ASEBIR Survey Presentation

Gamete retrieval and selection: A Snapshot of European Embryologist Perspectives

Irene Cuevas-Saiz

Conflict of interest

Not related to the content of this session

Why this survey?

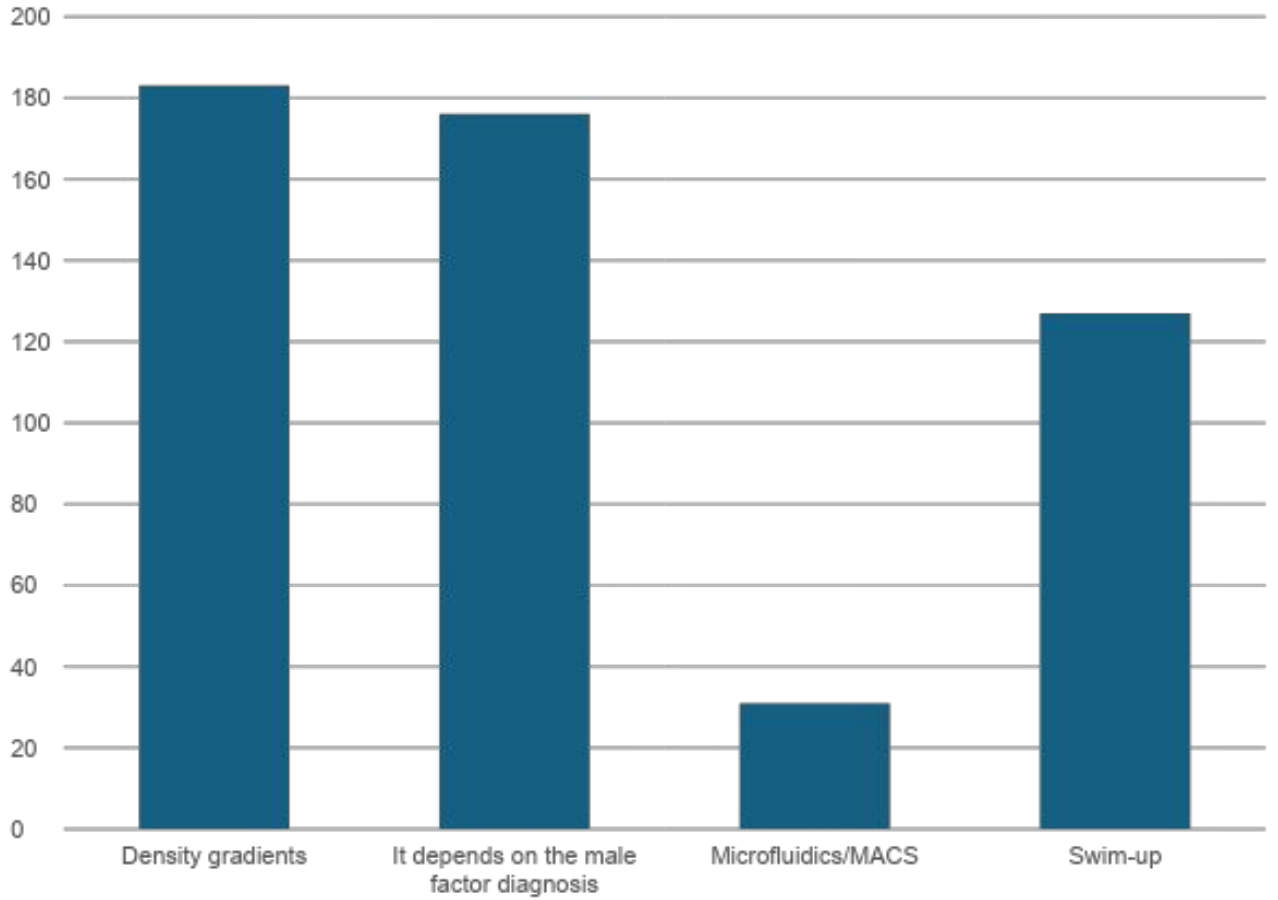
- Gamete retrieval, use and selection can be influenced by legal framework and cultural differences among european countries

Aim: Capture current practices from embryologists from our 4 societies to identify strategies that could help us improve our workflow and results by means of common consensus or guidelines

Survey Respondents

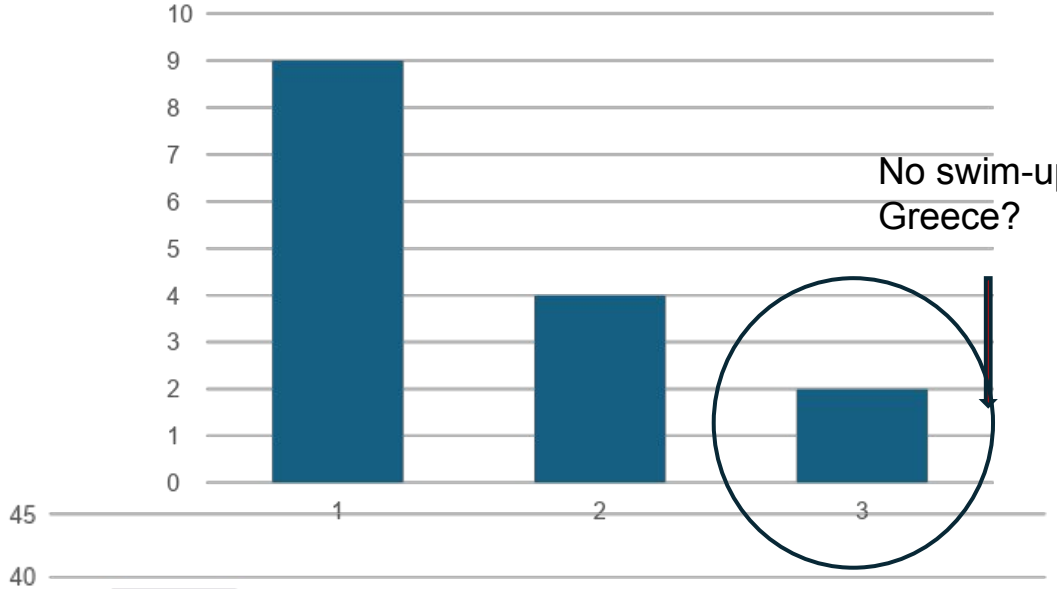
- Total responses: 173
- Respondents mainly from 4 countries (Portugal, Spain, Italy and Greece) across Europe.
- Diverse demographics: gender, clinic type (public/private), experience levels, etc.
- Analysis considering country of origin and demographics to identify consensus or differences in responses.

Which sperm preparation method do you use for non-severe sperm simples?

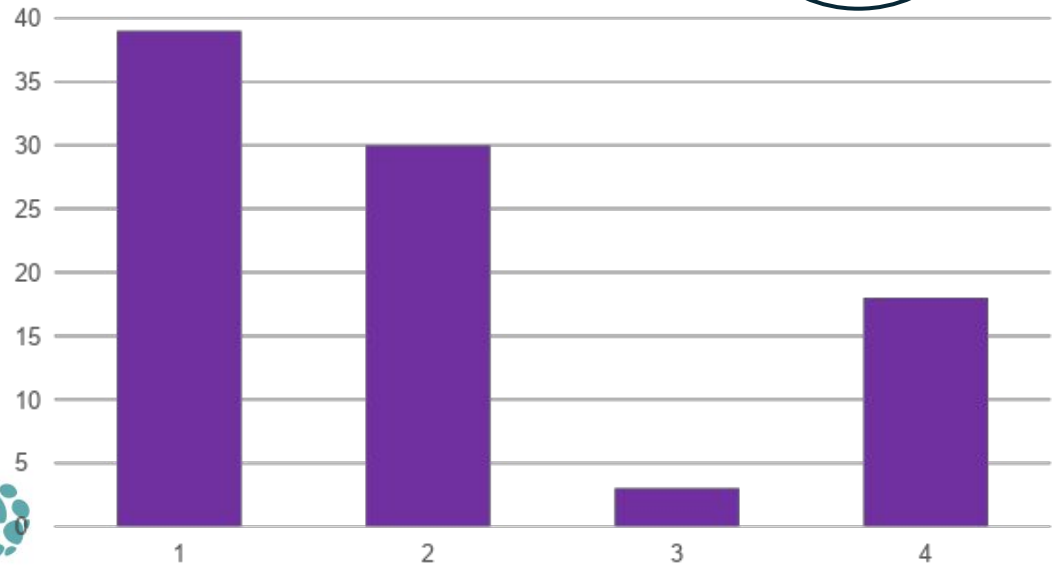


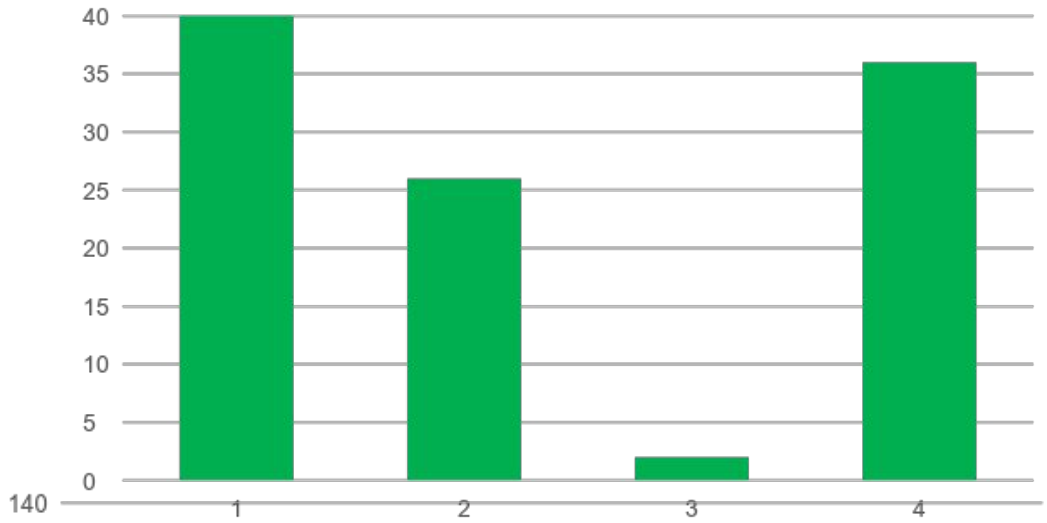
Overall response

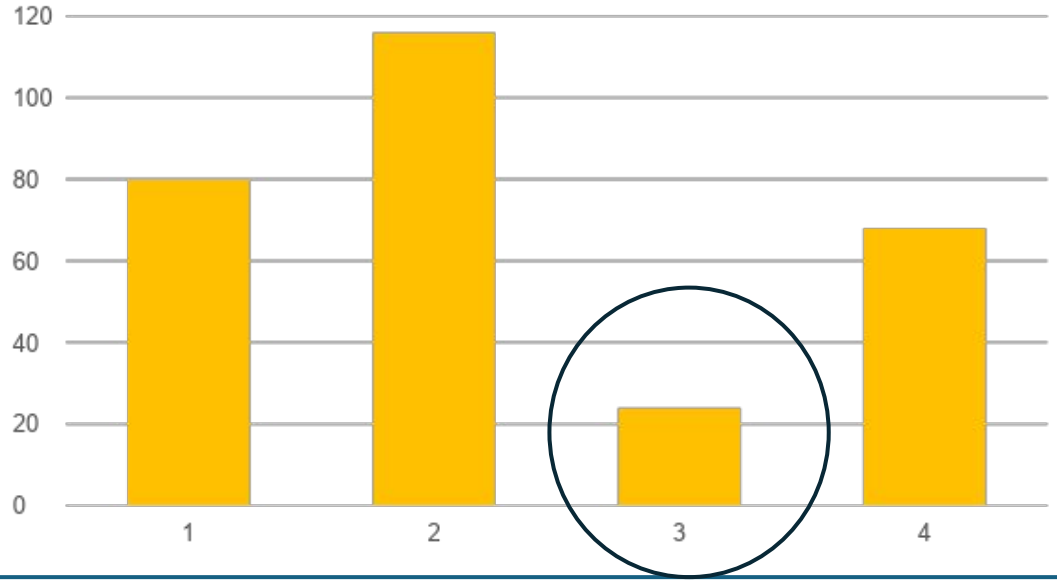
Which sperm preparation method do you use for non-severe sperm simples?



No swim-up in Greece?







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Gamete retrieval and selection: SURVEY RESULTS

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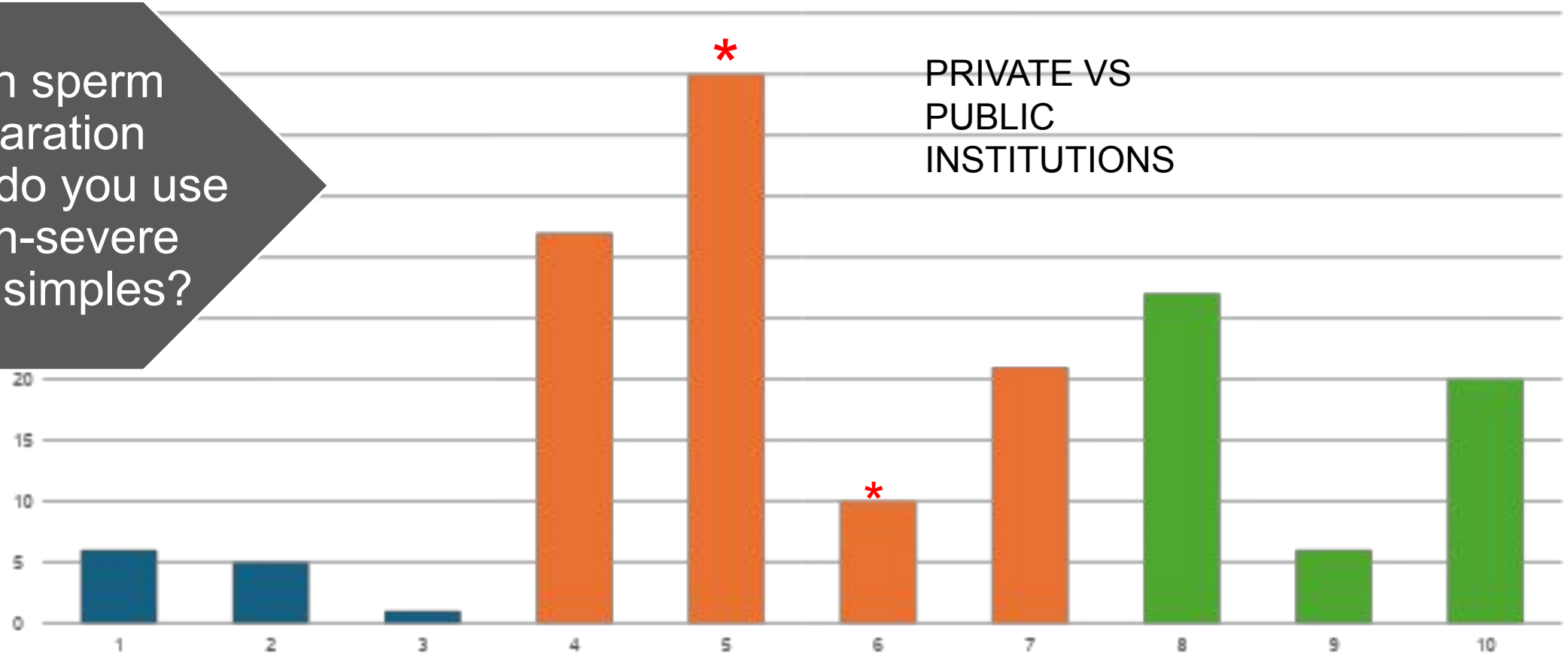

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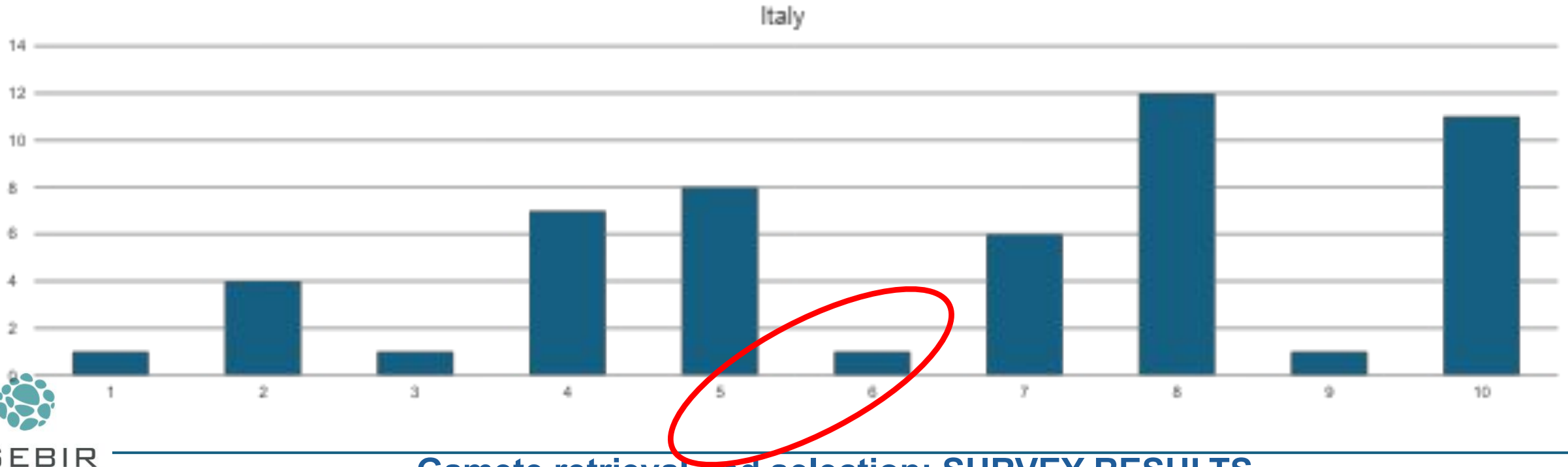
Which sperm preparation method do you use for non-severe sperm simples?

COUNTRIES – PRIVATE VS PUBLIC

Apart from “it depends on the diagnosis”



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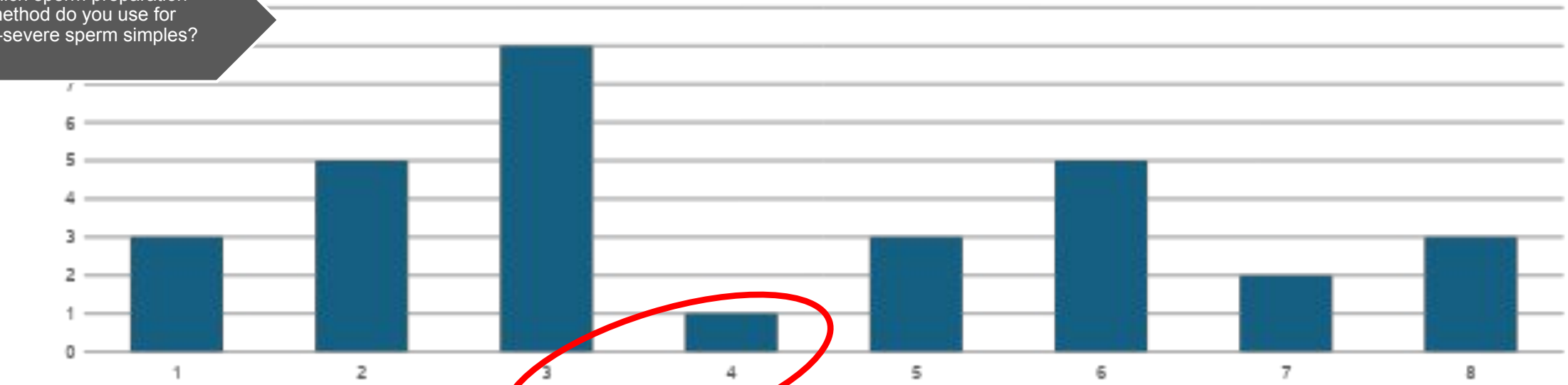

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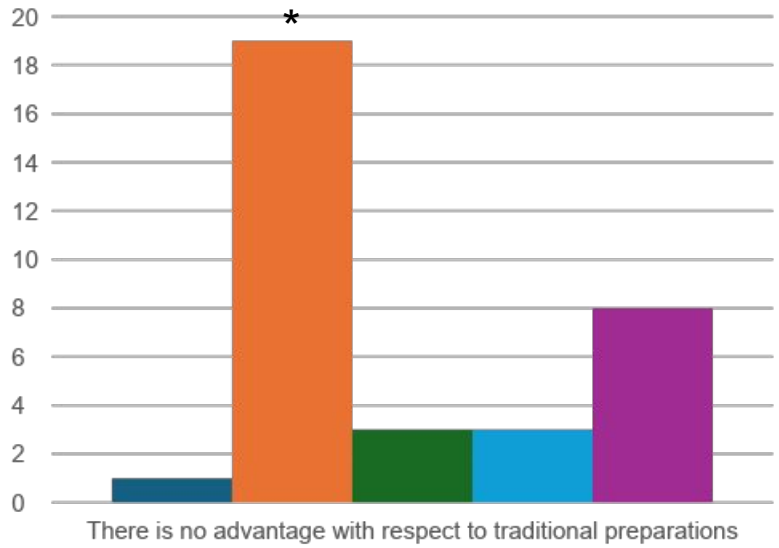
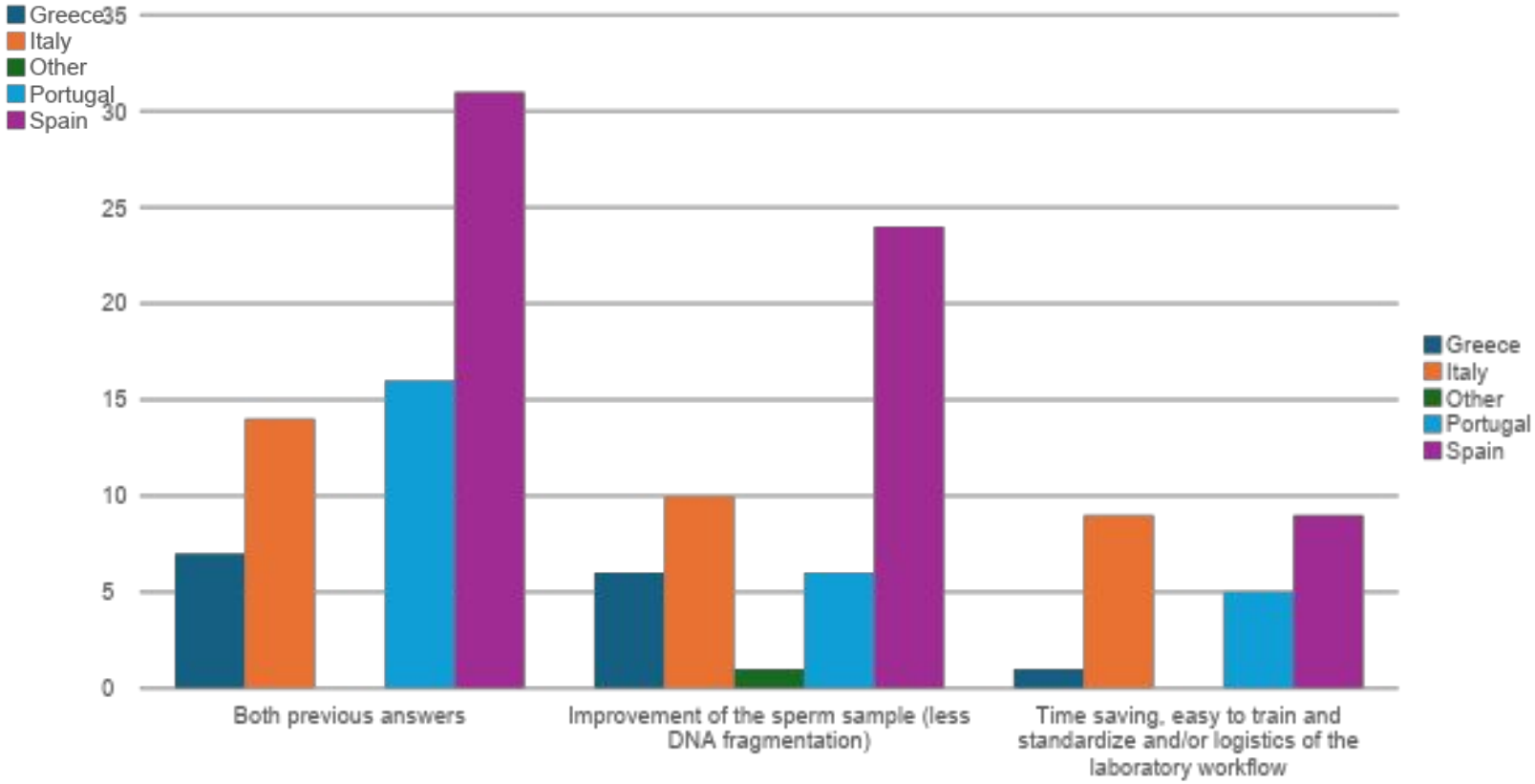
Gamete retrieval and selection: SURVEY RESULTS

What is for you the main advantage with the use of microfluidics for sperm selection?



Italians more esceptic to microfluidics



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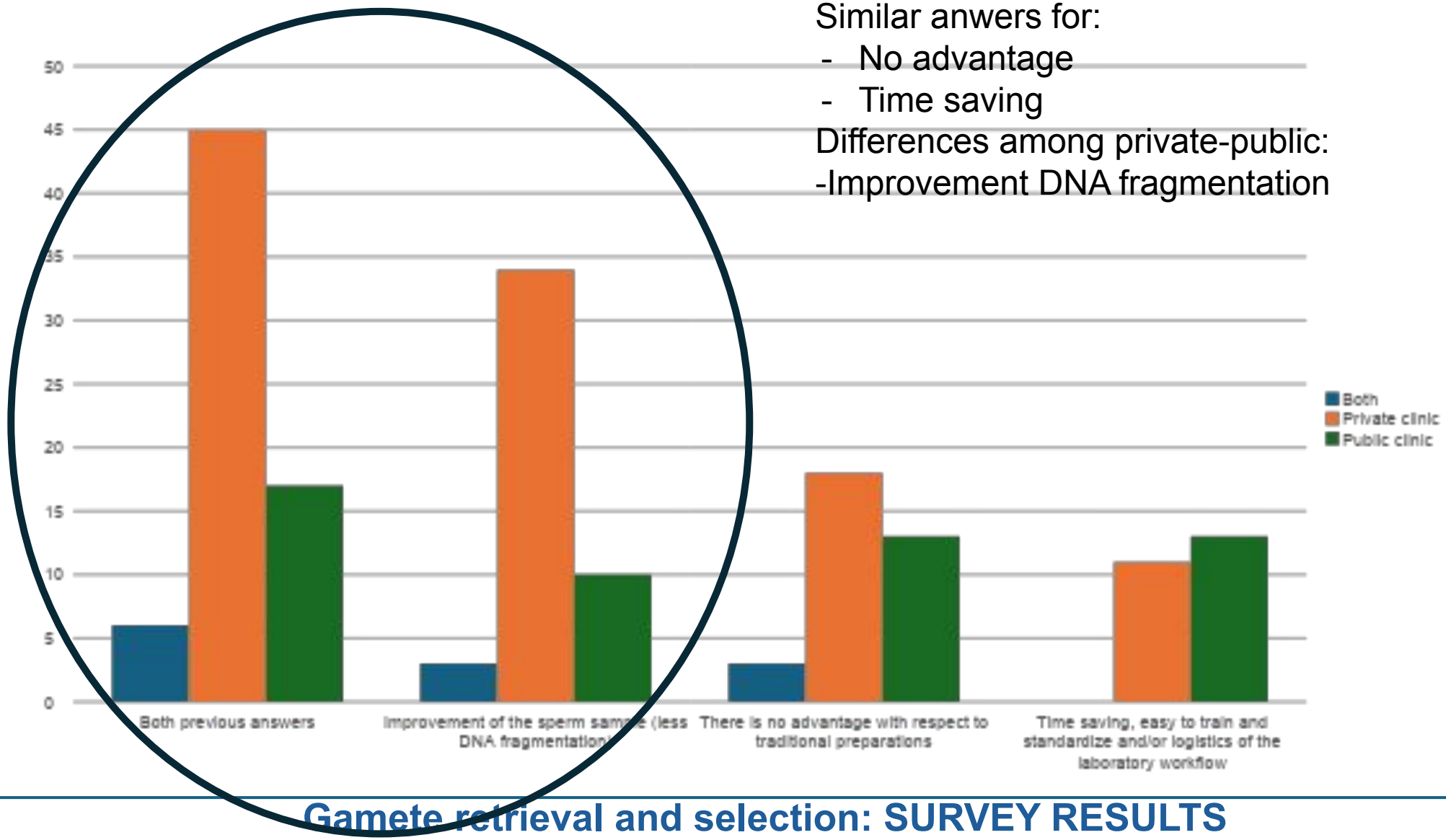

Similar anwers for:
- No advantage
- Time saving

Differences among private-public:
-Improvement DNA fragmentation

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Discussion & Questions

Do public institutions this technique (microfluidics)

Do public institutions test their patients for DNA fragmentation?

How many people work in a public institution?

If it was available, would you use MACS or microfluidics for sperm seletion?

Discussion & Questions

How many people work in a private institution?

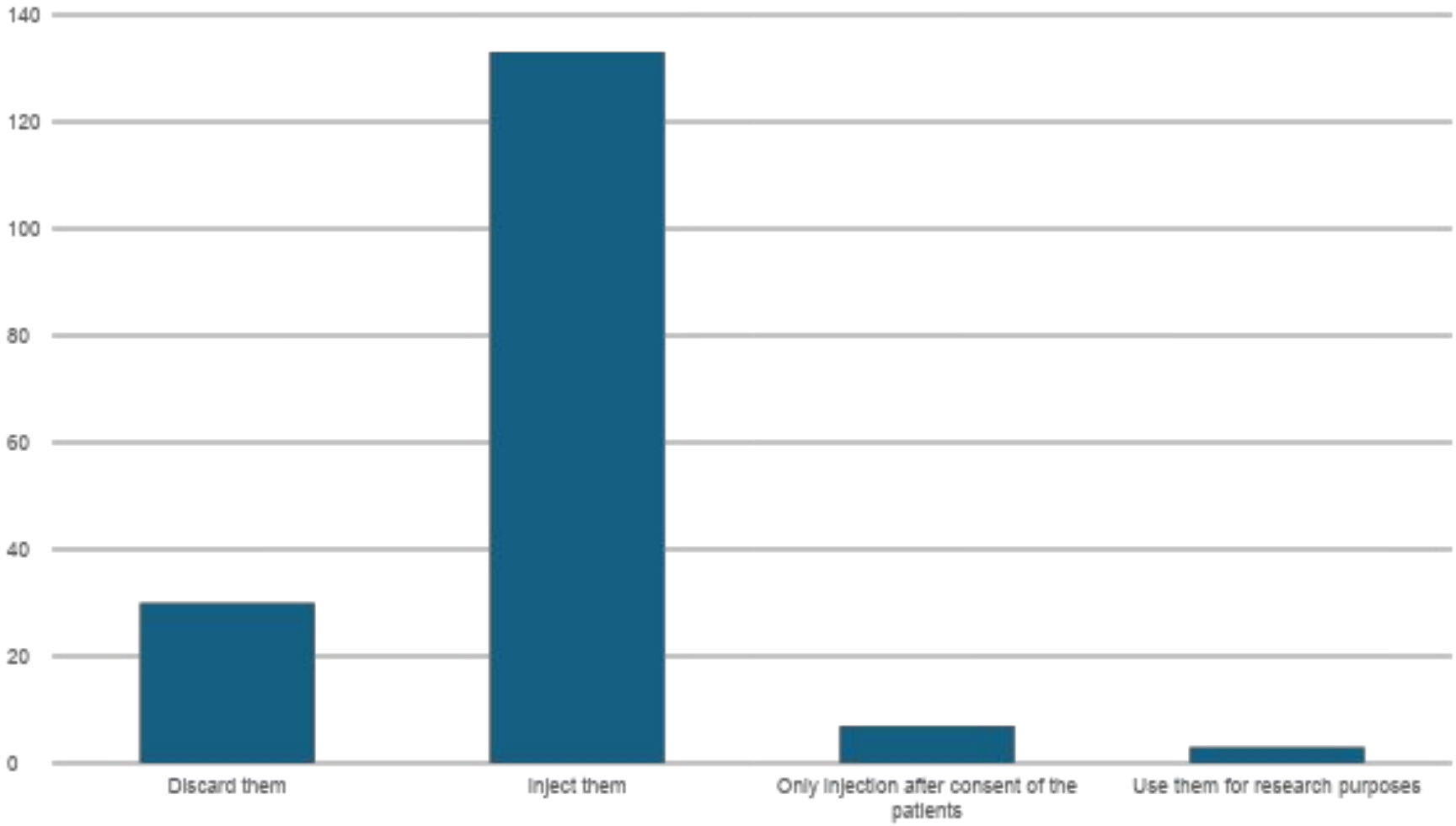
If it was “zero cost” for the patients, would you use MACS or microfluidics for sperm seletion?

Discussion & Questions

As scientists, do we trust in this kind of tech?

Add-ons or money matters????

What do you do in your lab with oocytes with SERC?



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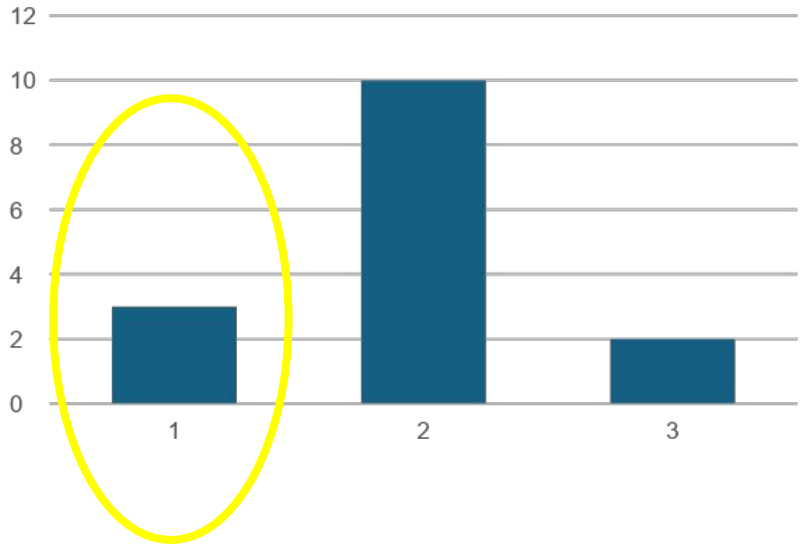

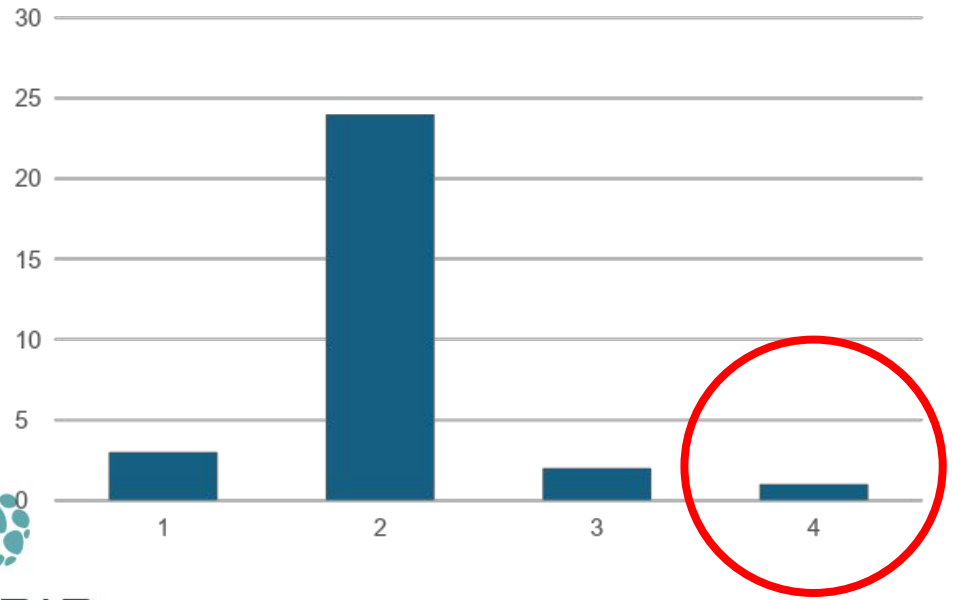

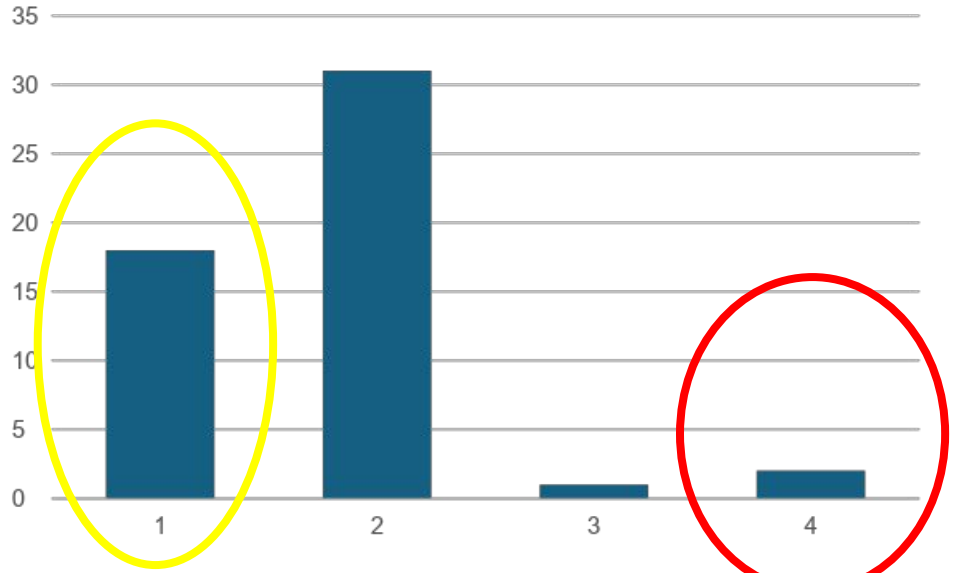

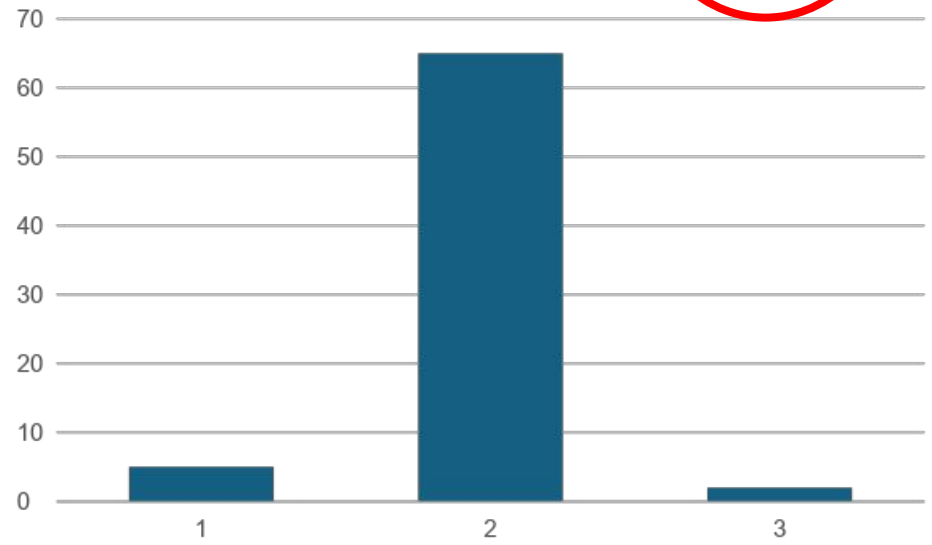

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Gamete retrieval and selection: SURVEY RESULTS

Discussion & Questions

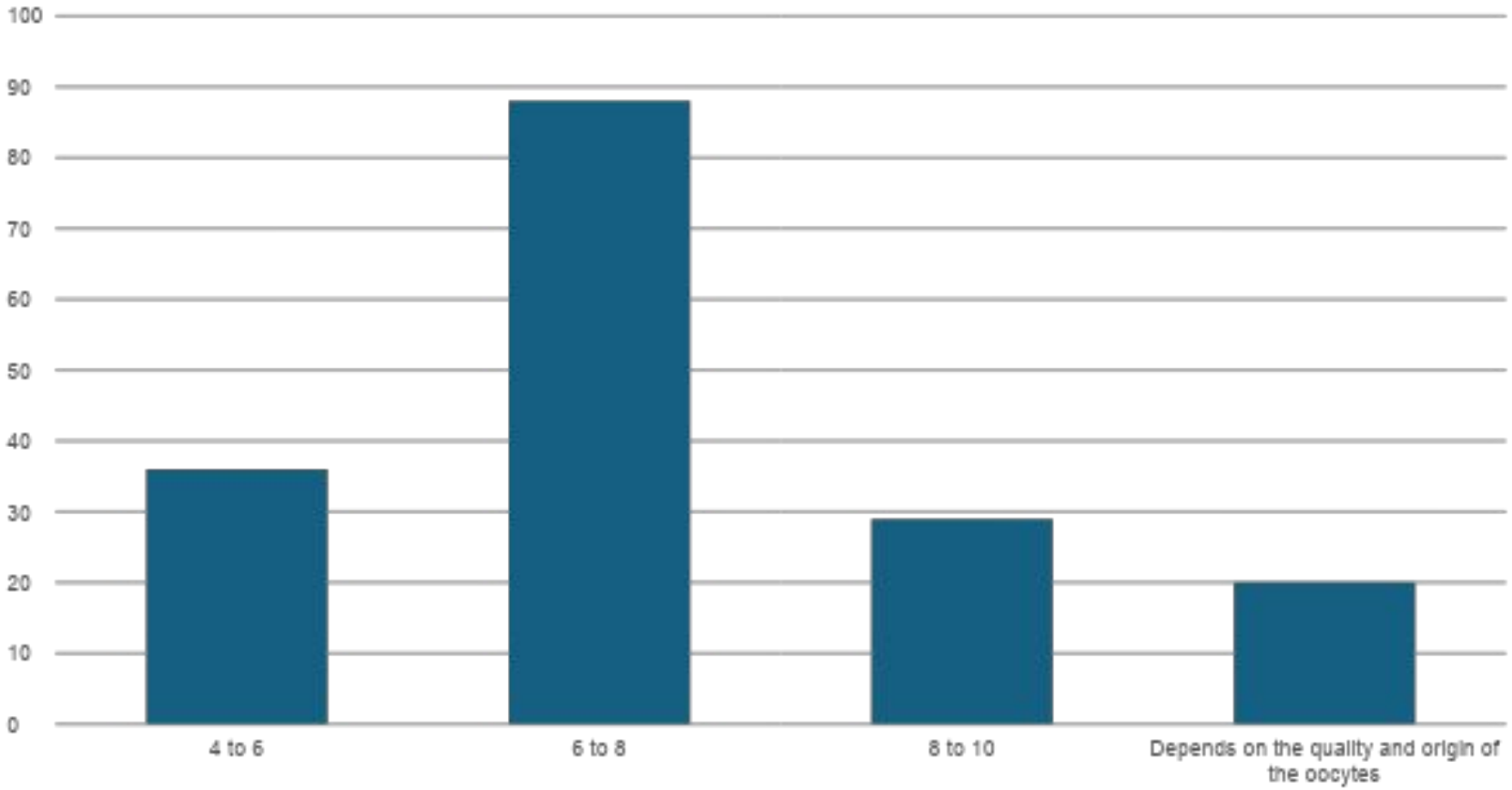
Will there be different responses in the future after the “acceptance” of SERC oocytes by ALPHA/ESHRE?

Now that is considered…. How many SERC derived embryos could have been produced?

Apart of aneuploidies, can we find epigenetic changes? Can we test it?

Are any other dysmorphisms (vacuoles, reflactile bodies,…) considered as bad as SERC? Sign of cytoplasmic inmaturity…

How many oocytes you think is a good number for warming in the oocyte donation program for a standard donation cycle (day 5, 1 blastocyst, no PGT-A)?



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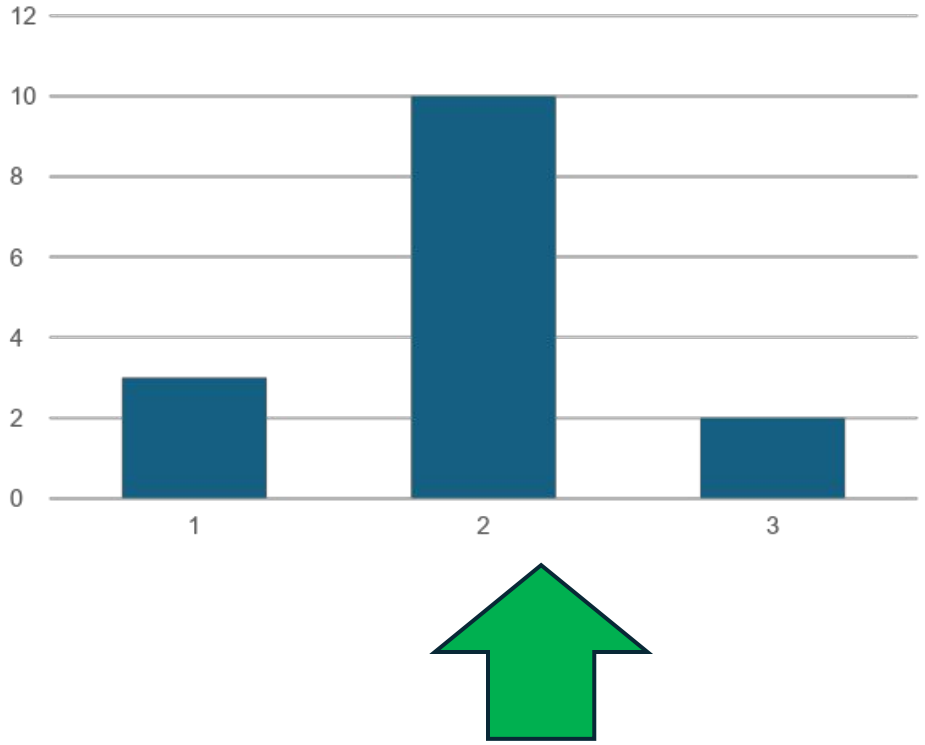
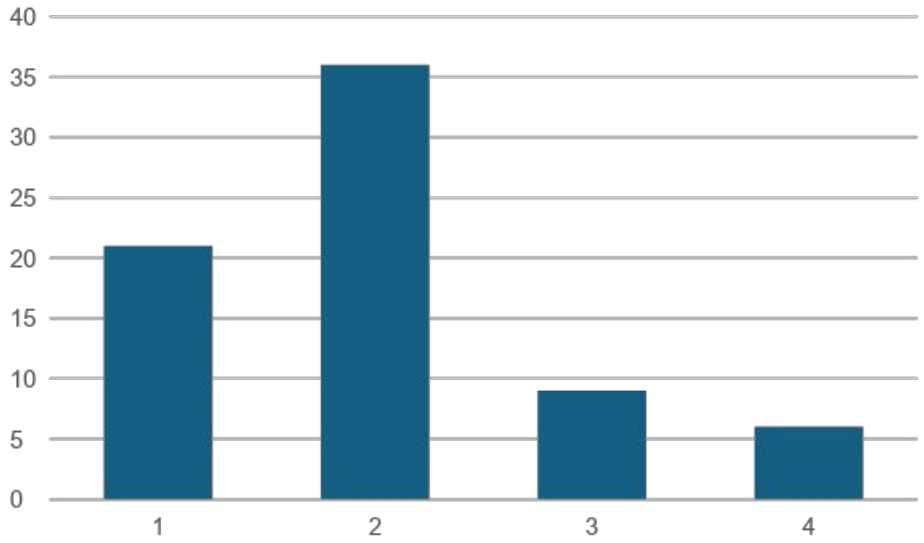


Greece: 8-10 is not an option. Better vitrification programs?

Oocyte “providers”



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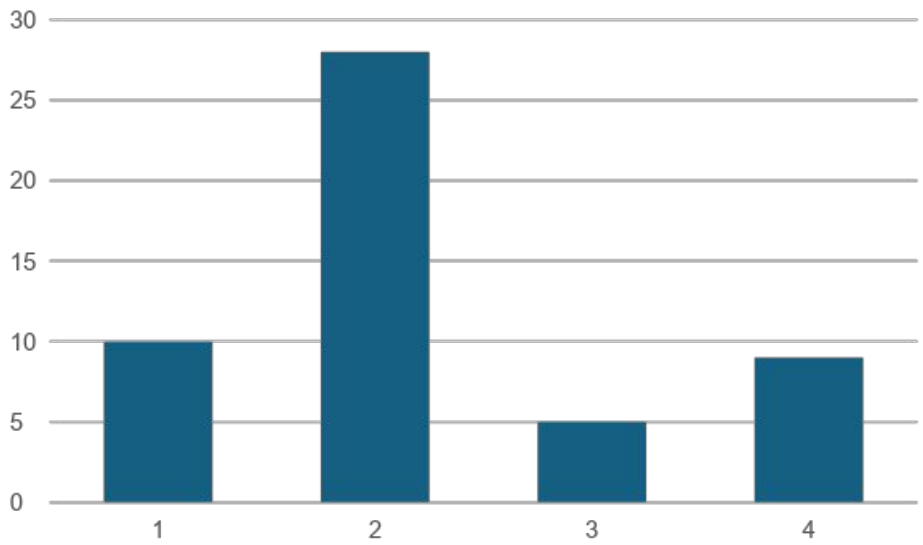
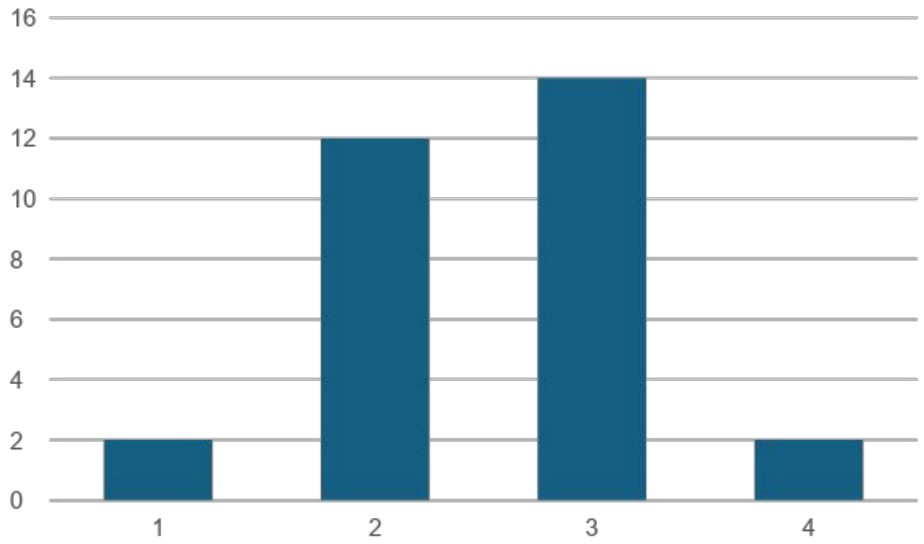


Oocyte “consumers”



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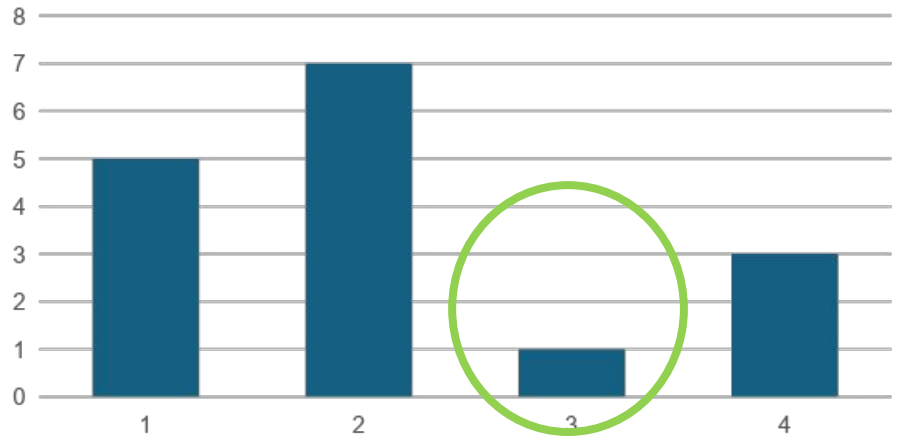
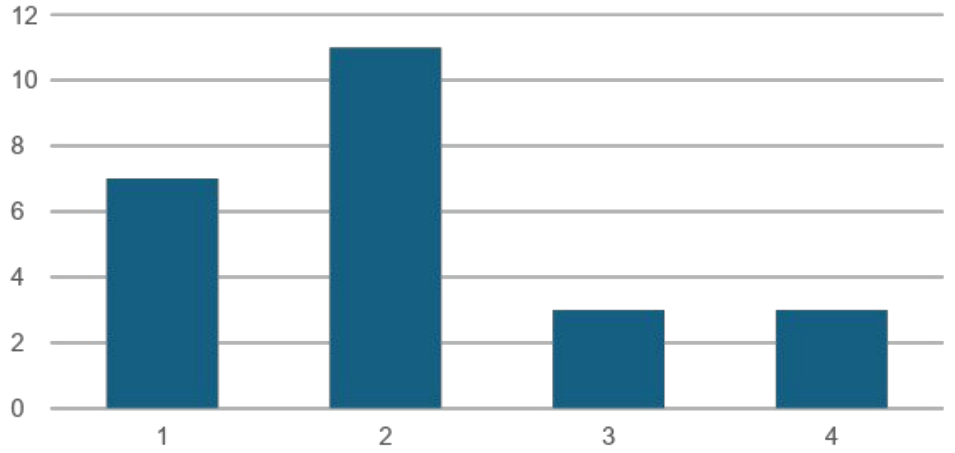
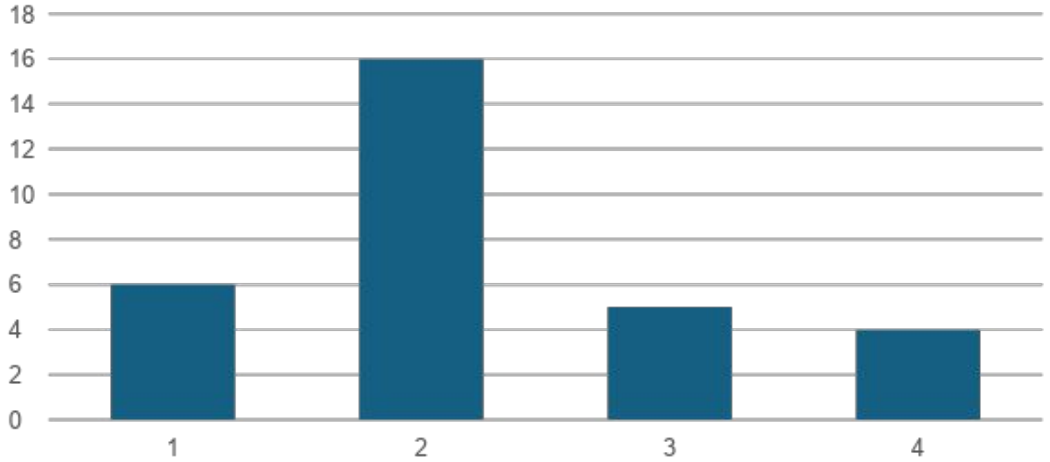
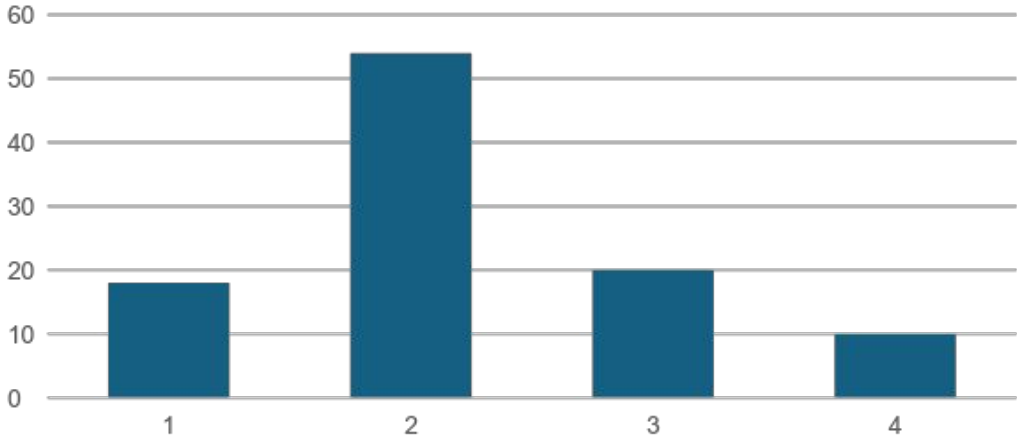
EXPERIENCE OF THE EMBRYOLOGIST???
Younger embryologists, less oocytes

How many oocytes you think is a good number for warming in the oocyte donation program?









Discussion & Questions

Young embryologist arrived wit those numbers (normal). “Old” embryologists “suffered” the transition to Good vitri programs

How would have been that response with slow freezing?

6 to 8 MII oocytes is almost a consensus among countries (consumers and providers)

Discussion & Questions

Will ultrafast vitrification/warming be a game changer for this agreement?

Lowering to 4 to 6?

1 RBMO VOLUME 51 ISSUE 2 2025 104857

RBMO

ELSEVIER

REVIEW

Shorter protocols for vitrification and post-warming dilution of human oocytes and embryos: a narrative review

BIOGRAPHY

Juergen Liebermann, PhD, HCLD, has been an IVF Laboratory Director since 1996. He received his doctoral degree in 1995 and his postdoctoral thesis in 2004. Since 2004, he has lived in Chicago, IL, USA. His research focuses on optimizing egg and embryo vitrification to improve clinical outcomes.

Iris Martinez-Rodero[a], Miguel Gallardo[b], Valerio Pisaturo[c], Catello Scarica[d], Joseph Conaghan[e], Juergen Liebermann[f,*], Irene Cuevas-Saiz[g]

KEY MESSAGE

Cryopreservation in human assisted reproductive technology is an evolving frontier. Improving vitrified–warmed oocyte and embryo outcomes can elevate IVF success rates. Embracing innovative vitrification protocols will enhance efficiency and drive superior results. Successful application necessitates a fundamental undertanding of vitrification basic science, thereby promoting more successful, reliable and consistent IVF outcomes.

Discussion & Questions

Will ultrafast vitrification/warming be a game changer for this agreement?

Lowering to 4 to 6?

OXFORD human reproduction

Human Reproduction, 2025, 40(6), 1066–1076
https://doi.org/10.1093/humrep/deaf069
Advance Access Publication Date: May 7, 2025
Original Article

Embryology

Preclinical validation of fast oocyte vitrification and warming protocols with comparable efficiencies to a standard method

Nuno Costa-Borges[1,*], Queralt Matia-Algué[1], Aila Coello[2], Enric Mestres[1], Mònica Acacio[1], Adolfo Flores-Saiffe Farías[3], Carolina Castello[1], Miguel Gallardo[4], Alejandro Chavez-Badiola[3], Francisco Marco-Jiménez[5], Ana Cobo[2], and Jacques Cohen[3]

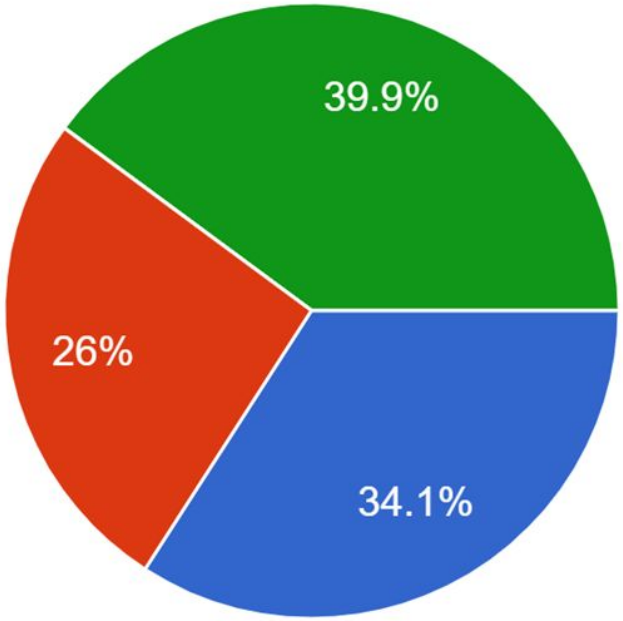
[1]Embryotools S.L., Barcelona, Spain
[2]IVF Laboratory, IVIRMA, Valencia, Spain
[3]Conceivable Life Sciences, Guadalajara, Mexico
[4]IVF Laboratory, IVIRMA Global Research Alliance, Cinemed Lisbon, Lisbon, Portugal
[5]Instituto de Ciencia y Tecnología Animal, Universitat Politècnica de València, Valencia, Spain

*Correspondence address. Embryotools S.L., Science Park of Barcelona, Avenida Doctor Marañon No. 8, 08028 Barcelona, Spain.
E-mail: nuno.borges@embryotools.com https://orcid.org/0000-0002-2073-7515

WIDER IMPLICATIONS OF THE FINDINGS

FV and FW protocols offer a promising alternative to conventional methods, enhancing laboratory workflow efficiency and reducing oocyte exposure to potentially harmful cryoprotectants. These findings lay the foundation for translational research and future clinical applications in clinical IVF settings.

What kind of oocytes do you freeze in your lab for the oocyte donation program?



- All available MII
- Only morphologically normal oocytes
- All MII and immature oocytes, the latter for further in vitro maturation if necessary
- We do not have a program for oocyte donation freezing

ELSEVIER
Fertility and Sterility
Volume 123, Issue 5, May 2025, Pages 749-758

Views and Reviews

To rescue or not to rescue immature oocytes: prospects and challenges

Giovanni Coticchio Ph.D. [a], Danilo Cimadomo Ph.D. [b], Michel De Vos M.D., Ph.D. [c], Thomas Ebner Ph.D. [d], Marga Esbert Ph.D. [e], Maria Jose Escribá Ph.D. [f g], Robert B. Gilchrist D.Sc. [h], Laura Rienzi Ph.D. [b i]

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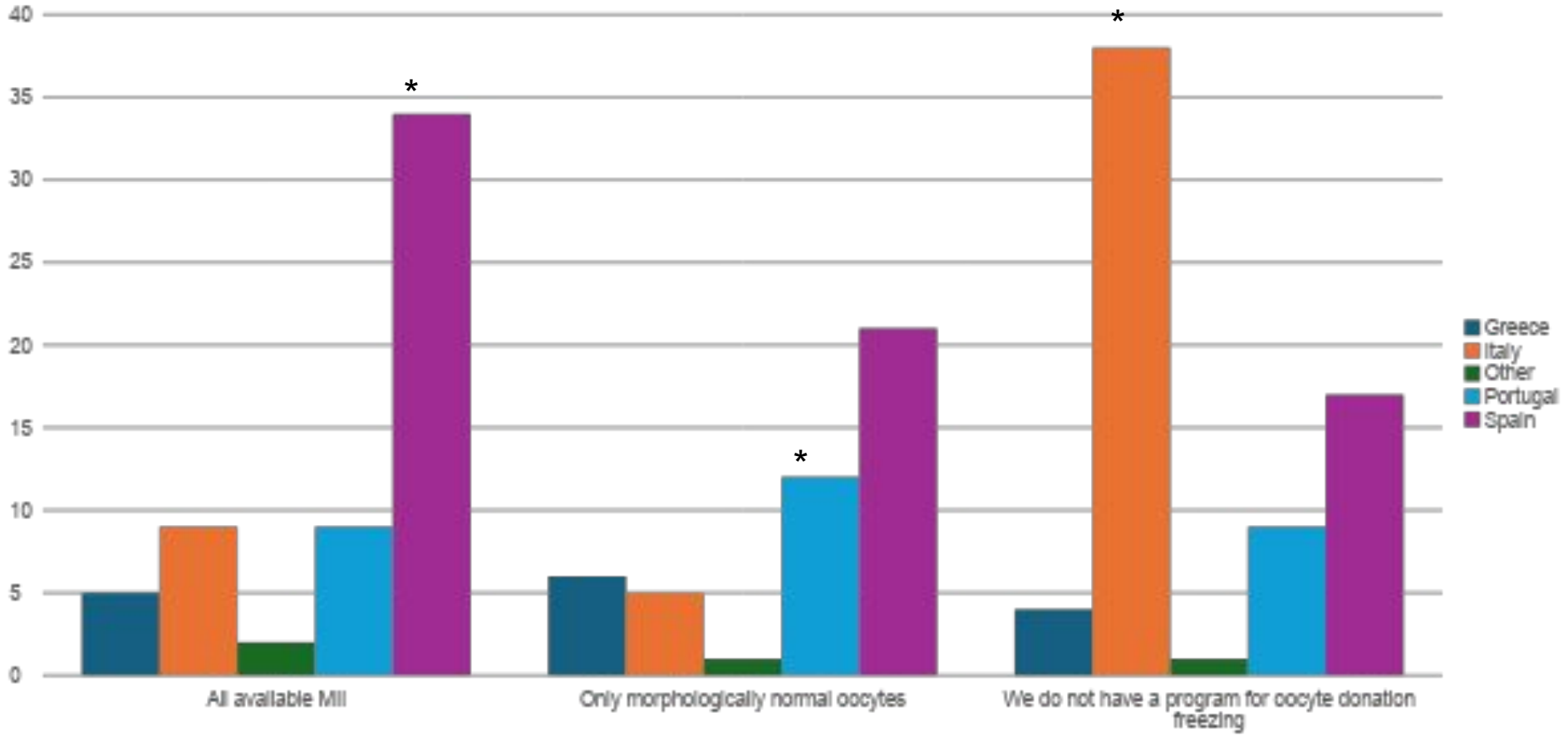

Italy: no donation program
Spain: all MII
Portugal: Morphology

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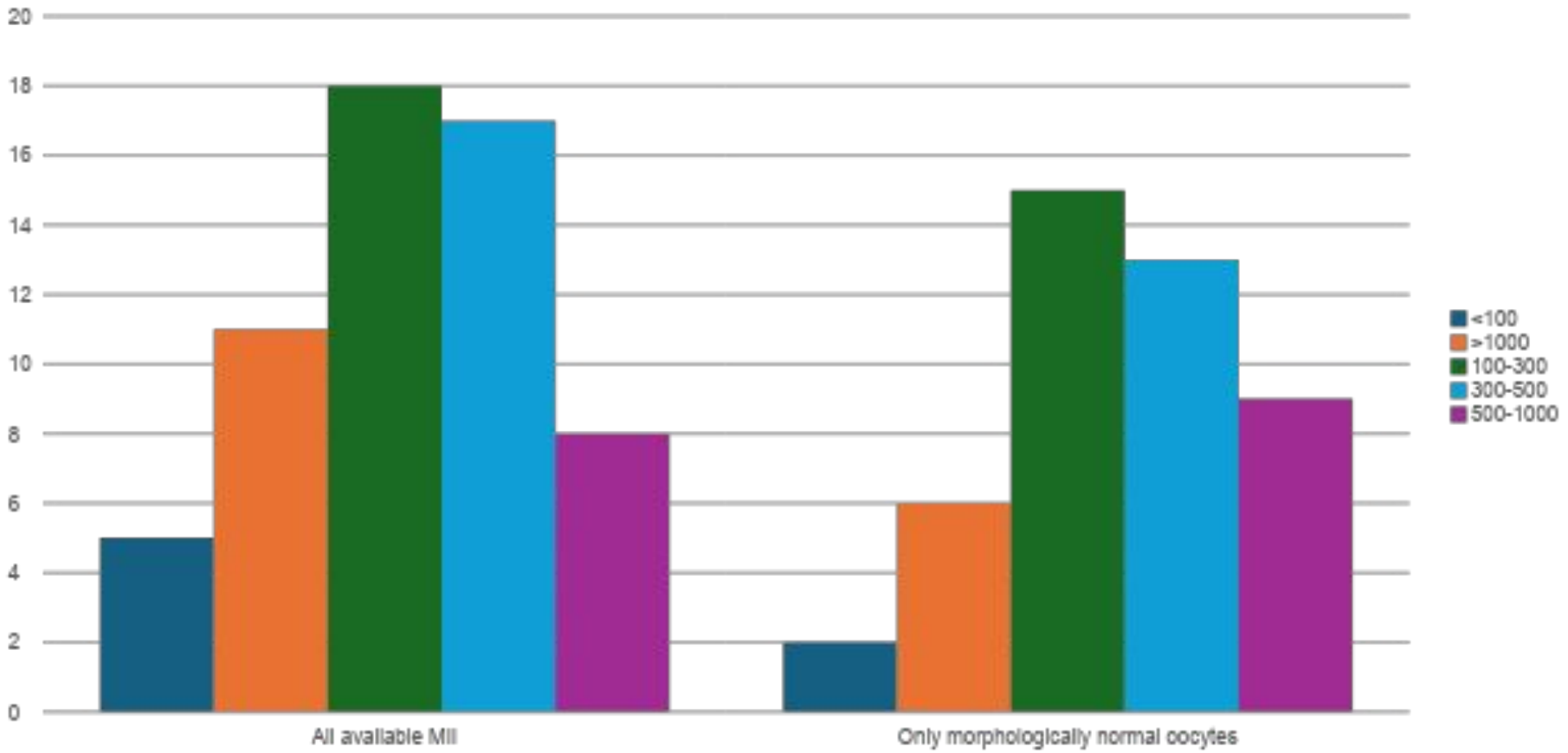

No differences according to how busy the embryologists are

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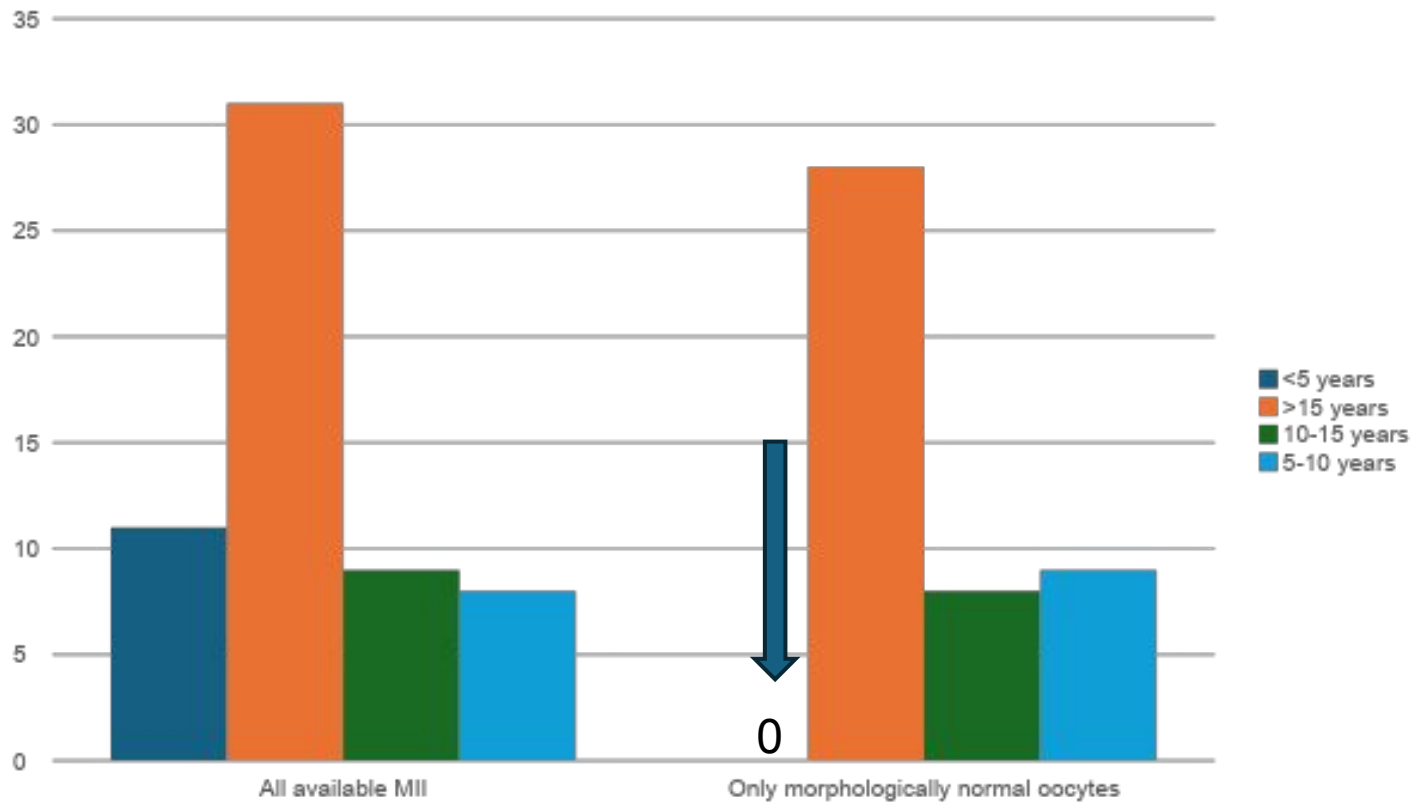

Experienced embryologists discriminate by oocyte morpho

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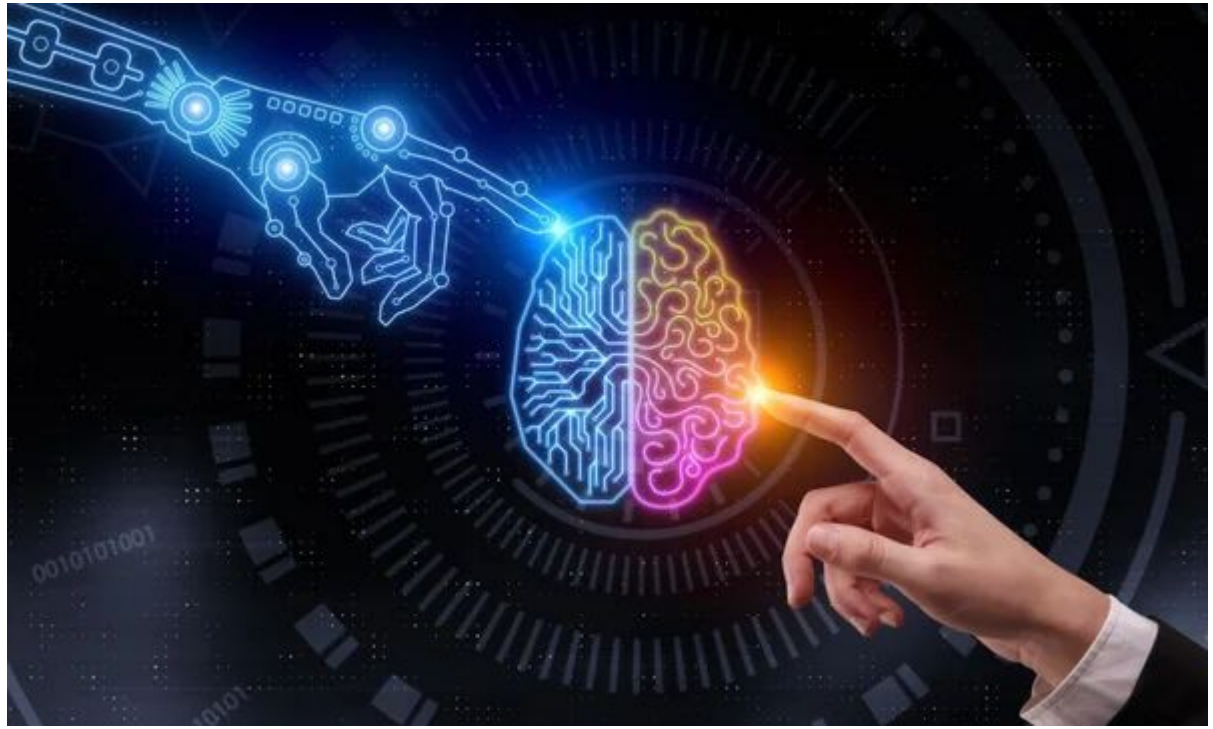
Discussion & Questions

Experienced embryologists discriminate by oocyte morphology



Acquired Natural Intelligence
(Experience)?

AI based tools

Consensus or Confusion?

In general, there was largely a cross-demographic consensus among respondents for most questions with certain differences that would be interesting to follow-up and understand.

Some of the differences found in the study for this specific module can be explained by:

- availability/accesibility of certain techniques

- sociocultural differences among countries

- Start of change of the role of embryologists (use of AI)

Thank you all for your responses and for being part of this meeting!!!!