

The Broad and Johns Hopkins lure deep-pocketed investors

Two major US academic research institutions announced multi-million-dollar-partnerships with a New York-based venture capital firm, in an effort to find and fund early-stage biomedical research. Deerfield Management, a firm with about \$8 billion in assets, will invest \$50 million over five years in a collaboration with the Cambridge, Massachusetts-based Broad Institute, and up to \$65 million also over five years in Baltimore-based Johns Hopkins University. Deerfield and Johns Hopkins agreed to create Bluefield Innovations to catalyze the development of early stage therapeutics. Deerfield will also invest in companies that might stem from the most promising research.

"This is not about handing somebody an asset and hoping they will develop it," Issi Rozen, Broad's chief business officer, said in an interview. Instead, the Broad will work in close partnership with Deerfield to ensure

that critical scientific insights gained in early research stages are not lost along the way. The Broad, an alliance between MIT and Harvard, already has a similar partnership with German drugmaker Bayer, according to Rozen.

The funding is aimed at bridging what is sometimes called "the valley of death", the period between getting results in the laboratory and attracting interest from a pharma company or an investor. In the past, the lack of funding available at this stage caused promising projects to wither from lack of funding. "It's frustrating and I think it's important to move that logjam of biology forward—everybody should be doing it," says James Flynn, managing partner at Deerfield.

Although pharma companies' interest in very early-stage innovation has grown in lockstep with the dwindling of their home-grown pipelines and the rising prices of clinical-stage assets, they still often shy away from the risk associated with projects straight off the bench. "Big pharma is desperately looking for new compounds," according to Matthias Stein-Gerlach, who manages technology transfer at Max Planck Innovation, the technology transfer arm of Germany's Max Planck Society. "But early-stage research is not validated strongly enough for them".

Since the Bayh-Dole Act in 1980 that allowed US universities to file intellectual property on research funded with government money, academic institutions have increasingly been stepping up to fill pharma's needs.

In Europe, a similar motivation has seen the Max Planck Innovation create the Lead Discovery Center, an incubator for early-stage pharma research. "Everybody has some sort of model," according to Stein-Gerlach.

In January 2016, the tech transfer offices of Cambridge, Imperial College and University College London created Apollo Therapeutics, a £40 (\$52) million collaboration with AstraZeneca, GlaxoSmithKline and Johnson & Johnson to render the best translational science appealing to the pharma industry.

Sofinnova Partners, a Paris-based venture capital firm in 2015 launched BiovelocITA, an accelerator that draws on research from Italian institutions. "Of course, a company may emerge on its own, but that will take time," says

Graziano Seghezzi, a managing partner at the firm.

Deerfield's funding will allow the Broad to fund a single-digit-number of projects, according to Rozen. The institute has not yet decided on specific areas of research or projects, Rozen says.

Funding will be available to the most nascent projects, according to Flynn. "We are taking on things at a stage most people won't," Flynn said. A good biological rational may be enough to secure a thumbs-up, according to Flynn.

Deerfield will donate its part of the profit to its not-for-profit foundation. Because venture capital firms earn a

cut of their clients' overall profit, a donation stemming from the Broad collaboration could amount to as much as \$200 million, "if all goes well," according to Flynn. The foundation would also be a vehicle to invest in important research with limited financial prospects, according to Flynn. "If an experiment really needs to get done, it will get done."

Overall there is renewed interest from venture capital firms, according to Max Planck's Stein-Gerlach. "We've been seeing stronger interest from investors," Stein-Gerlach says. "They've come to recognize that early-stage investments can be very profitable."

Eva von Schaper Munich

“ Ultimately this could end up doing more harm than good, and that really would be a problem for the millions of people who are relying on these companies to develop new therapies.” Rachel Klein, of the EveryLife Foundation for Rare Diseases is referring to the proposed elimination of the tax credit for rare disease drugs. According to Republican crafters of the bill, eliminating the credit will save the government \$54 billion over the next ten years. (*The New York Times* 8 November 2017)

“Mr. Trump has not paid attention to us. It would not be good if he paid attention to us.” Stem-cell researcher Gerald Schatten and others at a meeting of fertility experts at New York's Plaza Hotel in October expressed concern that the administration will crack down on research on human embryos. President Trump has yet to appoint a science advisor, an unprecedented length of time for a president to be without one. (*Technology Review* 9 November 2017)