

**EMBARGOED UNTIL SATURDAY, APRIL 30 AT 6:00 AM ET**

**Press Contacts:**

Amy Burdick

[aburdick@brgcommunications.com](mailto:aburdick@brgcommunications.com)

703-739-8343

**LATE-BREAKING CLINICAL TRIAL RESULTS ANNOUNCED AT HEART RHYTHM 2022:**

**HEART RHYTHM 2022 REVEALS LATEST ADVANCES IN CONDUCTION SYSTEM PACING**

*Three new studies highlight the potential benefits of His bundle and left bundle branch area pacing compared to biventricular pacing*

**SAN FRANCISCO, CA, April 30, 2022** – Today, the Heart Rhythm Society (HRS) announced the findings of three clinical trials demonstrating positive outcomes of conduction system pacing (CSP) for patients in need of cardiac resynchronization therapy (CRT). The studies were presented as late-breaking clinical science during Heart Rhythm 2022.

CRT is a treatment that uses pacing to target abnormal heartbeats and restore heart function for patients with heart failure and conduction abnormalities. As a key strategy to address heart rhythm disorders, researchers are continuously evaluating the latest approaches to deliver cardiac pacing safely and effectively. The traditional, standard approach to CRT has been biventricular pacing. Over the last decade, evidence around His bundle pacing and left bundle branch pacing (LBBP) has grown to offer alternative solutions.

The findings of the following studies contribute to the growing body of evidence for CSP.

- **Left Bundle Branch Pacing Versus Biventricular Pacing In Cardiac Resynchronization Therapy: A Randomized Controlled Pilot Trial:** Findings from this study indicate LBBP-CRT could potentially be considered a first-line resynchronization strategy alongside BiVP-CRT in patients with heart failure. This study is the first prospective randomized head-to-head controlled trial to compare the clinical efficacy between LBBP and BiVP. In the study, the LBBP-CRT group significantly increased left ventricular ejection fraction compared to BiVP-CRT, using intention-to-treat analysis (p=0.029).

“We are encouraged by our results and the potential for left bundle branch pacing as a first-line strategy for CRT in heart failure patients with non-ischemic cardiomyopathy and left bundle branch block,” said Jiangang Zou, MD, PhD, FHRS, First Affiliated Hospital, Nanjing Medical University, and principal investigator of the LBBP-RESYNC trial. “As the number of patients with heart failure continues to grow, it’s important to have alternative options for resynchronization therapy especially in patients less likely to respond to conventional biventricular pacing.”

**Clinical Outcomes Of Conduction System Pacing Compared To Biventricular Pacing In Patients Requiring Cardiac Resynchronization Therapy:** A non-randomized, observational, retrospective, two-center study showed CSP improved clinical outcomes when compared to BiVP in a large cohort of patients with class I or II indications for CRT. CSP was associated with significant reduction in the combined endpoint of time to death or heart failure hospitalization (28.3% vs 38.4%; HR 1.52; CI 1.082-2.087; p=0.013).

“The results of this study help establish conduction system pacing as an additional and even alternative treatment option to the traditional biventricular approach. It’s exciting and vital to our patients to have options when it comes to pacing solutions,” said Pugazhendhi Vijayaraman, MD, FHRS, Geisinger Heart Institute and study principal investigator.

- **Rescue Left Bundle Branch Area Pacing For Coronary Sinus Lead Failure Or Non-response To BIV-CRT: Results From International LBBAP Collaborative Study Group:** This study demonstrates left bundle branch area pacing (LBBAP) is a viable alternative option for CRT in patients who failed traditional BiVP due to coronary sinus lead implantation failure or failure to respond to biventricular pacing. In the retrospective, multicenter study, rescue LBBAP was found to be feasible in 200 of 212 (94%) patients.

“These findings are promising, especially for patients where the traditional strategy has failed,” said Pugazhendhi Vijayaraman, MD, FHRS, Geisinger Heart Institute, also the study principal investigator this trial. “We look forward to future larger, randomized trials to further validate conduction system pacing as a safe and effective tool to deliver cardiac resynchronization therapy.”

The trials will be presented at respective late breaking clinical trial sessions on Friday, April 29 and Saturday, April 30.

#### **Session Details:**

“Late Breaking Clinical Trials: Updates and Registries: *Clinical Outcomes Of Conduction System Pacing Compared To Biventricular Pacing In Patients Requiring Cardiac Resynchronization Therapy*” [Friday, April 29, 2022 at 10:30 am PT]

“Late Breaking Clinical Trials: Clinical Innovations: *Rescue Left Bundle Branch Area Pacing For Coronary Sinus Lead Failure Or Non-response To BIV-CRT: Results From International LBBAP Collaborative Study Group*” [Saturday, April 30, 2022 at 8:00 am PT]

“Late Breaking Clinical Trials: Randomized Clinical Trials: *Left Bundle Branch Pacing Versus Biventricular Pacing In Cardiac Resynchronization Therapy: A Randomized Controlled Pilot Trial*” [Saturday, April 30, 2022 at 2:15 pm PT]

###

#### **About the Heart Rhythm Society**

The Heart Rhythm Society is the international leader in science, education, and advocacy for cardiac arrhythmia professionals and patients and is the primary information resource on heart rhythm disorders. Its mission is to improve the care of patients by promoting research, education, and optimal health care policies and standards. Incorporated in 1979 and based in Washington, D.C., it has a membership of more than 7,000 heart rhythm professionals in more than 90 countries around the world. For more information, visit [www.HRSonline.org](http://www.HRSonline.org).

#### **About Heart Rhythm 2022**

The Heart Rhythm Society's annual Heart Rhythm meeting convenes 5,500+ of the world's finest clinicians, scientists, researchers, and innovators in the field of cardiac pacing and electrophysiology. More than 600 international experts in the field will serve as faculty for the 250+ educational sessions, forums, symposia, and ceremonies, while 100+ exhibitors will showcase innovative products and services.