

## Additional Agreement to Use Donor CB 572

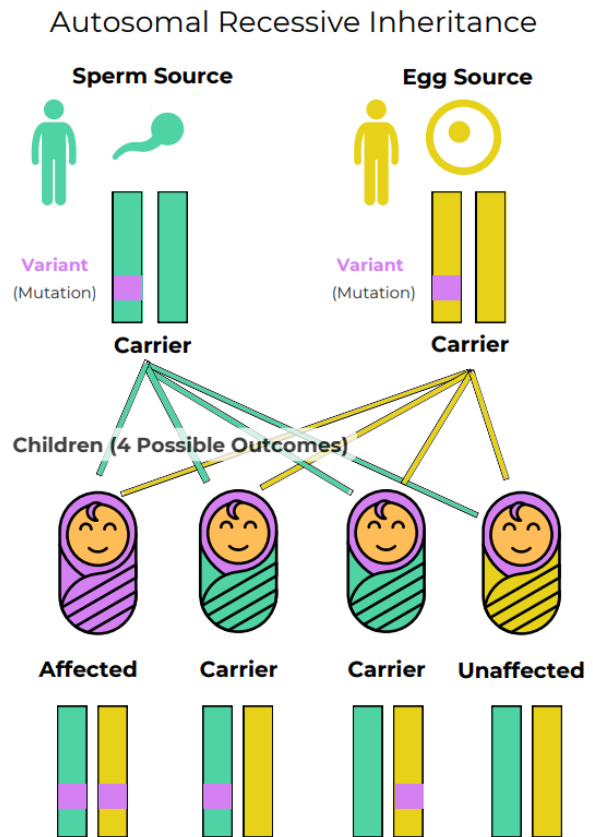
I ( \_\_\_\_\_ (Recipient), and \_\_\_\_\_ (Partner, if applicable)), specifically request and accept frozen semen from Cryobio donor CB 572. I understand that this Additional Agreement is an additional part of the Sperm Use Agreement specific to this donor who has tested negative for the 556 gene expanded genetic carrier screening. Please note that Cryobio thoroughly evaluates each donor’s results and assesses potential risks of any identified results before allowing donors to remain in our donor program.

I have reviewed genetic test results on this sperm donor, and I understand that the donor is:

**Not identified as a carrier for any of the 556 genes and genetic conditions for which they were screened.**

**Purpose of genetic carrier screening:** Carriers of genetic conditions have changes, called pathogenic variants or mutations, in a specific (or multiple) gene(s). Most of the genetic conditions that the Cryobio donors are tested for are inherited in an autosomal recessive pattern. Typically, we all have two copies of every gene---one from the egg source and one from the sperm source. Autosomal recessive conditions require a mutation in both copies of the same gene in order for it to cause the condition. Therefore, individuals who carry just one mutation in a gene that causes recessive genetic conditions are ‘carriers’ of that specific condition. Carriers of most of the genetic conditions Cryobio donors are tested for do not typically show symptoms of the condition, i.e., they are asymptomatic, although there are rare exceptions. Most individuals are carriers for at least one if not multiple recessive genetic conditions.

Carrier status is helpful to know because if both the egg source and the sperm source are carriers for pathogenic variants or mutations in the same gene, then there is a 1 in 4 chance of the resulting child having that specific condition; a 2 in 4 chance of the resulting child being a carrier for that specific condition; and a 1 in 4 chance of the resulting child being neither a carrier or having that specific condition. Some of the conditions Cryobio donors are tested for have genotype-phenotype correlation, meaning that specific genetic pathogenic variations (the genotype) in a specific gene can be predictive of the type/specific features of a condition that may present in the individual (the phenotype), but not all do. Additionally, some of the genes can be linked to dominant conditions, meaning having a mutation in just one gene may increase the risk of a specific condition. If a specific change in a gene is linked to a dominant condition, it will be noted in this consent form.



**Figure 1.** Graphic representing autosomal recessive inheritance of two carrier gametes.

**Recommendation:** Cryobio recommends that the recipient, or egg source if different than recipient, consider testing for genetic carrier status and consider genetic counseling. Please contact Cryobio with any questions or to arrange genetic counseling. Genetic counseling services can also be found through the National Society of Genetic Counselors website. We also strongly recommend that you discuss the donor’s genetic carrier status results with your health care provider. Finally, we recommend that any future child be notified of this donor’s carrier status once they are of reproductive age, as even if they do not have a recessive condition, they could be a carrier and their carrier status could help them identify risks related to their own reproductive future.

Cryobio has advised me of the following:	Please initial to show your understanding and agreement:
The donor I have chosen has had genetic testing looking at carrier status in 556 genes. These results indicate that the donor was NOT identified to be a carrier for any of the genetic conditions tested for through Invitae's 556 gene panel. Please refer to the donor’s genetic test results for a full list of conditions that were tested for.	Initials: _____ Initials: _____
The genetic conditions tested for are inherited in recessive patterns. This means that if both the egg source and the sperm source are carriers for mutations in the same gene, there is a significantly higher chance of the resulting child having that genetic condition.	Initials: _____ Initials: _____
By the donor testing negative, the risk to a resulting child <i>for those 556 specific genetic conditions for which testing was done</i> is not eliminated but would now be lower than that of the general population.	Initials: _____ Initials: _____
When an individual tests negative for carrier status, it does not completely eliminate their chance of being a carrier for that condition, however their remaining risk is greatly reduced. This remaining risk is called residual risk, and the residual risk can vary significantly from person to person. For more detailed information regarding the sensitivity of testing and remaining risk after negative screening, please contact Cryobio.	Initials: _____ Initials: _____
As genetic testing evolves and more data becomes available, I understand that there is the possibility of updated genetic information that may be uncovered for this donor for a variety of reasons. It is my responsibility to check back with Cryobio to see if any new genetic information is available for this donor.	Initials: _____ Initials: _____
Genetic testing for me (or the egg source, if different) can also be done to better understand and further reduce the risk to offspring.	Initials: _____ Initials: _____
Expanded genetic carrier screening is continuing to evolve, and at the time this donor entered the program this was the screening available. This donor had genetic testing with Invitae in 2023. My health care provider may recommend an expanded carrier screen that includes/included more than the 556 genes screened for in this donor. It is my responsibility to share this information about the donor with	Initials: _____ Initials: _____

my health care provider and review the risks and benefits of being screened for more (or fewer) genetic conditions.	
The genetic testing done on the donor does <i>not</i> screen for all known genetic conditions.	Initials: _____ Initials: _____
While genetic testing can lower the likelihood for certain genetic conditions, no amount of genetic testing can guarantee that a child will be free of all genetic conditions.	Initials: _____ Initials: _____
Genetic counseling is available to me if I have additional questions regarding these test results and potential risks.	Initials: _____ Initials: _____
Both the donor's carrier status and whether the donor is acceptable for my use should be discussed with my health care provider.	Initials: _____ Initials: _____

***I have read the above material and understand the risks that remain from using donor sperm from donor CB 572, who has negative expanded genetic carrier screening results. I agree to release any legal claims, including negligence, that may arise from or are related to insemination or assisted reproduction using donor sperm from donor CB 572.***

I have had the chance to read and ask questions, and I understand and agree to the terms of this Additional Agreement to use donor CB 572.

---

Recipient	Date	Email
-----------	------	-------

---

Partner, if applicable	Date	Email
------------------------	------	-------

<u>William C. Baird, PhD, HCLD</u>	<u>04-03-24</u>
Cryobio	Date