



Caliper to Bundle Horizon Cancer Cell Lines to Better Understand Rx Mechanism of Action

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By Charlotte LoBuono

ST. LOUIS — Caliper Life Sciences this week announced that it is incorporating Horizon Discovery's oncology cell lines into products sold by its Discovery Alliances and Services division. Caliper made the announcement at the Society for Biomolecular Sciences 14th Annual Meeting, held here this week.

According to an official from Hopkinton, Mass.-based Caliper, the deal gives the company genetically defined and isogenic human cancer cell lines that could enable researchers to better identify and characterize drugs targeted at specific subsets of patients.

Caliper's Discovery Alliances and Services division, known as CDAS, currently provides a variety of screening and profiling services for the cell-based assay market, including GPCRs, ion channels, transporters, ADME/tox, and drug combination studies.

The company believes that Horizon's cell lines will help expand its presence in the combination therapy testing market.

Specifically, Caliper said, the cell lines could provide scientists with a better understanding of the mechanism of action of compounds, directly identify patient-relevant compounds from large compound libraries, re-profile existing drugs for new indications, and identify potential side effects early in the drug-development process.

"We have been talking with a number of customers, and they are very excited" about the inclusion of the cell lines, which Caliper will begin incorporating into CDAS immediately, Nate Cosper, Caliper's director of marketing, told CBA News at the SBS meeting. CDAS comprises NovaScreen Biosciences and Xenogen Biosciences, companies that Caliper acquired in the last two years (see CBA News, 1/12/07).

"Now that we have these new isogenic cell lines, they will complement our entire oncology cell panel," said Cosper. He explained that through its acquisition of NovaScreen and Xenogen, Caliper obtained 50 different oncology cell lines that investigators can use in conjunction with the NCI-60 cell panel to assess the selectivity of compounds.

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Horizon, based in Cambridge, UK, was founded last year and is growing rapidly, said Cosper. Its isogenic cell lines originally came out of Johns Hopkins University, where Chris Torrance, then a graduate student, was developing them for use in cancer drug discovery. Torrance founded Horizon to commercialize the cell lines. He is currently its CEO.

According to Cosper, Caliper has undisclosed customers in the UK who have used Horizon's isogenic cell lines for internal use, and Caliper "used those customers as a kind of steering committee to help us decide whether it made sense for us to acquire the technology. They all said that it did make sense, and that it was something that they were interested in. That customer-based approach drove the partnership."

Cosper declined to name the UK-based customers, but according to Torrance, who also spoke with CBA News at the meeting, Horizon's main UK customer is AstraZeneca. He did not say if that drug maker is also a Caliper customer.

New Pairs of Genes

To create the isogenic cell lines, Horizon researchers used homologous recombination technology that is similar to the technology used to make knock-out and knock-in mice, said Torrance. "We use a viral delivery system that makes the process more efficient than the process used to create knock-out and knock-in mice, however."

This system enables investigators to routinely engineer human cells to exhibit any genetic mutation, Torrance said. "The idea is to create matched pairs of cells where you start with a normal cell and create a diseased cell from it. That way, you know exactly what is wrong with it and you can identify compounds that kill the diseased cell and not the normal cell."

Offering screening services is not something that Horizon can do, but it is something that Caliper has a lot of experience doing, said Torrance. He also said that Caliper has been doing in vitro profiling, and "adding cell-based platforms seemed like a natural progression."

David Manyak, Caliper's executive vice president of drug-discovery services, said in a statement that Caliper expects the cell lines to "enhance the success rate and reduce the cost of discovering targeted monotherapy or combination therapies that better treat disease with fewer adverse events."

Cosper declined to offer a market size for the screening service.