

PATERNAL AGE AND ASSISTED REPRODUCTION

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ORIGINAL PRESENTATIONS

IMPACT OF PATERNAL AGE, E
LENGTH AND SEMEN QUALI
INTRACYTOPLASMIC SPER
EGG-SHARING DON

Amanda Setti^{1,2}, Daniela Paes de Almeida
Vingris¹; Assumpto Iaconelli



Paternal age over 50 years reduces the success of IVF/ICSI - ET

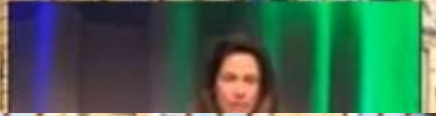
G Morris, D Mavrelou, X Vinals, R Odia, E Yasmin, S Cawood, W Saab, S
Seshadri, P Serhal

UCL

Paternal age over 50 years reduces the success of IVF/ICSI - ET



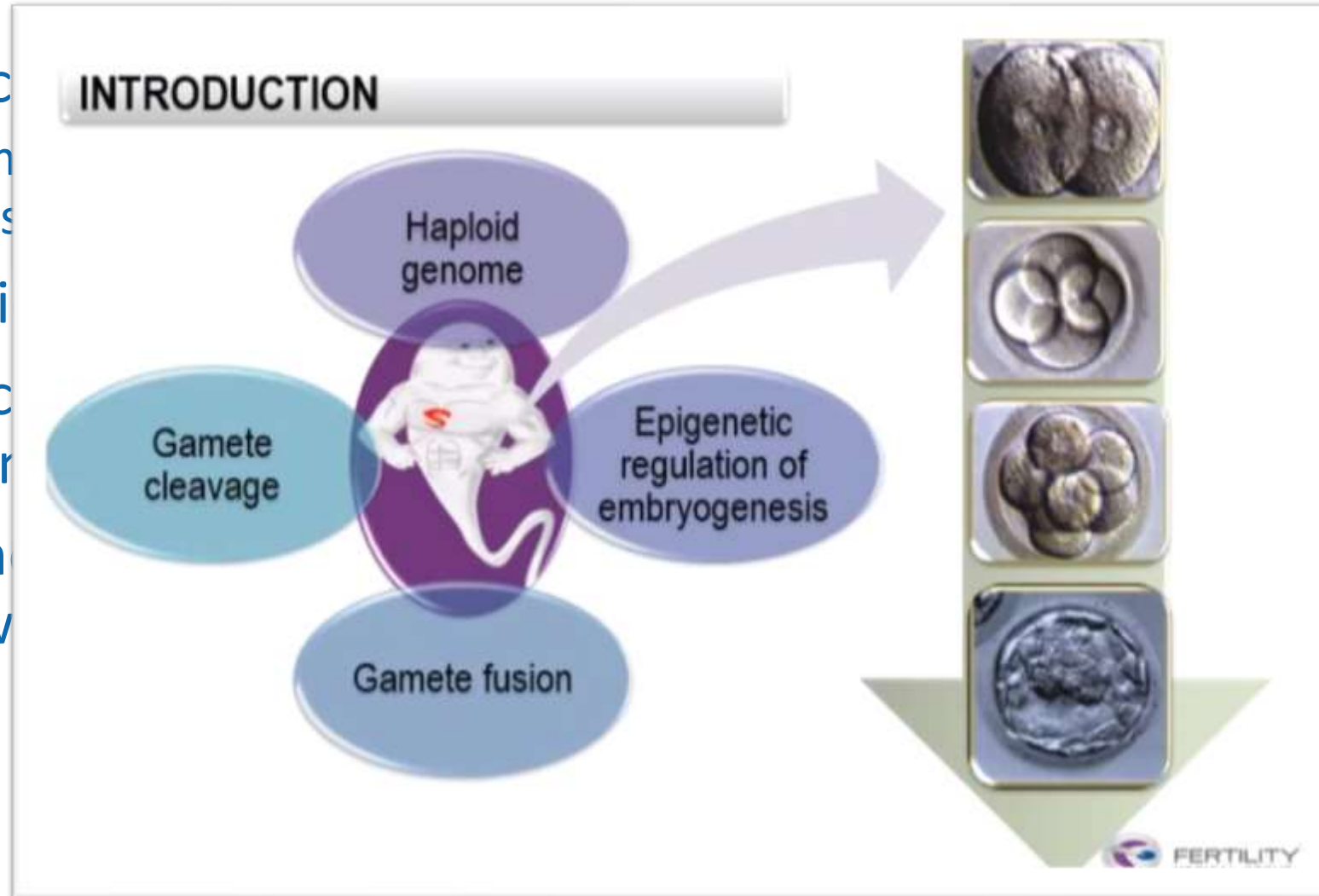
35th Annual Meeting
Vienna, Austria, 23-26 June 2019



Guy Morris

INTRODUCTION AND OVERVIEW

- Male factors
 - Sperm effects
- Men's biology
- Lack of clinical development
- The same length with

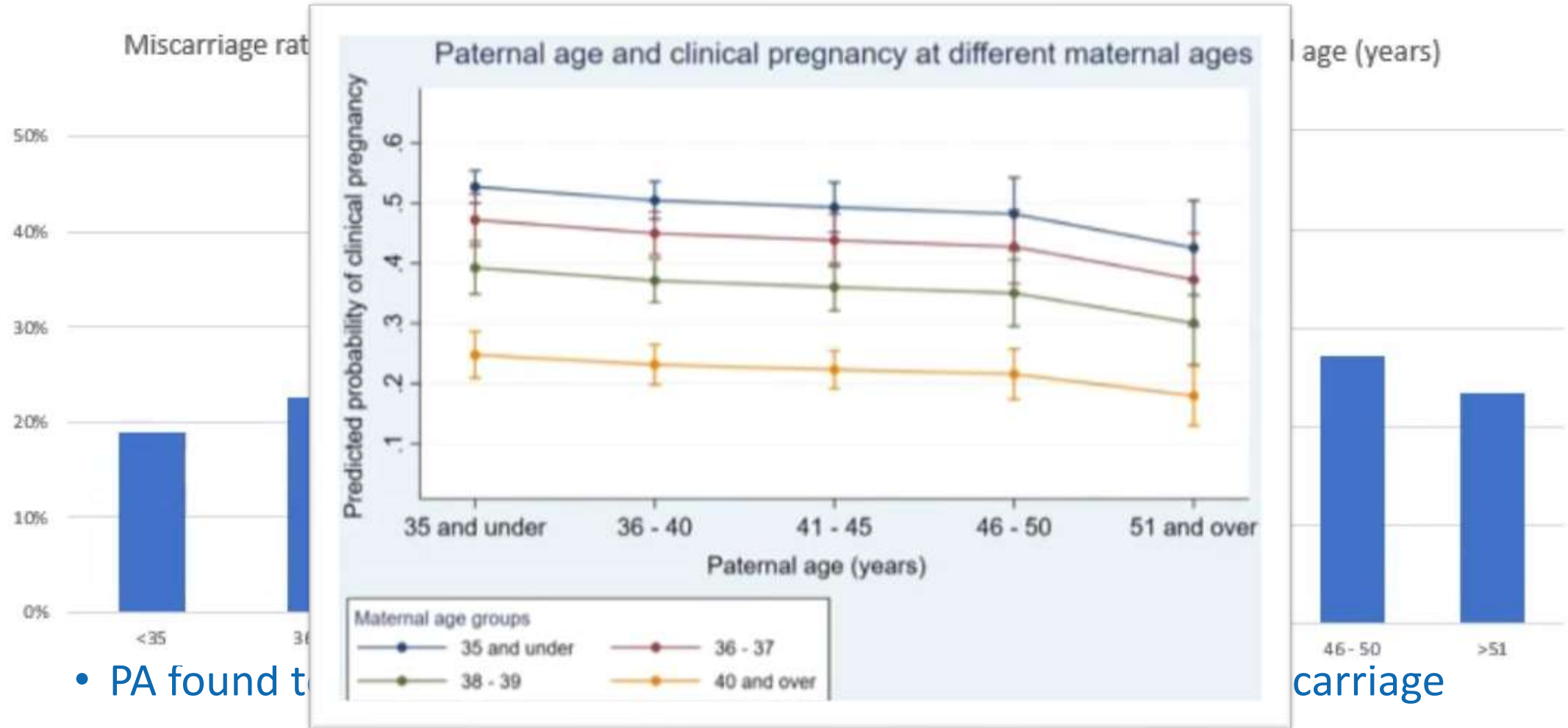


.e. epigenetic
o women
inence (EA)

STUDIES DESCRIPTIONS

- Objective of the Brazil study was to evaluate the effect of PA, EA and semen quality on ICSI outcomes (retrospective cohort study)
- PA, EA, Sperm count, PR and total motile sperm count were compared with:
 - Fertilization rate (FR)
 - High quality embryos (HQE) & Normal embryo (NE) development on D3
 - Blastocyst development (BD) rate & High quality blastocysts (HQB) rate
 - Implantation rate (IR) and pregnancy rate (PrR)
- UK study objective was to evaluate the effect of PA >50y on IVF/ICSI and miscarriage rate (retrospective study)

OUTCOMES



DISCUSSION

Brazil study

- Bias of maternal age was overcome by oocyte donation in egg sharing population
- Negative impact of EA on embryo development and IR
 - Additional study by same group on EA showed \uparrow EA = \uparrow SDF
 - EA exposes sperm to oxidative stress in epididymis
 - A study by Marshburn *et al.* showed that total antioxidant capacity was lower in EA of 4 vs 1 day - sperm DNA fragmentation affects ICSI outcomes

UK study

- PA over 50y reduces pregnancy chance in IVF/ICSI by 10% but miscarriage rate was not affected

CONCLUSION AND PRACTISE RECOMMENDATION

- Increasing PA and EA, poor sperm parameters negatively impact ICSI outcomes from fertilization to pregnancy
 - Men are not Peter Pan! PA >50 significantly reduces ART chance and there should be a public health awareness for men not to delay fatherhood
 - PA is more difficult to control but EA can be shortened to optimize ICSI outcomes
 - UK study suggested a potential mitigation of PA effects by enhancing sperm selection techniques but still needs RCTs support
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