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# FOR IMMEDIATE RELEASE NASDAQ: CRME TSX: COM

# CARDIOME ANNOUNCES PUBLICATION OF INDEPENDENT STUDY COMPARING BRINAVESS TO IBUTILIDE IN PATIENTS WITH RECENT-ONSET ATRIAL FIBRILLATION

Vancouver, Canada, March 31, 2016 -- Cardiome Pharma Corp. (NASDAQ: CRME / TSX: COM) today announced the publication of results from an open label, single-center, randomized controlled study conducted by independent researchers at the Medical University of Vienna in Vienna, Austria. It compared the time to conversion to sinus rhythm (SR) and conversion rate within 90 minutes in patients with recent-onset atrial fibrillation (AF) (<48 hrs duration) treated in the emergency department with BRINAVESS (vernakalant IV, n=49) or ibutilide (n=51). The study authors concluded that time to conversion of AF to SR was significantly shorter in the BRINAVESS group compared to the ibutilide group (median time: 10 [Interquartile range (IQR) = 6 – 17] vs. 26 [IQR = 9 – 55] minutes, P = 0.01), and conversion success within 90 minutes was significantly higher in the BRINAVESS group (69% vs. 43%, log-rank P = 0.002). There were no serious adverse events observed in either group. These results were published online on March 22, 2016 in the journal Europace.<sup>1</sup>

## Additional study findings:

- 59% in the BRINAVESS group compared to 27% in the ibutilide group converted to SR after the first infusion of study drug (P = 0.002).
- There was no relapse of AF during the 6 hour observation period after successful pharmacological cardioversion in either group.
- Of those who failed to cardiovert with either pharmacologic agent and then underwent electrical cardioversion, 92% in the BRINAVESS group compared to 65% in the ibutilide group, were successfully cardioverted after one shock.
- There were no cases of Torsade de pointes, ventricular fibrillation, polymorphic or sustained ventricular tachycardia, or relevant arterial hypotension in either group.
- QTcF was increased in both groups, it was more pronounced in the ibutilide group.
- The cumulative time to conversion to SR (summarizing pharmacological and electrical cardioversion), was shorter in the BRINAVESS group compared to the ibutilide group (median time: 15 [IQR = 8 140] vs. 124 [IQR = 20 241] minutes).

"We are pleased with the reassuringly consistent cardioversion efficacy and safety profile that BRINAVESS has demonstrated in this independent study which was similar to other real-use publications," said Kiran Bhirangi, M.D., Cardiome's Head of Medical Affairs. "Ibutilide is a recognized option for the pharmacological cardioversion of AF in treatment guidelines. We are pleased with the degree to which BRINAVESS appears to have outperformed it in the real-world setting. The investigators from the Medical University of Vienna have added valuable additional insight into the efficacy and safety profile of BRINAVESS during their pursuit of improving the care of patients who suffer from atrial fibrillation."

There was no financial or manuscript support from Cardiome Pharma Corp., or any of its subsidiaries, during any stage of this trial.

### References:

1. Simon, A. et al. Vernakalant is superior to ibutilide for achieving sinus rhythm in patients with recent-onset atrial fibrillation: a randomized controlled trial at the emergency department. *Europace*. Early advance access published March 22, 2016. doi:10.1093/europace/euw052.

### **About BRINAVESS**

BRINAVESS (vernakalant HCl) is an antiarrhythmic medicine that has relatively atrial selective effects on the heart causing prolonged atrial selective refractoriness and rate dependent slowing of atrial conduction. BRINAVESS is approved for marketing in Europe and several other countries. In Europe it is approved for the rapid conversion of recent onset atrial fibrillation to sinus rhythm in adults: 1) for non-surgery patients: atrial fibrillation ≤ 7 days duration; and 2) for post-cardiac surgery patients: atrial fibrillation ≤ 3 days duration. Patients with following conditions should not be infused with BRINAVESS (contraindications): patients with severe aortic stenosis, systolic blood pressure < 100 mm Hg, heart failure class NYHA III and NYHA IV, prolonged QT at baseline (uncorrected > 440 msec), severe bradycardia, sinus node dysfunction or second degree and third degree heart block in the absence of a pacemaker; use of intravenous rhythm control antiarrhythmics (class I and class III) within 4 hours prior to, as well as in the first 4 hours after, BRINAVESS administration; or acute coronary syndrome (including myocardial infarction) within the last 30 days.

Cases of serious hypotension have been reported during and immediately following BRINAVESS infusion. Patients should be carefully observed for the entire duration of the infusion and for at least 15 minutes after completion of the infusion with assessment of vital signs and continuous cardiac rhythm monitoring. If sudden drop in blood pressure, heart rate, ECG changes such as complete AV block significant QT interval changes or ischemic changes or ventricular arrhythmia occurs during the first infusion, patient should not receive the second infusion. Patients with CHF showed higher incidence of hypotension and ventricular arrhythmias within first two hours of the infusion. Based on data from 1,018 patients in eight phase 2 and phase 3 trials, the most commonly reported adverse reactions (> 5%) seen in the first 24 hours after receiving BRINAVESS were dysgeusia (taste disturbance) (16.0%), sneezing (12.5%), and paraesthesia (6.9%).

BRINAVESS is not approved for sale in Canada and the United States.

### About Cardiome Pharma Corp.

Cardiome Pharma Corp. is a specialty pharmaceutical company dedicated to the development and commercialization of cardiovascular therapies that will improve the quality of life and health of patients suffering from heart disease. Cardiome has two marketed, in-hospital, cardiology products, BRINAVESS® (vernakalant IV), approved in Europe and other territories for the rapid conversion of recent onset atrial fibrillation to sinus rhythm in adults, and AGGRASTAT® (tirofiban HCl) a reversible GP IIb/IIIa inhibitor indicated for use in patients with acute coronary syndrome. Cardiome also commercializes Esmocard® and Esmocard Lyo® (esmolol hydrochloride), a short-acting beta-blocker used to control rapid heart rate in a number of cardiovascular indications, on behalf of their partner AOP Orphan Pharma in select European markets. Cardiome has also licensed TREVYENT®, a development stage drug device combination that is under development for Pulmonary Arterial Hypertension for Europe, the Middle East and for Canadian markets.

Cardiome is traded on the NASDAQ Capital Market (CRME) and the Toronto Stock Exchange (COM). For more information, please visit our web site at <a href="https://www.cardiome.com">www.cardiome.com</a>.

### Forward-Looking Statement Disclaimer

Certain statements in this news release contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 or forward-looking information under applicable Canadian securities legislation that may not be based on historical fact, including without limitation statements containing the words "believe", "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect" and similar expressions. Forward- looking statements may involve, but are not limited to, comments with respect to our objectives and priorities for the remainder of 2016 and beyond, our strategies or future actions, our targets, expectations for our financial condition and the results of, or outlook for, our operations, research and development and product and drug development. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements. Many such known risks, uncertainties and other factors are taken into account as part of our assumptions underlying these forward-looking statements and include, among others, the following: general economic and business conditions in the United States, Canada, Europe, and the other regions in which we operate; market demand; technological changes that could impact our existing products or our ability to develop and commercialize future products; competition; existing governmental legislation and regulations and changes in, or the failure to comply with, governmental legislation and regulations; availability of financial reimbursement coverage from governmental and third-party payers for products and related treatments; adverse results or unexpected delays in pre-clinical and clinical product development processes; adverse findings related to the safety and/or efficacy of our products or products; decisions, and the timing of decisions, made by health regulatory agencies regarding approval of our technology and products; the requirement for substantial funding to expand commercialization activities; and any other factors that may affect our performance. In addition, our business is subject to certain operating risks that may cause any results expressed or implied by the forward-looking statements in this presentation to differ materially from our actual results. These operating risks include: our ability to attract and retain qualified personnel; our ability to successfully complete pre-clinical and clinical development of our products; changes in our business strategy or development plans; intellectual property matters, including the unenforceability or loss of patent protection resulting from third-party challenges to our patents; market acceptance of our technology and products; our ability to successfully manufacture, market and sell our products; the availability of capital to finance our activities; and any other factors described in detail in our filings with the Securities and Exchange Commission available at www.sec.gov and the Canadian securities regulatory authorities at www.sedar.com. Given these risks, uncertainties and factors, you are cautioned not to place undue reliance on such forward-looking statements and information, which are qualified in their entirety by this cautionary statement. All forward-looking statements and information made herein are based on our current expectations and we undertake no obligation to revise or update such forward-looking statements and information to reflect subsequent events or circumstances, except as required by law.

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