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FOR IMMEDIATE RELEASE

RADIENT PHAMACUETICALS STRATEGIC PARTNER JAIVA TECHNOLOGIES PLANS TO SUBMIT APPLICATION FOR PHASE II HUMAN CLINICAL TRIALS FOR NON-SMALL CELL LUNG CARCINOMA; ADVANCING COMMERCIALIZATION OF RPC'S CIT™ CANCER VACCINE IN INDIA

(TUSTIN, CA) June 24, 2010/PRNewswire – Radient Pharmaceuticals Corporation (NYSE - AMEX: RPC - News), a US-based pharmaceutical company, and Jaiva Technologies, Inc. ("Jaiva"), a US-based biotechnology company focused on the research and development, distribution, marketing and sales of promising third-party healthcare technology products, including RPC's CIT cancer therapy and vaccine, announced today that Jaiva plans to submit a clinical trial application to the Central Drugs Standard Control Organization (CDSCO) in India to commence human phase II trials for RPC's Combination Immunogene Therapy (CIT) technology as a vaccine therapy for non-small cell lung carcinoma (NSCLC).

In Jaiva's submission, they are taking a targeted approach with RPC's CIT technology using allogenic cells to develop a general NSCLC therapy and vaccine. NSCLC accounts for approximately 87% of all lung cancer cases. Worldwide, NSCLC is the most common cancer in terms of both incidence and mortality (1.35 million new cases per year and 1.18 million deaths). The population segment most likely to develop lung cancer are people over the age of fifty who have a history of smoking. Lung cancer is the second most commonly occurring form of cancer in most Western countries, and it is the leading cancer-related cause of death.

According to Decision Resources, Inc., the NSCLC drug market is forecasted to reach US$4.1B by FY2014. RPC and Jaiva expect to begin product commercialization by FY2015, following the successful completion of these trials. Jaiva has indicated they anticipate securing 5% of the lung cancer treatment market share, or approximately US$200M in CIT sales by 2017; and approximately 10% market share or US$400M of the forecasted market by FY2020.

Radient Pharmaceuticals owns CIT — a proprietary, US-patented cancer therapy and vaccine technology. The potential use of RPC's CIT technology builds the body's immune system and destroys cancers simultaneously. The treatment applications of CIT involve injecting a vaccine, prepared from tumor cells that have been transformed with an attenuated viral vector carrying

a combination of two genes, B7-2 and GM-CSF. The vaccine stimulates the immune cells that kill cancer cells and acts as a flag to draw the killer cells to the site of the tumor.
The standard approach in utilizing gene therapy to combat cancer is to replace defective genes in cancer cells; however, this standard approach has proven to be impractical because of the large number of genes involved. The GM-CSF gene attracts the patient's antigen presenting cells (dendritic cells that capture antigens) which activate tumor-specific T cells. The B7-2 gene also enters the patient's tumor and genetically alters it so it can stimulate stronger and a larger number of T-cells to fight the cancer.

It is believed that CIT will prove to be effective in boosting the immune system to effectively kill cancer cells and that the therapy has the potential to be much more effective in treating cancer patients than either chemotherapy or radiation. In addition, this therapy has not been shown to have the extreme side effects of radiation or chemotherapy.

Mr. Douglas MacLellan, Executive Chairman and CEO of RPC, commented, "This submission to the CDSCO for approval to commence human clinical trials for a general non-small cell lung carcinoma vaccine is a major milestone for Radient Pharmaceuticals and will continue to bring strategic value to our company and its stakeholders as we move our cancer products and programs toward commercialization. Upon receiving CDSCO approval for this clinical trial application, we will then commence phase III trials in India and the United States."

RPC acquired its CIT technology from Dr. Lung-Ji Chang who developed it while at the University of Alberta, Edmonton, Canada and is currently a professor at the Powell Gene Therapy Center at the University of Florida. In pre-clinical studies conducted at the University of Alberta, Canada, C.B-17-SCID-beige mice given a human immune system were injected with melanoma (skin cancer) and glioma (brain cancer). The control group (non-treated) all died of cancer. In the group treated with CIT, 100% of the control group survived at the end of the 3-month trial period. Additionally, ten terminal human cancer patients, five skin cancer and five brain cancer patients were treated with CIT. The phase I clinical trial concluded that the treatment is feasible and safe with the following results: the treatment was safe at the present dose and the following biologic effects were noted: patients showed an inflammatory response at vaccination sites three to four days after injection, particularly after their second and third injections; most patients had an increase in their serum C-reactive protein levels (a non-specific indicator of inflammation) after each vaccination. Two patients that had large residual brain tumors and when they were treated developed increased cerebral edema two to three days after each vaccination (particularly after the second and third injections).

According to Dr. Umesh Bhatia, Jaiva CEO, "We are extremely excited to initiate this important trial with the CDSCO in India. CIT has tremendous potential benefit in treating NSCLC patients,

and through the successful completion of this phase II trial we will initiate phase III in India and in the USA."

For additional information on RPC and its portfolio of cancer products visit the Company's corporate website at www.Radient-Pharma.com. For Investor Relations information contact Kristine Szarkowitz at kszarkowitz@Radient-Pharma.com or 1.206.310.5323.

About Radient Pharma:

Headquartered in Tustin, California, Radient Pharmaceuticals Corporation is an integrated pharmaceutical company devoted to the research, development, manufacturing, and marketing of diagnostic, and premium skin care products.

Forward Looking Statements:

Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995: The statements contained in this document include certain predictions and projections that may be considered forward-looking statements under securities law. These statements involve a number of important risks and uncertainties that could cause actual results to differ materially including, but not limited to, the performance of joint venture partners, as well as other economic, competitive and technological factors involving the Company's operations, markets, services, products, and prices. With respect to Radient Pharmaceuticals Corporation, except for the historical information contained herein, the matters discussed in this document are forward-looking statements involving risks and uncertainties that could cause actual results to differ materially from those in such forward-looking statements.

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