

In

Vivo

invivo.pharmamedtechbi.com

MAY 2017

vol. 35 ■ no. 05

pharma intelligence ■ informa

ONCOLOGY

Right target, right endpoint, right partner, right strategy

Data Analytics

Leadership

Open Access

Platforms

■ Around The Industry

When Two Worlds Collide – BTG Brings Interventional Oncology And Immunotherapy Together

Interventional medicine company BTG PLC expects its recent agreement with the Society of Interventional Oncology (SIO) to both strengthen its position in interventional oncology and its reputation as a thought leader in what it describes as the fourth pillar of cancer therapy – alongside medical, surgical and radiation oncology.

Under the two-year, extendable deal with SIO, BTG will explore the role of minimally invasive therapies in immuno-oncology. The two parties have established a working group to identify "critical areas of science that require further dedicated research." BTG has also set up an independent research fund enabling SIO to offer grants to independent investigators to study how these procedures might be used alongside immunotherapies.

BTG chief technology officer Peter Stratford, PhD, tells *In Vivo* that BTG's interventional oncology business and the leadership of SIO began working together in the early 2000s. At BTG, interventional oncology has reached critical mass. "That's also true of the interventional oncology sector as a whole, and now it's about how we take it forward – we've got a number of different therapies that work and there's a big interest in immune-oncology across the board," Stratford says.

The UK company, which has been adding strategic M&A targets since 2011 (*Also see "BTG Deals Its Way Into Interventional Medicine" - In Vivo, September, 2016.*), believes that combining procedures using radioactive microspheres, cryotherapy or embolizing beads with immunotherapies such as checkpoint inhibitors, which turn off signals that can inhibit the ability of T cells to kill cancer cells, could stimulate the immune system and help make these agents more effective in a larger patient population.

Recent advances have led to an explosion of interest in immunotherapies/ immuno-oncology. They work well in some cancers, but are not as effective in large, solid tumors. Stratford observes

“We're in a slightly different place and it's somewhat unique,” says Stratford. “We're interested in what are the best techniques to combine with interventional oncology – and we happen to own one of each of those modalities.”

that BTG's loco-regional therapies can reduce the mass of a tumor, but it's difficult to kill every part of it in this way. "What we see is the opportunity to use that loco-regional therapy and stimulate some immune response to what's left so that immunotherapy can deal with it."

BTG has made it its business to get more deeply involved in minimally invasive therapies. It has gotten to know key people and organizations in the sector over the last couple of years – physicians and hospitals with an interest or expertise in this area. "This is a way of pulling it all together, and helping us

understand how it could work with a little more structure, and with SIO sharing the input effort," Stratford says.

And that's the challenge for BTG: what is the best way to approach it? There is much excitement around cryotherapy – ablating the tumor to leave the proteins intact – and also questions around whether radiation and drug therapies can work. "We need to figure out which of those loco-regional therapies is best in this setting, understand what a combination 'looks like' and how best to use these things together, and get the timing of the therapies right," says Stratford. BTG's joint research will look at a whole range of factors, including whether there are patient-specific aspects to take into account.

THE COMPETITION IN BTG'S NEW FIELD OF PLAY

While BTG has many rivals in this space, it has something of an advantage over them, as the competitors tend to have only one interventional oncology technology available to them, so when they enter relationships, the goal is to determine whether their specific product works with interventional oncology.

"We're in a slightly different place and it's somewhat unique," says Stratford. "We're interested in what are the best techniques to combine with interventional oncology – and we happen to own one of each of those modalities." BTG's motivation is thus wider, equating to a "general interest in understanding how we use interventional oncology techniques in combination with immunotherapy."

BTG has been considering a collaboration with SIO for some time, and first raised the theme with the World Conference on Interventional Oncology (WCIO). Momentum has been gathering, with physicians understanding the increasing

importance of immunotherapy in their space, and larger amounts of related work being published and getting the attention of the oncology community. "The timing was fortuitous, in that we were able to bring this together at the same time." The WCIO formed SIO in January 2017.

BTG is providing all funding for the joint work with SIO. "The money that BTG is providing is really aimed at bringing these two worlds together: we want to encourage interventional radiologists to work with their oncology colleagues to drive this next phase forward."

The amount BTG is allocating is "substantial," but is not being disclosed. The independent research fund is also part of the agreement, and SIO will promote grant requests coming through the society. A white paper, compiled by the joint working group, will be launched at the WCIO annual congress in June 2017; it outlines that SIO will promote the research interests, then develop a steering group (of which BTG is a part), which will decide which activity areas are to be addressed first.

Working with the provider community is "one of those few parts of medicine that really requires people to work together – no one person has got the answers to all the issues that are out there, but I think we're pushing at an open door," states Stratford.

PRIORITIES AND WORK THEMES

The priorities for BTG are around understanding that, among the variety of interventional techniques available,

some of them are better than others in combination with immunotherapy.

For example, take ablation and internal radiation therapy that yield largely the same outcomes: is one or the other of those techniques better in combination with immunotherapy? Are there some characteristics of a patient or a tumor that are well suited to this combination? And can the tumor microenvironment be altered by using some of the loco-regional techniques, and thereby perhaps create new targets or perhaps adapt the tumor microenvironment so it is better suited to the targets that exist today?

As to whether this new research avenue has an effect on commercialization routes and where research is focused, it is still too early to say from the immunotherapy point of view. "We believe we'll be able to use the immune system to deal with tumors in due course, but it's a finely balanced equation. I think we understand the place of loco-regional therapies and where immunotherapies really benefit patients today. There are places where this particular combination will benefit, and unlocking that is exciting but it's going to take a little time," acknowledges Stratford.

There will be other companies interested in combining loco-regional therapies that are not part of BTG's program, and equally SIO might do some of that work too. BTG also works with other institutions and drug companies in this arena.

For BTG, the SIO agreement demonstrates its commitment to the area. Stratford says, "We spend a lot of time thinking how treatments can be offered

better, and about the whole patient management activity in general. In fact, we're interested in the whole area growing. This crystallizes BTG as a thought leader too."

KEEPING OTHER FIELDS GOING

This project with SIO sits alongside everything else in the BTG group. Stratford continues, "We need to progress all products we have in interventional oncology, and will keep that going independently of the immunotherapy work. It's difficult to imagine that every patient will benefit from the combination of interventional oncology and immuno-oncology, so we need to remain focused on providing the best interventional oncology products we can, and we'll continue to invest in them."

BTG has upped its spending on R&D, and significantly, has taken a step into earlier-stage research with its SIO joint work. "It's earlier stage, but it's largely using products that are already on the market today – and it's about how we improve the way in which products are used. It's another example of where BTG is deepening its thought leadership status in this field.

"Interventional oncology is generating a lot of excitement and immunotherapy is growing fast – these are exciting times for BTG," says Stratford. ▶

IV005093

ASHLEY YEO
Ashley.Yeo@Informa.com