## Northwestern University, University of Chicago, and University of Illinois Concerns with the fee-shifting language in S.1137, the Patent Act

Northwestern University (NU), the University of Chicago (UC), and the University of Illinois (UI) support the broader goal of S.1137 to reduce abusive patent litigation practices, however, the impact of broad fee-shifting language in this bill would seriously undermine the ability of legitimate patent holders at our universities to enforce their patent rights, with the net result of stifling commercial investment and eliminating the jobs created by the typically small company licensees of patents coming from our universities. While the fee-shifting provision in S.1137 is no longer presumptive as it was in previously proposed bills in Congress to reform the patent litigation process, the standard under S.1137 allows for the prevailing party to move for fee-shifting at the end of every case, which they always will, and lacks clear guidance on what should be deemed "objectively reasonable" conduct by the losing party.

## Background and specific examples from our institutions:

The fee-shifting provision in S.1137 would prevent many of our startups from defending their patents from infringement because they usually do not have the cash flow necessary to cover both their own legal costs and those of the prevailing party. These provisions could also make it more difficult for our startups to obtain venture capital funding, particularly for our medical device and digital technology startups.

Our startups typically produce disruptive technologies and need venture funding to prove the concept. Once the startups prove the concept then they develop partnerships with big company "developers" to bring the product to the market. The problem is that once the concept is proven then the large companies try to invade that same space by copying or producing "work-around" technologies rather than entering into a fair partnership agreement. The startups need to be able to fight for their rights without fear. The most vulnerable startups are the ones in the digital and medical device space because their technologies are easier to copy.

Venture capitalists will not be willing to support startups if their ability to protect their rights becomes riskier. If this fee-shifting provision were to pass, companies like Narrative Science and 4C Insights, two digital startups launched out of Northwestern, may not have attracted investment from a Chicago-based venture firm due to the high risk of patent infringement and the financial risks associated with defending their patent. Narrative Science uses computer algorithms to extract the most important information from vast quantities of data to craft easy-to-understand narrative reports (i.e. immediate, accessible data analysis), which is critical to financial institutions, government agencies, and other sectors that rely on big data sets to make decisions and accomplish their goals. 4C Insights is driving the future of advertising through a platform they developed to track potential customer's interests and social media use for more targeted sales engagement.

In the medical device space, it is a similar story. Swipe Sense, a medical device company launched out of Northwestern, is a student driven company that has secured funding from a variety of sources. Swipe Sense created a portable hand sanitation device with wireless data collection technology that allows hospital administrators to track hand sanitation compliance. The device is helping address rising rates of hospital-acquired infections, which experts estimate kill 100,000 people and cost over \$28.4 billion per year in the US. In such a high-risk market space, Swipe Sense may not have attracted funding from a variety of investors if they faced greater obstacles in defending their patent.

Similar examples from University of Chicago include:

SmartSignal: A machine analytics company started in 1999, it provides early warning of failure on thousands of monitored capital-intensive assets including power generation turbines, oil and gas pipelines, and aircraft engines. It improves efficiency, reliability, and energy usage. They employed about 80 individuals in the region and raised about \$30 million. The company was acquired by GE at end of 2011 for a large multiple on the original investment. They have an extensive patent portfolio that was critical to raising initial investment and positioning for acquisition by GE. This IP has and is being asserted against infringers.

R2 Technology: Computer Aided Diagnosis Software for Mammography. Started in 1993 in Silicon Valley using UC-licensed technology, R2 was acquired by Hologic for \$220 million in 2006. R2's technology has saved the lives of tens of thousands of women through earlier detection of breast cancer and it is now standard of care. Venture capitalists likely would not have made the initial investment in R2 without the assurance that the IP could be protected by asserting against infringers.

RainDance Technologies: Ultra-sensitive Genomic Tools. RainDance was formed in 2004 to develop droplet-based microfluidic instruments for genetics research and tumor profiling. RainDance has raised over \$120 million, has over 100 employees and recently filed for an IPO. The company is an exclusive licensee of several University of Chicago patents, some of which are being asserted against an infringer.

Entrepreneurs associated with the University of Illinois at Urbana-Champaign have voiced their concerns.

**Al Eisaian, Co-Founder and CEO, IntelinAir, Inc.**—a company focused on aerial data analytics and decisionsupport systems that has licensed University intellectual property:

"Protecting our IP is critical and fundamental to our success and for us to maintain a competitive advantage. Our IP has been created with the hard work of a dozen dedicated scientists and engineers over a decade, if not two decades. Additionally, part of our IP has been funded by impressive national institutions such as NASA, U.S. Air Force and the U.S. Navy, among others. As recently as this month we have been awarded an SBIR for a related project from NASA. Additionally we have raised capital from VCs and Angels to continue to develop on our IP. But, as a small company we are in no position to have huge legal costs and other fees, should we lose a case launched in order to validly enforce our IP against unlicensed use by a large company with much deeper pockets."

**Yi Lu, Urbana professor and founder of ANDalyze and GlucoSentient**— two startup companies currently based in the Research Park at Urbana, which have licensed University intellectual property:

"As a co-founder of the startup companies, ANDalyze and GlucoSentient, I have licensed technology covered by several issued and pending U.S. patents and several pending U.S. patent applications from the University of Illinois at Urbana-Champaign as well as having created IP of our own. That IP was critical to our business and future products/services. Protecting our IP was essential to our success and maintaining competitive advantage. We received funding from several sources such as angel investors and the SBIR program but we would have been in no position to have to take on huge costs of attorney or other fees, should we have lost a case that we launched in order to validly enforce our IP against unlicensed use by a large corporation or non-practicing entity. This legislation if enacted in its current form would make it more difficult to get seed or venture funding to start companies and to rightly enforce IP against unlicensed use. As already high risk ventures, startups can ill afford additional financial hurdles to overcome. The potential detrimental impact on our nation's economic growth through startup and small companies is huge."

In summary, the fee-shifting provision in this bill will impose a big hurdle to small innovators by denying a fair process to protect their intellectual property. Further, in the near term, a new uncertain fee-shifting standard would take years to clarify in the courts, making it even more risky for small patent holders with limited assets to challenge a big infringer. This problem can be averted if there is an exemption in the bill from fee-shifting for institutions of higher education and their licensees, which play a critical role in commercializing most university research discoveries.