Ethical Issues In The Lab: What Would You Do?

Bill Venier, M.Sc., ELD/TS (ABB), CLS

IVF Lab Director

San Diego Fertility Center

Nothing to Disclose

Learning Objectives

- Identify Common Ethical Dilemmas
- List the Ethical Implications of Assisted Hatching
- Analyze Mistakes and Accidents in the Lab


Mistakes & Accidents Happen

What Do You Do???

Quickly Assess!

Be as calm as possible

Think, don't panic

Ask for Help!!!

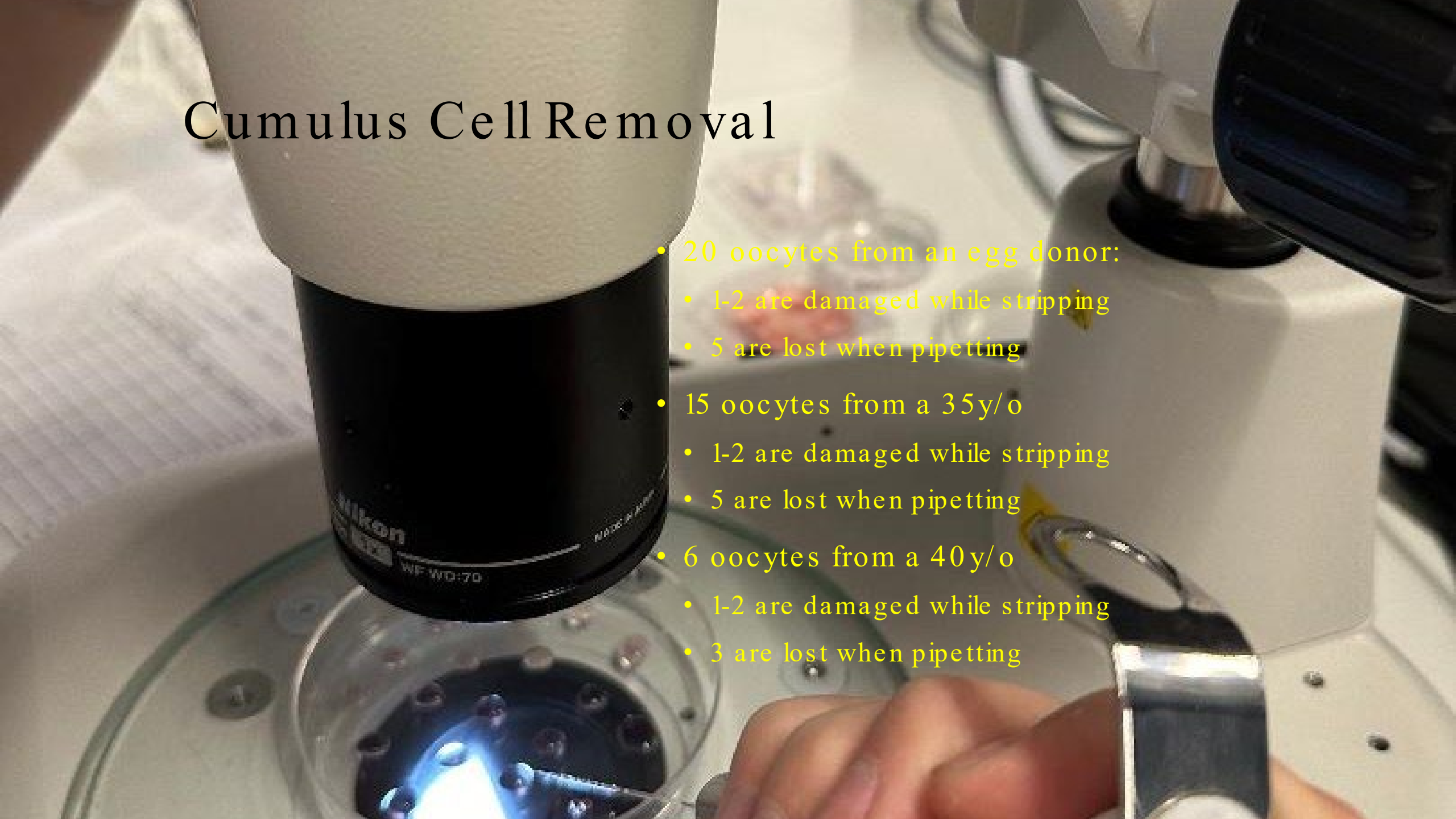
Clearer mind

May have experienced a similar incident

Report & Explain

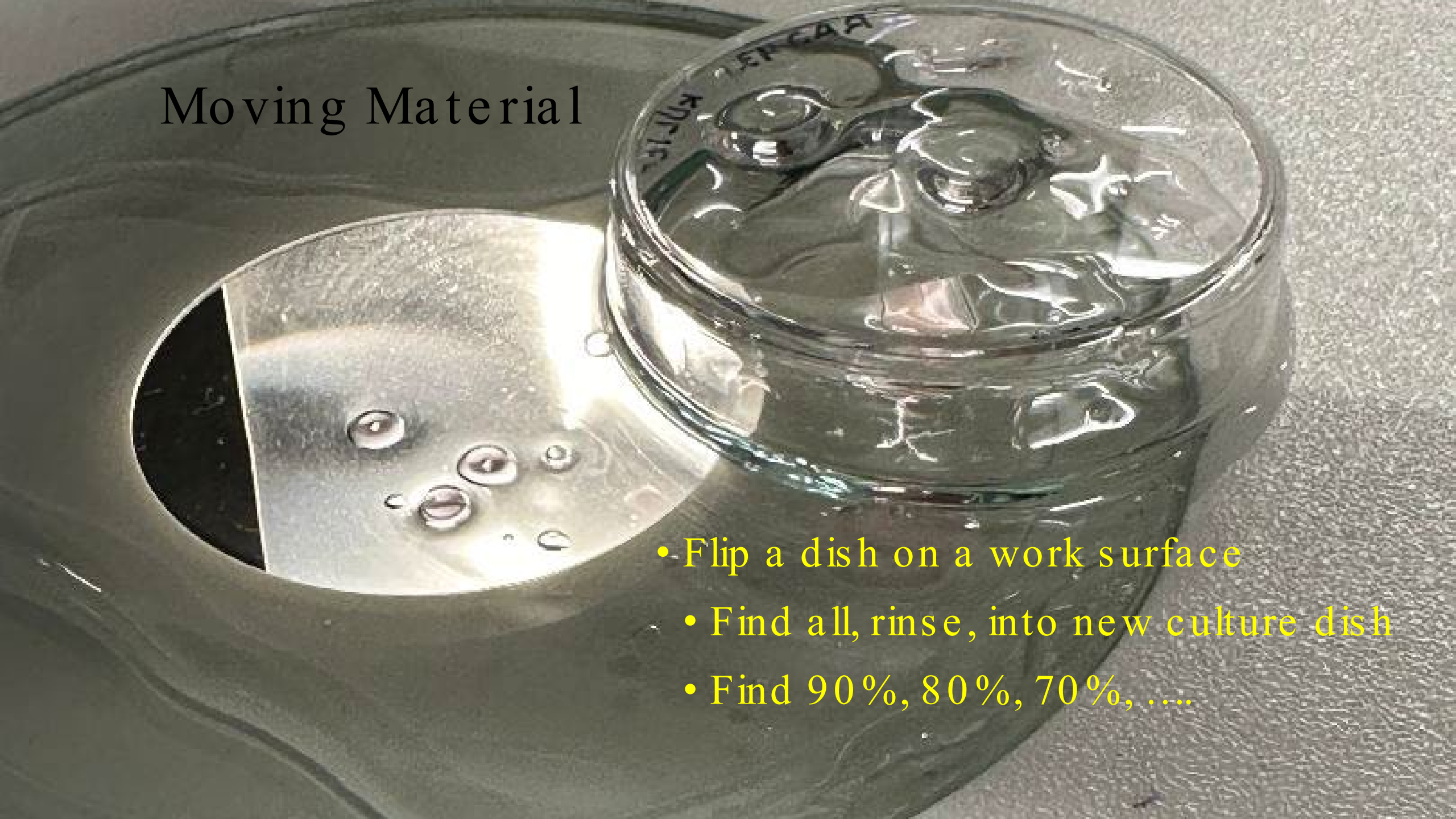
Evaluate the impact

Cumulus Cell Removal



- 20 oocytes from an egg donor:
  - 1-2 are damaged while stripping
  - 5 are lost when pipetting
- 15 oocytes from a 35y/o
  - 1-2 are damaged while stripping
  - 5 are lost when pipetting
- 6 oocytes from a 40y/o
  - 1-2 are damaged while stripping
  - 3 are lost when pipetting

Moving Material



- Flip a dish on a work surface
  - Find all, rinse, into new culture dish
  - Find 90%, 80%, 70%, ….

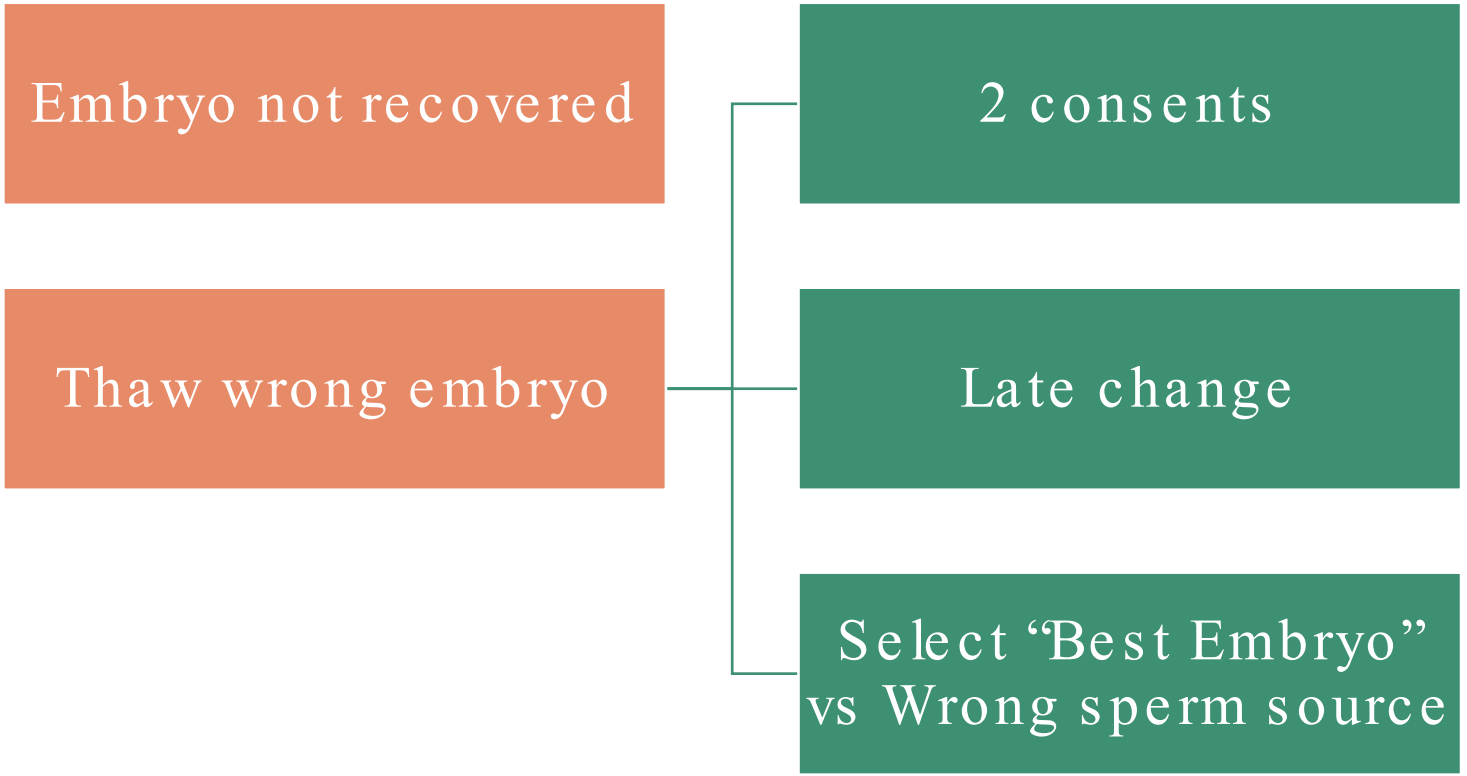

• Drop a dish on the floor
• Find all, rinse, into new culture dish
• Find 90%, 80%, 70%, …

TOKAI HIT

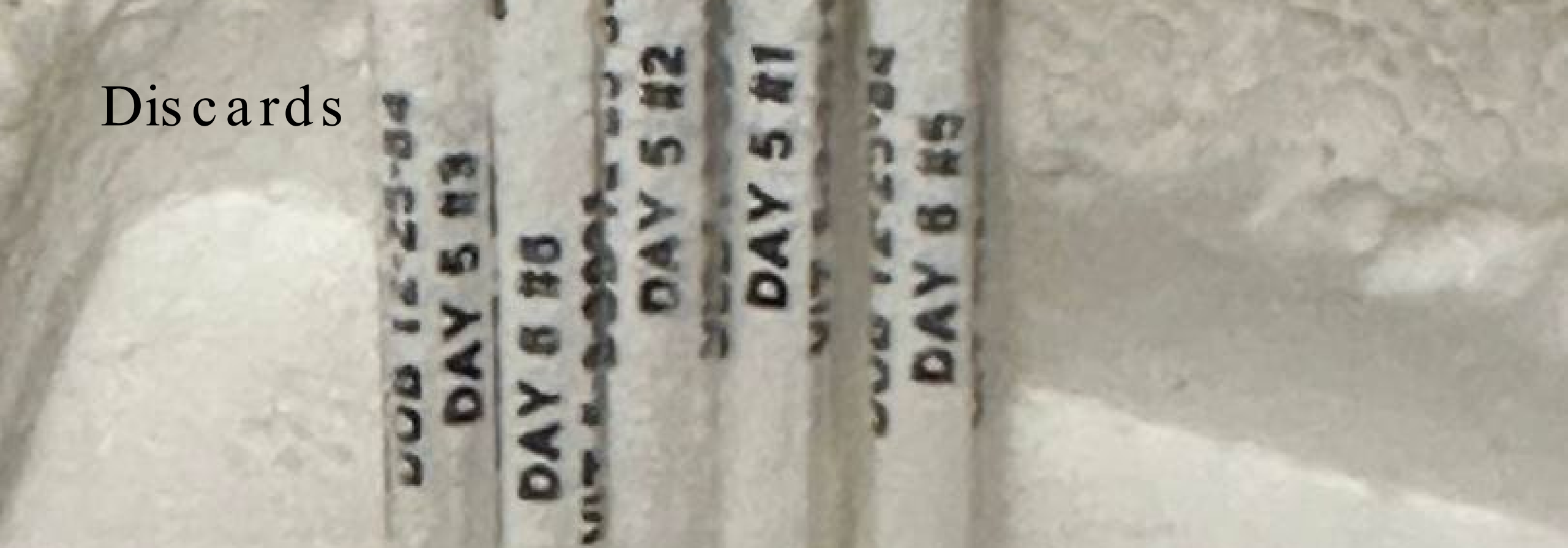
Thermo Pl

40X

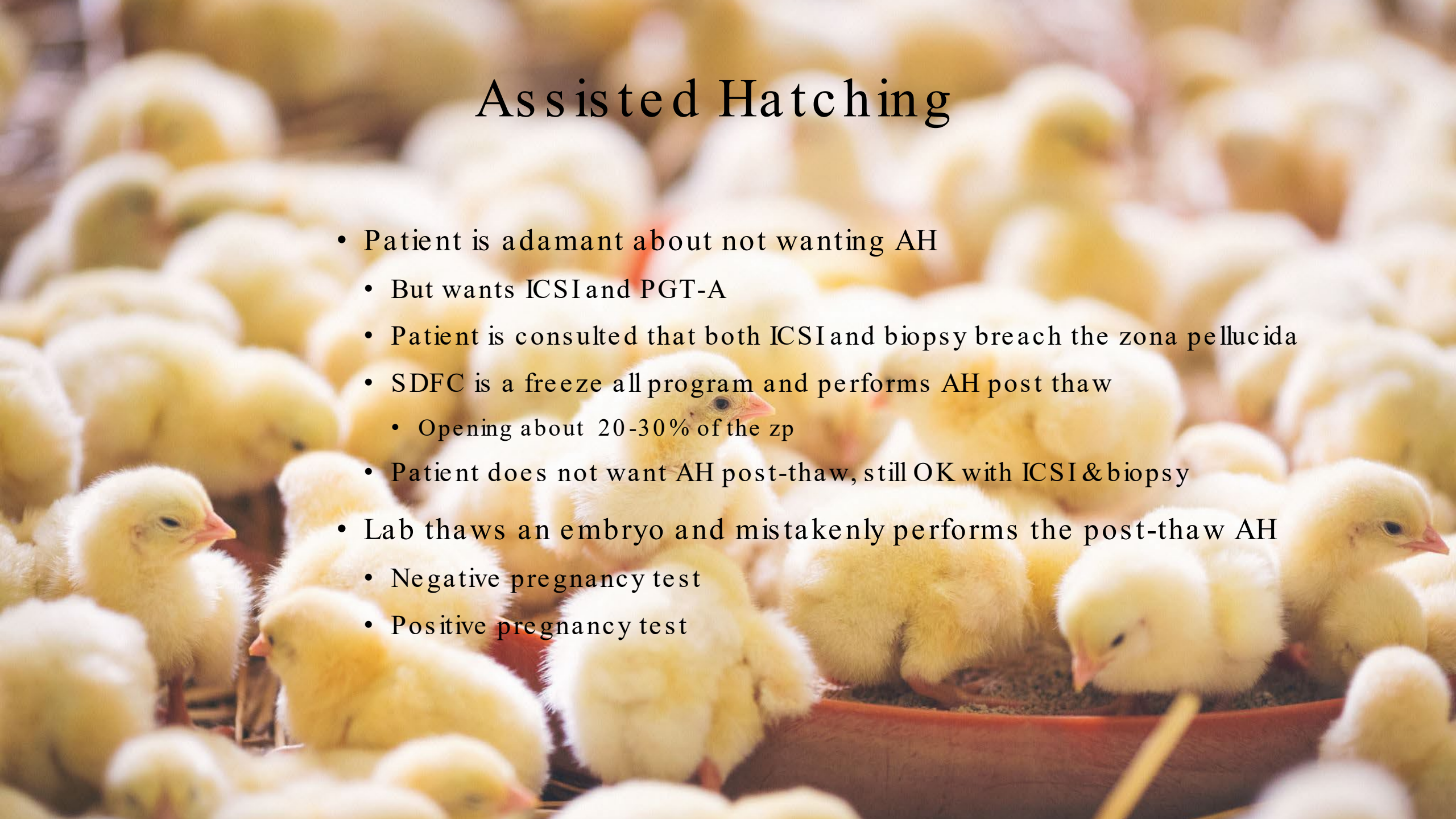
Embryo Thaw


Embryo not recovered
Thaw wrong embryo
2 consents
Late change
Select “Best Embryo” vs Wrong sperm source

Discards



- An embryo still exists that was supposedly thawed and transferred
  - Patient had no euploid embryos remaining
  - Signed consent to discard the remaining embryos
  - Lab staff found embryo #5, a euploid embryo
  - Embryo #6, a mosaic embryo, was not found in the remaining inventory
  - This occurred in the age of double-witnessing



Assisted Hatching

- Patient is adamant about not wanting AH
  - But wants ICSI and PGT-A
  - Patient is consulted that both ICSI and biopsy breach the zona pellucida
  - SDFC is a freeze all program and performs AH post thaw
    - Opening about 20-30% of the zp
  - Patient does not want AH post-thaw, still OK with ICSI & biopsy
- Lab thaws an embryo and mistakenly performs the post-thaw AH
  - Negative pregnancy test
  - Positive pregnancy test

What's the Impact?

Minor/Low

- No effect on cycle outcome

Moderate

- Negatively impacts the cycle but still gives the patient a good chance at success

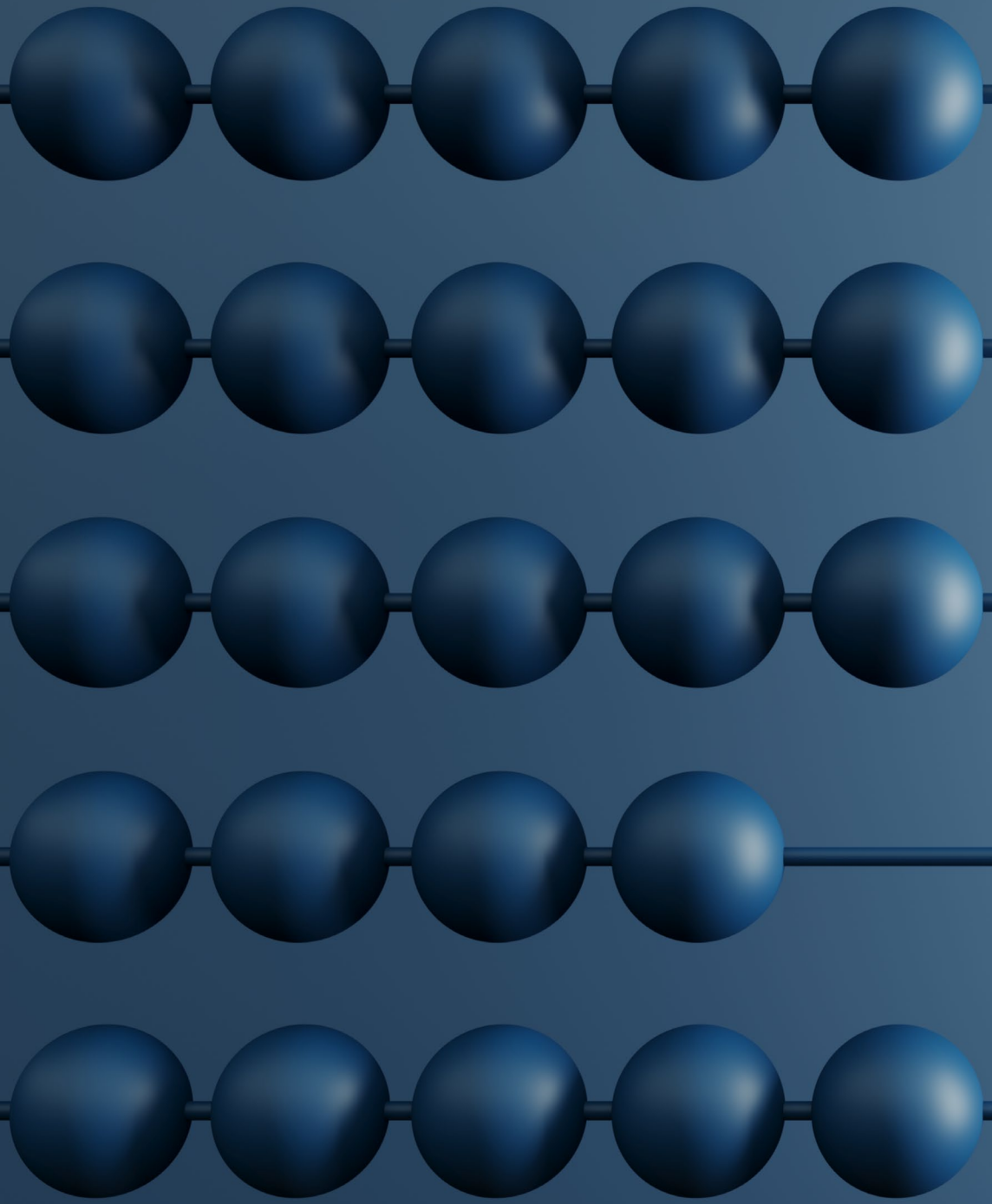
Significant

- Significantly affects cycle outcome

Major

- Extremely affects a patient or patients

Where in the system did the error occur?



Incident Reports

- Explain the incident
- Who are the parties involved
- What may have caused error: Root cause analysis
- How can we prevent it from happening again

This is not meant as punishment

It should be a learning experience

Important to discuss with all lab staff

Staff Should feel...

That they are in a safe environment

Have trust in their colleagues and leadership

Comfortable with the system and decision-making process

Celebrate every achievement, big or small

Let the world know!

Lab issues, problems, or errors are a lab issue, not an individual employee issue

It stays in the lab, with the relevant physician and administration, and patient

References

- Qunying Fang, Xiaohua Jiang, Shun Bai, Bo Xu, Lu Zong, Meijie Qi, Yangyang Wan, Ren-Tao Jin, Xian-Hong Tong, Li-Min Wu, Safety of early cumulus cell removal combined with early rescue ICSI in the prevention of fertilization failure, Reproductive BioMedicine Online, Volume 47, Issue 2, 2023, 103214, ISSN 1472-6483, https://doi.org/10.1016/j.rbmo.2023.04.005. (https://www.sciencedirect.com/science/article/pii/S147264832300216X)
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- Comprehensive guidance for human embryology, andrology, and endocrinology laboratories: management and operations: a committee opinion