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"Supporting Innovation in the 21st Century Economy"

Testimony of:

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Introduction

Chairman Wu, Ranking Member Smith, and members of the Committee, my name is Paul Holland and I am a general partner at Foundation Capital, a venture capital firm based in Menlo Park, California. Foundation invests in early stage companies that are driving innovation in the areas of software, clean technology, the Internet, telecommunications and semiconductors. We look for new and innovative ideas that don't simply improve the status quo incrementally, but rather disrupt it in positive ways. Specifically, we fund companies that promise to change the way businesses, consumers and even entire industries behave. Since our first fund in 1995, Foundation has invested more than $1.5 billion dollars into innovative start-up companies located primarily in California but across the United States as well.

In addition to my responsibilities as a venture investor, I am also a member of the National Venture Capital Association (the NVCA) based in Arlington, Virginia. The NVCA represents the interests of more than 400 venture capital firms in the United States. These firms comprise more than 90 percent of the venture industry's capital under management.

It is my privilege to be here today to share with you, on behalf of the venture industry, our perspective on the critical factors that foster innovation on a regional and national basis in the United States. Our country is home to many of the brightest minds on the planet. And that

intellectual prowess has benefited our economy in countless ways. Yet we all know that the process of bringing innovation to life is not simple. There is a critical path along which many stakeholders - including entrepreneurs, venture capitalists and policy makers – play important roles. Historically, our government has helped pave that path with policies that encourage innovation on many levels. Yet the environment has changed significantly in the last decade and the United States is no longer guaranteed a monopoly on entrepreneurship and innovation. We have a tremendous opportunity to shape our future and I look forward to discussing today how we can ensure our technological and economic leadership going forward.

The Role of Venture Capital in the Innovation Life Cycle

I would like to share a brief overview of the role of venture capital in the innovation life cycle. For decades, the venture capital industry has dedicated itself to finding the most innovative ideas and bringing those ideas to market. We raise money from institutional investors and our firm partners for the express purpose of identifying and investing in the most promising ideas, entrepreneurs and companies. We only choose those with the potential to grow exponentially with the application of our expertise and venture capital investment. Often these companies are formed from ideas and entrepreneurs doing work in university and government laboratories – or even someone's garage. Many of these ideas would never see the light of day were it not for venture investment.

Once we have identified a promising opportunity, we conduct a thorough due diligence process on the entrepreneur or scientist, the technology on which the opportunity is based, and the potential market. For a venture capitalist to invest in a company, the discovery process must be well underway. Oftentimes, we will delay an investment until further research is successfully completed. Put another way, venture capitalists invest in applied research – not basic research. For those companies that have moved through the basic research process and have a functioning product that passes muster with our firm, we make an investment in exchange for equity ownership in the business. Venture capitalists do not employ leverage or issue debt as a part of our investment. We also generally take a seat on the company's board of directors and work very closely with management to build the company and bring the innovation to market.

The innovation process is long and characterized by significant technological and entrepreneurial risk. We typically hold a venture capital investment in an individual company for at least five to 10 years, often longer and rarely much less. During that time we continue to invest follow-on capital in those companies that are performing well; we cease follow-on investments in companies that do not reach their agreed-upon milestones. Our ultimate goal is what we refer to as an exit – which is when the company is strong enough to either go public on a stock exchange or become acquired by a strategic buyer at a price that ideally exceeds our investment. At that juncture, the venture capitalist "exits" the investment, though the business continues to grow and innovation continues to take place.

The nature of our industry is that many companies do not survive, yet those that succeed do so in major ways. Our asset class has been recognized for building a significant number of high-tech industries, including the biotechnology, semiconductor, online retailing and software sectors. Within the last several years, the venture industry has also committed itself to funding companies in the clean technology arena. This includes renewable energy, power management, recycling, water purification and conservation. Many of the young companies that we fund serve as the de facto R&D pipeline for larger corporations as, in many cases, our start-up technology is far superior than what can be generated in a corporate R&D environment. This phenomenon is especially true in the life sciences and software sectors, where our companies are regularly acquired for their technology and intellectual property. We believe this dynamic will ultimately become the reality in the energy and clean tech sectors as well. My partners and I are extremely proud of the work that we do each day because we are indeed creating the future.

Historically, venture capital has differentiated the U.S. economy from all others across the globe in terms of job creation and innovation. According to a 2009 study conducted by the econometrics firm IHS Global Insight, companies that were started with venture capital since 1970 accounted for 12.1 million jobs (or 11 percent of private sector employment) and $2.9 trillion in revenues in the United States in 2008. Such companies include historic innovators such as Genentech, Intel, FedEx, Microsoft, Google, Amgen and Apple. These companies have

brought to market thousands of innovations that have improved and, in the case of the life sciences sector, actually saved millions of lives.

Venture-backed companies are responsible for the introduction of Internet navigation and search, microprocessors and wireless applications. On the medical side, our companies brought to market drugs to treat cancer, diabetes, heart disease and spinal chord injuries. And on the clean technology side, we are actively working on innovations to reduce our dependence on foreign oil and create a more sustainable environment for the next generation. It is almost inconceivable that these monumental advances were once small ideas tucked away in a lab or a living room. But we assert that the next great innovation is today a small idea waiting somewhere. We are committed – along with the government – to finding and funding it. Our country's future depends on it.

The Silicon Valley Phenomenon

No other region in the country can attest to the positive impact of innovation on the economy than California. In fact, most people who are familiar with venture capital – even remotely – tend to associate it with Silicon Valley. It is indeed the industry's Fertile Crescent, with approximately 40 percent of all venture capital dollars invested in companies from San Jose to San Francisco. For this reason, VCs are often asked what factors drive Silicon Valley's ongoing growth and keep the region successful in fostering innovation and growing new companies. It is a relevant question because the answer offers a blueprint for other regions that wish to emulate the Valley's success. This blueprint is also consistent with what our country must do as a whole to keep innovation alive.

Like Silicon Valley, most successful venture capital hubs begin as communities of extremely bright, best-in-class innovators. These innovators are usually drawn together by a top-flight research university, government laboratory or a highly innovative, often venture-backed company. Stanford University has been the source of countless innovations around which venture capitalists have formed Silicon Valley-based companies. The same can be said for MIT in Boston, University of Pennsylvania in Philadelphia and Duke and North Carolina in the

Research Triangle region. Silicon Valley is also home to important anchor companies: Intel, Genentech, Cisco and Google are just a few. These companies regularly spin-out new entrepreneurs who pursue their own ideas and start-ups from existing operations. They also foster a pool of technical talent available to the region. We have seen similar types of spin-out companies in places such as Austin, Texas with Dell, in Minneapolis with MedTronic, and in Seattle with Microsoft.

Often, these communities coalesce around a certain industry or technological niche. Silicon Valley has a long and successful history of embracing these niches early on, beginning with semiconductors and following up with biotechnology, enterprise software, consumer Internet and now, clean technology. Other examples of regions that have successfully built an ecosystem around a specific technology include New York with new media, Tennessee with healthcare IT, and Northern Virginia with telecommunications. Concentrating on these niches creates a virtuous circle that spurs research and innovation, draws more talent and attracts more capital to the region. And while regions such as Silicon Valley and Boston account for a majority of the investment in certain sectors, there is room for more than one region to claim space. To wit, Florida, in its quest to become a life sciences center, recruited the new Scripps Institute to locate there and has benefited from that institution's presence in Palm Beach County. Many regions are now vying for a stake in the clean technology sector. Rocky Mountain states like New Mexico, Colorado and Arizona making strides in this area.

Innovators become entrepreneurs only when they have the supporting environment to do so. Venture capital alone is not enough. There must be a sound mechanism for transferring technological innovations from the research institutions and scientists that spurred them to the company that will guide them to market. To support that process, a robust network of lawyers, accountants and other business professionals to help with business planning, networking, intellectual property protection, IPO registration compliance and hiring issues is also important. In addition, though as simple as it sounds, the region must have an infrastructure that can support growing companies. That means efficient local and regional transportation systems, convenient airports, affordable housing, quality schools and vibrant cultural and social scenes.

Government and civic support is also essential. This starts with favorable tax policies, common-sense regulatory structures and encouragement of basic research. State and local initiatives that reward emerging growth companies also make a significant difference. Please understand that is different than giving massive tax abatements to large local corporations. Instead, a program like Ben Franklin Technology Partners in Pennsylvania, that supports start-up companies in their earliest stages, helps create a pipeline from which venture capitalists can draw. Also, state pension funds that invest in local venture capital firms also drive success. States such as California, Pennsylvania, and Wisconsin have strongly supported local venture firms in recent years, resulting in increased investment by indigenous firms in their states' start ups.

It is important to note that venture capitalists do not create these conditions favorable to investment. We seek them out. For those looking to replicate Silicon Valley's success, it starts with these factors and builds from there. States should understand that growing such an environment is an expensive, long-term endeavor. However, I'm sure that Californians will tell you that the economic pay-off is worth it.

Looking Forward on a National Level

The ingredients that make for successful venture capital hubs like Silicon Valley are not unlike the ingredients for a thriving innovation ecosystem in the U.S. as a whole. Access to strong basic research, the best and brightest minds, public policy that promotes access to capital, and an infrastructure that supports the entrepreneur are in fact the precise components that have historically allowed the U.S. to thrive on the innovation spectrum. And these same drivers will determine our fate going forward.

Yet, it is important to recognize that the global environment for innovation has changed dramatically in the last decade – creating both opportunities and threats to U.S. innovation. Technology has indeed made the world flat and our companies today all employ global strategies when it comes to markets, product development and operations. The global markets offer our companies tremendous growth opportunities – provided the US maintains open trade provisions. Yet, at the same time, there has been a significant rise of venture capital and entrepreneurial

activity in regions outside the United States such as Asia, Eastern Europe and South America. As entrepreneurialism grows on a global scale, we face a new competitive environment in which innovation can be developed anywhere. Foreign governments are being extremely aggressive in promoting favorable tax policies, improving their legal, accounting and intellectual property structures, and boosting their R&D spending to foster more innovation in their countries. The U.S. needs not only to maintain our current commitment to an innovation agenda but rise up to meet the challenge set by our foreign competitors or risk losing our technological edge.

For these reasons, the venture capital industry supported the America Competes Act and continues to support the spirit in which it was passed in 2007. In order for the U.S. to maintain its competitive advantage and economic leadership, we must continue to aggressively promote a public policy agenda that rewards risk takers and embraces innovation at a national level. Components that are particularly relevant to the venture capital industry and our role as purveyors of innovation are as follows:

Support for Basic Research

The government has a critical role to play in the area of basic research. It is from this pipeline of scientific advances in fields such as information technology, life sciences and now, clean technology, that the venture capital industry has traditionally drawn many of our innovations. Often, early stage research into new discoveries is first funded with federal dollars in a university or government lab and then commercialized by a venture investor.

Such was the case with Atheros Communications, founded by leading experts in radio and signal processing at Stanford University. Atheros benefited early on from access to DARPA research on semiconductors and communications. My firm helped to shepherd the researchers out of Stanford and invested the first $100,000 into the company in 1997. Since that time, the company has become the leading provider of WiFi communications, providing the technology that powers innovations such as wireless local area networks (WLAN), mobile WLAN, global positioning systems (GPS), Bluetooth, Ethernet and powerline communications. Atheros went public in 2004 and today employs more than 1,300 people and has a market capitalization of $2.5 billion.

Sources of these basic research funds have historically included the NIH, DOD, DARPA and, most recently ARPA-E. Continuing to support federally funded research through these agencies will allow the symbiotic relationship between the government and venture capital to continue. Essentially we pick up where government funding leaves off. We believe this relationship will be especially important in the area of clean tech innovation. We have been very encouraged by the funding of ARPA-E at the $400 million level. We hope to see a continued commitment at that level or above going forward, so that the exciting work taking place in those labs has the opportunity to be brought to the American public. We also ask that policy makers continue to exhibit the same patience they have shown in the past for the high-risk and long-term nature of the innovation process. This support is critical to our ability to see our projects through to success.

Support for a Highly Skilled Work Force

In addition to supporting the research, government must also support the entrepreneurial and technological talent that brings this research to life. The venture capital community wholeheartedly supports improving math and science education for U.S. students, particularly in grades K through12. Other countries have been committed to the Science, Technology, Engineering and Math (STEM) components of education for some time. Our understanding is that we are making strides in these areas; but we can not ease up on our commitment to engage our students more fully.

In addition to better educating our own students, it is also critical that we ensure that the best and the brightest scientists and entrepreneurs from all over the world want to come to the United States to innovate and grow their businesses. The venture industry has long supported highly skilled immigration reform that would make it easier for foreign born nationals to build companies in the United States. The NVCA-commissioned study, American Made: The Impact of Immigrant Entrepreneurs and Professionals on U.S. Competitiveness found that 25 percent of venture-backed public companies were founded by immigrant entrepreneurs. These companies include innovation stars such as Intel, eBay, Google, Yahoo and Sun.

Yet in recent years, U.S. immigration policy has become restrictive relative to the policies of foreign countries – and just when they are proactively growing their own entrepreneurial and innovation ecosystems. As the United States is making it more difficult for foreign scientists and entrepreneurs to enter our country, other countries such as India and China are welcoming these bright minds to their shores. Unless we see a significant change in immigration policy for highly skilled workers, we risk losing the brightest talent to our global competitors.

For this reason, we are very supportive of the Start Up Visa initiatives that have been introduced in both the House and the Senate. Under these bills, immigrant entrepreneurs can obtain a special visa to build their companies in the United States if they have secured venture capital financing from a qualified investor. The passage of such a bill would send a much needed signal to entrepreneurs around the world that United States wants them innovating here. Companies that are formed here drive innovation here. There is no other way to say it.

Access to Capital

Support for innovation also hinges upon the government's understanding of the importance of capital formation and support for incentives for long-term investment and risk taking. While we know that this committee does not have jurisdiction on developing tax policies, it is an area that remains of critical concern to the venture industry and has the potential to impact our ability to fund innovation. Entrepreneurs and venture capitalists must continue to be rewarded for the risks they take. Today there is a meaningful differential between ordinary income and capital gains tax rates, which offers an incentive for the long-term investment in innovative companies as opposed to short-term speculation. Without this differential, the reward for building and growing a company from scratch is significantly lower and less likely to promote this type of activity.

We also continue to support the current tax policy that allows both entrepreneurs and the venture capitalists who invest their time and capital alongside management to receive capital gains tax treatment when they have successfully built and grown companies. This policy – which grants

capital gains tax status to venture capitalists who successfully invest in and help companies to grow – has been under fire as certain lawmakers have sought to change the tax status of carried interest to ordinary income. The result will likely be a long-term reduction of venture capitalists, a lower risk threshold for existing venture capitalists, and fewer innovations funded overall. By enacting this policy, Congress will put innovation and job creation at tremendous risk. Our position on this issue is publicly available from previous hearings and we continue to welcome the opportunity to work with lawmakers to better understand the implications of this troubling proposal.

The need for capital does not end with venture investment. The goal of many venture-backed companies is to one day thrive as a publicly traded entity. However, the last decade, and the last three years in particular, have been especially hard for venture-backed IPOs. A healthy venture-backed IPO market would see close to 100 new issues each year. In 2008, we saw just 6 venture-backed IPOs; 2009 had 12; in the first three months of 2010, there have been just 5.

While much of this lackluster environment can be attributed to the financial crisis and skittish investors, we believe that there are fundamental structural issues that need to be more closely examined. The implementation of Sarbanes Oxley, the separation of research and investment banking, and decimalization - among other factors – have all contributed to a market that is not receptive to small cap IPOs. This situation is critical to the future of innovation because without an IPO market recovery, venture capitalists are not in a position to make new investments at the pace we have kept in previous years. We will spend more time with existing companies, wait longer to take them public, and complete fewer new deals. We do not want these good companies to wither on the vine if we can jump start the IPO market once again.

We believe there is a role for policy makers and regulators to better support emerging growth companies and commit formal resources to understanding the dynamics and challenges of today's IPO market. Dedicating senior SEC officials to address the collective interest of these rising stars will send a message to the market that the government is there to help, not hinder, their growth and innovation. We believe the formation of such a group would be extremely well received and we as an industry would commit to supporting its endeavors.

Intellectual Property Protection

The U.S. must also enact some essential reforms to its patent system. Few systems have protected and rewarded innovation better, but the system has gone 50 years without so much as a tune up. Patents are particularly important to the start-up community because they are sometimes the only asset of value that an emerging company holds. Often venture capitalists evaluate the quality of a company's patent or patents when deciding whether or not to invest. Thus, patents protect the value of both the innovation and the investment.

For this reason, the U.S. must focus on improving the quality of the patents it grants and the predictability of its protection process. Stronger patents will help reduce the amount of needless litigation generated by specious or spurious challenges and infringement claims. Greater predictability in how the U.S. Patent and Trademark Office, or PTO, awards and protects patents will also reduce risk for emerging companies and their investors. Current patent reform legislation moving through the Senate addresses many of these challenges and we are hopeful that the final outcome will institute reform that adequately funds the PTO and protects small innovative companies.

Conclusion

As we've seen, the United States has harnessed innovation to power economic growth, raise standards of living and improve our lives. The federal government has played a vital role in this success through innovation-friendly policies and incentives. We applaud policy makers who seek to foster an ecosystem where risk taking and entrepreneurship are rewarded. Yet the bar continues to rise as many foreign governments have begun to emulate our success and seek to surpass it. Their successes mean that we no longer hold a monopoly on innovation and its benefits.

Make no mistake: The race is still ours to lose. But to maintain our innovation advantage, we must rededicate ourselves to what made us successful: increasing support for basic R&D,

improving math and science education, supporting immigration and patent reform, and improving access to capital through smart tax policies. Without action on these fronts, the United States may find itself in the unfamiliar role of also-ran in the innovation race. The venture capital community remains committed to doing our part to ensure this is not the case. We look forward to working with members of this committee, Congress and the Administration to support the best and brightest ideas and continue to fill a robust pipeline of innovation for our country. I want to personally thank you for the opportunity to discuss these important issues with you today and I am happy to answer any questions.