

Amgen And Boston Children's Hospital Enter A Collaboration To Find New Genes And Drug Targets For Severe Pain Syndromes

October 16, 2017

CAMBRIDGE, Mass., Oct. 16, 2017 /PRNewswire/ -- Amgen (NASDAQ:AMGN) and Boston Children's Hospital today announced that they have entered into a neuroscience research collaboration aimed at identifying novel pain targets based on human genetic analyses. The one-year collaboration will focus on patients with genetic anomalies of pain sensitivity. Amgen will leverage its industry-leading expertise in genetic target identification and validation and will have access to Boston Children's Hospital's Division of Pain Medicine to identify patients with abnormal pain conditions. Amgen and Boston Children's Hospital will collaborate to validate the genetic findings as potential pain targets.

"Traditional approaches to analgesic drug discovery have been pretty disappointing during the past 20 years," says Charles Berde, M.D., Ph.D., chief of the Division of Pain Medicine in the Department of Anesthesiology, Perioperative and Pain Medicine at Boston Children's Hospital. "The most innovative biotech companies have realized that they need to pursue new directions for drug discovery. Patients with unusual patterns of increased or decreased pain responsiveness can offer important clues in this pursuit."

"Amgen is pleased to enter into this collaboration as it underscores our extensive investment and expertise in pursuing targets that have clear genetic support," said John Dunlop, Ph.D., vice president of Neuroscience Research at Amgen. "We look forward to working with Boston Children's Hospital to explore novel pain targets that will potentially include new non-addictive approaches to treating pain in patients."

The agreement brings Amgen, a world leader in human genetic target validation, together with Boston Children's Hospital's Division of Pain Medicine, the first and most active pediatric pain program in the world, and its Manton Center for Orphan Disease Research. Both organizations have leading researchers in neuroscience and genomics, including Michael Costigan, Ph.D., of the F.M. Kirby Neurobiology Center and Catherine Brownstein, M.P.H., Ph.D., in the Division of Genetics and Genomics and scientific director of the Manton Center for Orphan Disease Research.

Boston Children's Hospital's Division of Pain Medicine treats patients with rare conditions that make them strikingly insensitive to pain or, conversely, hypersensitive to pain or apt to experience pain spontaneously, with no apparent stimulus.

As part of the collaboration, the teams will study patients with the following pain syndromes:

- genetic disorders that diminish pain sensitivity;
- erythromelalgia, a condition causing intense, burning pain in the extremities;
- paroxysmal extreme pain disorder, a condition characterized by skin flushing and severe pain attacks in various parts of the body; and
- · hereditary sensory and autonomic neuropathy.

About Amgen

Amgen is committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing and delivering innovative human therapeutics. This approach begins by using tools like advanced human genetics to unravel the complexities of disease and understand the fundamentals of human biology.

Amgen focuses on areas of high unmet medical need and leverages its expertise to strive for solutions that improve health outcomes and dramatically improve people's lives. A biotechnology pioneer since 1980, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

For more information, visit www.amgen.com and follow us on www.twitter.com/amgen.

About Boston Children's Hospital

Boston Children's Hospital is home to the world's largest research enterprise based at a pediatric medical center, where its discoveries have benefited both children and adults since 1869. More than 1,100 scientists, including seven members of the National Academy of Sciences, 11 members of the Institute of Medicine and 10 members of the Howard Hughes Medical Institute comprise Boston Children's research community. Founded as a 20-bed hospital for children, Boston Children's today is a 415-bed comprehensive center for pediatric and adolescent health care. Boston Children's is also the primary pediatric teaching affiliate of Harvard Medical School.

For more, visit our <u>Vector</u> and <u>Thriving</u> blogs and follow us on our social media channels: <u>@BostonChildrens</u>, <u>@BCH_Innovation</u>, <u>Facebook</u> and <u>YouTube</u>.

CONTACT: Amgen, Massachusetts Jennifer Bianco, 401-392-8815 (media)

CONTACT: Boston Children's Hospital Erin Tornatore, 617-919-3110 (media)



View original content with multimedia: <u>http://www.prnewswire.com/news-releases/amgen-and-boston-childrens-hospital-enter-a-collaboration-to-find-new-genes-and-drug-targets-for-severe-pain-syndromes-300537363.html</u>

SOURCE Amgen