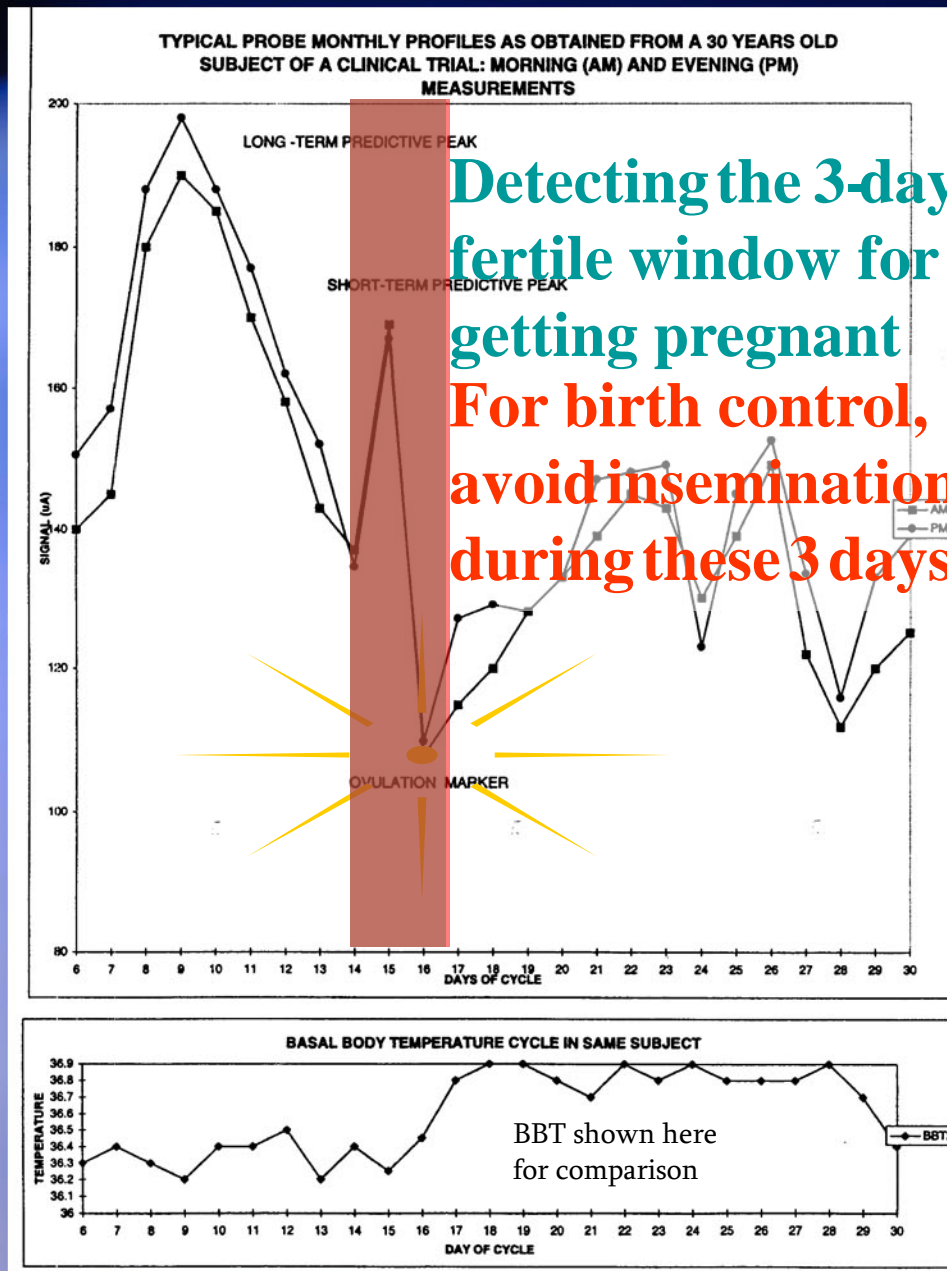


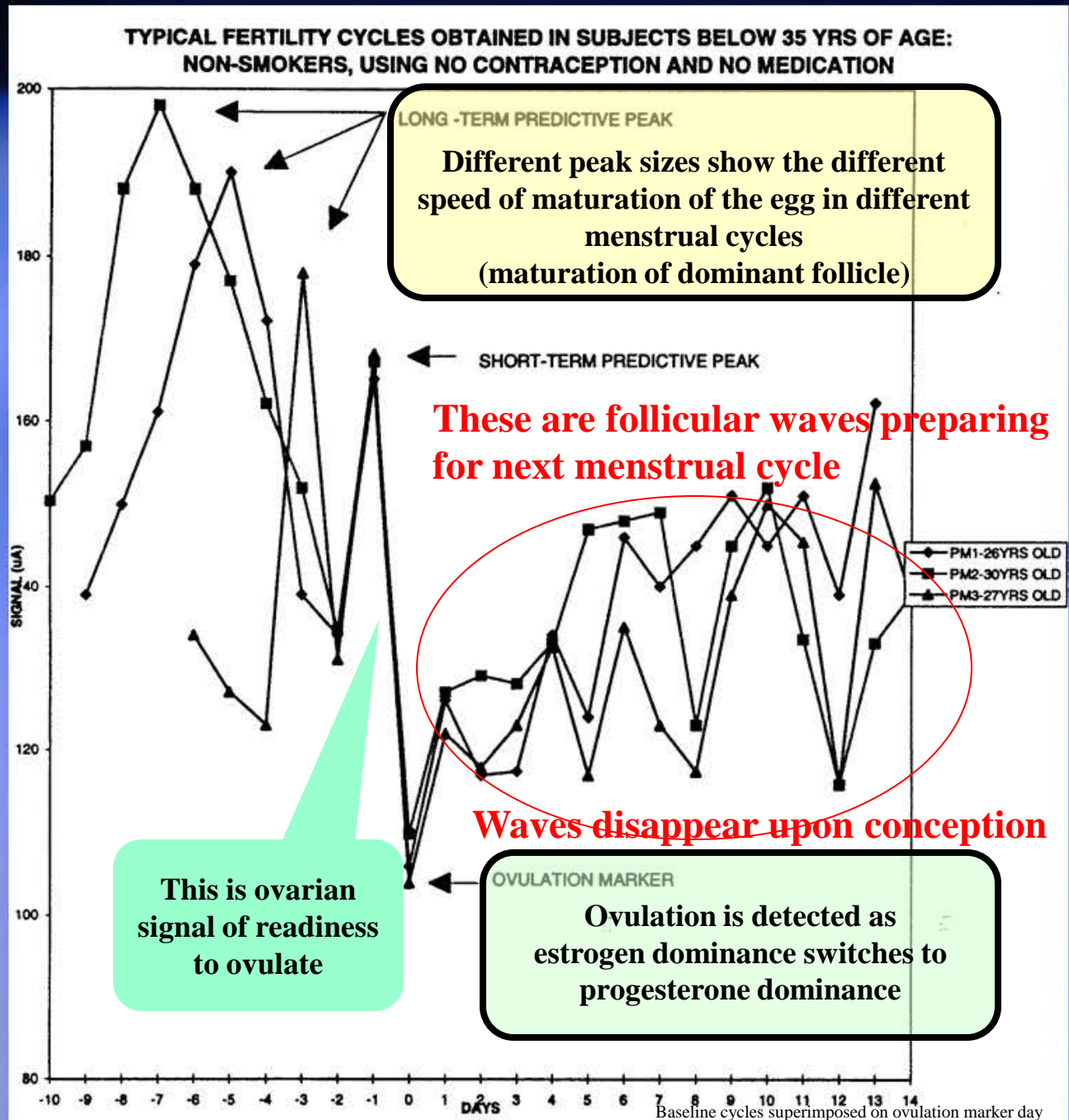
What our FIV™ tech does for women and for family planning



Our electrometric procedure is focused on the cervix uteri for superior accuracy, because the vein-to-artery exchange of steroids, prostaglandins and other bioactive substances is a local transfer mechanism regulating the genital organs, and the cervix also has a particularly dense innervation.

# Wealth of information inherent in the menstrual cyclic profile signature

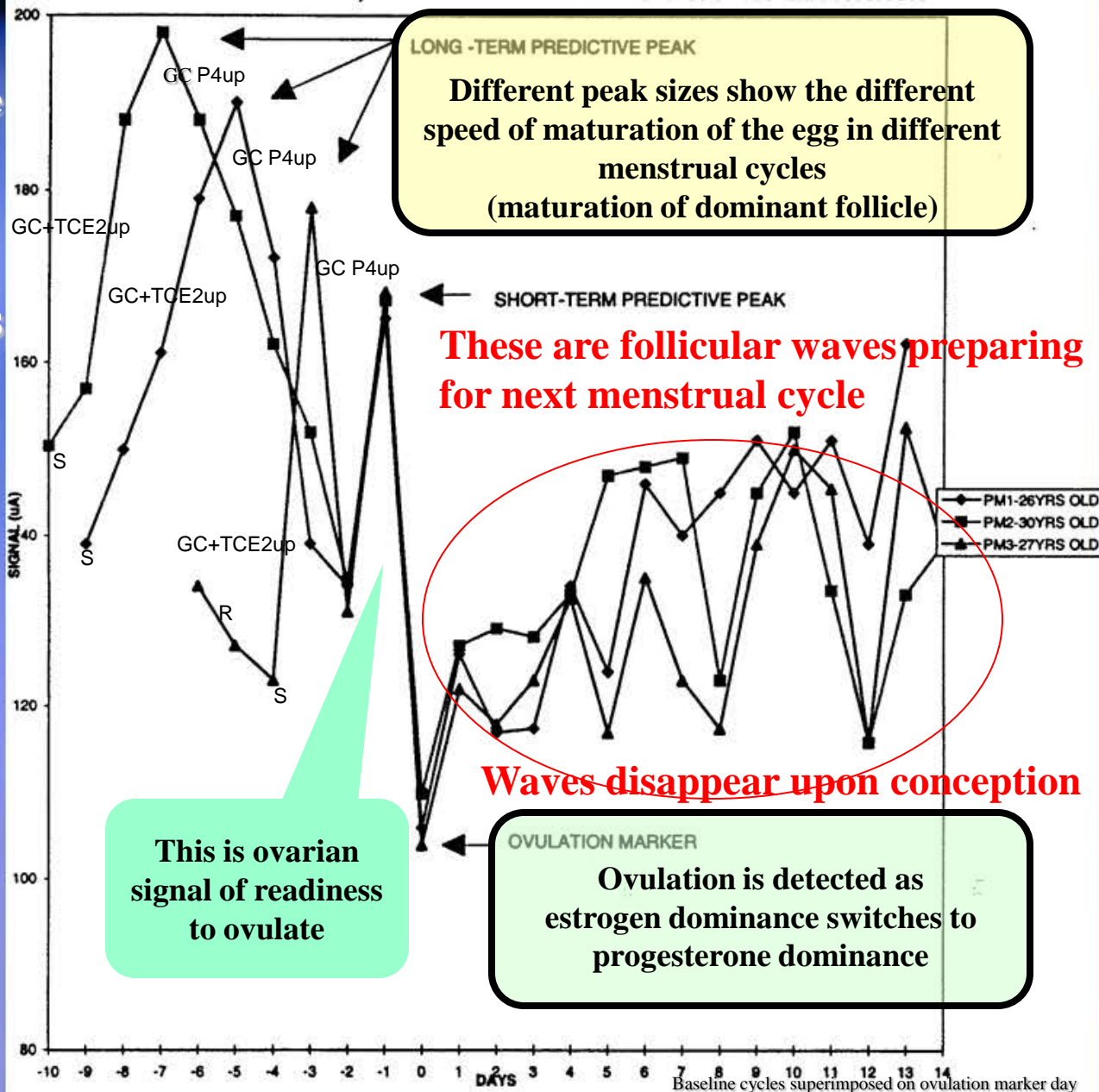
Separate experiments showed:  
 Estrogen drives signal up  
 Progesterone drives signal down





# Wealth of information inherent in the menstrual cyclic profile

TYPICAL FERTILITY CYCLES OBTAINED IN SUBJECTS BELOW 35 YRS OF AGE:  
NON-SMOKERS, USING NO CONTRACEPTION AND NO MEDICATION



## Part 2: Dominant Follicle peak's ascending and descending branches elucidated based on the sensor's in vivo responses to the E2 & P4 steroids

Estrogen & Progesterone

Key to graph labels

R... Recruitment on days 1 to 5 ± 1 (captured only if after blood flow – hygiene concern)

S... Selection on day 6 ± 1

GC+TC E2up... Granulosa + Theca Cells produced Estradiol (E2) rises and Dominant Follicle also initiates expression of LH Receptors

GC P4up... After the appearance of LH Receptors, the preovulatory Granulosa Cells secrete Progesterone (P4)

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## **Elucidation of the dominant follicle maturation peak**

(the labels on the long-term prediction peak in the follicular phase of the menstrual cyclic profile recorded by the ectocervix tissue sensor)

R ... Recruitment on days 1 to 5  $\pm$  1 (data captured usually only after blood flow – due to hygiene concerns). S ... Selection on day 6  $\pm$  1.

GC+TC E2up label on the ascending branch ... Dominant Follicle Maturation: Granulosa and Theca Cells produced Estradiol (E2) rises, which drives the signal up; Dominant Follicle also initiates expression of LH Receptors.

GC P4up label on the descending branch ... After the appearance of LH Receptors, the preovulatory Granulosa Cells secrete Progesterone (P4), which drives the signal down. (That's also why the ovulation marker is a trough, the lowest minimum in the menstrual cyclic profile. In circulating blood, progesterone concentrations are at least an order of magnitude higher than concentrations of estradiol.)

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