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Opinion

It is time to unleash federal R&D

The Washington region has the nation's richest set of federal research and development assets, but they

are not fully realized partners in our technology community. To unlock their full potential, we need to provide them with the tools necessary to connect with the present, using a federal connection model from the past.

Abraham Lincoln was the nation's first technology president. He is the only president ever awarded a patent, he approved the congressional charter for the National



Guest Comment

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Academies of Science, and he signed the nation's first technology transfer statute creating the state university system of service to regional economies.

That initiative helped the U.S. agriculture industry to feed the world by having university researchers work closely with farmers and firms to improve food productivity. The university land grant model expanded to include engineering extension, research parks and service to technology companies.

After World War II, the federal government launched its own federal lab system. Millions of square feet of lab space was built, and tens of thousands of researchers hired, mostly in the Washington region.

The world's largest libraries of medicine and agriculture are not at Harvard and Iowa, but in Bethesda and Beltsville. Local federal labs would produce Nobel Prize winners. Over \$12 billion of federal lab research dollars are spent in the region each year, resulting in the largest concentration of research and development spending in the country, by far.

However, a comprehensive statutory mission of engagement with the local community, like that for land grant universities, does not exist. Entrepreneurial-type practices do exist at certain labs, especially privately managed federal labs, but the legal authorization, funding availability and engagement interest

varies considerably. The National Governors Association notes that technology commercialization coming from federal labs lags behind other groups.

Given international technology competitiveness issues facing the U.S., and the enormous local investment in federal labs, our region's technology stakeholders and congressional leaders must develop a 21st Century Land Grant mission for federal laboratories modeled on best practices of universities and privately managed federal labs.

Here are the elements:

Needed first is a program to allow federal researchers to work more closely with the private sector and academia. Brilliant scientists work at federal labs. The White House Office of Science and Technology Policy earlier this year called for federal agencies to empower scientists to connect with the private sector. But without a comprehensive program many federal researchers will remain hermetically sealed in their labs. We need to have entrepreneurial leave policies for federal researchers and robust entrepreneur-in-residence programs. We must ensure that the federal civil service remains attractive to bright scientists and engineers to replace federal retirements.

Second, Congress should charter a federal technology commercialization foundation, modeled on best university practices, to provide legal, financial and administrative tools to help federal technology transfer offices be more effective. Many universities have developed foundations to reduce the transactional friction that comes from public sector entities taking on the business of technology commercialization. An associated seed venture fund also needs to be developed for federal labs.

These initiatives need to be incorporated into a 21st Century Federal Lab Land Grant bill introduced by our regional congressional delegations, consolidating current federal technology transfer law into an expanded land grant mission of engagement, while maintaining federal laboratories' national missions.

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