

# Poor Ovarian Reserve: Do Adjuvant therapies really (not) work?

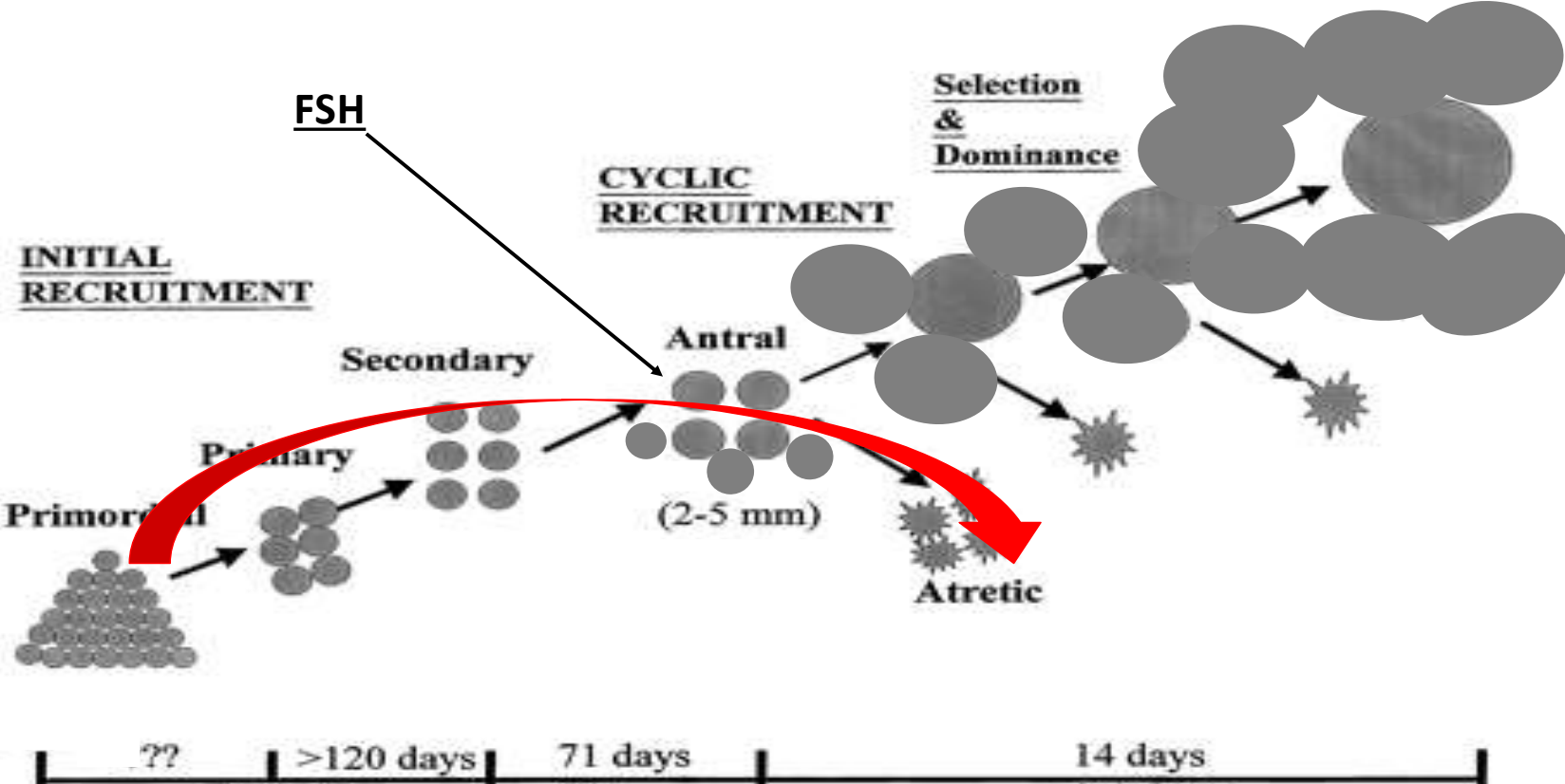
Frank Broekman?

- Optimizing ART success in Poor Prognostic Patients
- Sagie Naidu – Durban Fertility Clinic

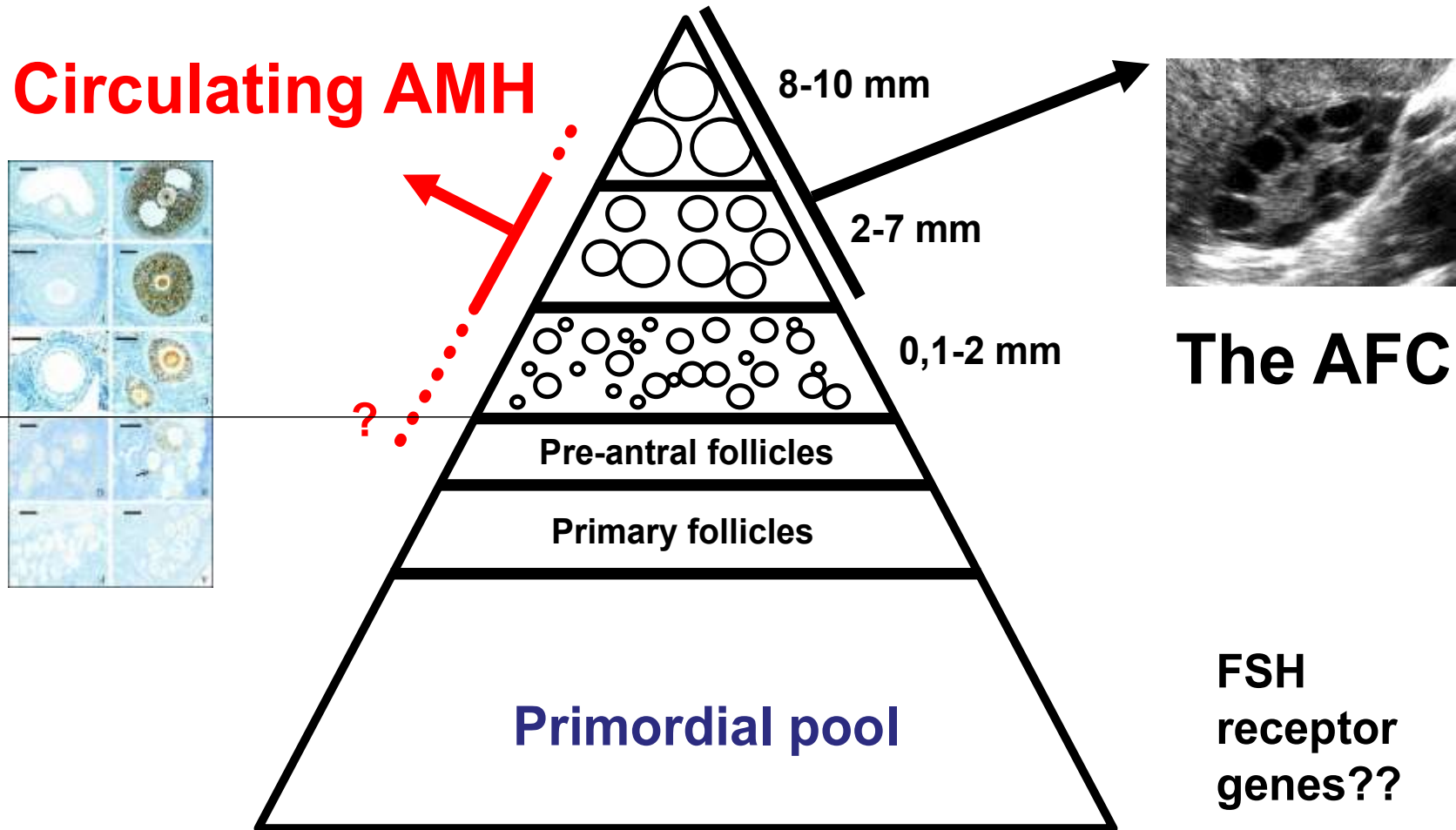
- What is Poor Ovarian Reserve
- Ovarian Stimulation
- Adjuvant Therapies -? evidence



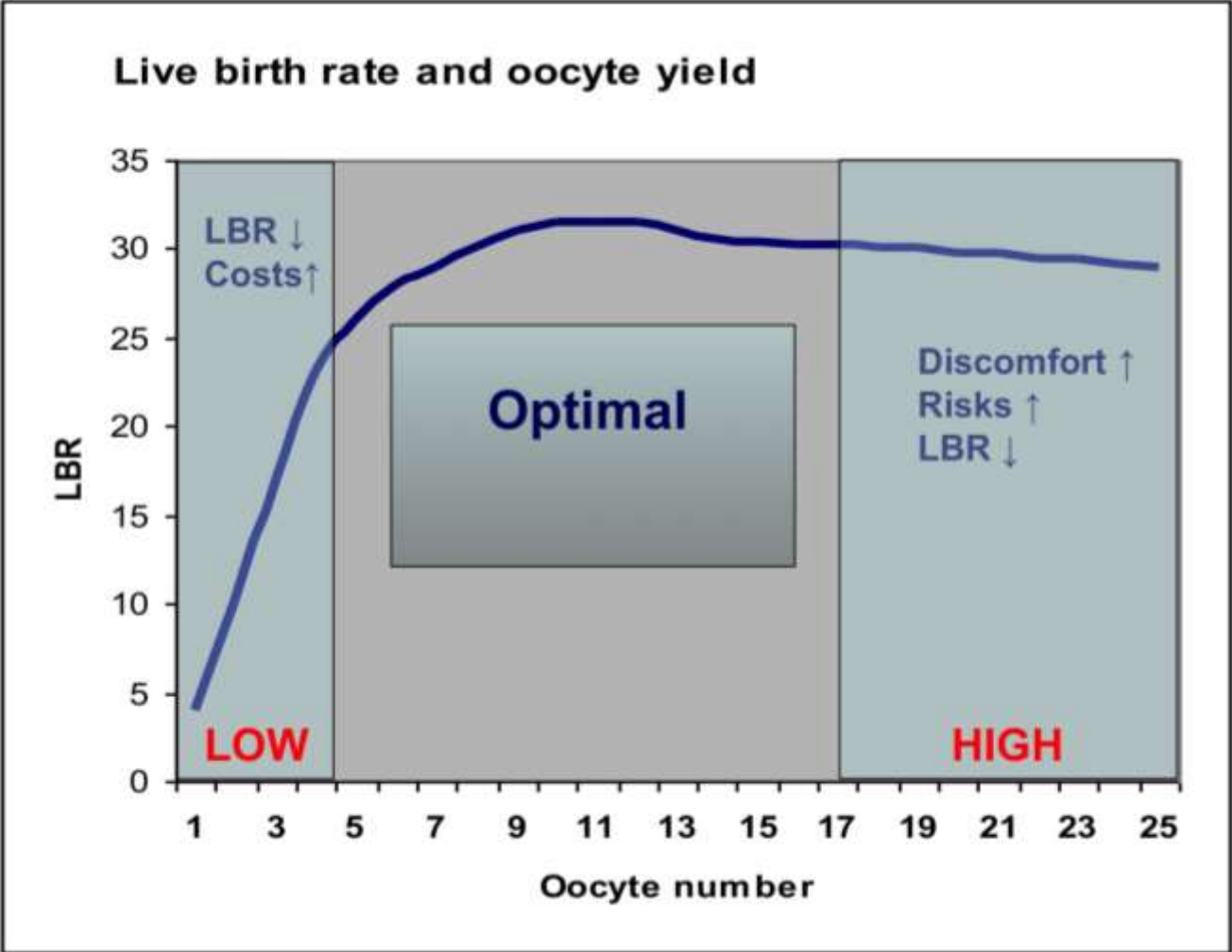
# The Ovaries

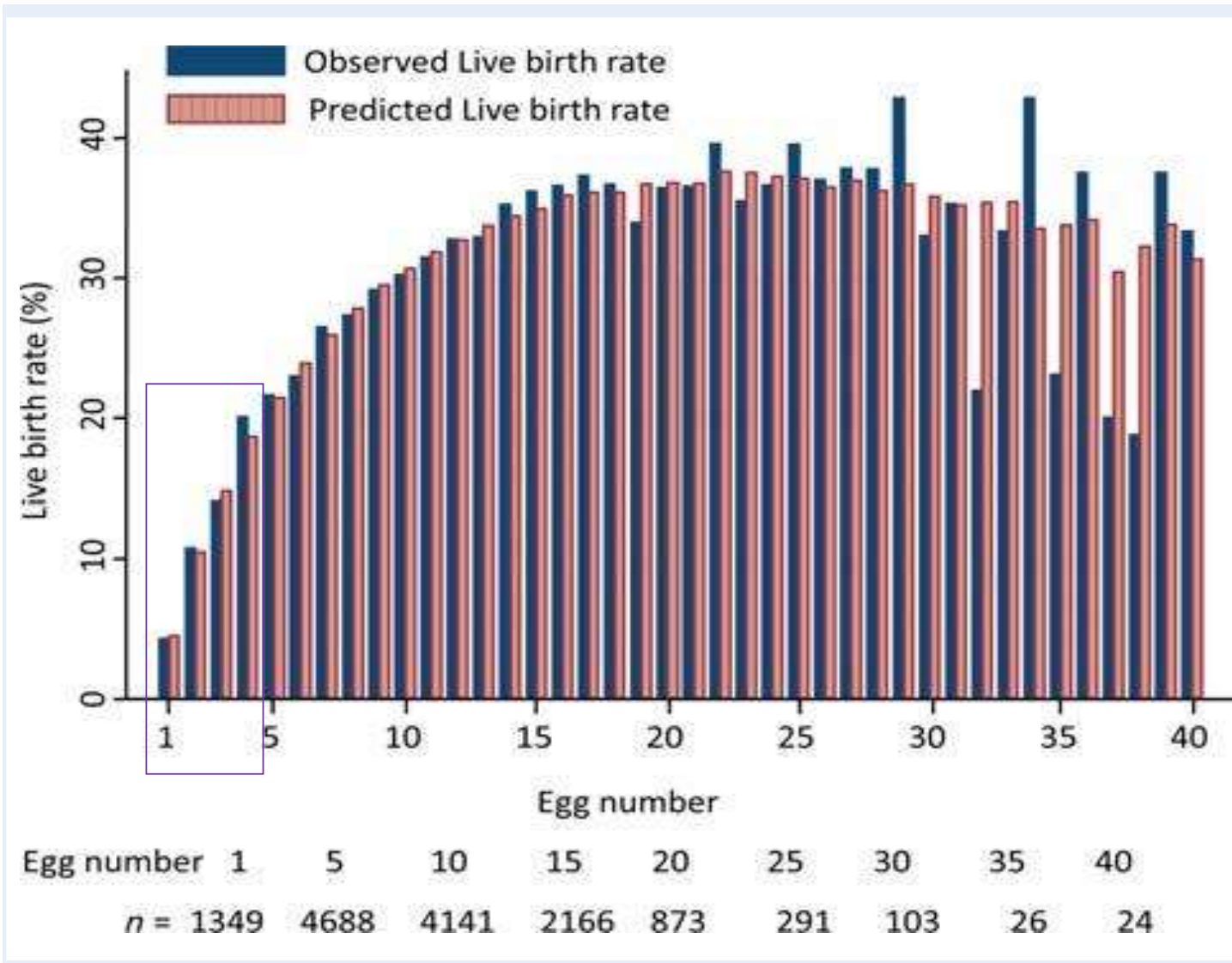


# Ovarian Reserve Markers



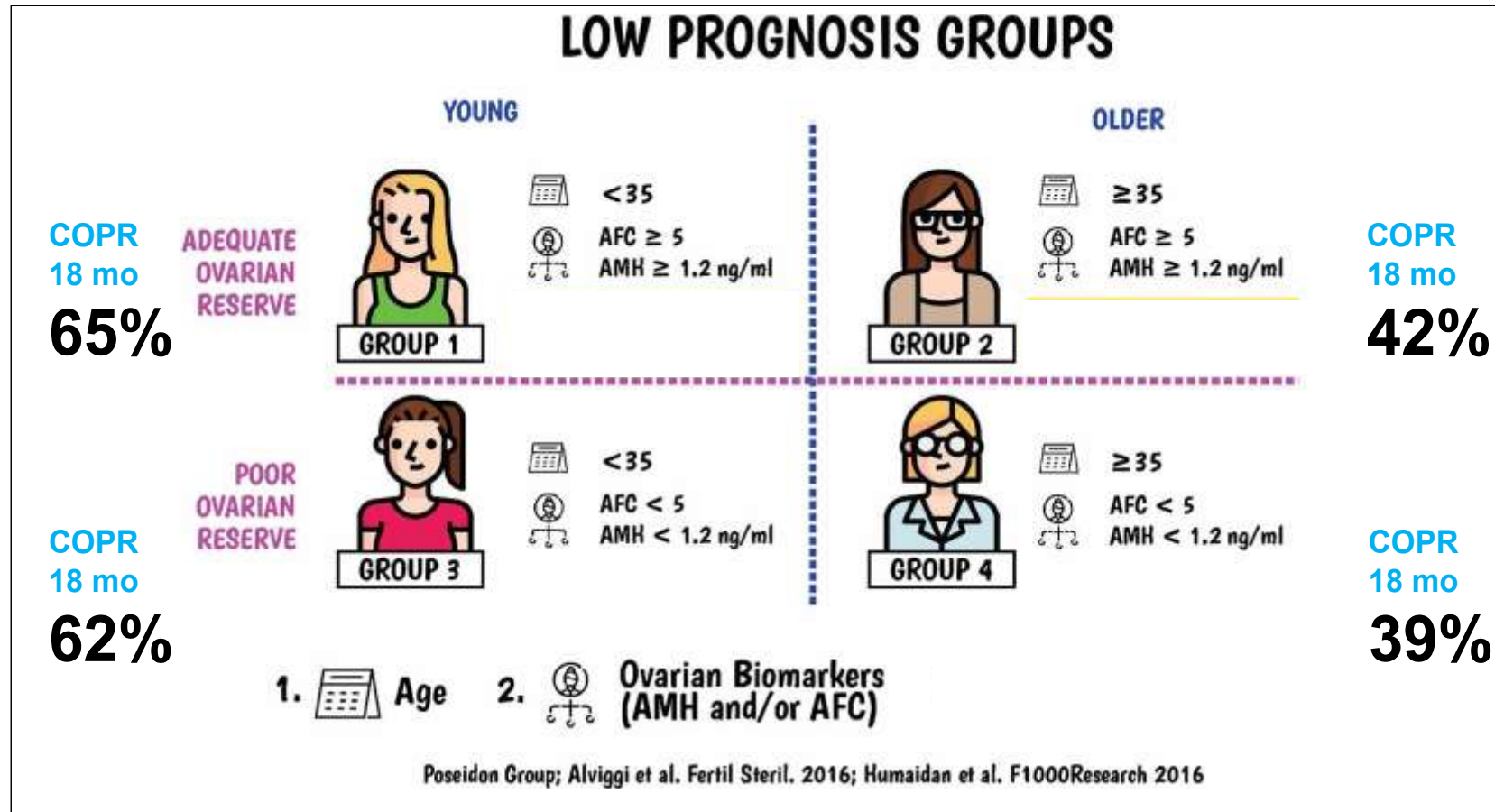
# Ovarian Response in IVF





**Cross-Sectional data  
 N=404.492 FRESH IVF  
 cycles, FRET cycles  
 excluded, 1991-2008  
 Sunkara, HR 2011**

# Cumulative Pregnancy Rates



# Adjuvant Therapies

- Predicted low Responder:  
Dose 225-300 IU
- Persistent low response:  
? Additional tools

- LH No Likely benefit for LB
- AI No Likely benefit for LB
- CC No Likely benefit for LB
- T No Likely benefit for LB
- DHEA No Likely benefit for LB
- GH No benefit
- Aspirin No benefit



# Conclusions

- ❑ **Increasing the dose > 300 IU** .”Squeezing out a few more eggs does not help” –Lensen ,Cochrane2018
- ❑ **LH : Improve Follicular function**. No difference in Oocyte number or Live birth rates . Humaiden,ASPART study, HR 2017
- ❑ **Clomiphene Citrate and Aromatase Inhibitor**: To increase endogenous FSH. No strong evidence to use. Bechtejew 2017 and Schimberni 2016
- ❑ **Androgens: Improve early follicle survival**
  - Treatment effect for DHEA and Testosterone showed no statistical difference Nagels,Cochrane 2015
  - Multiple studies shown insufficient evidence for addition of Testosterone and DHEA
  - Awaiting the outcome of the trail Testosterone transdermal gel trial ,June 2019
- ❑ **Growth Hormone** : improve follicle function
  - Expensive compound. No evidence for use Li, Medicine Open 2017
- ❑ **Aspirin** : Increase vascularization of follicle. Not recommended,Siristadis,2016