



The NanoCulture Has Taken Root at Cornell

Spun off originally from work and activity within the Materials Science Center, the Cornell Nanofabrication Facility has, in its turn, spun off centers, such as NBTC and CNS that rely heavily on the skills, expertise, and unique equipment in the facility. It is

the epitome of the shared facility concept. It encompasses a staggering array of equipment and tools. Even more critical is the collection of procedures and protocols for manipulating material at length scales down to the nanoscale, which has been developed within the facility by earlier users and is now embodied in the staff expertise. Indeed, the strength of the facility is more in the staff expertise than in the instrumental base, good though that may be.

Currently, the Cornell Nanofabrication Facility has more than 600 users each year from 82 universities across the country (14 in New York); six companies are critically dependent on research at the facility, and an additional 72 companies conduct research there. Five federal institutions use it, as do four foreign institutions. Twelve companies have been seeded from research at the facility. This is clearly a major success story.

Cornell did not become nanosmart overnight. Cornell's record shows a history of imagination and action that seizes opportunities when they arise. It builds on a culture of interdisciplinary research that is difficult to generate because it is hard work and there has to be a commitment to the effort. At Cornell, the interdisciplinary culture is genuine. It has required commitments from many faculty to building both the environment and the resources that encourage its further growth; it has also demanded an administrative ability to move quickly when necessary. As new individuals join the Cornell faculty, they often learn how to participate in the multidisciplinary culture. How fragile is the culture that enables this to happen? This is difficult to assess. In my view, the culture was initiated by a farsighted leader, Robert L. Sproull, ably supported by the faculty and administration of his day and not least, by a substantial and forward-looking support package provided by the federal government. Cornell was not the only university awarded one of the original grants, but few of these groups are still active. Although we may not be able to judge how fragile the growth, the nanoculture seems to have taken root at Cornell.

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