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Celsion Corporation Highlights Recent Pipeline Developments for its GEN-1 Immunotherapy Program and Provides Business Update

Enrollment of First Cohort Completed in the OVATION Study - A Phase 1b Trial to Assess GEN-1 IL-12 Immunotherapy in Combination with Neo-Adjuvant Therapies in Newly Diagnosed Ovarian Cancer Patients

Preclinical Data Abstract for GEN-1 IL-12 Immunotherapy in Combination with Avastin® and Doxil® Accepted for Presentation at AACR Annual Meeting 2016

LAWRENCEVILLE, N.J., Feb. 12, 2016 /PRNewswire/ -- Celsion Corporation (Celsion) (NASDAQ: CLSN), a fully-integrated oncology company focused on the development of a portfolio of innovative cancer treatments, today highlighted recent accomplishments related to the Company's GEN-1 immunotherapy pipeline and provided a general business update. Celsion also announced the completion of enrollment of the first cohort of patients in its Phase 1b dose escalating clinical trial (the OVATION Study) combining GEN-1, the Company's DNA-based immunotherapy, with the standard of care for the treatment of newly-diagnosed ovarian cancer patients who will undergo neoadjuvant chemotherapy followed by surgical resection of their tumor.

"GEN-1 is designed to locally activate IL-12 production using our novel targeted non-viral delivery platform for a sustained period for up to 7 days in the tumor environment," stated Dr. Nicolas Borys, Celsion's senior vice president and chief medical officer. "Emerging preclinical and translational data demonstrate that GEN-1 stimulates the local cellular production and secretion of highly-tolerable endogenous IL-12, a potent multi-mechanistic anti-cancer agent, while limiting toxicities, poor tolerability, and poor pharmacokinetics associated with systemically administered recombinant IL-12."

The OVATION Study

The first two patients in the OVATION Study who completed treatment have shown promising results. Both patients reported stable disease with a dramatic drop in their CA-125 protein levels of 89% and 98%. Cancer antigen 125 (CA-125) is used to monitor certain cancers during and after treatment. CA-125 is present in greater concentrations in ovarian cancer cells than in other cells. A 50% reduction in CA-125 levels is considered meaningful. Both patients' CA-125 levels were below the normal healthy level of 35 U/mL. In addition, both patients experienced successful surgical resections of their tumors with one patient reporting a R0 resection which indicates a microscopically margin-negative resection in which no gross or microscopic tumor remains in the tumor bed.

The OVATION Study will continue into 2016 at higher doses of GEN-1 with the goal to identify a safe, tolerable and therapeutically active dose of GEN-1 by recruiting and maximizing an immune response. Celsion has initiated four clinical sites at the University of Alabama at Birmingham; Oklahoma University Medical Center; Washington University in St. Louis and the Medical College of Wisconsin. The trial is designed to enroll three to six patients per dose cohort and will evaluate safety and efficacy and attempt to define an optimal dose for a follow-on Phase I/II study combining GEN-1 with Avastin® and Doxil®.

GEN-1 + Avastin® + Doxil® Program

The Company has completed various preclinical studies combining GEN-1 with Avastin® and Doxil®, the current standard of care for the treatment of platinum resistant ovarian cancer, which has demonstrated synergistic anti-cancer effects. The Company's preclinical data abstract summarizing these studies has been accepted for presentation at the upcoming AACR Annual Meeting 2016 in New Orleans. Data from these studies will be used to support an IND filing for a Phase I/II clinical trial evaluating the combination in recurrent ovarian cancer later this year.

Supporting Translational Data

In January 2016, the Company reported translational research data from its recently completed Phase 1b Study of GEN-1 in combination with PEGylated doxorubicin (Doxil®) in patients with platinum-resistant ovarian cancer. This important data provides evidence that intraperitoneally-administered GEN-1 produces an immunologically distinct IL-12 protein that is localized at the tumor site and lasts for up to one week after a single treatment. Furthermore, concomitant increases in IFN-

y and TNF- α indicate that the IL-12 produced following treatment with GEN-1 treatment is immunologically active.

In addition to this strongly supportive translational data, GEN-1 has demonstrated encouraging safety and efficacy data in this Phase 1b trial in combination with Doxil® as summarized below:

- Findings from this trial demonstrated an overall clinical benefit of 57.1% for all treatment arms, with a partial response (PR) rate of 21.4% and a stable disease (SD) rate of 35.7%
- There was a 100% overall clinical benefit observed at the highest dose cohort in this difficult-to-treat patient population (PR=33% and SD=67%) in all six evaluable patients
- GEN-1 was well tolerated, with no dose limiting toxicities and no overlapping toxicities between GEN-1 and Doxil®.

Business Update

The Company also reported a year-end cash position of \$20.1 million (unaudited) compared to \$24.1 million reported at the end of the third quarter of 2015.

"Celsion continues to make significant progress across our pipeline of directed chemotherapies, immunotherapies and RNA-based therapies, which we anticipate will position the company to achieve value-creating milestones in 2016," said Michael H. Tardugno, chairman, president and CEO. "As we look toward 2016, we will continue to maintain tight controls over our spending with a sharp focus on those programs that will drive both near-term and long-term value for our shareholders."

About GEN-1 Immunotherapy

GEN-1, designed using the TheraPlas™ platform technology, is an IL-12 DNA plasmid vector encased in a nanoparticle delivery system which enables cell transfection followed by persistent, local secretion of the IL-12 protein. IL-12 is one of the most active cytokines for the induction of potent anti-cancer immunity acting through the induction of T-lymphocyte and natural killer (NK) cell proliferation. The Company has previously reported positive safety and encouraging Phase I results with GEN-1 given as monotherapy in patients with peritoneally metastasized ovarian cancer and in combination with PEGylated doxorubicin in patients with platinum resistant ovarian cancer.

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>.

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.

Celsion Investor Contact

Jeffrey W. Church
Sr. Vice President and CFO
609-482-2455
jchurch@celsion.com

Celsion Media Contacts

Harriet Shelare

Director, Communications
860-483-1721
hshelare@celsion.com

Bill Berry
Berry & Company
212-253-8881
bberry@berrypr.com

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