Intellia Therapeutics Presents Progress in Lead In Vivo Program at Cold Spring Harbor Laboratory's Fourth Meeting on Genome Engineering: The CRISPR-Cas Revolution

August 23, 2018

Robust, dose-responsive liver editing and reduction of TTR protein shown in humanized mouse model

Therapeutically relevant reduction of serum TTR protein correlating with liver editing achieved in non-human primates after a single dose

CAMBRIDGE, Mass., Aug. 23, 2018 (GLOBE NEWSWIRE) -- Intellia Therapeutics, Inc. (NASDAQ:NTLA), a leading genome editing company focused on developing curative therapeutics using CRISPR/Cas9 technology, presented data from studies demonstrating a decrease in amyloid deposition in multiple tissues of a humanized mouse model of hereditary transthyretin amyloidosis (ATTR) after a single dose of lipid nanoparticles (LNPs). The company also presented non-human primate (NHP) data from initial studies showing a therapeutically meaningful level of TTR protein reduction that correlated with robust and significant liver editing following a single administration of LNPs. Yong Chang, Ph.D., vice president, safety pharmacology, Intellia, presented these data today, at Cold Spring Harbor Laboratory's (CSHL) fourth meeting on Genome Engineering: The CRISPR-Cas Revolution, in Cold Spring Harbor, N.Y.

"As a follow-up to our rodent and NHP data released previously, we shared data on the extensive preclinical characterization of our therapeutic candidates. Our leads, used in conjunction with our modular LNP delivery system, result in reductions in TTR protein levels in NHPs that, when achieved in humans, are associated with therapeutic benefit," said Intellia President and Chief Executive Officer John Leonard, M.D. "Now, with IND-enabling activities for our lead *in vivo* program, ATTR, underway, we are one step closer to realizing the potential of CRISPR/Cas9 genome editing for developing curative treatments for chronic genetic diseases like ATTR. These additional activities are focused on confirming these initial results and identifying appropriate dose ranges for the development of potential human therapeutics."

Mice and NHP Data Results from Intellia's ATTR Program

The data presented today demonstrated a robust and therapeutically relevant *TTR* gene knockout across multiple studies, including in a humanized mouse model, a conventional mouse model and NHPs:

- In one humanized mouse study, researchers found that editing rates were dose-responsive, and also observed liver editing up to ~80 percent across multiple lead guide candidates. In a second humanized mouse study, researchers observed a lack of amyloid deposits in relevant tissues, including the stomach, colon, sciatic nerve and dorsal root ganglion, and therefore, a potential reversal in disease.

- In the conventional mouse study, as previously reported in *Cell Reports*, researchers observed a durable, therapeutically meaningful and sustained knockdown of 97 percent in serum transthyretin protein levels, following 12 months post-LNP administration of CRISPR/Cas9 in wild-type mice.

- In initial NHP studies, NHPs administered with a single dose of LNP-derived CRISPR/Cas9, Intellia achieved a TTR protein knockdown of 60 to 80 percent, comparable to current therapeutic standards. The data built on results released as part of the company's first quarter earnings announcement.

Collectively, these data included results from ongoing collaborations with researchers at Regeneron Pharmaceuticals, Inc., and the University of Porto in Portugal, where ATTR is endemic in certain regions. Click here to view the full presentation, entitled, "Development of NTLA-1001: First-in-Class, LNP-CRISPR/Cas9 Mediated Genome Editing Therapeutic for the Treatment of ATTR."

About Intellia's Transthyretin Amyloidosis Program

Transthyretin amyloidosis (ATTR) is a systemic, debilitating and fatal disease caused by one of approximately 136 different inherited mutations in the *TTR* gene. Abnormal protein deposits caused by one of these genetic mutations may affect both the peripheral and autonomic nervous systems, resulting in a variety of symptoms that develop in people as early as age 20. (Sources: Amyloidosis Foundation and National Institutes of Health)

Intellia's initial *in vivo* programs focus on the use of lipid nanoparticles (LNPs) for delivery of CRISPR/Cas9 components to the liver. The company's lead *in vivo* program targets ATTR and is being co-developed with Regeneron Pharmaceuticals, Inc. Intellia aims to achieve knockout editing of specific DNA in mutated *TTR* genes within hepatocytes that cause damaging transthyretin protein deposits in heart, nerves and other tissues in the body. Intellia anticipates submitting an Investigational New Drug application for ATTR by the end of 2019.

About Intellia Therapeutics

Intellia Therapeutics is a leading genome editing company focused on developing proprietary, curative therapeutics using the CRISPR/Cas9 system.

Intellia believes the CRISPR/Cas9 technology has the potential to transform medicine by permanently editing disease-associated genes in the human body with a single treatment course, and through improved cell therapies that can treat cancer and immunological diseases by replacing patients' diseased cells. The combination of deep scientific, technical and clinical development experience, along with its leading intellectual property portfolio, puts Intellia in a unique position to unlock broad therapeutic applications of the CRISPR/Cas9 technology and create a new class of therapeutic products. Learn more about Intellia Therapeutics and CRISPR/Cas9 at intelliatx.com and follow us on Twitter @intelliatweets.

Forward-Looking Statements

This press release contains "forward-looking statements" of Intellia Therapeutics, Inc. ("Intellia") within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, express or implied statements regarding Intellia's ability to advance and expand the CRISPR/Cas9 technology to develop into human therapeutic products, as well as our CRISPR/Cas9 intellectual property portfolio; our ability to achieve stable or effective genome editing; our ability to administer multiple doses of our CRISPR/Cas9 product candidates; the potential timing and advancement of our preclinical studies, including continuing non-human primate studies for our Hereditary Transthyretin Amyloidosis ("ATTR") program and other programs, and clinical trials; the timing and potential achievement of milestones to advance our pipeline; our ability to replicate results achieved in our preclinical studies in any future studies, including human clinical trials; the potential development of other *in vivo* or *ex vivo* cell therapeutics of all types, and those targeting WT1 in particular, using CRISPR/Cas9 technology; our ability to continue to conduct successful Investigational New Drug ("IND") enabling studies of a lead ATTR development candidate and subsequently submitting an IND application by the end of 2019 that will be accepted by the regulatory agencies; our intent to present additional data for organs beyond the liver, additional insertion/repair data, and preclinical data in support of our first *ex vivo* programs on immuno-oncology and autoimmune/inflammation indications during 2018; the expansion of our fully automated bioinformatics platform; our ability to advance a development candidate for a second indication by late 2018; our potential ability to conduct a pre-IND meeting with the U.S. Food and Drug Administration ("FDA") for ATTR; the intellectual property position and strategy of Intellia's licensors or other parties from which it derives rights; actions by government agencies; the impact of our collaborations on our development programs; the potential timing of regulatory filings regarding our development programs; the potential commercialization opportunities, including value and market, for product candidates; our expectations regarding our uses of capital, expenses, future accumulated deficit and other 2018 financial results; and our ability to fund operations through mid-2020.

Any forward-looking statements in this presentation are based on management's current expectations and beliefs of future events, and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: risks related to Intellia's ability to protect and maintain our intellectual property position; risks related to the ability of our licensors to protect and maintain their intellectual property position; uncertainties related to the initiation and conduct of studies and other development requirements for our product candidates; the risk that any one or more of Intellia's product candidates will not be successfully developed and commercialized; the risk that the results of preclinical studies will not be predictive of future results in connection with future studies; and the risk that Intellia's collaborations with Novartis or Regeneron or its other *ex vivo* collaborations will not continue or will not be successful. For a discussion of these and other risks and uncertainties, and other important factors, any of which could cause Intellia's actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in Intellia's most recent annual report on Form 10-K and quarterly reports on Form 10-Q filed with the Securities and Exchange Commission, as well as discussions of potential risks, uncertainties, and other important factors in Intellia's other filings with the Securities and Exchange Commission. All information in this presentation is as of the date of the release, and Intellia Therapeutics undertakes no duty to update this information unless required by law.

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Source: Intellia Therapeutics, Inc.