Project: Montana HTAP: High-Technology Assistance Program for Micro and Nano-Technologies - Bringing advanced nanotechnology to Montana businesses

Brief Description:

Montana State University requests $1.0M in FY11 to assist Montana high-technology businesses to adopt micro and nanotechnologies as a means to improve their products and increase their competitiveness. The program offers training, access to specialized facilities and technical assistance to regional businesses, and enhances the nanotechnology infrastructure of the Rocky Mountain region.

Executive Summary:

Montana's small, high technology businesses working on alternative energy, biotechnology, pharmaceuticals and optoelectronics are a growing and desirable sector of the state economy. Today, however, most of these Montana companies are not using microtechnology or nanotechnology as part of their portfolio, even though their competitors are. The Montana Microfabrication Facility extends nanotechnology capability to regional small businesses and researchers. The proposed program addresses a critical need by bridging the gap between companies and researchers who will benefit from micro or nanotechnology but require access to highly specialized equipment and need training and assistance to adopt these important new technologies. The program will strengthen regional nanotechnology resources, aiding small businesses that are addressing problems of economic and social importance.

Project Description:

As nanotechnologies become ubiquitous in the high-technology sector, the ability of companies in the rural west to adopt these technologies will be critical to their competitive survival.

Components of the program

- **Access** for regional businesses and university researchers to the Montana Microfabrication Facility, through a universal-access user grant program
- **Training** for users in micro and nano-technology, to include web-based training modules targeting industrial users, and assistance for intensive hands-on training
- **Design and prototype assistance** to help small companies incorporate micro and nanotechnology into their core businesses
- **Expanded Nanofabrication Resources** to serve the needs of our regional small businesses developing processes for commercialization, and research to develop core competencies to improve competitiveness of regional high-technology companies and university programs

Congressional Action Needed:

An appropriation of $1.0M in FY11 is requested in the Small Business Administration budget.

Importance to Montana:

The Montana Microfabrication Facility offers small Montana businesses local access to highly specialized and expensive nanofabrication tools and technical expertise, enabling those companies to develop and adopt innovative micro and nanotechnologies for their businesses. Now, few Montana companies have experience with or the necessary training to benefit from this resource. This program will provide that training and facilitate access while enhancing the nanotechnology resources available to high technology companies in the region. Relevant Montana companies include: *AdvR, American Chemet, Arcomac, Bridger Photonics, Bridger Technologies, Crystal Growers, Lattice Materials, Ligocyte, Photon Dynamics, Resonon, Scientific Materials* and *Sensopath*.

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