Non-Technical Abstract

A Phase I/II Dose-Escalation Trial of Intratumoral Injection with at Replication-Deficient Adenovirus Vector, Ad-mda7 (INGN 241) in Combination with Radiation Therapy in Patients with Locally Recurrent Breast Cancer

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This research study on human subjects is designed to look at safety and to try to determine the highest dose of a gene transfer material, Ad-mda7 (INGN 241) that is well tolerated by people. It will include evaluations of how the gene therapy works when it is given to people with breast cancer by injecting the cancer tumors before and after the tumors are treated with radiation therapy. Special tests will be done on samples cut out of the tumors to look at how the Ad-mda7 works, including a test that will look for DNA from the injected gene therapy called "PCR" for polymerase chain reaction. The samples will also be tested for the precursor to the protein, called mRNA, that should be made from the gene therapy, that test is called "RT-PCR" for reverse transcriptase polymerase chain reaction.

The patients who will be able to participate in this clinical trial will have inoperable breast cancer and will have already failed standard cancer chemo therapies. All of the patients will be treated with standard amounts of radiation therapy in combination with the study material, Ad-mda7. In the first part of the study, three people will get the first dose of Ad-mda7, then the next three will get the next higher dose, and so on for three doses. This is called "dose escalation". If any of the human subjects have a negative reaction to the study material, the dose level will be evaluated to see if it is the highest dose that people can tolerate.

The Ad-mda7 will be injected into the tumors, with up to 6 total injections per lesion.

In the second part of the study, a larger number of people will be given the highest dose that was tolerated during the dose escalation part of the study. These patients will be observed to see if the cancer gets better, gets worse or stays the same.

Human subjects participating in the trial will be asked to have material cut out of the tumor before the gene transfer material is administered and on day 3, 21 and 42 after the gene transfer material is administered. These tumor samples will be taken with a needle.

This gene transfer construct has been previously used in human subjects, in the ongoing open label Phase I study the INGN 241 has been well tolerated to date.