

Leqvio® FDA approval

Investor call December 23, 2021



Disclaimer

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Agenda

Introduction

Samir Shah, Global Head of Investor Relations

Overview

Marie-France Tschudin, President of Novartis Pharmaceuticals

Leqvio® clinical data and label

David Soergel, MD, Head of Global Drug Development Cardio Renal Metabolism

US market and launch readiness

Victor Bulto, Head of Novartis Pharma US

Q&A

Samir Shah, Global Head of Investor Relations

Overview

Marie-France Tschudin

President of Novartis Pharmaceuticals



We are building on our strength in cardiovascular to fundamentally improve and extend patients' lives

2015



Essential first choice for chronic heart failure



2021



Potential to tackle I DI -C in ASCVD at scale

~2025

pelacarsen (TQJ230)

Potential to lower CV risk for people with elevated Lp(a)



High unmet need: CV disease leading cause of mortality

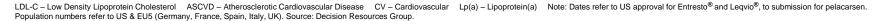


Strong worldwide commercial and scientific presence



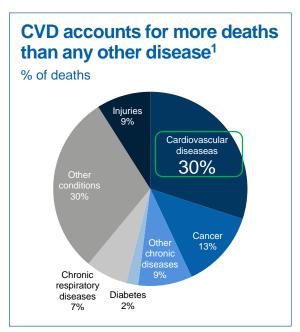
Deep understanding of customer needs across primary and specialty care

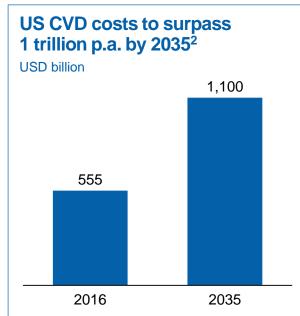
~60m patients





Despite availability of effective treatments, the burden of cardiovascular disease on health systems is on the rise





30m patients with ASCVD in US5

900k lives lost to CVD annually in the US³

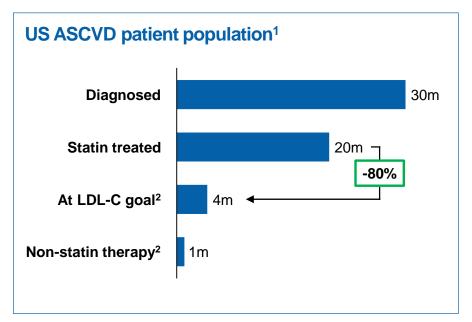
After years of decline, number of lives lost is rising again⁴

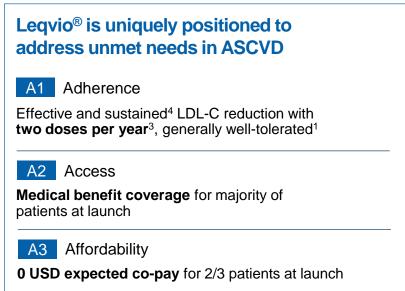
14% of health expenditure due to CVD, more than any major diagnostic group⁶

CVD – Cardiovascular Disease ASCVD – Atherosclerotic Cardiovascular Disease 1. Bloom, D.E., et al. (2011). The Global Economic Burden of Noncommunicable Diseases. Geneva: World Economic Forum. 2. Includes direct and indirect costs. Source: AHA/ ASA Cardiovascular Disease: A costly burden for America. Projections through 2035. 3. Ahmad FB, Anderson RN. The leading causes of death in the US for 2020. JAMA. 2021;325(18):1829-1830. 4. Virani SS, et al. Circulation. 2021;143(8): e1254-e743. Accessed July 17,2021. 5. Wong ND et al. J Clin Lipidol. 2016;10(5):1109-1118. 6. Virani SS et al. Circulation. 2020;141(9):e139-e596. Note: The effect of Leovic® on cardiovascular morbidity and mortality is currently being studied in the ongoing Phase III ORION-2P trials.



In the US, Leqvio® is positioned to meet the needs of 80% of statin-treated ASCVD patients currently not at LDL-C goal





ASCVD – Atherosclerotic Cardiovascular Disease. LDL-C – Low Density Lipoprotein Cholesterol. 1. Ray KK, et al. N Engl J Med. 2020;382(16):1507-1519. 2. Non-statin lipid lowering therapies include ezetimibe and PCSK9i mAbs. 3. After an initial dose, again at 3 months, and again every six months thereafter. 4. Across the 6-month dosing interval.



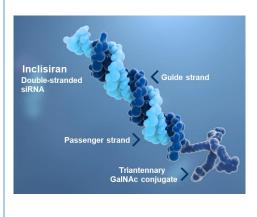
Leqvio[®] clinical data and label

David Soergel, MD
Head of Global Drug Development
Cardiology, Renal, Metabolism

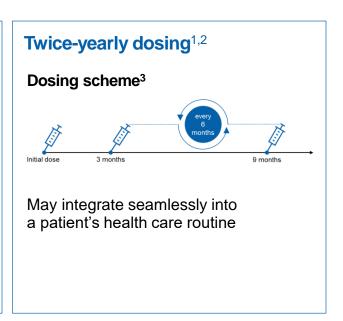


Leqvio® provides an innovative and differentiated approach to lowering LDL-C in ACSVD patients

First and only siRNA LDL cholesterol lowering treatment^{4,5}

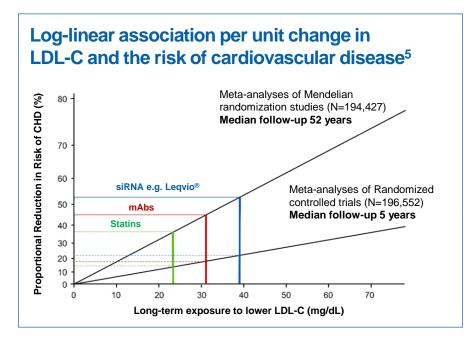


Effective and sustained³ LDL-C reduction¹ ORION-10 Percentage change in LDL Placebo ercentage change from baseline -40 90 150 270 330 450510540 Days No. of patients 762 745 724 715 698 666 670 Placebo 758 757 Inclisiran 781 737 731 721 691 705



LDL-C – Low Density Lipoprotein Choletsterol ASCVD – Atherosclerotic Cardiovascular Disease siRNA – small interfering Ribonucleic Acid 1. Ray KK, et al. N Engl J Med. 2020;382(16):1507-1519. 2. After an initial dose, again at 3 months, and again every six months thereafter. As a strong complement to a maximally tolerated statin. 3. LDL-C reduction was maintained during each 6-month dosing interval. 4. Khvorova A, et al. N Engl J Med. 2017;376:41-51. 5. Fitzgerald K, et al. N Engl J Med. 2017;376:41-51.

50 years of evidence demonstrate that effective and sustained LDL-C reduction improves cardiovascular outcomes*1,2



Each mmol/L reduction in LDL-C

reduces the relative risk of ASCVD events by 20% after 3 years and 1.5% in each subsequent year³

Relationship between LDL-C and MACE

is supported by clinical trials involving ~500k patients^{3,4}

Relation between LDL-C and outcomes

is well established

LDL-C – Low Density Lipoprotein Cholesterol ASCVD – Atherosclerotic Cardiovascular Disease MACE - Major Adverse Cardiovascular Events CV – Cardiovascular 1. Silverman MG, et al. JAMA. 2016;316(12):1289-1297. 2. CTT Collaboration. Lancet 2015;385:1397-1405. 3. Cholesterol Treatment Trialists' (CTT) Collaboration, et al. Lancet. 2010;376(9753):1670-1681. 4. Wang N, et al. Lancet Diabetes Endocrinol. 2020;8:36-49. 5. Figure adapted from Brandts J, et al. Circulation. 2020;141(11):873-876; Cholesterol Treatment Trialists (CTT) Collaboration European Heart Journal (2018) 39, 2540–2545 -doi:10.1093/eurheartj/ehx450. * Note: The effect of Leqvio® on cardiovascular morbidity and mortality is currently being studied in the ongoing Phase III ORION-2P trials.



Guidelines recognize evidence of link between lower LDL-C and improved outcomes³

AHA/ACC (2018)¹ Clinical ASCVD Very high CVD risk		ESC/EAS (2021) ² High CV risk Very high CV risk		
LDL-C reduction by ≥50%	LDL-C reduction to <70 mg/dL (1.8 mmol/L)	LDL-C reduction to <70 mg/dL (1.8 mmol/L)	LDL-C reduction to <55 mg/dL (1.4 mmol/L)	
		and	and	
		LDL-C reduction by ≥50 %	LDL-C reduction by ≥50%	



In the real world, consistent and sustained LDL-C lowering is in many cases not achieved due to adherence, access, and affordability challenges

LDL-C – Low Density Lipoprotein Cholesterol. AHA – American Heart Association. ACC – American College of Cardiology. ESC – European Society of Cardiology. EAS - European Atherosclerosis Society. ASCVD – Atherosclerotic Cardiovascular Disease. CVD – Cardiovascular Disease. CV – Cardiovascular Mortality is currently being studied in the ongoing Phase III ORION-4 trial.



Leqvio® delivers effective and sustained³ LDL-C reduction of up to 52%^{1,2} with twice-yearly⁴ HCP-administered dosing

Leqvio® effected significant reductions in LDL-C vs. placebo at Day 510, on top of SoC

	% Change in LDL-	Difference between groups (in mean percentage change)		
_	Leqvio [®]	Placebo	(iii iiicaii percentage onange	
ORION-10 ⁵	-51	1	- 52% (p < 0.0001)	
ORION-11 ^{5,6}	-46 ⁶	46	- 51% ⁶ (p < 0.0001)	
ORION-9 ⁵	-40	8	-48% (p < 0.0001)	

LDL-C – Low Density Lipoprotein Cholesterol. ASCVD – Atherosclerotic Cardiovascular Disease. HCP – Healthcare Professional SoC – standard of care 1. Two Phase 3 Trials of Inclisiran in Patients with Elevated LDL Cholesterol Kausik K. Ray, M.D., M.Phil., R. Scott Wright, M.D., David Kallend, M.D., Wolfgang Koenig, M.D., Lawrence A. Leiter, M.D., Frederick J. Raal, Ph.D., Jenna A. Bisch, B.A., Tara Richardson, B.A., Mark Jaros, Ph.D., Peter L.J. Wijngaard, Ph.D., and John J.P. Kastelein, M.D., Ph.D., David Kallend, M.B., B.S., Kausik K. Ray, M.D., M.Phil., Traci Turner, M.D., Wolfgang Koenig, M.D., R. Scott Wright, M.D., Peter L.J. Wijngaard, Ph.D., David Kallend, M.B., B.S., Kausik K. Ray, M.D., M.Phil., Traci Turner, M.D., Wolfgang Koenig, M.D., P. Cott Wright, M.D., Ph.D., David Holland, M.D., Ph.D., David Holland, M.D., Ph.D., Investigators*; March 18, 2020, at NEJM.org, DOI: 10.1056/NEJMoa1913805. 3. Across the 6-month dosing interval. 4. After an initial dose, again at 3 months, and again every six months thereafter. As a strong complement to a maximally tolerated statin 5. Legvio® prescribing information East Hanover, N.J. Novartis: 2021 6. ASCVD subjects only; ASCVD-Risk Equivalents excluded from analysis



Leqvio® has a well tolerated safety profile

No significant safety or tolerability concerns identified with the long-term* administration of Leqvio®1,2

ORION-9 (n=481)¹

ORION-10 (n=1,559)²

ORION-11 (n=1,615)²

	-	v io ® 241		cebo 240		vio ® 781		cebo 778		vio ® 811		ebo 304
Safety population	n	%	n	%	n	%	n	%	n	%	n	%
Patients with at least one serious TEAE	18	7.5%	33	13.8%	175	22.4%	205	26.3%	181	22.3%	181	22.5%
Pre-specified exploratory CV endpoint (MedDRA basket)	10	4.1%	10	4.2%	58	7.4%	79	10.2%	63	7.8%	83	10.3%

- Most common adverse events with similar frequency in Leqvio[®] and placebo groups
- Adverse events associated with Leqvio® were all mild or moderate in severity, transient and resolved without sequelae
- Common adverse reactions (≥ 3%) include injection site reaction, arthralgia, urinary tract infection, diarrhea, bronchitis, pain in extremity, and dyspnea

CV – Cardiovascular TEAE – Treatment Emergent Adverse Event * Over 18 months. 1. Inclisiran for the Treatment of Heterozygous Familial HypercholesterolemiaFrederick J. Raal, M.D., Ph.D., David Kallend, M.B., B.S., Kausik K. Ray, M.D., M.Phill, Traci Turner, M.D., Wolfgang Koenig, M.D., R. Scott Wright, M.D., Peter L.J. Wijngaard, Ph.D., Danielle Curcio, M.B.A., Mark J. Jaros, Ph.D., Lawrence A. Leiter, M.D., and John J.P. Kastelein, M.D., Ph.D., for the ORION-9 Investigators*; March 18, 2020, at NEJM.org.DOI: 10.1056/NEJMoa1913805. 2. Two Phase 3 Trials of Inclisiran in Patients with Elevated LDL CholesterolKausik K. Ray, M.D., M.Phil., R. Scott Wright, M.D., David Kallend, M.D., Wolfgang Koenig, M.D., Lawrence A. Leiter, M.D., Frederick J. Raal, Ph.D., Jenna A. Bisch, B.A., Tara Richardson, B.A., Mark Jaros, Ph.D., Peter L.J. Wijngaard, Ph.D., and John J.P. Kastelein, M.D., Ph.D., for the ORION-10 and ORION-11 Investigators*; March 18, 2020, at NEJM.org.DOI: 10.1056/NEJMoa1912387.



Large integrated program to establish Leqvio[®] as part of the standard of care in ASCVD management

Lipid lowering	Outcomes	Healthcare system partnerships	Implementation science and RWE
Registration trials	Secondary Prevention	NHS collaboration	Initiation of treatment
ORION-3 (Ph2 extension) ORION-5 (Ph3 HoFH) ORION-8 (Ph3 extension)	ORION-4 (Oxford) VICTORION-2-PREVENT	VICTORION-SPIRIT (UK)	VICTORION-INITIATE (US)
Geographic expansion	Primary Prevention		Post-ACS
ORION-14 (China) ORION-18 (China) ORION-15 (Japan)	ORION-17 (Oxford)		VICTORION-INCEPTION (US)
Diverse patient populations			
ORION-13 (V-YOUTH) ORION-16 (V-YOUTH)			

>75,000 patients in >50 countries; Program expansion underway

Leqvio[®] is now approved in the US with a label that contains no contraindications, warnings/precautions, or drug interactions

Indication statement¹

Leqvio[®] is indicated as an adjunct to diet and maximally tolerated statin therapy for the treatment of adults with heterozygous familial hypercholesterolemia (HeFH) or clinical atherosclerotic cardiovascular disease (**ASCVD**), who require additional lowering of low-density lipoprotein cholesterol (LDL-C).

Limitations of use: The effect of Leqvio® on cardiovascular morbidity and mortality has not been determined.

16m addressable ASCVD patients not at LDL-C goal

Dosage and administration¹

The recommended dosage of Leqvio[®], in combination with maximally tolerated statin therapy, is 284 mg administered as a **single subcutaneous injection** initially, again at 3 months, and then **every 6 months**; Leqvio[®] should be **administered by a healthcare professional.**

May seamlessly integrate into a patient's health care routine

Medical benefit coverage expected

HeFH – Heterozygous Familial Hypercholesterolemia ASCVD – Atherosclerotic Cardiovascular Disease. LDL-C – Low Density Lipoprotein Choletsterol 1. Leqvio® prescribing information East Hanover, NJ. Novartis: 2021



US market and launch readiness

Victor Bulto

Head of Novartis Pharma US



Despite the availability of lipid-lowering therapy, significant unmet need remains in ASCVD

Clinical unmet need

80% of statin-treated ASCVD patients currently not at LDL-C goal¹

Non-clinical unmet need



Adherence

A2

Access

А3

Affordability

Real-world challenges to adherence compromise outcomes²

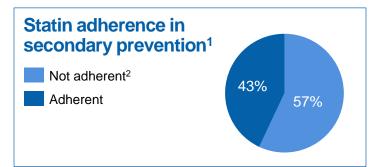
Considerable access hurdles for current treatments

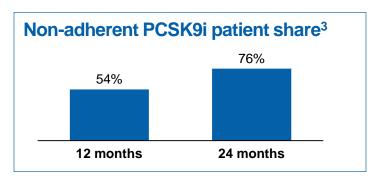
Patient out-of-pocket costs can be a barrier to access

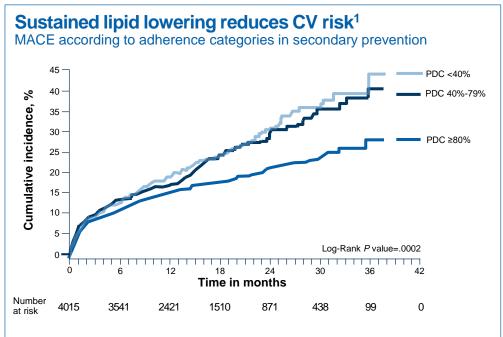
ASCVD – Atherosclerotic Cardiovascular Disease LDL-C – Low Density Lipoprotein Choletsterol 1. Wong ND. Journal of Clinical Lipidology. 2016;10(5):1109–1118 2. The effect of Leqvio® on cardiovascular morbidity and mortality is currently being studied in the ongoing Phase III ORION-4 and VICTORION-2P trials.



Adherence – real-world challenges compromise outcomes⁴





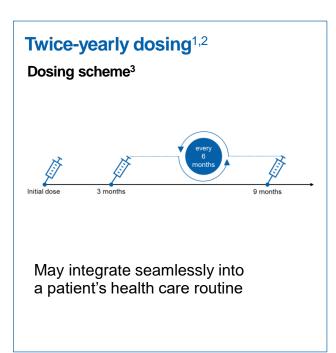


CV – Cardiovascular MACE – Major Adverse Cardiovascular Event PCSK9i - Proprotein convertase subtilisin/kexin type 9 inhibitor. PDC – Percent Days Covered 1. Bansilal S, et al. J Am Coll Cardiol. 2016;68:789-801. 2. Not adherent or not fully adherent within 6 months. 3. Data on file. 4. The effect of Legyio® on cardiovascular morbidity and mortality is currently being studied in the ongoing Phase III ORION-4 and VICTORION-2P trials.



Adherence – Leqvio[®] has the potential to address adherence challenges

Effective and sustained³ LDL-C reduction¹ ORION-10 Percentage change in LDL cholesterol 20 Placebo Percentage change from baseline -40 -60 -80 90 150 270 330 450510540 Days No. of patients Placebo 762 745 724 715 698 666 670 Inclisiran 758 757 737 731 721 691 705







No patient education on administration required

Access – majority of Leqvio® patients will be covered by medical benefit, reducing access hurdles

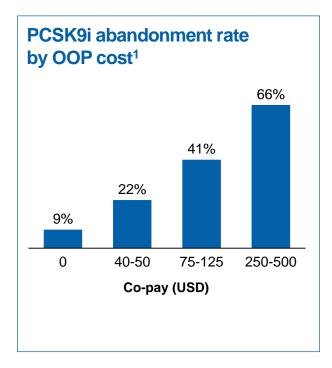
		Leqvio [®]				
Payer Mix	Part B FFS (39%)	Medicare Advantage (19%)	Commercial (34%)	PCSK9i mAbs		
Administration	←	HCP-administered	—	Self-administered		
Acquisition	Buy-and-bill	Buy-and-bill, specialty pharmacy	Buy-and-bill, specialty pharmacy	Specialty or retail pharmacy		
Access restrictions (step edits, prior authorizations)						
Reimbursement of administrative effort	← Efforts	reimbursed (medical benef	→ <i>(it)</i>	Efforts not reimbursed		
CV outcomes evidence as driver of access decisions	Access mirrors FDA label	Foo	cus on efficacy, safety, cost	→		

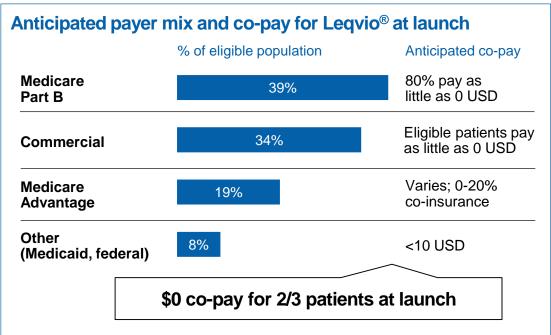
More favorable Less favorable

CV - Cardiovascular FFS - Fee For Service HCP - Healthcare Professional PCSK9i - Proprotein convertase subtilisin/kexin type 9 inhibitor mAbs - monoclonal Antibodies FDA - Food and Drug Administration



Affordability – medical benefit coverage for Leqvio® creates opportunity for 0 USD co-pay for 2/3 patients at launch





PCSK9i - Proprotein convertase subtilisin/kexin type 9 inhibitor OOP - Out Of Pocket 1. LAAD; IQVIA US Market Access Strategy Consulting.



The price of Leqvio® reflects its value as an innovative, LDL-lowering treatment that uniquely addresses key unmet needs in ASCVD

Clinical benefits of Legvio[®]



Efficacy

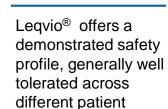
Legvio® provides

sustained LDL-C

reduction up to 52%

effective and

vs. placebo^{1,2}



populations

Safety

Non-clinical benefits of Leqvio®



Adherence



Access



Affordability

Effective and sustained LDL-C reduction with two HCPadministered doses per year³

Medical benefit coverage for majority of patients at launch

2/3 of patients pay as little as \$0 co-pay at launch

\$3,250

Price per dose (WAC)

Doses per year³

Value-based

Cost-effective

Annualized price

\$6.500

LDL-C - Low Density Lipoprotein Choletsterol ASCVD - Atherosclerotic Cardiovascular Disease HCP - Healthcare Professional WAC - Wholesale Acquisition Cost 1. Khvorova A, et al. N Engl J Med. 2017;376:4-7 2. Fitzgerald K, et al. N Engl J Med. 2017;376:41-51. 3. After an initial dose, again at 3 months, and again every six months thereafter. As a strong complement to a maximally tolerated statin



Leqvio® go-to-market model: systems engagement, complemented by broad HCP education with CRM sales team

	Systems of care	HCPs
Targets customers	 ~200 prioritized systems 45% currently prioritize ASCVD² 	■ Representing ~60% of NBRx volume ¹
Engagement approach	 Cross-functional teams engaged with key systems stakeholders 	 Leveraging strong commercial CRM footprint
	 Aim to ensure protocols in place to identify and manage ASCVD patients not at goal 	 Highlighting unmet need and raise importance of LDL-C
Leqvio® pathway	 May leverage existing buy-and-bill infrastructure or refer to an alternative injection center 	 May administer in-office or refer to alternative injection center

ASCVD - Atherosclerotic Cardiovascular Disease HCP - Healthcare Professional CV - Cardiovascular CRM - Cardiovascular, Renal, Metabolic LDL-C - Low Density Lipoprotein Choletsterol 1. Data on file. 2. Data on file

Flexibility, support and optionality will ensure seamless customer experience and timely access to Leqvio®

Flexibility

of acquisition and administration

Robust network of >1,100 AICs

- √ ~75% of target HCPs have an AIC within 25 miles
- ✓ AIC locator tool available to providers and patients



Support

with initial acquisition and reimbursement complexity

Largest access and reimbursement field team in the industry

- ✓ Establishing buy-and-bill infrastructure
- Understanding coding and reimbursement
- ✓ Navigating PA and medical exception process

Optionality

to address heterogenous customer needs

Dedicated case managers

- ✓ Benefit verification and coverage support
- ✓ Co-pay assistance
- ✓ Billing and coding support

Dedicated social workers

- ✓ Patient care program
- ✓ Adherence support

Leqvio® access and reimbursement website¹

NC – Alternative injection center HCP – Healthcare Professional PA – Prior Authorization 1. Leqvio-access.com

Expect modest initial ramp as we lay the foundation for multi-blockbuster potential

H1 2022 - laying foundation

- High interest from early adopters
- Independent HCPs ready for buy-and-bill
- AICs responding to demand
- Temporary J-code
- Coverage to label for FFS Medicare

H2 2022 - getting to scale

- Permanent J-code available
- Buy-and-bill capabilities established
- System P&T committee review complete
- Finalization of commercial & Medicare Advantage payer coverage policies

Lead indicators

of health systems/ facilities adopting Leqvio® # of systems with repeat orders

of AIC facilities administering Leqvio®

Intent to prescribe

Confident in successful US launch



- Effective and sustained LDL-C reduction¹ with twice a year maintenance dose administered by HCP
- Broad label covering 16m US ASCVD patients not at LDL-C goal
- Go-to-market model designed to overcome clinical barriers and address access, adherence and affordability
- Sales, reimbursement and medical teams with deep experience in the US cardiovascular market

- Robust network of AICs to provide acquisition and administration flexibility
- Value-based price per dose (USD 3,250)
- Comprehensive patient and HCP support programs available at launch to ensure timely access
- Product available from specialty distributors in early January

Across the 6-month dosing interval.



Legvio® FDA Approval | December 23, 2021 | Novartis Investor Presentation

Q&A

Samir ShahGlobal Head of Investor Relations



Thank you

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