

# AZ CVRM Therapy Area: Nordic Clinical Trial PPP Collaborations

Allan Vaag, VP, MD, PhD, DMSc

Early Clinical Development, Translational Medical Unit,  
Cardiovascular, Renal and Metabolic (CVRM) Diseases

LMI Oslo, Norway, Kliniske Studier 2018

March 14, 2018

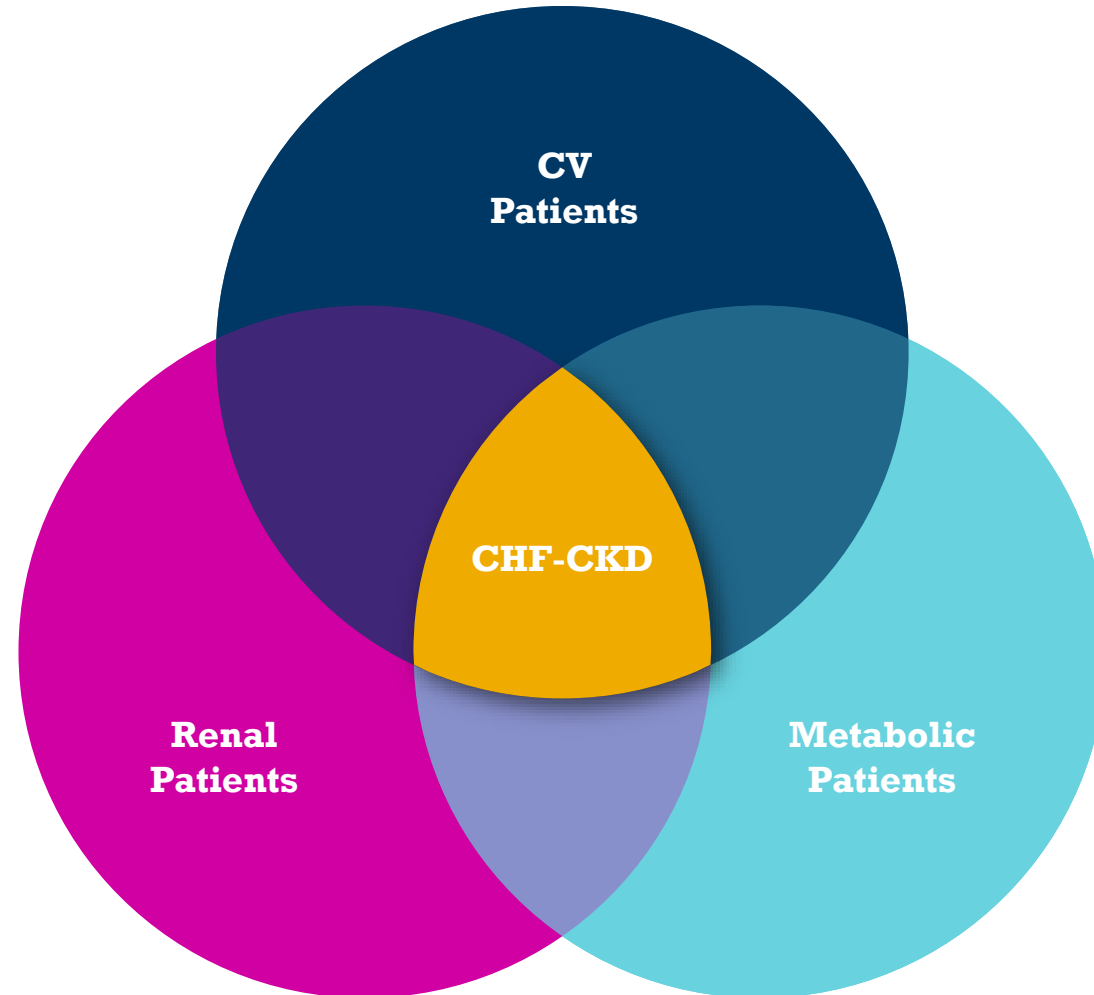


# Why? There is a still growing unmet need in CVRM

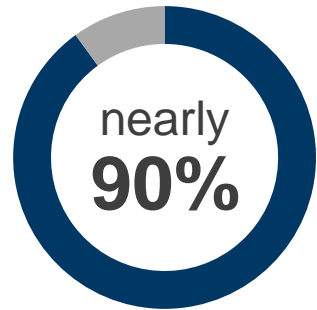
Despite scientific advancements, cardiovascular disease (CVD) remains the #1 cause of death globally, with **high residual risk**.<sup>1,2</sup>

But it doesn't occur in isolation.

Science is uncovering **commonalities between CV, renal and metabolic diseases**, explaining why reducing CV risk is so complex.



# It is imperative to rapidly change the science & treatment landscape



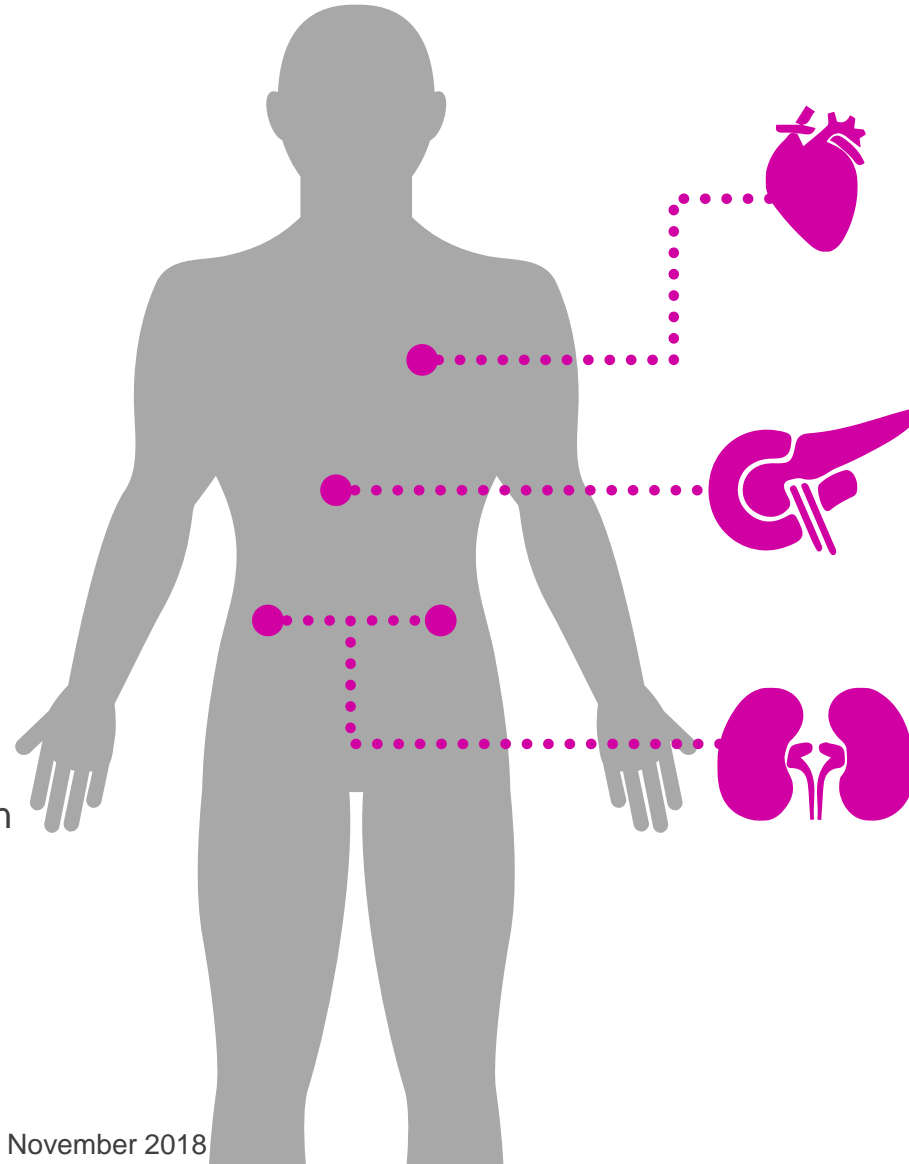
Of people with diabetes **have at least two underlying disorders**, such as CVD, chronic kidney disease (CKD) or hyperlipidaemia, based on a US observational study.<sup>3</sup>



**CVD is the leading cause of death** in people with CKD and people with diabetes.<sup>4,5</sup>



From 2011 to 2025, the cumulative economic losses in low- and middle-income countries from CVD are **projected to be US \$3.76 trillion**.<sup>6</sup>



More than **17.5 million** people worldwide die from CVD every year.<sup>1</sup>

More than **415 million** adults worldwide have diabetes.<sup>4</sup>

An estimated **200 million** people worldwide have CKD.<sup>7</sup>



# We have a distinct, science-driven strategy in CVRM

To address this new  
**‘extended’**  
**CVRM risk,**  
we are focusing our  
efforts on the  
**clinical overlap**  
**between four**  
**disease areas**

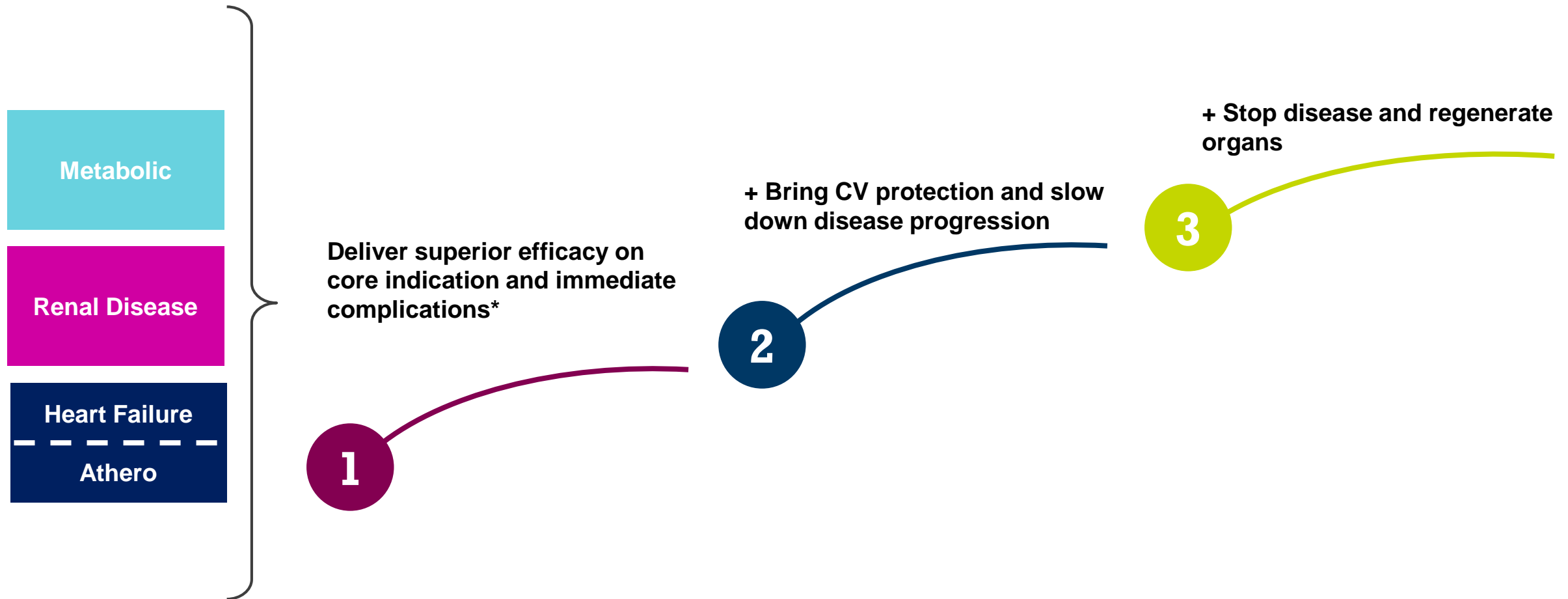
metabolism

renal disease

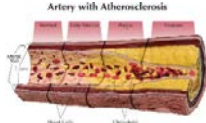
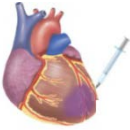
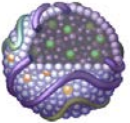

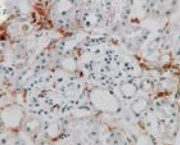
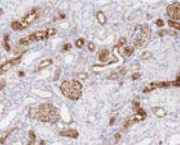
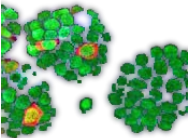
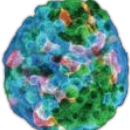
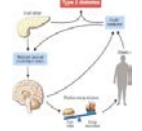


heart failure

atherosclerosis

# Strategic evolution builds over time with three steps



# And we're accelerating our solid CVRM pipeline

|  |   |  |  |   |   |  |
|--|---|--|--|---|---|--|
| <p><b>Cardio</b><br/><b>Heart Failure</b><br/><b>Atherosclerosis</b></p> | <p><b>Reducing CV Risk</b><br/>MEDI6012 (LCAT)<br/>AZD5718 (FLAP)<br/>AZD8601 (VEGF-A)</p>    | <p>Artery with Atherosclerosis<br/><br/>Improving Endothelial Function</p> | <p><br/>Repairing Cardiomyocyte damage</p>          | <p><br/>Increasing/ Restoring functional HDL</p>   | <p><br/>Anti-inflammatory</p>            |  |
| <p><b>Renal</b></p>  | <p><b>Slowing or Halting the Progression of CKD</b><br/>Verinurad</p>                         | <p><br/>Controlling Inflammation</p>                                       | <p><br/>Anti-fibrotics</p>                          |   |   |  |
| <p><b>Metabolic</b></p>  | <p><b>Delaying Diabetes Progression</b><br/>MEDI0382 (GLP1-Glu)<br/>MEDI7219* (Oral GLP1)</p> | <p><br/>Generation of insulin producing cells in the gut</p>             | <p><br/>Preservation of pancreatic beta cells</p> | <p><br/>Body weight reduction &amp; insulin sensitisation by appetite control &amp; energy expenditure</p> | <p><br/>White, brown and beige fat</p> | <p><br/>Insulin sensitisers in NASH</p> |

6 Note: This slide reflects aspirational, forward-looking statements – not clinical claims

\*Confidential – Updates on MEDI7219 not to be shared externally

VEEVA ID: Z4-7747 | Date of Preparation: November 2017 | Date of Expiry: November 2018





# How we'll get there: Our unique approach to CVRM

We are following the science through rigorous clinical studies, strategic partnerships and collaborations

**Pioneering approach**  
in the field of cardiac  
regeneration

Ambitious **global  
randomised clinical  
trials** and  
transformational **real-  
world evidence  
research**

**25+** therapies and  
therapy combinations  
in our early to late-  
stage pipeline

**60,000+** patients  
participating in R&D-  
led CV trials at **6,000+**  
sites worldwide



# The 10 Flavour Study Sites

- Sahlgrenska University Hospital, PI Oskar Angerås
- Karolinska University Hospital, PI John Pernow
- Skåne University hospital, Lund , PI David Erlinge
- Uppsala University Hospital, PI Axel Åkerblom
- Bispebjerg University Hospital , ICI/PI Eva Prescott
- Aarhus University Hospital, Skejby, PI Erik Grove
- Odense University Hospital , PI Lisette Okkels Jensen
- Hillerød Hospital, PI Katrine Mikala Müllertz
- Turku University Hospital, PI Antti Saraste
- Kuopio University Hospital, PI Marja Hedman

Flavour biomarker collaboration with professor  
Lars Gullestad, Oslo University...





# Why are we in AZ interested in Nordic PPP Collaborations?

- World class health care systems and infra structure
- World class clinical and translational scientists
- World famous patients - and health registries
- Long standing tradition for pharma/academia PPP collaborations
- Geographic location (mutual knowledge exchange, costs etc)
- Recruitment of best clinical and translational scientists



**Thank You**



## **Confidentiality Notice**

This file is private and may contain confidential and proprietary information. If you have received this file in error, please notify us and remove it from your system and note that you must not copy, distribute or take any action in reliance on it. Any unauthorized use or disclosure of the contents of this file is not permitted and may be unlawful. AstraZeneca PLC, 1 Francis Crick Avenue, Cambridge Biomedical Campus, Cambridge, CB2 0AA, UK, T: +44(0)203 749 5000, [www.astrazeneca.com](http://www.astrazeneca.com)

