2.0 NON-TECHNICAL ABSTRACT

Ovarian cancer is the fourth most common cause of cancer death among women in the United States. Approximately one in 70 women will develop ovarian cancer in her lifetime. If diagnosed early and treated while the cancer is localized, 90% will live for more than five years. However, most women are diagnosed with advanced stages of disease. Overall, only 42% of women diagnosed with ovarian cancer will live for more than five years. A number of factors can influence the prognosis. Overexpression of tumor marker HER-2/*neu*, which occurs in approximately 15% of cases, is associated with a poorer prognosis.

The E1A gene may be able to stop the growth of cancer by making the tumor cells die or making them more sensitive to other cancer treatments such as chemotherapy or radiation therapy. This gene was obtained from a small part of the DNA from a common cold virus. It can be introduced into tumor cells by combining it with a bit of lipid or fat, then giving it by injection directly into tumors; this combination is called "E1A-Lipid Complex". E1A-Lipid Complex has been given to mice in experimental models of ovarian cancer both with and without overexpression of HER-2/*neu*. It was shown to be safe, to make the tumors smaller, and to allow the mice with cancer live longer.

E1A-Lipid Complex has also been used in small numbers of people. In a Phase I study to determine the highest dose of E1A-Lipid Complex that can be tolerated, side effects consisting of fever, nausea, vomiting and abdominal pain developed in patients. The maximum tolerated dose was determined to be one dose lower than the highest dose received. E1A-Lipid Complex was noted to have biological activity at all doses. A Phase I trial is currently underway to define the maximum tolerated dose of E1A-Lipid Complex (1:3) in combination with chemotherapy.

Since E1A-Lipid Complex has been shown to be safe and to show promise in treating ovarian cancer in animals and in small numbers of people, further study is warranted to determine if E1A-Lipid Complex is indeed effective in treating ovarian cancer. In this study, up to 35 women with ovarian cancers that overexpress HER-2/*neu* will receive six cycles of E1A-Lipid Complex (1:3). Each cycle will consist of three weekly infusions of E1A-Lipid Complex into the abdominal cavity through a catheter, followed by one week of rest. Tumor response and biological activity will be measured using serial CT scans, blood tests, and examination of fluid in the abdomen. Patients will be carefully monitored for safety. A parallel study, in which the same clinical design and parameters are being

investigated, is also being initiated in women with ovarian cancers that do not overexpress HER-2/*neu*.