

MEDICAL UPDATE LETTER FOR DONOR #10735 (LUCIAN) - 2025-04-30

Donor #10735 (Lucian) is a carrier for butyrylcholinesterase deficiency.

To Whom it May Concern,

We are writing to provide a medical update regarding Donor #10735 (Lucian).

Donor #10735 (Lucian) recently completed updated genetic carrier screening on behalf of a customer. Below you will find a summary of all relevant information.

Genetic Results:

Donor #10735 (Lucian) was identified as a carrier for a variant in the *BCHE* gene, associated with Butyrylcholinesterase (BCHE) deficiency. BCHE deficiency typically follows autosomal recessive inheritance. This means that to have a child affected with this condition, both the egg and sperm source must carry a variant in the *BCHE* gene and pass the variants on to the child at the same time. However, heterozygous carriers of a single *BCHE* variant may also experience symptoms of BCHE deficiency to a lesser extent. Specifically, **carriers of BCHE deficiency may process certain muscle relaxant drugs, including those used during general anesthesia, at a slower rate than the average person. This means that they may require special monitoring and support when receiving anesthesia depending on the drugs that are utilized.**

Please see the attached result report for additional details.

Interpretation:

- All children/embryos resulting from this donor have a 50% chance to inherit the donor's variant.
- Individuals who inherit this variant may have a risk for increased sensitivity to certain muscle relaxants used during anesthesia.
- If the egg source of any child/embryo is also a carrier of a variant in the *BCHE* gene, there is a 25% chance that a child/embryo will inherit both variants and be affected with Butyrylcholinesterase (BCHE) deficiency (see the result report for details regarding these disorders).

Next Steps for Families who have Utilized the Donor:

Please share this letter and the attached result report with your fertility care provider and/or your child's pediatrician, who can suggest appropriate referrals when warranted. Screening of the egg source for *BCHE* variants would provide more specific information about the chance to have a child/embryo affected with autosomal recessive BCHE deficiency. If the egg source has been screened for *BCHE* and results are negative, the risk to have a child/embryo affected with autosomal recessive BCHE deficiency is substantially reduced.

Do not hesitate to reach out if questions arise or if clarification would be helpful. You are welcome to schedule a phone consultation with one of Seattle Sperm Bank's certified genetic counselors if you would like to discuss this information over the phone.

In partnership,

April 30, 2025



A handwritten signature in black ink, appearing to read 'Emily Nazar'.

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