

# Innovative Medicines Research & Development



Outi Vaarala, Senior Vice President



# Orion at a glance

(2022)



Net sales  
EUR **1,341** million



Operating profit  
EUR **440** million



**6** Production sites in  
Finland,  
**1** in France and  
**1** in Belgium

Established in  
**1917**



Personnel **3,527**



R&D investments  
**136** EUR million



Own sales unit in **27** European and **6**  
Asia-Pacific countries

# Orion Group: five business divisions and five group-level functions



Corporate Functions · Corporate Strategy & Program Management ·  
Finance & Corporate Business Development



# Innovative Medicines



# Research & Development in Innovative Medicines



Number of R&D personnel ~400



R&D expenses in 2022: EUR 133 million

- ~10% of Group net sales
- ~40% of Innovative Medicine's net sales



## Why pain and oncology?

- Deep scientific understanding of disease drivers in pain and oncology requires resourcing, which can be delivered only via focusing
- Orion R&D has a proven track record of success on discovery and development of innovative medicines for cancer patients, i.e. darolutamide and ODM-208
- Focusing on pain provides the best opportunities for ODM-111 program to take its potential as a game-changer of non-opioid pain treatment

# Clinical development pipeline 2023

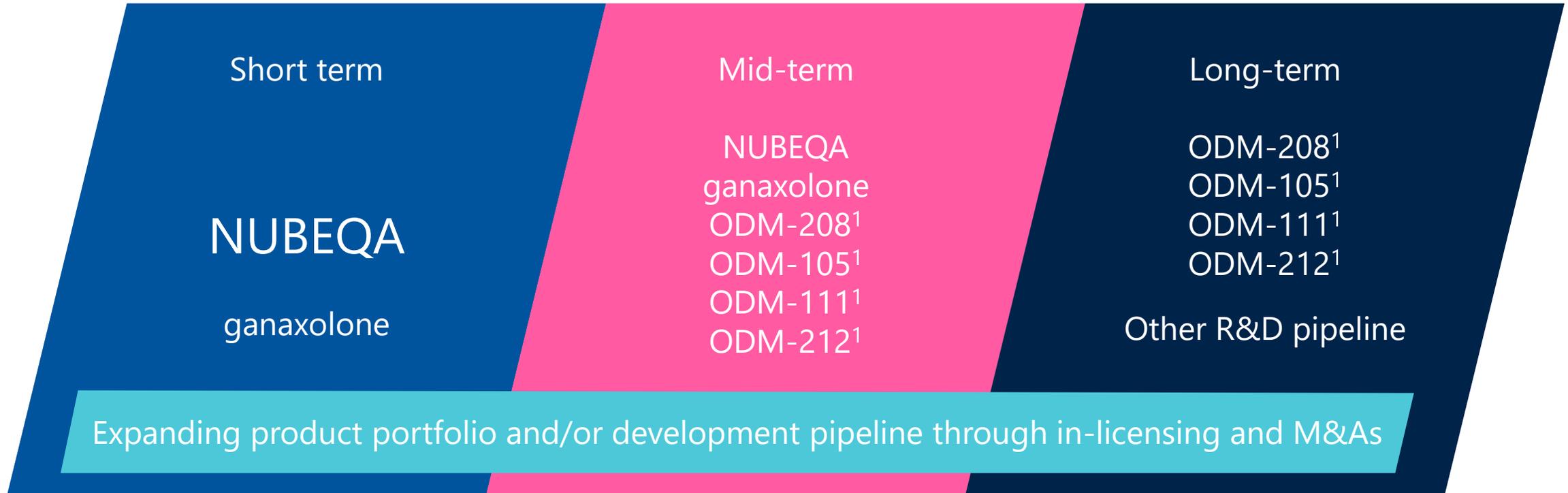
Project/compound	Indication	PHASE I	PHASE II	PHASE III	REGISTRATION
ARASENS / darolutamide <sup>1</sup>	Prostate cancer (mHSPC)	Phase completed	Phase completed	Phase completed	Phase completed
ARANOTE / darolutamide <sup>1</sup>	Prostate cancer (mHSPC)	Phase completed	Phase completed	Phase ongoing	
ARASTEP / darolutamide <sup>1</sup>	Prostate cancer (BCR)	Phase completed	Phase completed	Phase ongoing	
ODM-208 <sup>2</sup>	Prostate cancer (mCRPC)	Phase completed	Phase ongoing		
ODM-105 / tasipimidine	Insomnia	Phase completed	Phase ongoing		
ODM-111 (NaV 1.8 blocker)	Pain	Phase ongoing			
ODM-212	Solid cancers	Phase ongoing			

Oncology    Pain / neurology

6 <sup>1</sup> In collaboration with Bayer    <sup>2</sup> In collaboration with MSD    ation

Phase completed    Phase ongoing

# Building blocks for growth – Innovative Medicines



Nubeqa has peak sales potential of more than EUR 3 billion = EUR ~750 million (-COGS) potential for Orion <sup>2</sup>

<sup>1</sup> Development phase molecule – requires success in clinical development and regulatory approval

<sup>2</sup> Nubeqa's in-market peak sales potential is provided by Bayer. Orion's share is annually tiered royalty. If annual in-market sales is EUR 3 billion, Orion's average annual royalty rate would be slightly above 25%. Orion manufactures Nubeqa and carries the cost of goods sold.

# Data and AI driven transformation of Research & Development



**More modelling to increase speed and success**



**Less wet lab experimentation to benefit environment and business**



## ONCOLOGY

## PAIN

### Research areas

### Research areas



**Immuno-oncology**  
• FiCAR T-cell therapy  
• 2<sup>nd</sup> generation immune-checkpoint inhibitors



**Cancer genomics and cell signalling**



**Antibody drug conjugates**



**Ion channels**



**Neuro-immune interaction**

# Research aims to deliver new projects to clinical phase

ONGOING

RESEARCH PROJECTS

ONCOLOGY

PAIN

Research areas

Research areas



Immuno-oncology

- FiCAR T-cell therapy
- 2<sup>nd</sup> generation immune-checkpoint inhibitors



Cancer genomics and cell signalling



Antibody drug conjugates



Ion channels



Neuro-immune interaction

Key partnerships

Key partnerships



AURIGENE  
Accelerating Discovery



AnaBios  
Early Human Insights



OFFSPRING BIOSCIENCES  
senior partners in cell and tissue imaging



BUSINESS  
FINLAND

PROTEROS  
REACH RIGHT FASTER



University of  
Nottingham  
UK | CHINA | MALAYSIA



TURUN  
YLIOPISTO



HELSINGIN YLIOPISTO

ORION

