

Rebiopsy in preimplantation genetic testing (PGT) can provide a genetic result and maximizes the number of transferable blastocysts for patients

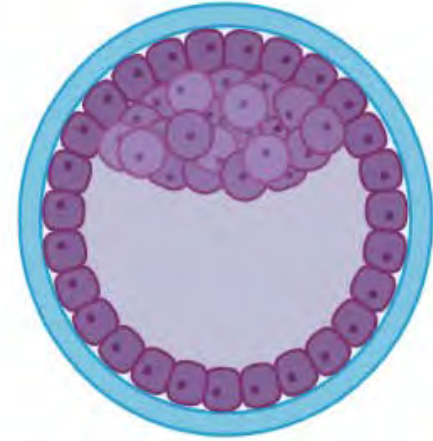
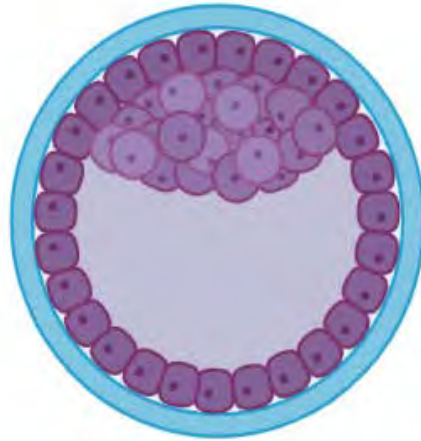
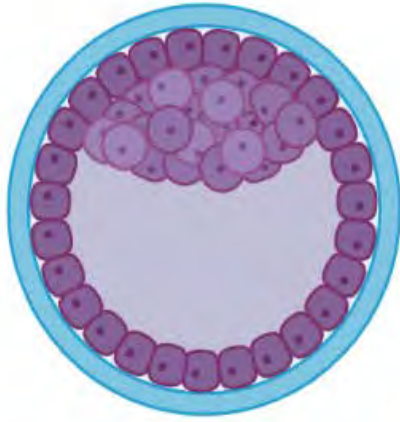
Ellegiers Sofie
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BSRM Scientific Meeting



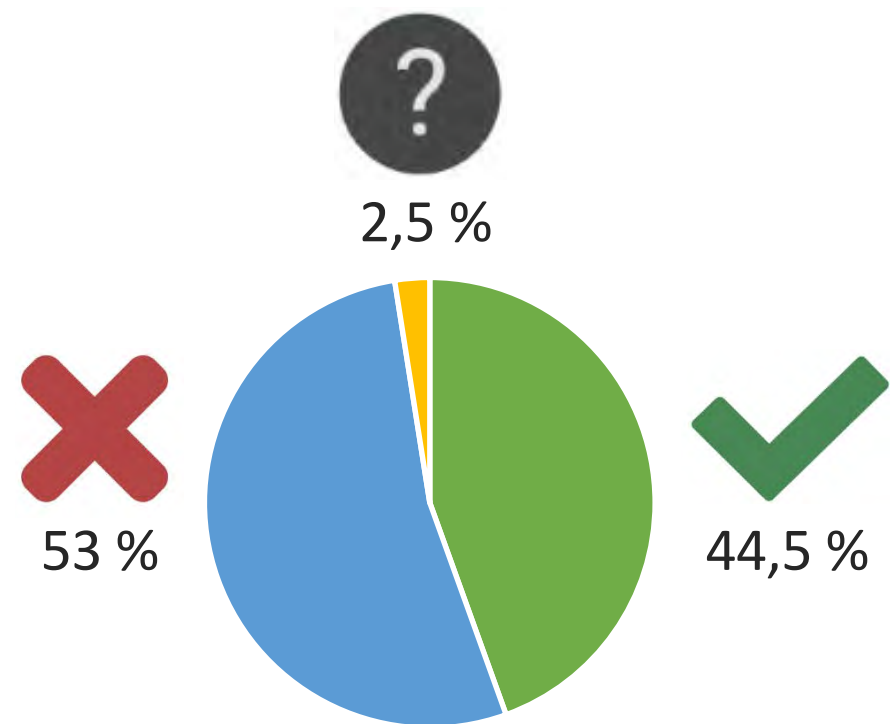


I declare that I have no conflict of interest
pertaining to the content of this presentation





Trophectoderm biopsy for PGT is a safe technique but a small group of blastocysts remains inconclusive



Cimadomo *et al.* (2018)

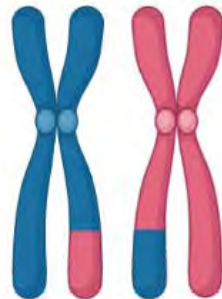
Aim of this study

- Inconclusive blastocysts
- unambiguous genetic result
- Implantation potential after rebiopsy

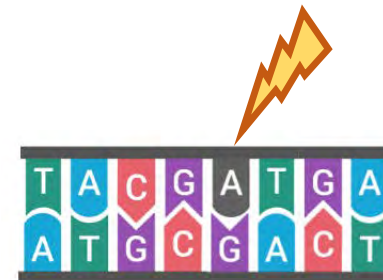
PGT-A



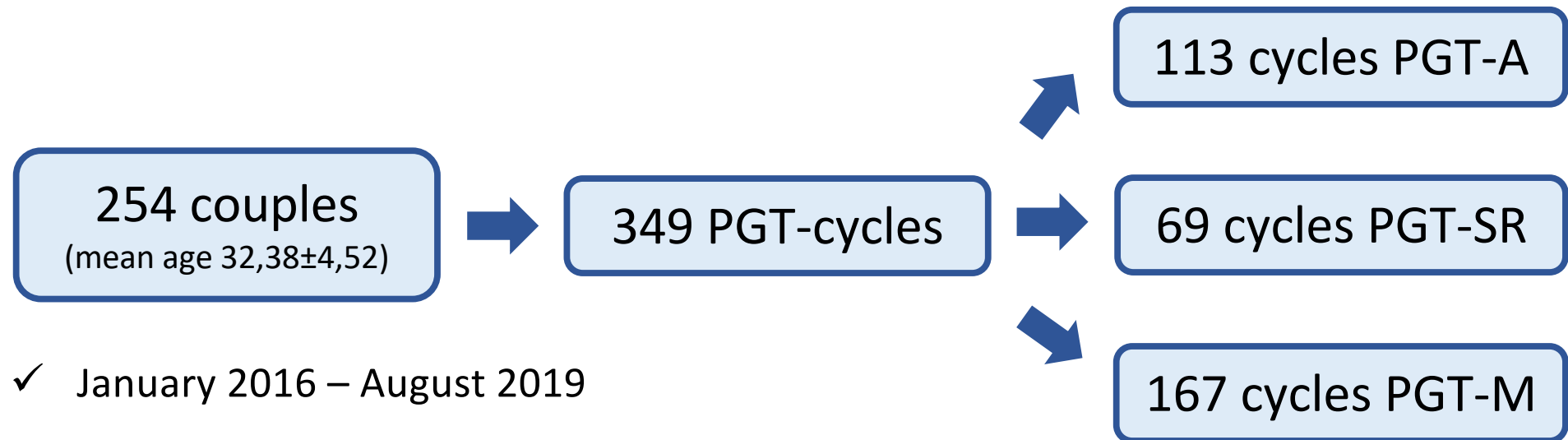
PGT-SR



PGT-M



A retrospective descriptive monocentric study compared the data of PGT-A, PGT-SR and PGT-M





Trophectoderm biopsy is performed on day 5 or 6



Time lapse incubator
Gardner scoring
LAH



-  PGT-A and PGT-SR: copy number variation sequencing
-  PGT-M: PCR and Sanger sequencing of the affected exon

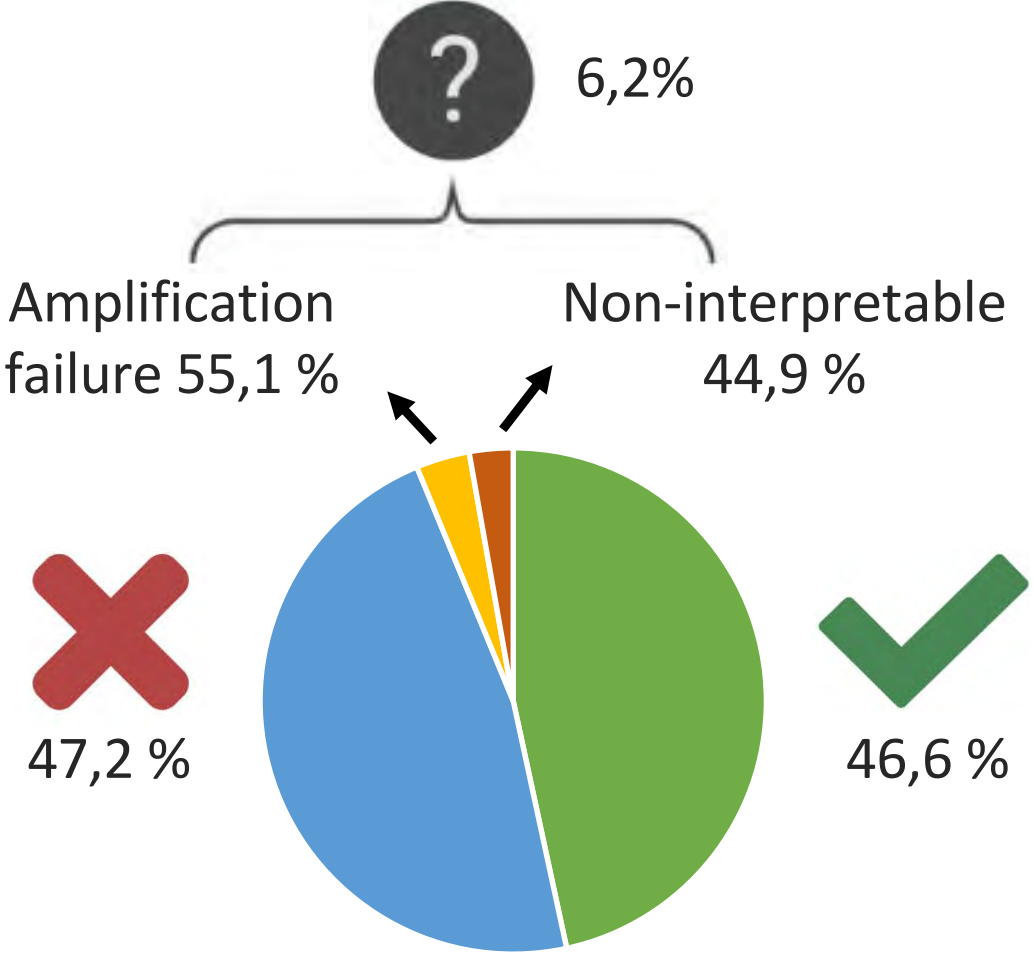
Trophectoderm biopsy is performed on day 5 or 6



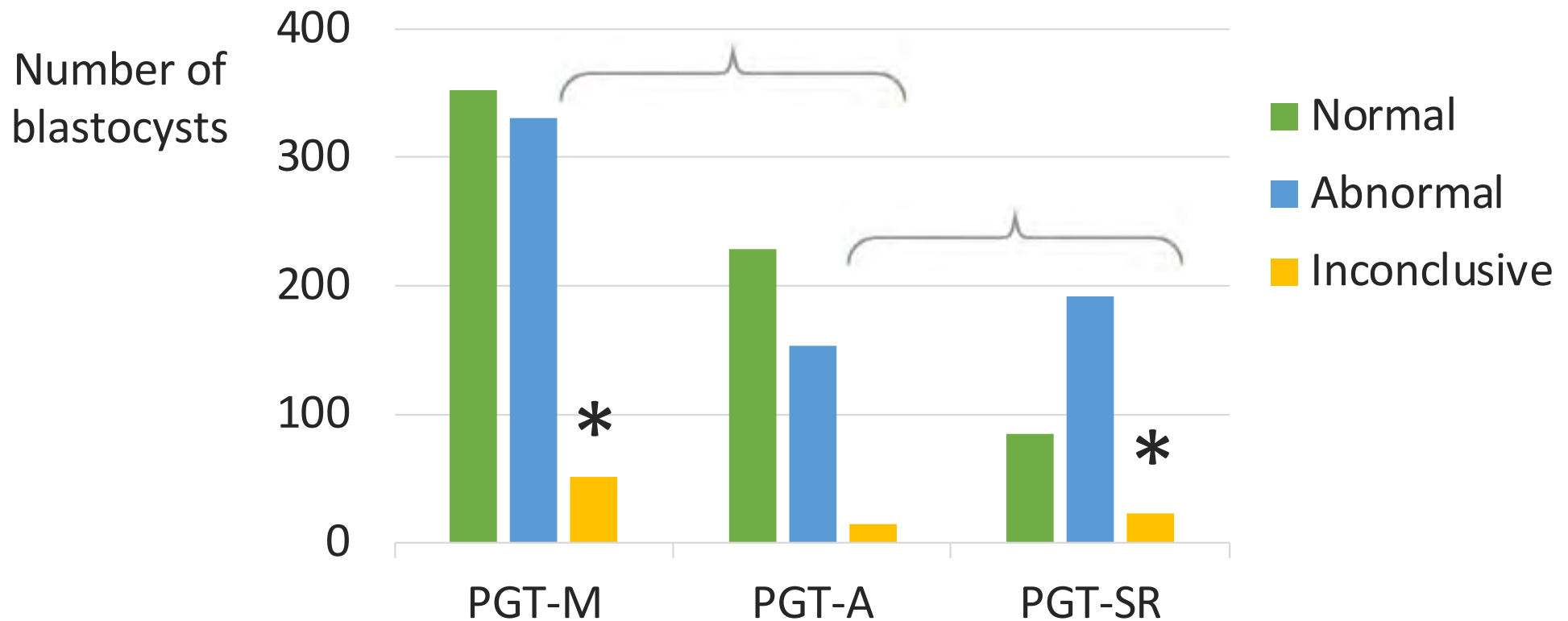
DNA amplification failure

Non-interpretable data

Genetic analysis of 1431 biopsied blastocysts in total

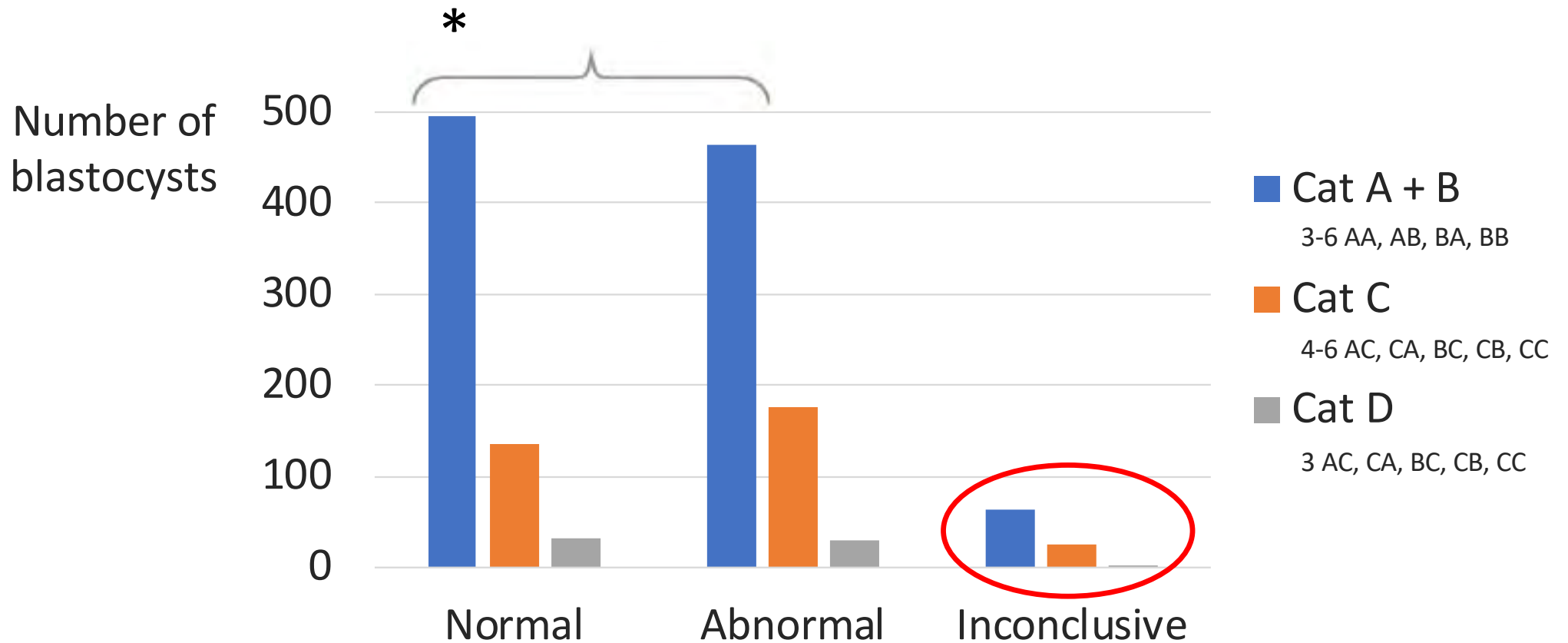


More inconclusivity in PGT-M and PGT-SR



* $p \leq 0.05$ (Fisher's Exact)

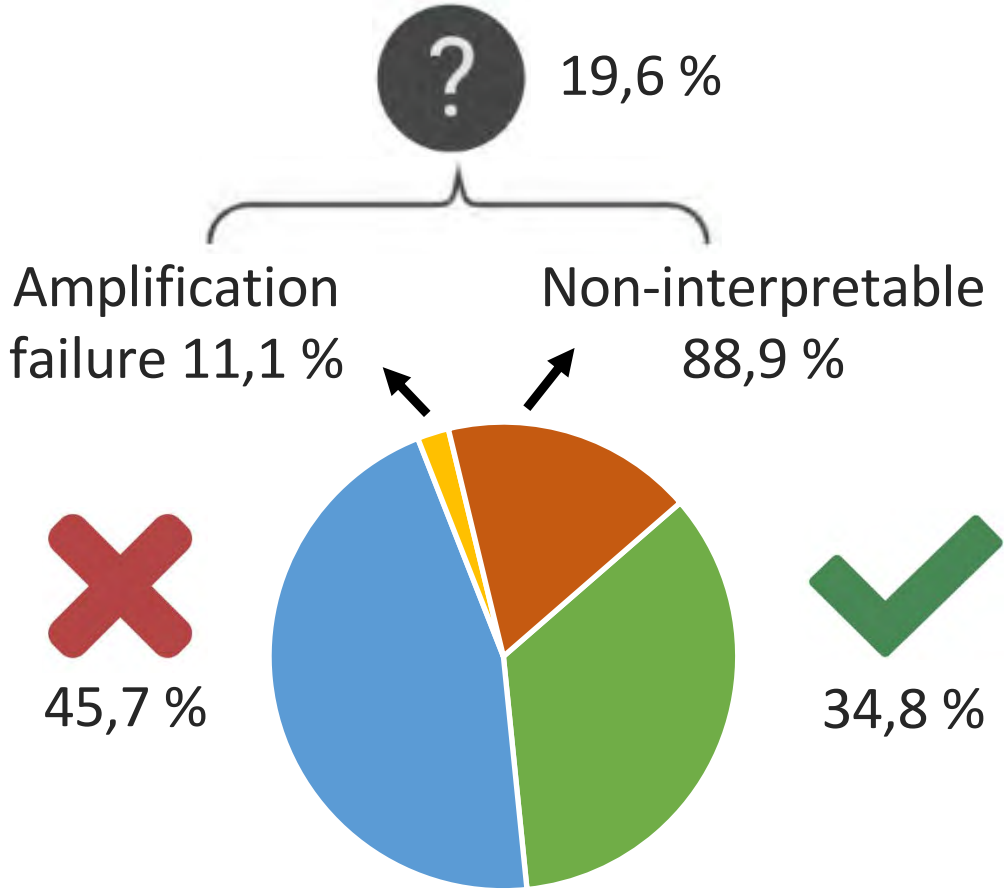
71% of the inconclusive blastocysts are category A and B



* $p \leq 0.05$ (Fisher's Exact)

Genetic results after rebiopsy of 46 inconclusive blastocysts

Inconclusive blastocysts warmed	89 (6,2 %)
Survival after warming	80 (89,9 %)
Rebiopsy and revitrification	46 (51,7%)



Outcome for transferable blastocysts after rebiopsy

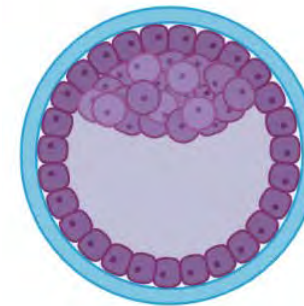
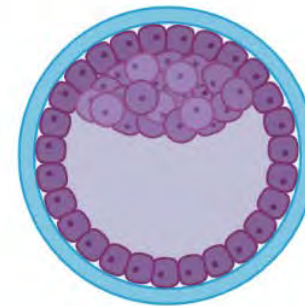
Transferable after rebiopsy	16 (34,8 %)
Warmed blastocysts	11
Transfer	9 (81,8 %)
Positive hCG	6 (66,7 %)
Ongoing pregnancies	3 (30%) – 1 in each PGT-type

Conclusions

Rebiopsy and revitrification on
51,7 % of the inconclusive blastocysts



transferable blastocysts and
live birth per transfer



Thank you for your attention



G-FaST
Ghent Fertility and Stem cell Team



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