more decades to enter the marketplace. Therefore, over time biotech companies require a number of rounds of investment capital, amounting to hundreds of millions of dollars and even exceeding a billion dollars.

I have previously published several articles that describe how the federal government could really stimulate job growth and reduce the deficit at the same time. The key to the underlying strategy is for government to provide the right kind of environment for the private sector to turn the economy around. For reasons explained in the preceding paragraph, providing such an environment is particularly germane to the biotechnology sector and as a result would foster the development of breakthrough products in areas as diverse as personalized medicine, nanobiotechnology, biofuels, and agricultural and industrial biotechnology.

Three new government policies, if enacted together, would increase the availability of equity financing and stimulate the economy, leading to reduced unemployment and a decrease in the deficit.

Prior to the recent recession, American angel investors and venture capital firms together invested over \$45 billion annually. One proposed policy would provide tax credits equaling 25% of all qualifying investments, in return for government receiving 25% of applicable capital gains. The availability of capital might then increase by 33% or \$15 billion, from \$45 billion to \$60 billion, since the net cost to investors of \$60 billion invested would remain at \$45 billion.

Compared to the current system, which is subject to a 15% capital gains tax, both the government and the investor would enjoy a higher net return. The net return on the same net investment would increase by almost 18% for the investor and over 122% for the government. Most importantly, historical data indicate that additional venture investments of \$15 billion per year would create an additional 1.3 million jobs over a 5-year period.

Moreover, if over the next 20 years angel investors and venture capital firms earned between 50 to 100% of what VC firms averaged for the 20-year period ending December 31, 2007, the government's 25% share in an annual average of \$60 billion invested would yield between \$770 billion and \$2.2 trillion.

Many more high-risk start-ups exploiting state-of-the-art technologies would be funded, resulting in a net total of 6.8 million jobs created.

The second proposed policy would be for the government to invest in VC firms. If over the next five years the U.S. government invested \$15 billion annually in VC firms, another 1.3 million jobs would be created. Over a 20-year period, such an investment would result in another 6.8 million more jobs created, and the government would earn another \$770 billion to \$2.2 trillion from its investment.

The key to implementation of this proposal is to establish a formula by which federal funds are transferred directly to VC firms without the government trying to pick winners from losers. All investment decisions made by the participating VC firms would be left exclusively to the VC firms' general partners.

Each year the budgeted amount of federal funds targeted for VC firms would be disbursed in proportion to the magnitude of the private sector funds they manage. Thus, if in a given year, all those VC firms desiring to accept federal funds managed a total of \$100 billion, a participating firm managing \$1 billion, representing 1% of the \$100 billion, would be eligible to receive \$150 million, representing 1% of the government's \$15 billion investment.

The third proposed policy would exempt public companies with less than one billion dollar revenues from complying with the onerous regulations of the Sarbanes-Oxley Act. Privately held companies shy away from going public because of the expense and time required to comply with Sarbanes-Oxley. As a result, privately held companies typically opt to be acquired, since that tends to be the only viable exit strategy for investors. Unfortunately, whereas initial public offerings lead to increases in employment, acquisitions are more likely to result in layoffs in order to reduce fixed expenses. Repealing Sarbanes-Oxley for young, relatively small but rapidly growing companies would cause a surge in both IPOs and new jobs.

In summary, by providing tax credits to angel investors and venture capitalists, investing in VC funds as a limited partner (according to a fixed formula), and repealing Sarbanes-Oxley for small public companies, the government could foster the creation of several million jobs and the commercialization of exciting new technologies, and in addition earn over a trillion dollar return. The impact on biotechnology research innovations would be enormous.

I have attached links to three relevant articles I have published in Genetic Engineering and Biotechnology News, which provide more detail regarding the above proposals. I am also willing to volunteer my time to help the Office of Science and Technology Policy develop a National Bioeconomy Blueprint.

J. Leslie Glick