

The prostaglandin transporter (PGT): A novel indispensable mediator of ovulation From basic research to clinical implications

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Prostaglandins (PGs) have long been known to play an important role in the ovulatory process. However, the role of PGs transporters in ovulation remain unknown. We report herein that the expression of PGT, a transmembrane PG carrier protein, is markedly upregulated in preovulatory human granulosa cells (GCs). Interestingly, *in vivo* treatment of mice with PGT inhibitors effectively blocks ovulation. We hypothesize that the inhibition of PGT activity increases the extracellular concentration of PGE₂, the ability of which to exert its ovulatory effect is compromised by desensitization of its cognate receptors. Taken together, these findings support the idea that PGT is an important mediator of ovulation and that its inhibitors may be viewed as potential candidates for non-hormonal contraception.