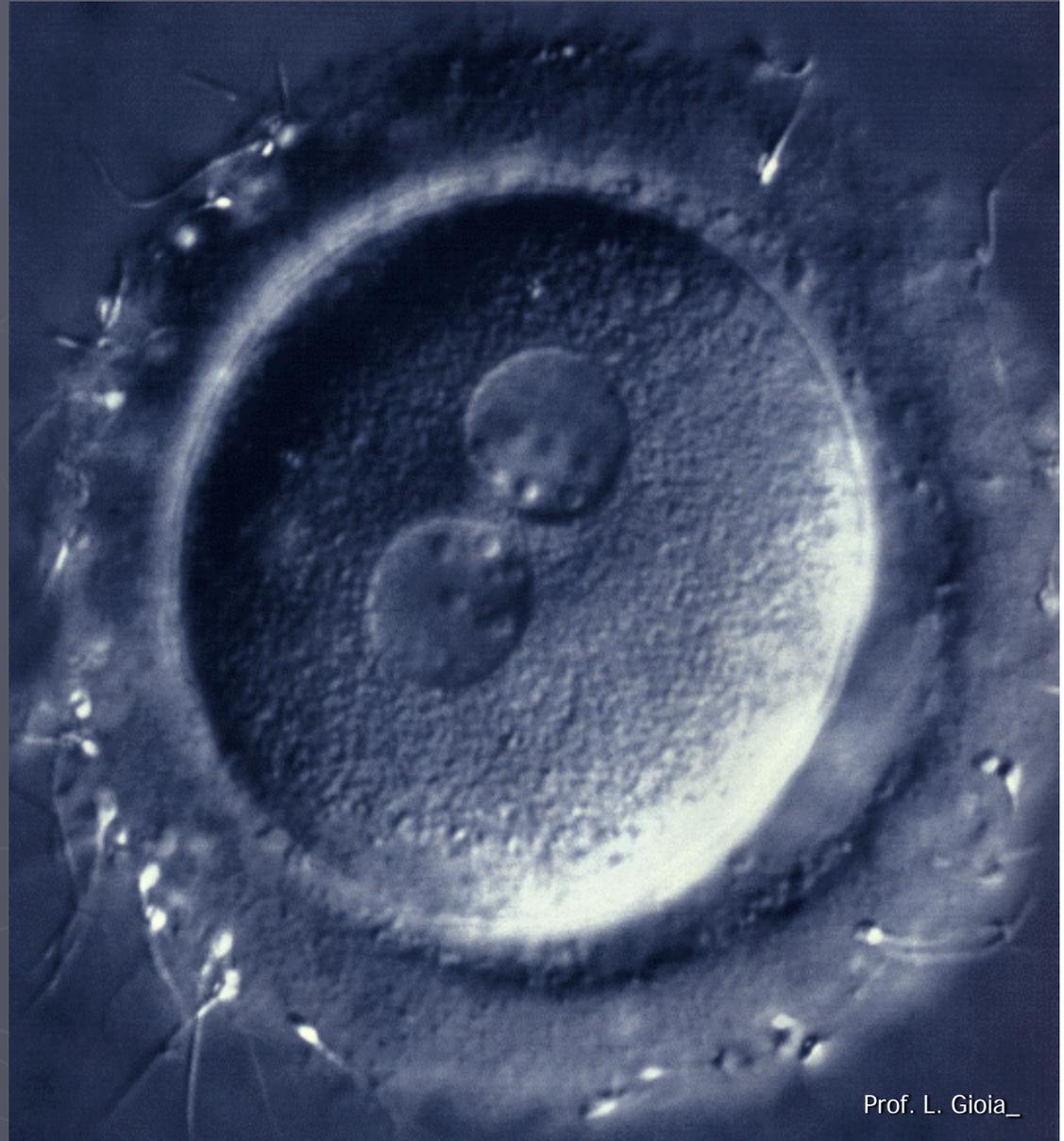


UNIVERSITY of
TERAMO

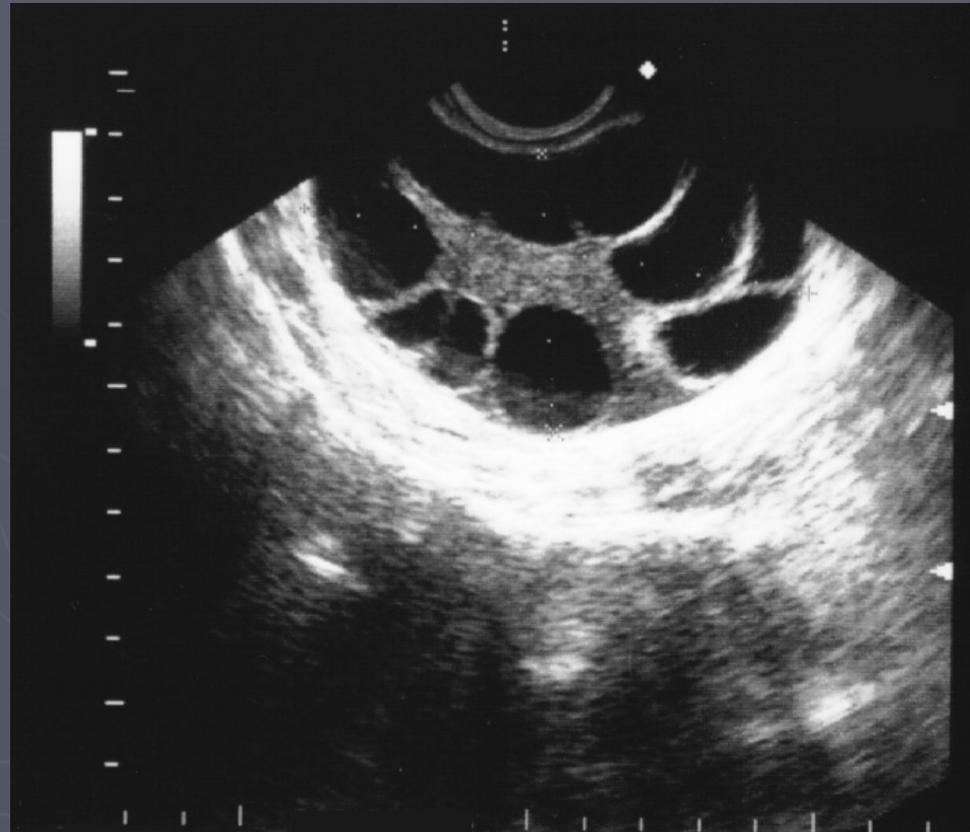
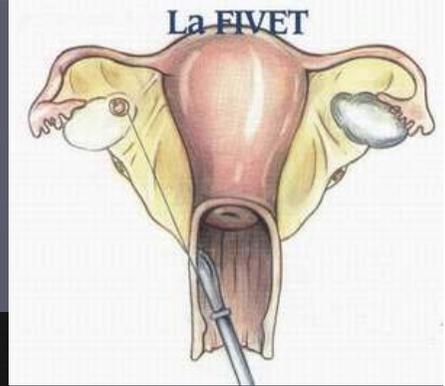
Reproductive Biotechnologies

IVF in Humans

Prof. Luisa Gioia

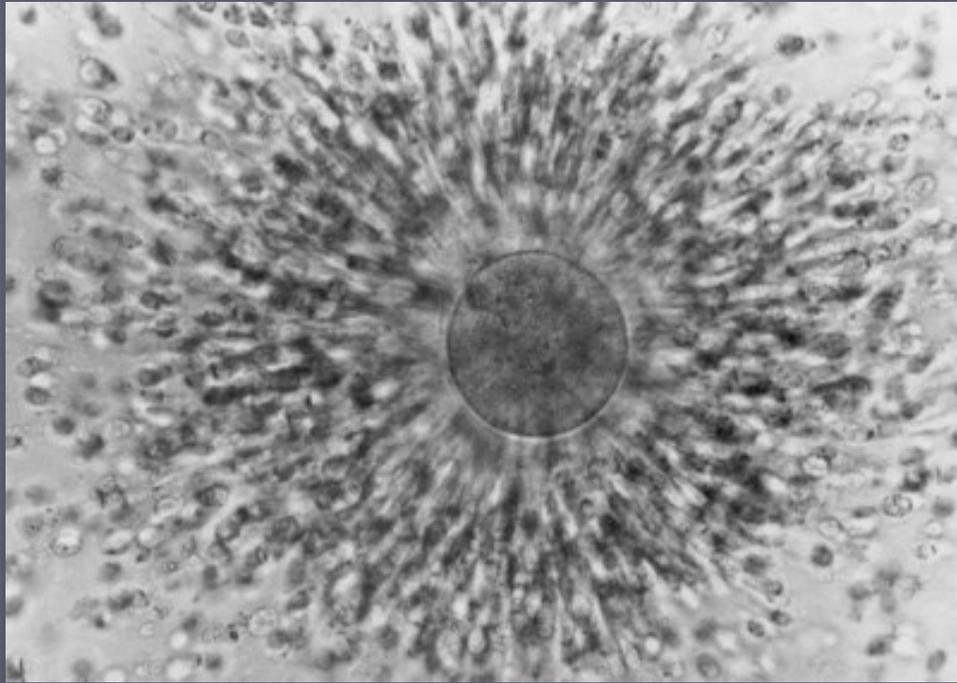


In vivo maturation: Ovum Pick Up (OPU)



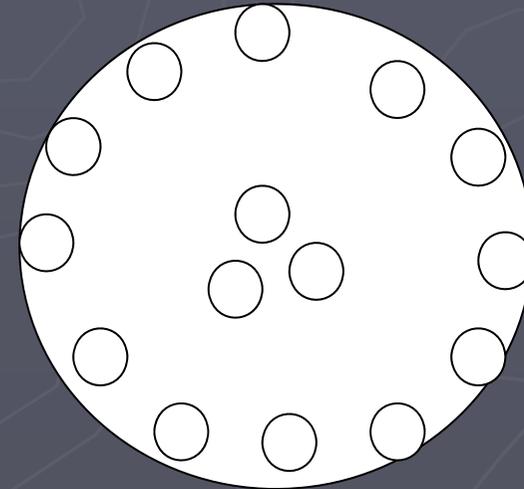
COCs collection

day 0



OVUM PICK UP

36h after hCG



Microdrops

Human IVM

► Culture system

-37°C, 5% CO₂ in air

-microdrops under embryo-tested mineral oil



► Some culture media: TCM 199, HTF, Ham's F10, EMEM, B2

Supplementation

-Serum

animal: FBS 10%, FCS 20%

synthetic: SSS 3-10%

human: HSA 0.1-0.4%, serum from woman 10%, FF 50%

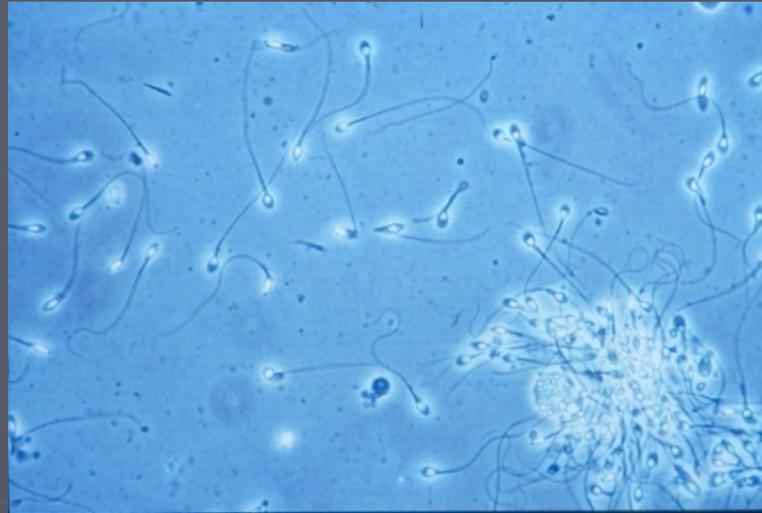
-Gonadotropins: FSH + LH

- *others*

Evaluation of semen

Burker

Concentration

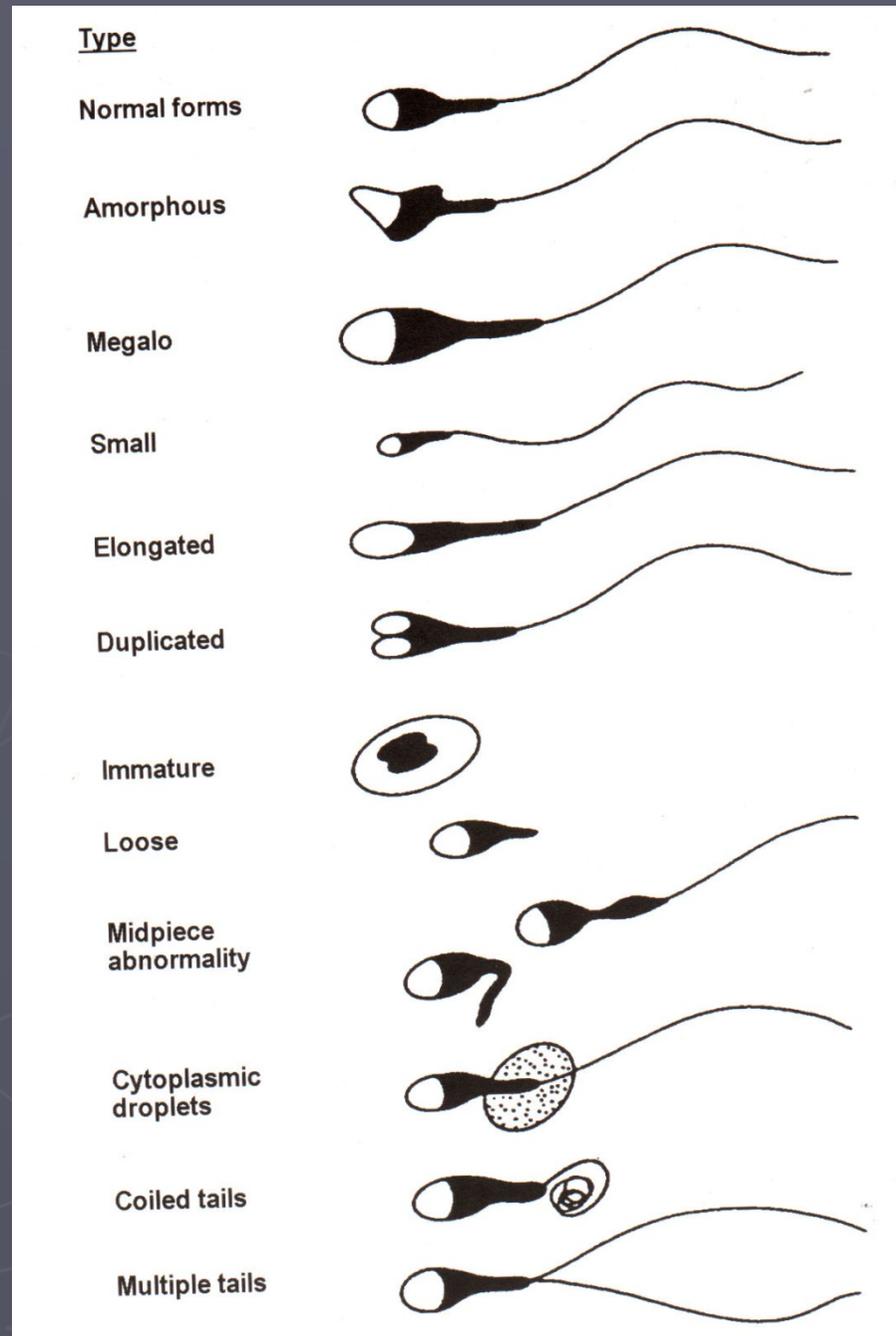


Makler

Motility
and
concentration



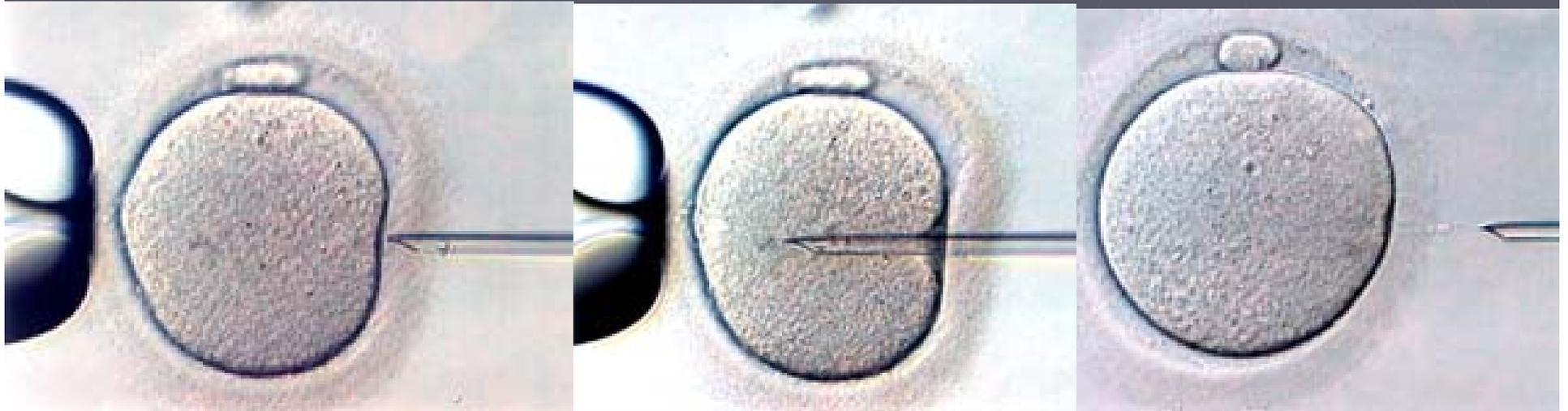
Morphological evaluation of human spermatozoa



*Human IVF:
FIVET or ICSI?*

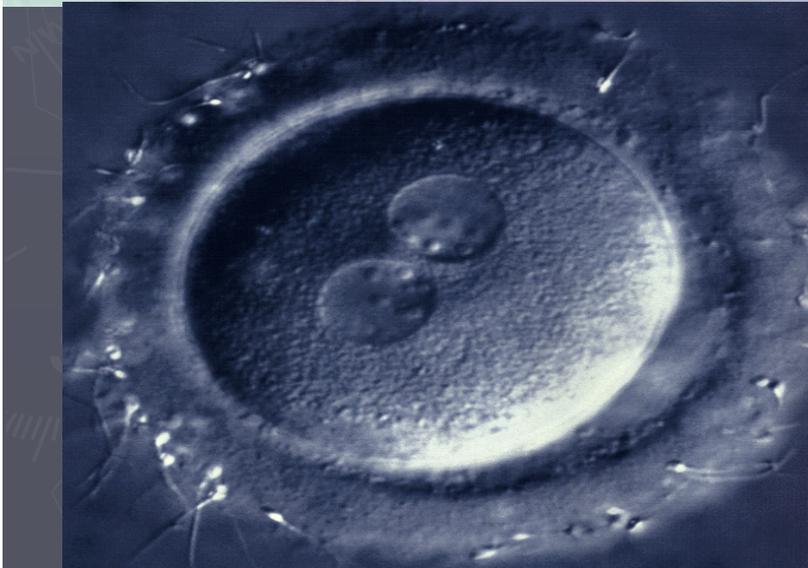


ICSI

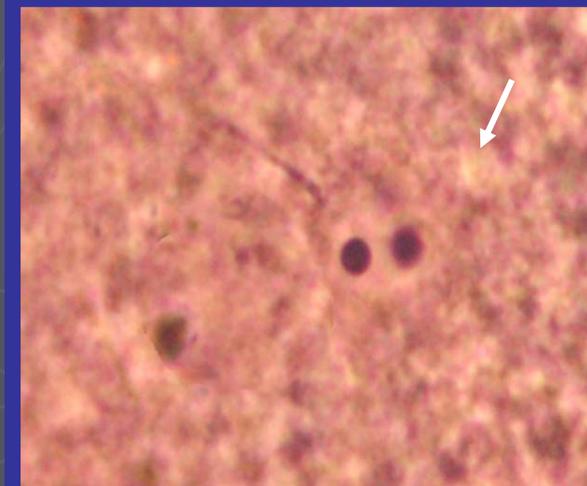


Control of fertilization

Human zygotes



Pig zygotes

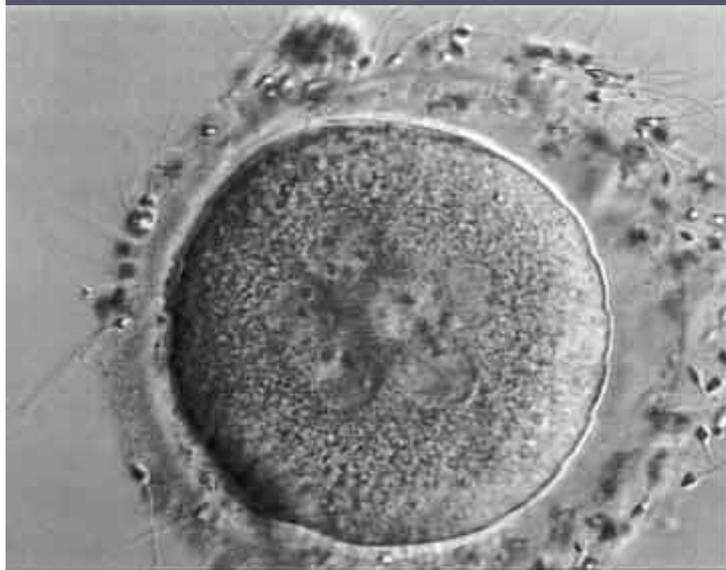
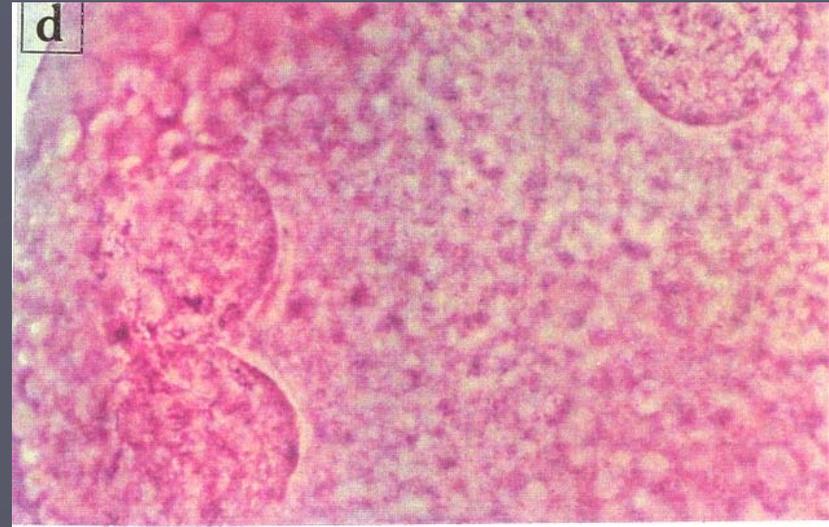


POLISPERMIC fertilization

Human



Pig

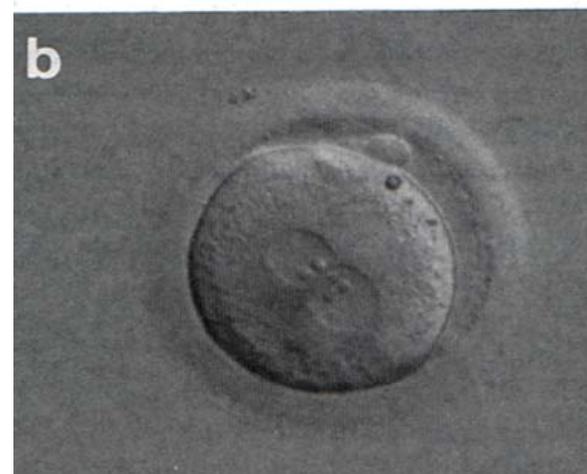
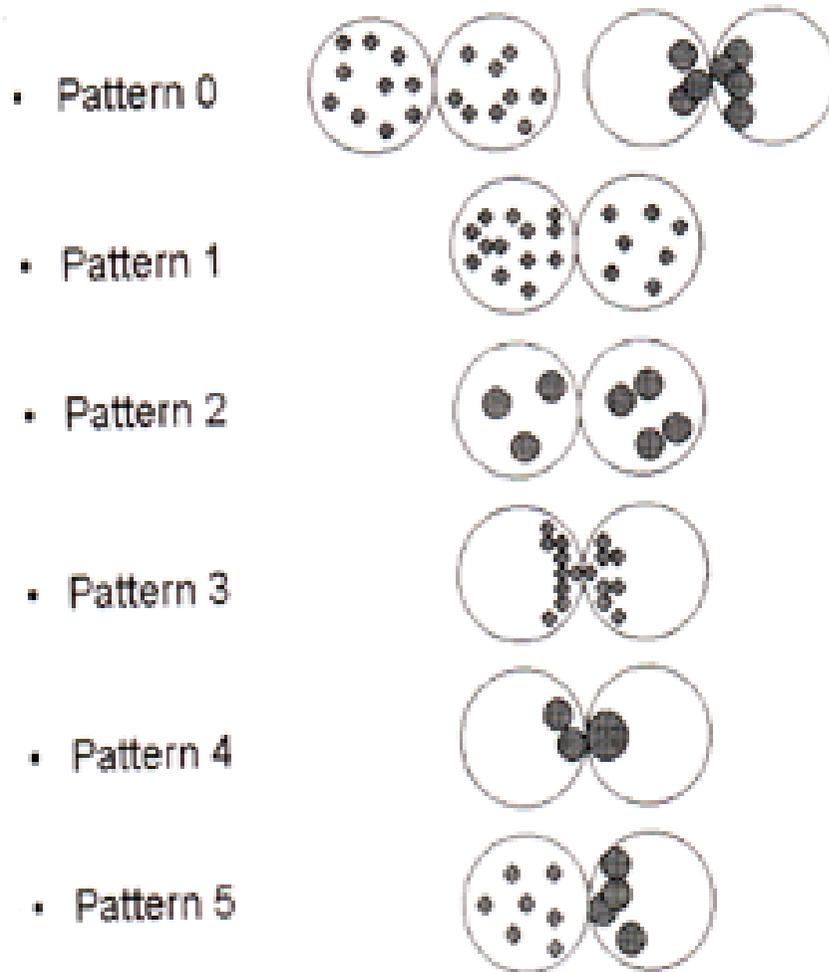


ADVANCED FERTILITY CENTER OF CHICAGO

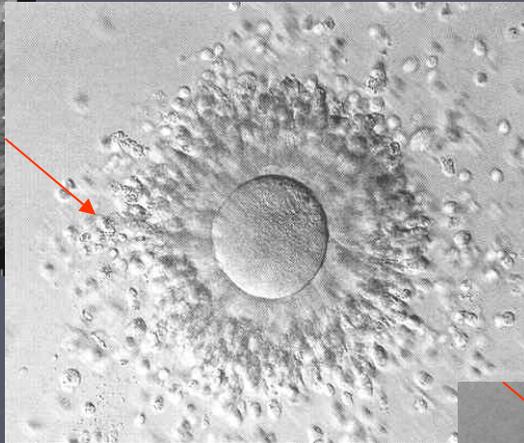
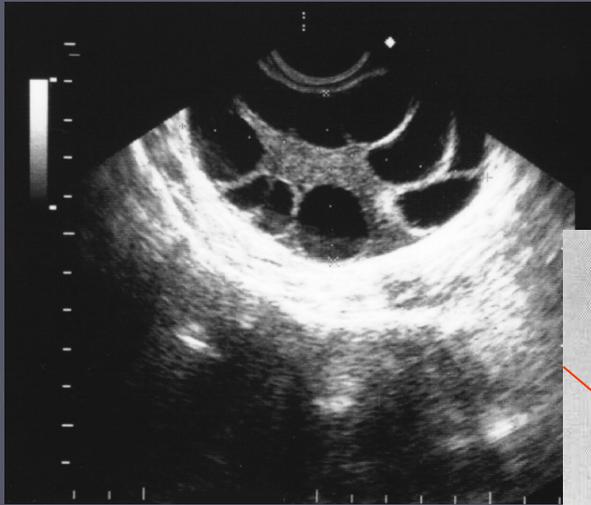


(Human) Scoring

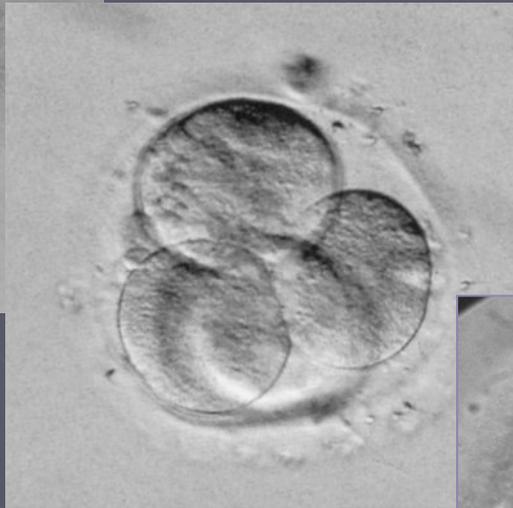
Evaluation of the **number of nucleolar bodies (NPB)** and their **distribution** in each PN (polarized versus non-polarized)



Tesarik et al., 2000



(human embryo)
pre-implantation development





day +5

Embryo transfer

