Center proposes solution for ag biotech licensing disputes

With concerns growing over the "Balkanization" of agricultural biotechnology, a summit at UC Berkeley was convened Feb. 16 to explore new mechanisms for facilitating freer exchanges of intellectual property.

The workshop sought to address a troubling dilemma: Potentially useful discoveries in agricultural biotechnology are being made in university and commercial laboratories around the world, but many never make it to market because of the legal quagmire that results when the inventors try to secure all the necessary intellectual property rights.

"Any commercialization of research and development at a university that uses technologies owned by others will have to deal with a lot of legal hassle and uncertainty," says Gregory Graff, a UC Berkeley Ph.D. candidate in Agriculture and Resource Economics.

Jack Kelly Clark

While UC earns significant royalties from plant patents, such as strawberry cultivars, intellectual property issues prevent the University from releasing new cultivars that use modern methods of genetic modification. At a recent workshop at UC Berkeley, researchers proposed a global clearinghouse for intellectual property related to agricultural biotechnology.

More than 100 people from industry, academia, government and other organizations attended the daylong workshop and roundtable discussion, which was organized by UC Berkeley's Center for Sustainable Resource Development (CSRD) and the UC Office of Technology Transfer. The workshop was funded by the UC Division of Agriculture and Natural Resources, Giannini Foundation and Farm Foundation.

"As agricultural research in genetics, breeding, agronomy, pest control, agroecology and related systems becomes more and more intertwined and complex, new agricultural research inevitably depends more and more on access to knowledge and biological materials that have already been claimed as proprietary," Graff and CSRD director David Zilberman wrote in a paper prepared for the workshop.

UC currently holds 125 agricultural biotechnology patents, the most of any U.S. university. However, while UC has been on the cutting edge of innovation in agricultural biotechnology, these techniques are not widely applied on the state's farms, Graff says. "Growers are not getting the best genetics, because the technologies are tied up in court, on the laboratory shelf or in the research greenhouse. We want to cut through the legal thicket over intellectual property and get the right genetic improvements out into the right fields."

Furthermore, UC has suffered from many of the licensing problems catalogued by workshop participants, including inexperience among researchers, high transaction costs, litigation, liability concerns and prior secrecy agreements.

The current U.S. patent system is in "terrible shape in terms of giving people certainty over who owns what," says Brian Wright, UC Berkeley professor of Agricultural and Resource Economics.

Intellectual property rights issues, Graff says, are having a significant impact on: scientists in developing countries; research on "minor crops," which account for more than 95 percent of California crops; land-grant universities; and commercial biotechnology companies.

Graff and Zilberman have joined others in proposing a global intellectual-property-rights clearinghouse which would provide a centralized, Internet-based mechanism for exchanging patent information and licensing rights related to agricultural biotechnology. For example, the clearinghouse could gather interdependent patents from their various owners, and provide the whole bundle to researchers or potential developers of commercial products, on special terms.

At the workshop's roundtable discussion, "everyone liked the word clearinghouse," Graff reports. "All the participants agreed that something needs to be done. However, the devil is in the details."

For more information, go to: www.cnr.berkeley.edu/csrd/technology/ipcmech/

— Janet Byron