

# Vaccine company doubles its money

**Therion Biologics** has received \$39.0M from previous investors in an extension of its series C round, bringing the total amount raised to \$75.5M. The cash will see the cancer company's two lead products enter Phase II trials, and help fund the expansion of a new manufacturing facility.

The financing was led by business angel Hans-Werner Hector, and included Hambrecht Quist Funds and SR One. Therion completed the first closing of its series C in October 2001, bringing in \$36.5M.

President and CEO of Therion (Cambridge, MA), Mark Leuchtenberger, told *BVV*: "We finalised the plan to extend the round in the summer of last year as we saw an opportunity to take two products into the clinic rather than just one. The company has all the parts in place to do this, so we thought that it was an ideal time to exploit our position."

Leuchtenberger said that owing to a string of clinical successes announced in recent months in Therion's therapeutic sector of cancer vaccines, investors have become "more confident and more inclined to invest". "Although each product works through a different mechanism, several companies displayed good results at the annual American Society of Clinical Oncology meeting in May, proving that cancer vaccines have real potential. In a Phase I trial of our PROSTVAC-VF vaccine, we demonstrated that 23 out of 58 patients had their cancers stabilised – one patient even had a complete response."

The company anticipates beginning a Phase II trial for PROSTVAC-VF in late 2003 for the treatment of prostate cancer, and also a Phase II trial of

PANVAC-VF vaccine in early 2004 for the treatment of pancreatic cancer. Both vaccines are based on a viral vector with the transgenes for CEA(6D), B7-1, LFA-3 and ICAM-1 to initiate an immune response against cells expressing carcinoembryonic antigen (CEA).

Therion's main competition will come in the form of Dendreon's prostate cancer vaccine, Provenge, currently in Phase III trials. The vaccine consists of antigen-loaded dendritic cells derived from a patient's own blood that stimulate T cells to recognise target antigens on tumour cells. "The compounds are at different stages, so it is hard to compare them. However, we have demonstrated similar efficacy, and have the added benefit of being able to provide an 'off-the-shelf' product – vaccines that are generated from a patient's own cells can be time consuming to manufacture."

Another company developing an off-the-shelf prostate cancer vaccine is Cell Genesys. GVAX is made up of tumour cells that have been irradiated and genetically modified to secrete the immunostimulant, GM-CSF. Interim results from an 80-patient, multicentre Phase II trial showed that the vaccine displayed signs of efficacy, and a Phase III trial is expected to begin later this year.

## ...planning for the future

Leuchtenberger said that the extra cash would also be used to expand the capabilities of a newly completed GMP manufacturing facility. "We want to add a few more employees, bringing total headcount at the plant up to 25. This will help support the production of the trial vaccines, and also future commercial production." – SC