

## **DEFINE FLAIR<sup>1</sup>**

Functional Lesion Assessment of Intermediate stenosis to guide Revascularisation. First global study of physiology N = 2492 patients.

#### **Primary objective**

- · To assess safety and efficacy of decision-making on coronary revascularisation based on iFR vs FFR
- To assess whether the iFR is non-inferior to FFR when used to guide treatment of coronary stenosis with PCI

#### **Primary endpoint**

- Major adverse cardiac events (MACE) rate in the iFR and FFR groups at 30 days, 1 and 2 years.
  Data from one year follow up will be presented
- $\bullet \ \ \mathsf{MACE} \ (\mathsf{combined} \ \mathsf{endpoint} \ \mathsf{of} \ \mathsf{death}, \ \mathsf{non-fatal} \ \mathsf{MI}, \ \mathsf{or} \ \mathsf{unplanned} \ \mathsf{revascularisation})$

## iFR Swedeheart<sup>3</sup>

Evaluation of iFR vs FFR in stable angina or acute coronary syndrome N = 2037 patients.

#### **Primary objective**

- · Compare the clinical outcome of patients assessed by iFR with patients assessed by FFR
- Registry based randomized clinical trial (RRCT) in SCAAR/SWEDEHEART

## **Primary endpoint**

- · All cause death: national death registry, 100% follow-up adjudication
- $\cdot \ \, \text{Myocardial infarction}$
- Unplanned revascularization
- Follow up: SCAAR (Swedeheart/Iceland) > 99%, Denmark follow-up in the Danish registry
- · Angiographic assessment by experienced observer (blinded to the randomization)

## FAME<sup>4</sup>

#### **Primary objective**

 To assess safety and efficacy of FFR guided PCI in patients with multivessel coronary artery disease who are undergoing PCI, compared to angiography alone

#### **Primary endpoint**

· Rate of death, nonfatal myocardial infarction, and repeat revascularization at 1 year

## FAME II<sup>5</sup>

#### **Primary objective**

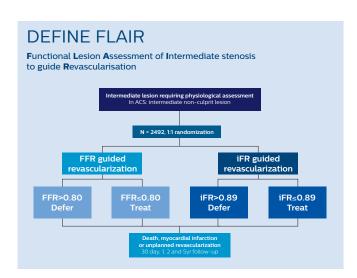
• To assess outcome in patients with functionally significant stenoses, as determined by measurement of FFR, between PCI plus the best available medical therapy versus the best available medical therapy alone.

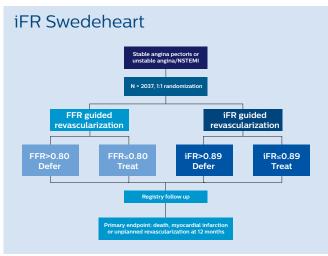
#### **Primary endpoint**

 $\bullet \ \ \text{Composite of death, myocardial infarction, or urgent revascularization}$ 

## **Trial comparisons**

	DEFINE FLAIR <sup>1</sup>	iFR Swedeheart³	FAME <sup>4</sup>	FAME II <sup>5</sup>
# of physiology-guided patients	2492	2037	509	441
Centers	Global	EU	EU & US	EU & US
Core lab analysis	Yes	Yes	No	No
Follow-up blinded	Yes	Yes	No	No
Inclusive of all stable CAD patients	Yes	Yes	No (MVD patients only)	Yes
Inclusive of ACS patients	Yes	Yes	No	No





# First set of global physiology studies

## iFR Swedeheart





- 1. DEFINE FLAIR: Functional Lesion Assessment of Intermediate Stenosis to Guide Revascularisation https://clinicaltrials.gov/ct2/show/NCT02053038
- 2. Late breaker presentation "DEFINE-FLAIR: Comparative Cost Effectiveness of the Instantaneous Wave-free Ratio versus Fractional Flow Reserve in Coronary Revascularization Decision-making" ACC Marc 10, 2018.
- 3. iFR Swedeheart: Evaluation of iFR vs FFR in Stable Angina or Acute Coronary Syndrome https://clinicaltrials.gov/ct2/show/NCT02166736
- 4. Tonino PA, et al., FAME Study Investigators. Fractional flow reserve versus angiography for guiding percutaneous coronary intervention. N Engl J Med. 2009 Jan 15;360(3):213-24.
- 5. De Bruyne B, et al., FAME 2 Trial Investigators. Fractional flow reserve-guided PCI versus medical therapy in stable coronary disease. N Engl J Med. 2012 Sep 13;367(11):991-1001.

