

Efficacy and Safety of Efgartigimod PH20 Subcutaneous in Adult Patients With Primary Immune Thrombocytopenia: ADVANCE SC, a Global Phase 3 Clinical Trial in Progress

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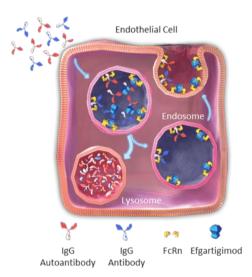
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BACKGROUND

EFGARTIGIMOD: a neonatal Fc receptor (FcRn) antagonist¹⁻³



- Efgartigimod is a human IgG1 Fc fragment with proprietary ABDEGTM mutations engineered for increased affinity for the FcRn
- It blocks FcRn, outcompeting endogenous immunoglobulin G (IgG) binding, preventing recycling of IgG and thereby decreasing serum IgG concentration
- FcRn blockade also leads to rapid decrease in circulating autoantibodies that may effectively treat IgG-mediated autoimmune diseases
- Efgartigimod is an investigational drug proposed for the treatment of IgG-mediated autoimmune disease
- The ongoing ADVANCE trial is evaluating intravenous efgartigimod 10 mg/kg; ADVANCE SC is a companion trial evaluating subcutaneous efgartigimod 1000 mg
- PH20 SC (Halozyme Therapeutics, San Diego, CA, USA) increases dispersion and absorption of co-administered drugs

Primary Immune Thrombocytopenia (ITP): an IgG-mediated Autoimmune Disease⁴⁻⁶

- ITP is an acquired autoimmune bleeding disorder characterized by a low platelet count, increased risk of bleeding, and decreased quality of life
- IgG autoantibodies targeting platelet surface antigens are detected in most patients with ITP
- Autoantibodies accelerate platelet clearance, can inhibit platelet production, and may impair platelet function
- Splenectomy remains the only treatment that provides sustained remission off therapy for one year or longer for a high proportion of patients

PHASE 2 RESULTS SUPPORT THE RATIONALE FOR THERAPEUTIC IgG DEPLETION IN PRIMARY ITP⁷

- In a randomized, double-blinded, placebo-controlled phase 2 trial in patients with ITP (NCT03102593), intravenous infusion of efgartigimod demonstrated a favorable safety and tolerability profile, consistent with previous studies
- Selective IgG reduction was observed within a few days in efgartigimod-treated groups, without impacting levels of other immunoglobulin isotypes
- A platelet count ≥100 × 10⁹/L at any time was achieved by 46.2% and 38.5% of patients receiving efgartigimod 5 mg/kg group or 10 mg/kg versus 8.3% in the placebo group
- The proportion of patients with bleeding decreased in the efgartigimod-treatment group, from 46.2% at baseline to a minimum of 7.7% at day 64; compared with 33.3% at baseline to a minimum of 25.0% at day 50 for the placebo group

KEY ELIGIBILITY CRITERIA

Inclusion criteria

- Confirmed diagnosis of primary ITP ≥3 months; no known etiology for thrombocytopenia
- Mean platelet count <30×10⁹/L from 3 qualifying counts within preceding 3 months
- Response to a prior ITP therapy (other than thrombopoietin receptor agonists)
- At least 2 prior ITP treatments or 1 prior and 1 concurrent ITP treatment stable in dose and frequency ≥4 weeks before randomization

Exclusion criteria

- Secondary ITP/thrombocytopenia associated with another condition
- Use of anticoagulants, romiplostim, transfusions, Ig, or plasmapheresis (PLEX) within 4 weeks prior to randomization
- Undergone splenectomy <4 weeks prior to randomization
- Use of an investigational product with 3 months or 5 half-lives (whichever is longer) or monoclonal antibody or Fc fusion proteins within 6 months of first efgartigimod dose
- History of malignancy (no recurrence ≥3 years before first dose), uncontrolled hypertension, history of thrombotic or embolic event, history of coagulopathy or hereditary thrombocytopenia, uncontrolled infection, active viral infection (hepatitis B virus, hepatitis C virus, human immunodeficiency virus), alcohol or drug abuse, other known autoimmune disease

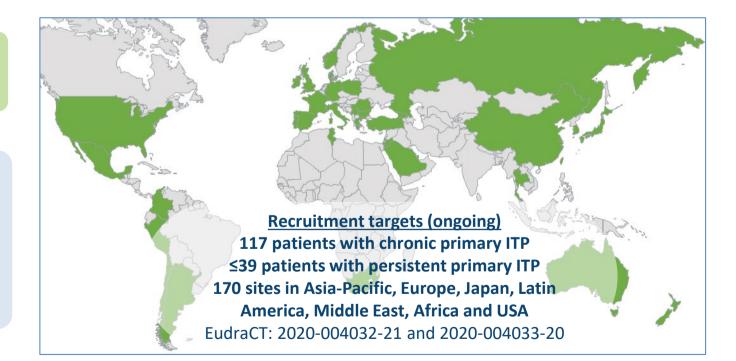
ADVANCE SC (ARGX-113-2004) Trial Design Subcutaneous Efgartigimod Phase 3, Multicenter, Randomized, Double-blind, Placebo-controlled Trial in Primary ITP Chronic or Early Treatment period (24 weeks) discontinuation persistent ITP visita Follow-up Randomization q4w (8 weeks)b 1000 mg Efgartigimod PH20 SC advance^{ss} Placebo PH20 SC Open-label Up to 2 weeks extension 18 19 **Fixed weekly** Weekly or q2w dosing Fixed weekly or q2w dosing based Do not enroll in OLE dosing adjusted according to platelet count thresholds on dosing regimen at visit 16^c Enroll in OLE $q2w \rightarrow weekly: platelet count < 100 \times 10^9/L on 2 visits$ **OR** weekly \rightarrow q2w: platelet count \geq 100×10⁹/L for 3 of 4 visits and Primary endpoint assessment <30×10⁹/L at 1 visit **OR** ≥100×10⁹/L at last visit **OR** ≥100×10⁹/L for 3 consecutive visits rescue therapy needed Concurrent therapy allowed if stable dose/schedule 4 weeks prior to randomization and not changed during the study unless 'insufficient response' at week 12, then concurrent therapy can start or the dose/schedule change * q2w = every other week; q4w = every four weeks; EOT = end of treatment; ITP = immune thrombocytopenia; IV = intravenously; OLE = open-label extension. PH20 = recombinant human hyaluronidase PH20. *As of week 12, the start or an increase in the dose and/or schedule of permitted concurrent ITP therapy is allowed for participants who have an 'insufficient response' (i.e., no platelet count of ≥30×109/L in any of the visits during the last 4 weeks These participants will be considered as 'non-responders' for the primary endpoint analysis ^aEarly discontinuation visit should be performed on the day of early discontinuation

PHASE 3 ADVANCE CLINICAL TRIAL PRIMARY ENDPOINT

Proportion of patients with a sustained platelet count response defined as platelet counts of ≥50×10⁹/L for ≥4 of 6 visits between weeks 19 and 24 (corresponding to visits 20–25/EOT)

SECONDARY AND ADDITIONAL ENDPOINTS

- Overall platelet count response •
- Safety and tolerability
- Incidence and severity of bleeding events
- Use of rescue treatment and changes in concurrent ITP therapy
- QoL (SF-36) and PRO (FACIT-Fatigue, Fact-Th6) measures
- Immunogenicity
- Pharmacokinetics and pharmacodynamics



FACIT = Functional Assessment of Chronic Illness Therapy Fatigue Scale; FACT-Th6 = Functional Assessment of Cancer Therapy –Thrombocytopenia 6 Item Version; ITP = immune thrombocytopenia; PRO = patient-reported outcome; QoL = quality of life; SF-36 = 36-Item Short-Form Survey.

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DISCLOSURES AND ACKNOWLEDGMENTS

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REFERENCES

- 1. Ulrichts P, et al. J Clin Invest. 2018;128:4372-4386.
- 2. Howard JF, et al. Neurology. 2019;92;e2661-2673.
- 3. Locke KW, et al. *Drug Deliv*. 2019;26(1):98-106 4. Kistanguri G, et al. Hematol Oncol Clin North Am. 2013;27(3):495-520.
- 5. McMillan R. Hematol Oncol Clin North Am. 2009:23(6):1163-1175.
- 6. Rodeghiero F. Eur J Haematol Suppl. 2008;(69):19-26
- 7. Newland AC, et al. Am J Hematol. 2020;95(2):178-187

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