

Pfizer, UCSD collaborating on early drug discovery

Keith Darcé – San Diego Union Tribune

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A new drug research collaboration between pharmaceutical giant Pfizer and the University of California San Diego could deliver up to \$50 million to local scientists over the next five years, speed the delivery of promising therapies to patients and help refill the fast-depleting pipeline of the world's largest drugmaker.

The partnership, which was announced Monday, aims to speed the movement of experimental drugs from the basic science laboratory into mid-stage human trials, through a space known in the industry as the "valley of death."

The federal government, through the National Institutes of Health, provides most of the money to fund basic science research at universities while venture capital investors often get behind new drug candidates once they show promise in human tests. Between those points, experimental compounds and molecules can languish for years without enough financial backing to move to the next stage of development.

The new relationship between Pfizer and UCSD represents a change in the way Big Pharma has traditionally interacted with academic research institutes.

In the past, drug companies wrote big checks to research institutions without any assurance that the investments would produce viable therapies.

Pfizer is getting around that uncertainty by funding drug candidates only after a panel of experts, with membership evenly split between the drugmaker and the university, verifies their potential to move into human testing and eventually become a marketable treatment.

"This project is designed to rapidly move ideas from the lab into the clinic," said Dr. Gary Firestein, director of the Clinical and Translational Research Institute at the UCSD School of Medicine. "It's not the traditional random walk through science that goes on in many academic laboratories, where the goal is not commercialization but scientific discovery."

The work will be done through a Center for Therapeutic Innovation being established at Pfizer's campus in La Jolla where UCSD scientists and research physicians will be teamed with Pfizer scientists focused on drug development in the areas of neuroscience, cancer, inflammation, metabolism, HIV, pain and clinical pharmacology.

The company has opened three of the centers in the last year: in San Francisco with the University of California San Francisco, in New York with seven research hospitals, and in Boston with four teaching hospitals and four medical schools.

"We are combining the best of Pharma with the best of academic medical research," said Anthony Coyle, a Pfizer vice president and chief scientific officer who is heading up the company's global CTI network program.

In the traditional research setting, it can take eight or more years for new discoveries to move into human trials, Coyle said.

"We felt like being part of that initial discovery, we can really turn them (around) much more quickly," he said. "In as short as two years, we believe we can take a number of (drug candidates) into the clinic."

The money set aside for the San Diego center is less than the amounts Pfizer has made available to each of the other three facilities — \$100 million in Boston, \$100 million in San Francisco and \$85 million in New York.

At the La Jolla center, the company will hire 15 scientists to work with UCSD researchers, and each drug-development program will have its own staff of up to 12 scientists and postdoctoral fellows, Pfizer spokeswoman Kristen Neese said.

The agreement with the university gives Pfizer the right to take any drug funded through the center into late-stage clinical testing, regulatory review and commercial sale. Any drugs rejected by Pfizer remain with UCSD and can be licensed to other drug companies or spun out into a startup biotechnology company.

For Pfizer, the potentially lucrative opportunity is increasingly necessary as patents expire on some of the company's best selling drugs, including the antacid Protonix, the erectile dysfunction pill Viagra and cholesterol-lowering Lipitor, the world's best-selling medication which generated \$10.7 billion in revenue in 2010.

Pfizer's investments in the drug development centers lay bare the company's "desperate" need to line up replacement therapies for the ones they are losing to generic competition, said Dr. Sydney Wolfe, director of the health research group at Washington-based consumer advocacy group Public Citizen.

"Making a pact with Pfizer means that if you develop something with their help, they get first crack at it," he said. "To me, that clearly is a conflict of interest."

Firestein and Coyle said there is nothing unethical about the new collaboration.

"The agreement is set up in a way that preserves the autonomy of the faculty," Firestein said. "It really provides a mechanism to translate their discoveries into something that can potentially help to improve human health. We believe we're being true to that mission."

Not all UCSD researchers will find the Pfizer center model appealing, Coyle said.

"It's a mechanism for individuals with the same aspirations that we have," he said. "We are targeting individuals who really want to accelerate research into the clinic."

Still, the spread of these new relationships between Pfizer and many of the nation's top medical research centers is alarming, said Tufts University School of Medicine distinguished professor Dr. Jerome Kassirer.

Unseemly relationships in the past between drug companies and clinical researchers have left the former editor of the New England Journal of Medicine deeply skeptical of Big Pharma's interaction with academia.

"I think we have to give them the benefit of the doubt, but keep our eyes open," he said. "If Pfizer starts to trumpet its connection to these major universities, that could taint the reputations of the universities."