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Celsion Corporation Announces Issuance of Two New Patents for ThermoDox®

Strengthens Global Patent Portfolio Around Novel Heat-Sensitive Liposome Engineered to Address a Broad Range of Difficult-to-Treat Cancers

LAWRENCEVILLE, N.J., Jan. 18, 2017 (GLOBE NEWSWIRE) -- Celsion Corporation (NASDAQ:CLSN), a clinical stage oncology drug development company, today announced that the United States Patent and Trademark Office has granted U.S Utility Patent No. 9,492,385 B2 - *Temperature-Sensitive Liposomal Formulation*, which is directly applicable to the method of treating cancer using the Company's current ThermoDox® formulation. The claims cover intravenous or direct (to the tumor) administration of the formulation followed by heating and extends coverage time over ThermoDox's current parent patents. The Company also announced the issuance of Korean Patent No. 1652126 - *Novel Thermosensitive Liposomes Containing Therapeutic Agents*, which relates to composition claims directed to a thermally sensitive liposome that contains all of the components in the Company's ThermoDox® liposome as well as one additional lipid (DSPG).

These two new patents strengthen the global coverage of ThermoDox®, Celsion's proprietary dose form of doxorubicin based on a heat-activated liposomal platform technology, currently in Phase III development for the treatment of primary liver cancer, also known as hepatocellular carcinoma (HCC). The Company's Phase III OPTIMA Study is expected to enroll up to 550 patients at up to 75 clinical sites in the North America, Europe, China, S. Korea, Taiwan, and Southeast Asia, and will evaluate ThermoDox® in combination with optimized RFA, which will be standardized to a minimum of 45 minutes across all investigators and clinical sites for treating HCC lesions three to seven centimeters, versus standardized RFA alone.

"The issuance of these patents further strengthens Celsion's growing position as a leader in the development of directed chemotherapeutics designed to address some of the most difficult-to-treat cancers. In conjunction with its composition of matter patents, these new issuances broaden our intellectual property portfolio and provides for life cycle management of ThermoDox® well into the next decade. Additionally by covering the use of ThermoDox®, Celsion reinforces its exclusivity in many of the major markets around the world where HCC approaches epidemic proportions," said Michael H. Tardugno, chairman, president and CEO. "HCC has the fastest rate of growth of all cancers with annual incidence of over 800,000 new cases and is projected to be the most prevalent form of cancer by 2020."

ThermoDox® is currently in late stage clinical trials in primary liver cancer and recurrent chest wall breast cancer. It is positioned for use with multiple heating technologies, and has the potential for applications in the treatment of other forms of cancer including metastatic liver and non-muscle invading bladder cancers.

About ThermoDox®

Celsion's most advanced program is a heat-mediated drug delivery technology that employs a novel heat-sensitive liposome engineered to address a range of difficult-to-treat cancers. The first application of this platform is ThermoDox®, a lyso-thermosensitive liposomal doxorubicin (LTLD), whose novel mechanism of action delivers high concentrations of doxorubicin to a region targeted with the application of localized heat at 40°C, just above body temperature. ThermoDox® has the potential to address a broad range of cancers.

Celsion's LTLD technology leverages two mechanisms of tumor biology to deliver higher concentrations of drug directly to the tumor site. In the first mechanism, rapidly growing tumors have leaky vasculature, which is permeable to liposomes and enables their accumulation within tumors. Leaky vasculature influences a number of factors within the tumor, including the access of therapeutic agents to tumor cells. Administered intravenously, ThermoDox® is engineered with a half-life to allow significant accumulation of liposomes at the tumor site as these liposomes recirculate in the blood stream. In the second mechanism, when an external heating device heats tumor tissue to a temperature of 40°C or greater, the heat-sensitive liposome rapidly changes structure and the liposomal membrane selectively dissolves, creating openings that can release a chemotherapeutic agent directly into the tumor and into the surrounding vasculature. Drug concentration increases as a function of the accumulation of liposomes at the tumor site, but only where the heat is present. This method damages only the tumor and the area related to tumor invasion, supporting more precise drug targeting.

About Celsion Corporation

Celsion is a fully-integrated oncology company focused on developing a portfolio of innovative cancer treatments, including

directed chemotherapies, immunotherapies and RNA- or DNA-based therapies. The Company's lead program is ThermoDox®, a proprietary heat-activated liposomal encapsulation of doxorubicin, currently in Phase III development for the treatment of primary liver cancer and in Phase II development for the treatment of recurrent chest wall breast cancer. The pipeline also includes GEN-1, a DNA-based immunotherapy for the localized treatment of ovarian and brain cancers. Celsion has two platform technologies for the development of novel nucleic acid-based immunotherapies and other anti-cancer DNA or RNA therapies, including TheraPlas™ and TheraSilence™. For more information on Celsion, visit our website: http://www.celsion.com (LTSL/ThermoDox®, HEAT Study/HCC, OPTIMA Study/HCC).

Celsion wishes to inform readers that forward-looking statements in this release are made pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Readers are cautioned that such forward-looking statements involve risks and uncertainties including, without limitation, unforeseen changes in the course of research and development activities and in clinical trials; the uncertainties of and difficulties in analyzing interim clinical data, particularly in small subgroups that are not statistically significant; FDA and regulatory uncertainties and risks; the significant expense, time, and risk of failure of conducting clinical trials; the need for Celsion to evaluate its future development plans; possible acquisitions or licenses of other technologies, assets or businesses; possible actions by customers, suppliers, competitors, regulatory authorities; and other risks detailed from time to time in the Celsion's periodic reports and prospectuses filed with the Securities and Exchange Commission. Celsion assumes no obligation to update or supplement forward-looking statements that become untrue because of subsequent events, new information or otherwise.

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