Claims

We claim:

1. Use of a therapeutically effective amount of a myosin modulator in the manufacture of a medicament for treating a subject suffering from oHCM, wherein the subject is eligible for septal reduction therapy (SRT).

2. The use of claim 1, wherein the treatment lessens the likelihood that the subject will undergo a SRT, lessens the short-term likelihood that the subject will undergo SRT, and/or eliminates the need for the subject to undergo a SRT.

3. The use of claim 1, wherein the treatment results in a reduction in interventricular septal (IVS) wall thickness, optionally wherein the treatment reduces the interventricular septal (IVS) wall thickness relative to the IVS thickness prior to receiving the treatment.

4. The use of any one of claims 1-3, wherein prior to the treatment, the subject had an interventricular septal (IVS) wall thickness to ≥ 13mm and has a family history of HCM and/or the subject had an interventricular septal (IVS) wall thickness to ≥ 15mm.

5. The use of any one of claims 1-4, wherein prior to the treatment, the subject has severe dyspnea or chest pain.

6. The use of any one of claims 1-4, wherein prior to the treatment, the subject is diagnosed with NYHA Class III or IV, or NYHA Class II with or without exertional symptoms optionally wherein the exertional symptoms are exertion-induced syncope or pre-syncope.

7. The use of any one of claims 1-4, wherein prior to the treatment, the subject has a dynamic LVOT gradient at rest or with provocation of ≥ 50 mmHg associated with septal hypertrophy, optionally wherein provocation is determined during a Valsalva maneuver or exercise.

8. The use of any one of claims 1-4, wherein prior to the treatment, the subject has a LVEF ≥ 60%.

9. The use of any one of claims 1-8, wherein the treatment results in an improvement in the NYHA Class and/or an improvement in the KCCQ.

10. The use of any one of claims 1-9, wherein the myosin modulator is a myosin inhibitor.

11. The use of claim 10, wherein the myosin inhibitor is mavacamten or a pharmaceutically acceptable salt thereof.

12. The use of claim 11, wherein the therapeutically effective amount of mavacamten or a pharmaceutically acceptable salt thereof is from about 2.5 mg to about 15 mg.

13. The use of claim 11, wherein the initial dose is 5 mg per day for at least four weeks before a dose adjustment.

14. The use of any one of claims 11-13, wherein the therapeutically effective amount is for administration once a day for 16 or more weeks, optionally 32 or more weeks, or optionally 96 or more weeks.

15. The use of claim 11, wherein the therapeutically effective amount of mavacamten or a pharmaceutically acceptable salt thereof is 5 mg per day for 16 or more weeks.

16. The use of claim 15, wherein the subject is evaluated for a dose adjustment at week 4, week 8, week 12, or week 16.

17. The use of claim 16, wherein the evaluation for the dose adjustment comprises the assessments of one or more of any of: vital signs (such as temperature, heart rate (HR), respiratory rate, or blood pressure), body weight, NYHA functional classes, adverse events, concomitant medications, physical examination, KCCQ, resting Valsalva, transthoracic

echocardiography, transthoracic echocardiogram, postexercise, Accelerometer, Holter monitor application, Single 12-lead ECG, PK sample, blood chemistry and coagulation, a cardiac biomarker, or an exploratory biomarker.

18. The use of claim 17, wherein the evaluation comprises assessments of one or more cardiac biomarkers, wherein the one or more cardiac biomarkers comprise NT-proBNP or BNP or cardiac troponin, optionally wherein the cardiac troponin is cardiac troponin I (cTnI), high sensitivity cTnI (hs-cTnI), cardiac troponin T (cTnT) or high sensitivity cTnT (hs-cTnT).

19. The use of claim 17, wherein the evaluation comprises analysis of LVOT gradient, left ventricular ejection fraction (LVEF), left ventricular (LV) filling pressures, or left atrium size in the subject.

20. The use of claim 17, wherein the evaluation comprises one or more of:

(a) assessments of changes from the baseline to week 16 in the subject who has been treated with mavacamten compared with the subject who has been treated with placebo;

(b) assessments of changes from baseline to week 16 compared with changes from baseline to week 32 in the subject who has been treated with mavacamten; and

(c) assessments of changes from the baseline to week 32 in the subject who has been treated with mavacamten compared with the subject who has been treated with placebo from week 1 to week 16 and then has been treated with mavacamten from week 17 to week 32.

21. The use of claim 19 or 20, wherein the evaluation is to assess changes in NYHA functional classes, in KCCQ-23 scores, in NT-proBNP or BNP levels, in a cardiac troponin cTnI or cTnT, or the LVOT gradient in the subject.

22. The use of any preceding claims, wherein the subject is reevaluated at week 16, week 32, week 80, and/or week 128 for SRT eligibility.

23. The use of any one of claims 17-22, wherein the evaluation shows the method of any one of claims 1-16 lessens or eliminates the need of a SRT for the subject.

24. The use of any preceding claim, wherein the subject is eligible for SRT consistent with ACC/AHA 2011 and/or ESC2014 guidelines.

25. The use of any preceding claim, wherein the subject is characterized by one or more of (a)-(c):

(a) NYHA Class III or IV or Class II with or without exertional symptoms;

(b) dynamic LVOT gradient at rest or with provocation (i.e., Valsalva or exercise) ≥ 50 mmHg associated with septal hypertrophy; and

(c) targeted anterior septal thickness sufficient to perform the procedure safely and effectively in the judgment of the individual operator.

26. The use of any preceding claim, wherein the subject has an elevated troponin level and/or an elevated NT-proBNP or BNP level, optionally wherein the subject has an E/e' >14.

27. The use of any one of claims 1-26, wherein the subject is refractory to standard of care treatment for oHCM such as treatment with a beta blocker, a calcium channel blocker, disopyramide or any combination thereof.

28. The use of any one of claims 1-27, wherein, prior to treatment with a myosin inhibitor, mavacamten or a pharmaceutically acceptable salt thereof, the subject reached their maximum tolerated medical treatment with standard of care oHCM therapy (such as beta blockers, calcium channel blockers, and/or disopyramide) and remained symptomatic NYHA class III or IV with an LVOT gradient greater than or equal to 50 mmHg.

29. The use of any one of claims 1-28, wherein the subject receives adjunctive therapy comprising standard of care treatment, such as a beta blocker, a calcium channel blocker, disopyramide, or any combination thereof, for oHCM during the course of treatment with the myosin inhibitor, or mavacamten or pharmaceutically acceptable salt thereof.

30. The use of any one of claims 1-29, wherein the subject is classified as NYHA class IV.

31. The use of claim 17, wherein the evaluation comprises analysis of LVOT gradient and/or LVEF.

32. The use of claim 31, wherein the dose of mavacamten is increased if the LVOT gradient in the subject is greater than 30 mmHg and the LVEF in the subject is greater than or equal to 50%.

33. The use of claim 2, wherein lessening the likelihood that a subject will undergo SRT comprises (1) a reduction in the desire of a patient to proceed with SRT, and/or (2) a resultant change in SRT guideline eligibility such that the patient is no longer eligible to receive SRT.

34. The use of claim 2 or 33, wherein the change in likelihood is based on an assessment of likelihood at baseline compared to an assessment of likelihood at Week 16 and/or Week 32, and wherein the reduction from baseline of the likelihood that a subject will undergo SRT is achieved by Week 16 and maintained at Week 32.