InNexus receives patent-protection for cancer antibody technology

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Summary:

Drug developer InNexus Biotechnology Inc., which modifies laboratory-produced antibodies to make them more effective cancer-fighters, has announced that several patents related to its Dynamic Cross Linking (DXL) technology will soon be issued. The latest patent approval for the firm's technology platform--other patents have been issued previously--gives InNexus a firmer stake in the promising field of cancer immunotherapy.

Full Story:

Drug developer InNexus Biotechnology Inc., which modifies laboratory-produced antibodies to make them more effective cancer-fighters, has announced that several patents related to its Dynamic Cross Linking (DXL) technology will soon be issued. The latest patent approval for the firm's technology platform--other patents have been issued previously--gives InNexus a firmer stake in the promising field of cancer immunotherapy.

"The latest series of patents put another very thick layer of protection on our ability to create and manufacture antibodies with DXL technologies," said Jeff Morhet, chairman and CEO of InNexus, in the *Business Journal of Phoenix*.

InNexus has its headquarters in British Columbia, but in 2006 moved its principal management and product-development facilities to Mayo Clinic’s campus in Scottsdale.

InNexus' products build on advances over the last 20 years in the development of monoclonal antibodies to target cancer cells. Monoclonal antibodies are ordinarily manufactured in the laboratory by vast stores of identical hybrid immune cells--typically a long-lasting tumor cell fused with a mammalian cell designed to produce a specific antibody. In recent years, the antibodies these hybrid cells secrete have been refined to better match human antibodies; monoclonal antibodies can now be manufactured in multiple ways, and they have been augmented with additional cancer-disrupting properties.

InNexus refers to such augmented antibodies as "the next generation of monoclonal antibodies." They possess various attributes: Some carry signals that induce apoptosis, or cell death, in target cancer cells, while others can transport toxins to the cancer cells or--as is the case with Genentech Inc.'s breast-cancer drug Herceptin--prevent expression of a particular protein that promotes tumor growth.

Monoclonal antibodies have become the most widely used form of cancer immunotherapy, and both researchers and pharmaceutical companies have regarded them as holding important therapeutic advantages over traditional chemotherapy or radiation treatments. Even when successfully attacking cancer cells, those therapies can compromise non-cancerous cells and produce serious side effects. Monoclonal antibodies are able to more narrowly target cancer cells and, so long as the patient's body doesn't reject them as foreign substances, often produce only limited side effects.

Where monoclonal antibodies have most often proven inadequate is in their therapeutic strength. In many instances, they have been unable to knock out their target cancer cells, and a significant share of monoclonal antibodies under development have not worked well enough to earn approval from regulators like the Food and Drug Administration. InNexus points to that spotty track record as one reason that venture-capital and other investors have hesitated to support firms trying to commercialize antibody-based immunotherapy agents.

The DXL technology that InNexus has developed is designed to supercharge monoclonal antibodies. By "cross linking" or binding antibodies to one another, as well as to their targets, those antibodies are able to latch on more securely to their targets. And InNexus is working to tailor DXL-enhanced antibodies to be better vehicles for "next-generation" antibody augmentations.

The cross-linking and other enhancements produce significant-enough changes in the antibodies that in some cases they may constitute altogether new products, enabling InNexus and its partners to seek new or extended patents for previously protected products. InNexus also anticipates that the enhancements will allow newly robust monoclonal antibodies to earn FDA approval and reach the marketplace where they have previously failed to achieve authorization.

InNexus, a publicly traded company, has recently announced two steps it is taking to raise a total of more than $12 million for further development of products based on DXL technology. It has completed a brokered private placement of 20 million units--each comprised of one common share of the company's stock and one share purchase warrant--with gross proceeds of roughly $5 million. And it has secured an equity line of credit for up to $7.5 million. Morhet said that the firm continues to seek additional venture capital for its projects.

For more information:

"InNexus Biotechnology clears patent process for cancer treatment, raising $12 million" *Business Journal of Phoenix*, 06/12/2008

InNexus Biotechnology news release, 06/12/2008

InNexus Biotechnology news release, 05/30/2008

Monoclonal Antibodies, American Cancer Society