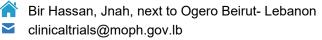
REPUBLIC OF LEBANON Lebanon Clinical Trials Registry

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

18/08/2025 23:57:58

|   | 18/08/2025 23:57:   |
|---|---|
| Main Information  |   |
| Primary registry identifying number   | Protocol number   |
| LBCTR2021034776   | CKJX839C12301   |
| MOH registration number   |   |
| Study registered at the country of origin   | Study registered at the country of origin: Specify                            |
| Yes   |   |
| Type of registration  | Type of registration: Justify   |
| Prospective   | N/A   |
| Date of registration in national regulatory agency  |   |
| Primary sponsor   | Primary sponsor: Country of origin  |
| Novartis Pharma Services inc.   | Novartis Pharmaceuticals  |
| Date of registration in primary registry  | Date of registration in national regulatory agency                            |
| 29/05/2021  |   |
| Public title  | Acronym   |
| Study to Evaluate Efficacy and Safety of Inclisiran in Adolescents<br>With Heterozygous Familial Hypercholesterolemia   |   |
| Scientific title  | Acronym   |
| Two Part (Double-blind Inclisiran Versus Placebo [Year 1] Followed<br>by Open-label Inclisiran [Year 2]) Randomized Multicenter Study to<br>Evaluate Safety, Tolerability, and Efficacy of Inclisiran in<br>Adolescents (12 to Less Than 18 Years) With Heterozygous<br>Familial Hypercholesterolemia and Elevated LDL-cholesterol<br>(ORION-16)  |   |
| Brief summary of the study: English   |   |
| This is a pivotal phase III study designed to evaluate safety,<br>tolerability, and efficacy of inclisiran in adolescents with<br>heterozygous familial hypercholesterolemia (HeFH) and elevated<br>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 heterozygous familial hypercholesterolemia (HeFH) and elevated low density lipoprotein cholesterol (LDL-C) on stable standard of care background lipid-lowering therapy. The primary objective is to demonstrate superiority of inclisiran compared to placebo in reducing LDL-C (percent change) at Day 330. |   |
| Brief summary of the study: Arabic  |   |
| ة متعددة المراكز ، عشوائيّة التوزيع من قسمين (إنكليسيران مزدوج التعمية مقابل الدواء الوهمي [السنة<br>حائلي18 إلى أقل من 12]) لتقييم سلامة إنكليسيران وقدرة تحمّله وفعاليّته لدى المراهقين (من 2السنة ]<br>(ORION-16) )16متغاير الزيجوت وبارتفاع الكوليسترول الضار (أوريون-  | ] يتبعه إنكليسيران مفتوح اللصاقة1دراس<br>سنة) المصابين بفرط كوليسترول الدم ال |
| Health conditions/problem studied: Specify  |   |



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| Heterozygous Familial Hypercholesterolemia  |                                  |                        |
|---|----------------------------------|------------------------|
| Interventions: Specify  |                                  |                        |
| Drug: Inclisiran<br>Drug: Placebo   |                                  |                        |
| Key inclusion and exclusion criteria: Inclusion criteria  |                                  |                        |
| Heterozygous Familial Hypercholesterolemia (HeFH) diagnosed either by ger<br>Fasting LDL-C >130 mg/dL (3.4 mmol/L) at screening<br>Fasting triglycerides <400 mg/dL (4.5 mmol/L) at screening<br>On maximally tolerated dose of statin (investigator's discretion) with or without<br>screening<br>Estimated glomerular filtration rate (eGFR) >30 mL/min/1.73 m2 at screening  |                                  |                        |
| Key inclusion and exclusion criteria: Gender  | Key inclusion and exclusion cri  | teria: Specify gender  |
| Both  |                                  |                        |
| Key inclusion and exclusion criteria: Age minimum   | Key inclusion and exclusion cri  | teria: Age maximum     |
| 12  | 17                               |                        |
| Key inclusion and exclusion criteria: Exclusion criteria  |                                  |                        |
| Homozygous familial hypercholesterolemia (HoFH)<br>Active liver disease<br>Secondary hypercholesterolemia, e.g. hypothyroidism or nephrotic syndrome<br>Major adverse cardiovascular events within 3 months prior to randomization<br>Previous treatment with monoclonal antibodies directed towards PCSK9 (with<br>Recent and/or planned use of other investigational medicinal products or dev<br>Other protocol-defined inclusion/exclusion criteria may apply | nin 90 days of screening)        |                        |
| Type of study   |                                  |                        |
| Interventional  |                                  |                        |
| Type of intervention  | Type of intervention: Specify ty | ре                     |
| Pharmaceutical  | N/A                              |                        |
| Trial scope   | Trial scope: Specify scope       |                        |
| Therapy   | N/A                              |                        |
| Study design: Allocation  | Study design: Masking            |                        |
| Randomized controlled trial   | Blinded (masking used)           |                        |
| Study design: Control   | Study phase                      |                        |
| Placebo   | 3                                |                        |
| Study design: Purpose   | Study design: Specify purpose    |                        |
| Treatment   | N/A                              |                        |
| Study design: Assignment  | Study design: Specify assignme   | ent                    |
| Parallel  | N/A                              |                        |
| IMP has market authorization  | IMP has market authorization: S  | Specify                |
| Yes, Worldwide  | European Union, United Arab Emi  | irates, Great Britain  |
| Name of IMP   | Year of authorization            | Month of authorization |
| inclisiran  |                                  |                        |
| 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 to demonstrate superiority of inclisiran compared to placebo in reducing LDL-C (percent change) at Day 330 in adolescents (12 to less than 18 years) with heterozygous familial hypercholesterolemia and elevated LDL-cholesterol Study model Study model: Explain model N/A N/A Study model: Specify model N/A **Time perspective** Time perspective: Explain time perspective N/A N/A Time perspective: Specify perspective N/A Target follow-up duration Target follow-up duration: Unit Number of groups/cohorts **Biospecimen retention Biospecimen description** Samples with DNA\*\* Blood samples collected will be analyzed at Medpace Laboratories, central lab Target sample size Actual enrollment target size 4 Date of first enrollment: Type Date of first enrollment: Date Anticipated 30/04/2021 Date of study closure: Type Date of study closure: Date Anticipated 16/08/2023 **Recruitment status Recruitment status: Specify** Pending Date of completion 29/07/2021 IPD sharing statement plan IPD sharing statement description

Yes



# Lebanon Clinical Trials Registry

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.

### Additional data URL

https://clinicaltrials.gov/ct2/show/NCT04652726?cond=heterozygous+familial+hypercholesterolemia&draw=2&rank=2

Admin comments

Trial status

Approved

| Secondary Identifying Numbers  |                              |
|--------------------------------|------------------------------|
| Full name of issuing authority | Secondary identifying number |
| NCT04652726                    | Clinical trials.gov          |

| Sources of Monetary or Material Support |
|---|
| Name                                    |
| Novartis Pharma Services inc.           |

| Secondary Sponsors |  |
|--------------------|--|
| Name               |  |
| NA                 |  |

| Contact for Public/Scientific Queries |                   |          |         |                  |                                   |                                    |
|---------------------------------------|-------------------|----------|---------|------------------|-----------------------------------|------------------------------------|
| Contact<br>type                       | Contact full name | Address  | Country | Telephone        | Email                             | Affiliation                        |
| Public                                | Selim Jambart     | Beirut   | Lebanon | 961 3 406<br>001 | sjambart@dm.ne<br>t.lb            | Hotel Dieu<br>De France            |
| Scientific                            | Hind Khairallah   | Sinelfil | Lebanon | 01512002#<br>271 | Hind.khairallah@<br>fattal.com.lb | Khalil<br>Fattal et<br>Fils s.a.l. |





| Centers/Hospitals Involved in the Study  |               |               |                  |
|--|---------------|---------------|------------------|
| Center/Hospital name         Name of principles investigator         Principles investigator speciality         Ethical approval |               |               | Ethical approval |
| Hotel Dieu De France   | Selim Jambart | 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     |

| Countries of Recruitment |
|--------------------------|
| Name                     |
| Lebanon                  |
| Australia                |
| Germany                  |
| Hungary                  |
| Norway                   |
| Spain                    |
| United States of America |

| Health Conditions or Problems Studied      |                                      |  |  |
|--|--------------------------------------|--|--|
| Condition Code Keyword                     |                                      |  |  |
| heterozygous familial hypercholesterolemia | Hyperlipidaemia, unspecified (E78.5) | heterozygous familial hypercholesterolemia |  |

| Interventions  |  |                                      |  |
|--|--|--------------------------------------|--|
| Intervention   | Description  | Keyword                              |  |
| Informed Consent/assent form discussion;<br>Inclusion/exclusion assessment; physical<br>examination; neurological examination; blood<br>and urine samples collection; IMP dispensation | Informed Consent/assent form discussion;<br>Inclusion/exclusion assessment; physical<br>examination; neurological examination; blood<br>and urine samples collection; IMP dispensation | ICF, IMP , Lab tests, physical exams |  |



# Primary OutcomesNameTime PointsMeasurePercentage (%) change in low-density lipoprotein cholesterol<br/>(LDL-C)baseline to Day 330baseline to Day 330Demonstrate superiority of inclisiran compared to placebo in<br/>reducing LDL-C [percent change]Day 330 (Year 1)Day 330 (Year 1)

### **Key Secondary Outcomes**

| Rey occontary outcomes  |   |                                      |
|---|---|--------------------------------------|
| Name  | Time Points                             | Measure                              |
| Time-adjusted % change in LDL-C from baseline   | Baseline, after Day 90 up to<br>Day 330 | Baseline, after Day 90 up to Day 330 |
| Absolute change in LDL-C from baseline to Day 330   | Baseline and Day 330                    | Baseline and Day 330                 |
| % change in apolipoprotein B (Apo B), lipoprotein (a) [Lp(a)],<br>non-high density lipoprotein cholesterol (non-HDL-C), and<br>total cholesterol from baseline to Day 330 | Baseline and Day 330                    | Baseline and Day 330                 |
| % change and absolute change in LDL-C from baseline up to Day 720   | Baseline, up to Day 720                 | Baseline, up to Day 720              |
| % change and absolute change in other lipoproteins 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 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