GSK completes its Canadian tripod

By Michael J. Haas, Senior Writer

GlaxoSmithKline plc and the not-for-profit **Centre for Drug Research and Development** have partnered to fund research from academic institutions across Canada. The deal completes a trio of alliances established by the pharma in the last two years to tap promising preclinical research in Canadian academia.

CDRD was founded in 2007 and helps investigators at more than 20 institutions turn their discoveries into investment opportunities for industry by providing access to in-house resources that cover all stages of preclinical drug development, scientific and business expertise and project management skills, president and CEO Karimah Es Sabar told *SciBX*.

CDRD receives funding from the Canadian federal government, the provincial governments of British Columbia and Alberta and companies such as **Pfizer Inc.** and **Johnson & Johnson**, which have invested in small-scale projects, and **Merck & Co. Inc.**, which supports a training initiative within CDRD.

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> *—Rav Kumar, GlaxoSmithKline plc*

Since its founding, CDRD has raised about C$98 million (US$95 million), of which 70% comes from public funds and 30% from private industry sources, Es Sabar said.

CDRD's for-profit commercial arm, **CDRD Ventures Inc.** (CVI), forms strategic alliances with industry and facilitates licensing agreements between industry and CDRD's affiliates.

According to Barry Gee, CDRD's director of communications, the organization's industry partnerships "on the nonprofit CDRD side, such as those by Pfizer and Johnson & Johnson, support smaller, earlier stage projects, whereas those on the for-profit CVI side, such as the GSK collaboration, generally support larger-scale, more advanced projects that are closer to a commercial stage."

"The collaboration will bring GSK's expertise to the projects, and the resources GSK is investing will significantly increase the pool of capital available to take selected projects through the development process," Es Sabar said.

This is CDRD/CVI's second broad-based collaboration with an industry partner. The first—with **Roche**—was formed last year.

"GSK has always supported innovative R&D in Canada, and we think the potential for very good life sciences research here has been underutilized in terms of its commercial potential," said Rav Kumar, VP at GSK in Canada who is responsible for clinical, regulatory and R&D alliances. "We have been tapping that potential through our collaborations with CQDM, **MaRS Innovation** and now Vancouver-based CDRD/CVI. We see these partnerships as three legs of a tripod" that span Canadian academia and complement one another.

Last year GSK joined the **Quebec Consortium for Drug Discovery** (CQDM), which funds precompetitive research at small companies and academic institutions in Quebec province.[1] The pharma also established a collaboration to cherry-pick early technologies emerging from MaRS, a technology transfer organization that represents 16 partner institutions in Ontario.[2]

Kumar said a driver of the new deal was CDRD's connections to most major Canadian institutions and a few outside Canada, including the **Karolinska Institute**; **The University of Tokyo**'s technology transfer organization, **Todai TLO Ltd.**; and the **Lead Discovery Center GmbH**, which is a drug discovery company established by **Max Planck Innovation GmbH** to develop the life sciences research of **Max Planck Society** scientists.

"What appeals to us is not just the assets CDRD has now but that they're always looking for new ones—so we can direct them to therapeutic areas that interest us," such as oncology, inflammation and neurodegeneration, he said.

The collaborators have not yet chosen specific projects, but a committee that includes representatives from CDRD and GSK will meet in the next few weeks to review CDRD's assets and decide which ones to develop, said Kumar.

Es Sabar added that projects reviewed by the joint CDRD-GSK committee will have already met CDRD's own criteria, such as innovative science, the potential for a solid IP position and commercialization, and readily identifiable questions and experiments that will advance the project.

"CDRD would probably have already done some de-risking by funding additional experiments so that a candidate project is at a stage that GSK would want to see," Kumar added.

This de-risking is part of CDRD's process for making any asset an attractive investment for industry, Es Sabar said.

The path forward

Kumar said all projects would probably be preclinical and "span the spectrum from a very early stage, where the researchers have explored the biology and begun to identify and validate potential therapeutic targets," to projects that are ready to be put on a development track.

For an early stage project, GSK, CDRD and the researchers will jointly form a development plan that would include defined experiments requiring only a limited level of funding, he said. "GSK would invest in the project at this point, but CDRD might also leverage funding from the government or other organizations, so the investment in such a project wouldn't come from just GSK."

He added that CDRD and/or the academic institution would retain ownership of any existing or new IP associated with early stage projects.

When GSK deems a project ready for a commercial development track,

the pharma would do a formal deal with CVI to in-license the IP or spin it out into a new company, Kumar said. GSK has the option to lock in its interest in a project through such a deal at any point in the collaborative process, he said.

Each partner's investments in the collaboration are undisclosed.

Kumar did say GSK has placed no hard limits on its total investment. "As long as the science is innovative and could improve patient outcomes, GSK will be interested in investing in it," he said. "We are committed to CDRD and its model for developing assets, and we plan to be involved with them for the long term."

Es Sabar added that "the funding levels, as well as the respective contributions from CDRD, industry or academic partners, or other leveraged sources such as grants, will be determined on a project-by-project basis."

She said the length of the collaboration with GSK will depend on the number of projects selected and the level of funding contributed to each from GSK's initial investment.

Es Sabar noted that CVI's collaborations with Roche and GSK are similar in terms and how they are managed. "This was specifically done to ensure that both partners are on the same footing and have equal opportunities in regard to the technologies within CDRD. Our ability to work effectively with multiple industry partners is one of the strengths of our model. Any of our future partnerships with industry will be consistent with this established structure."

Haas, M.J. *SciBX* 5(25); doi:10.1038/scibx.2012.645
Published online June 21, 2012

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2. Haas, M.J. *SciBX* **4**(41); doi:10.1038/scibx.2011.1135

COMPANIES AND INSTITUTIONS MENTIONED

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GlaxoSmithKline plc (LSE:GSK; NYSE:GSK), London, U.K.
Johnson & Johnson (NYSE:JNJ), New Brunswick, N.J.
Karolinska Institute, Stockholm, Sweden
Lead Discovery Center GmbH, Dortmund, Germany
MaRS Innovation, Toronto, Ontario, Canada
Max Planck Innovation GmbH, Munich, Germany
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