



# Study to Evaluate Efficacy and Safety of Inclisiran in Adolescents With Homozygous Familial Hypercholesterolemia

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## Main Information

### Primary registry identifying number

LBCTR2021034779

### Protocol number

CKJX839C12302

### MOH registration number

### Study registered at the country of origin

Yes

### Study registered at the country of origin: Specify

### Type of registration

Prospective

### Type of registration: Justify

N/A

### Date of registration in national regulatory agency

### Primary sponsor

Novartis Pharma Services inc.

### Primary sponsor: Country of origin

Novartis Pharmaceuticals

### Date of registration in primary registry

16/05/2023

### Date of registration in national regulatory agency

### Public title

Study to Evaluate Efficacy and Safety of Inclisiran in Adolescents With Homozygous Familial Hypercholesterolemia

### Acronym

### Scientific title

Two Part (Double-blind Inclisiran Versus Placebo [Year 1] Followed by Open-label Inclisiran [Year 2]) Randomized Multicenter Study to Evaluate Safety, Tolerability, and Efficacy of Inclisiran in Adolescents (12 to Less Than 18 Years) With Homozygous Familial Hypercholesterolemia and Elevated LDL-cholesterol (ORION-13)

### Acronym

### Brief summary of the study: English

This is a pivotal phase III study designed to evaluate safety, tolerability, and efficacy of inclisiran in adolescents with homozygous familial hypercholesterolemia (HoFH) and elevated low density lipoprotein cholesterol (LDL-C). This is a two-part (1 year double-blind inclisiran versus placebo / 1 year open-label inclisiran) multicenter study designed to evaluate safety, tolerability, and efficacy of inclisiran in adolescents with homozygous familial hypercholesterolemia (HoFH) and elevated low density lipoprotein cholesterol (LDL-C) on stable standard of care background lipid-lowering therapy. The primary objective is to evaluate the effect of inclisiran compared to placebo in reducing LDL-C (percent change) at Day 330.

### Brief summary of the study: Arabic

[ يتبعه إنكليسيران مفتوح اللصاقة دراسة متعددة المراكز ، عشوائية التوزيع من قسمين (إنكليسيران مزدوج التعمية مقابل الدواء الوهمي [السنة سنة] المصابين بفرط كوليسترول الدم العائلي 18 إلى أقل من 12) لتقييم سلامة إنكليسيران وقدرة تحملته وفعالته لدى المراهقين (من 2 السنة سنة) (ORION-13) 13متمثل الزيجوت وبارتفاع الكوليسترول الضار (أوريون-13)

### Health conditions/problem studied: Specify

Homozygous Familial Hypercholesterolemia

**Interventions: Specify**

Drug: Inclisiran  
Drug: Placebo

**Key inclusion and exclusion criteria: Inclusion criteria**

Homozygous Familial Hypercholesterolemia (HoFH) diagnosed by genetic confirmation  
Fasting LDL-C >130 mg/dL (3.4 mmol/L) at screening  
On maximally tolerated dose of statin (investigator's discretion) with or without other lipid-lowering therapy; stable for ≥ 30 days before screening  
Estimated glomerular filtration rate (eGFR) >30 mL/min/1.73 m<sup>2</sup> at screening

**Key inclusion and exclusion criteria: Gender**

Both

**Key inclusion and exclusion criteria: Specify gender****Key inclusion and exclusion criteria: Age minimum**

12

**Key inclusion and exclusion criteria: Age maximum**

17

**Key inclusion and exclusion criteria: Exclusion criteria**

Documented evidence of a null (negative) mutation in both LDLR alleles  
Heterozygous familial hypercholesterolemia (HeFH)  
Active liver disease  
Secondary hypercholesterolemia, e.g. hypothyroidism or nephrotic syndrome  
Major adverse cardiovascular events within 1 month prior to randomization  
Previous treatment with monoclonal antibodies directed towards PCSK9 (within 90 days of screening)  
Treatment with mipomersen or lomitapide (within 5 months of screening)  
Recent and/or planned use of other investigational medicinal products or devices

**Type of study**

Interventional

**Type of intervention**

Pharmaceutical

**Type of intervention: Specify type**

N/A

**Trial scope**

Therapy

**Trial scope: Specify scope**

N/A

**Study design: Allocation**

Randomized controlled trial

**Study design: Masking**

Blinded (masking used)

**Study design: Control**

Placebo

**Study phase**

3

**Study design: Purpose**

Treatment

**Study design: Specify purpose**

N/A

**Study design: Assignment**

Parallel

**Study design: Specify assignment**

N/A

**IMP has market authorization**

Yes, Worldwide

**IMP has market authorization: Specify**

European Union, United Arab Emirates, Great Britain

**Name of IMP**

inclisiran

**Year of authorization****Month of authorization****Type of IMP**

Others

**Pharmaceutical class**

cholesterol-lowering small interfering ribonucleic acid (siRNA) that inhibits the production of proprotein convertase subtilisin/kexin type 9

**Therapeutic indication**

heterozygous familial hypercholesterolemia (HeFH) and elevated low density lipoprotein cholesterol (LDL-C)

**Therapeutic benefit**

Evaluate the effect of inclisiran compared to placebo on reducing LDL-C [percent change] at Day 330 in adolescents (12 to less than 18 years) with homozygous familial hypercholesterolemia and elevated LDL-cholesterol

**Study model**

N/A

**Study model: Explain model**

N/A

**Study model: Specify model**

N/A

**Time perspective**

N/A

**Time perspective: Explain time perspective**

N/A

**Time perspective: Specify perspective**

N/A

**Target follow-up duration****Target follow-up duration: Unit****Number of groups/cohorts****Biospecimen retention**

Samples with DNA\*\*

**Biospecimen description**

Blood samples collected will be analyzed at Medpace Laboratories, central lab

**Target sample size**

1

**Actual enrollment target size**

1

**Date of first enrollment: Type**

Actual

**Date of first enrollment: Date**

10/11/2022

**Date of study closure: Type**

Actual

**Date of study closure: Date**

20/05/2025

**Recruitment status**

Recruiting

**Recruitment status: Specify****Date of completion**

31/12/2022

**IPD sharing statement plan**

Yes

**IPD sharing statement description**



Novartis is committed to sharing with qualified external researchers, access to patient-level data and supporting clinical documents from eligible studies. These requests are reviewed and approved by an independent review panel on the basis of scientific merit. All data provided is anonymized to respect the privacy of patients who have participated in the trial in line with applicable laws and regulations.

This trial data availability is according to the criteria and process described on [www.clinicalstudydatarequest.com](http://www.clinicalstudydatarequest.com)

**Additional data URL**

<https://clinicaltrials.gov/ct2/show/record/NCT04659863?cond=homozygous+familial+hypercholesterolemia&draw=2&rank=1>

**Admin comments****Trial status**

Approved

## Secondary Identifying Numbers

Full name of issuing authority	Secondary identifying number
Clinical trials.gov	NCT04659863

## Sources of Monetary or Material Support

Name
Novartis Pharma services inc.

## Secondary Sponsors

Name
NA

## Contact for Public/Scientific Queries

Contact type	Contact full name	Address	Country	Telephone	Email	Affiliation
Public	Selim Jambart	Ashrafieh	Lebanon	009613406001	<a href="mailto:sjambart@dm.net.lb">sjambart@dm.net.lb</a>	Hotel Dieu De France
Scientific	Hind Khairallah	Sinelfil	Lebanon	01512002#271	<a href="mailto:Hind.khairallah@fattal.com.lb">Hind.khairallah@fattal.com.lb</a>	Khalil Fattal et Fils s.a.l.
Public	Hala Tfayli	Beirut	Lebanon	+961 71729759	<a href="mailto:HT31@AUB.EDU.LB">HT31@AUB.EDU.LB</a>	American University of Beirut Medical Center



## Centers/Hospitals Involved in the Study

Center/Hospital name	Name of principles investigator	Principles investigator speciality	Ethical approval
Hotel Dieu De France	Selim Jambart	Endocrinology	Approved
American University of Beirut Medical Center	Hala Tfayli	Pediatric Endocrinology	Approved

## Ethics Review

Ethics approval obtained	Approval date	Contact name	Contact email	Contact phone
Hotel Dieu de France	21/12/2020	Sami Richa	cue@usj.edu.lb	961421229
American University of Beirut Medical Center	18/06/2021	Fuad Ziyadeh	irb@aub.edu.lb	00961 -1-350000 or 1 374374, ext: 5445

## Countries of Recruitment

Name
Lebanon
France
Greece
Republic of Serbia
United States of America
Switzerland
Turkey

## Health Conditions or Problems Studied

Condition	Code	Keyword
heterozygous familial hypercholesterolemia	Hyperlipidaemia, unspecified (E78.5)	heterozygous familial hypercholesterolemia

## Interventions

Intervention	Description	Keyword
ICF, Lab tests, physical exam, IMP	ICF, Lab tests, physical exam, IMP	ICF, Lab tests, physical exam, IMP



## Primary Outcomes

Name	Time Points	Measure
Percentage (%) change in low-density lipoprotein cholesterol (LDL-C)	Baseline and Day 330	Baseline and Day 330

## Key Secondary Outcomes

Name	Time Points	Measure
Time-adjusted percent change in LDL-C	Baseline, after Day 90 up to Day 330	Baseline, after Day 90 up to Day 330
% change and absolute change in LDL-C	Baseline, up to Day 720	Baseline, up to Day 720
% change and absolute change in other lipoprotein and lipid parameters	Baseline, up to Day 720	Baseline, up to Day 720
% change and absolute change in proprotein convertase subtilisin/kexin type 9 (PCSK9)	Baseline, up to Day 720	Baseline, up to Day 720

## Trial Results

Summary results

Study results globally

Date of posting of results summaries

Date of first journal publication of results

Results URL link

Baseline characteristics

Participant flow

Adverse events

Outcome measures

URL to protocol files