

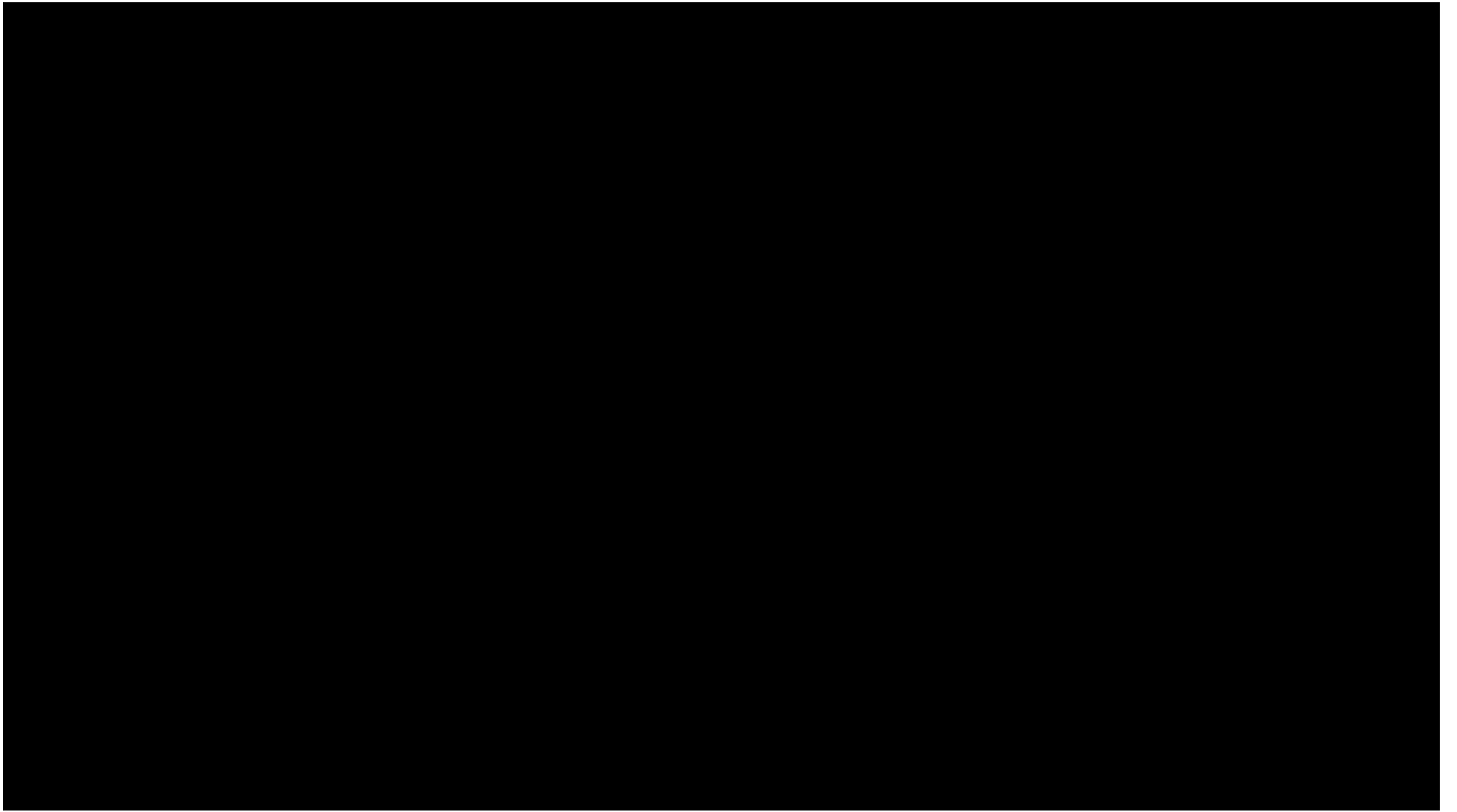
Ruolo degli ormoni steroidei: Implicazioni nella medicina della riproduzione, nell'endometriosi e nell'oncologia

ANDREA ROMANO
MAASTRICHT UNIVERSITY
THE NETHERLANDS



COI

Scientific Advisory Board member – Organon Finland



Contenuto

- Metabolismo degli ormoni steroidei
- Ginecologia Oncologica (Tumore all'endometrio)
- Ginecologia benigna (endometriosi)
- Medicina della riproduzione

Metabolismo degli ormoni steroidei

INTRACRINOLOGIA

Molecular and Cellular Endocrinology, 78 (1991) C113–C118
© 1991 Elsevier Scientific Publishers Ireland, Ltd. 0303-7207/91/\$03.50

MOLCEL 02559

At the Cutting Edge
Intracrinology
Fernand Labrie
*Department of Molecular Endocrinology, CHUL Research Center and Department of Physiology, Laval University,
Quebec G1V 4G2, Canada*
(Accepted 25 April 1991)

C113



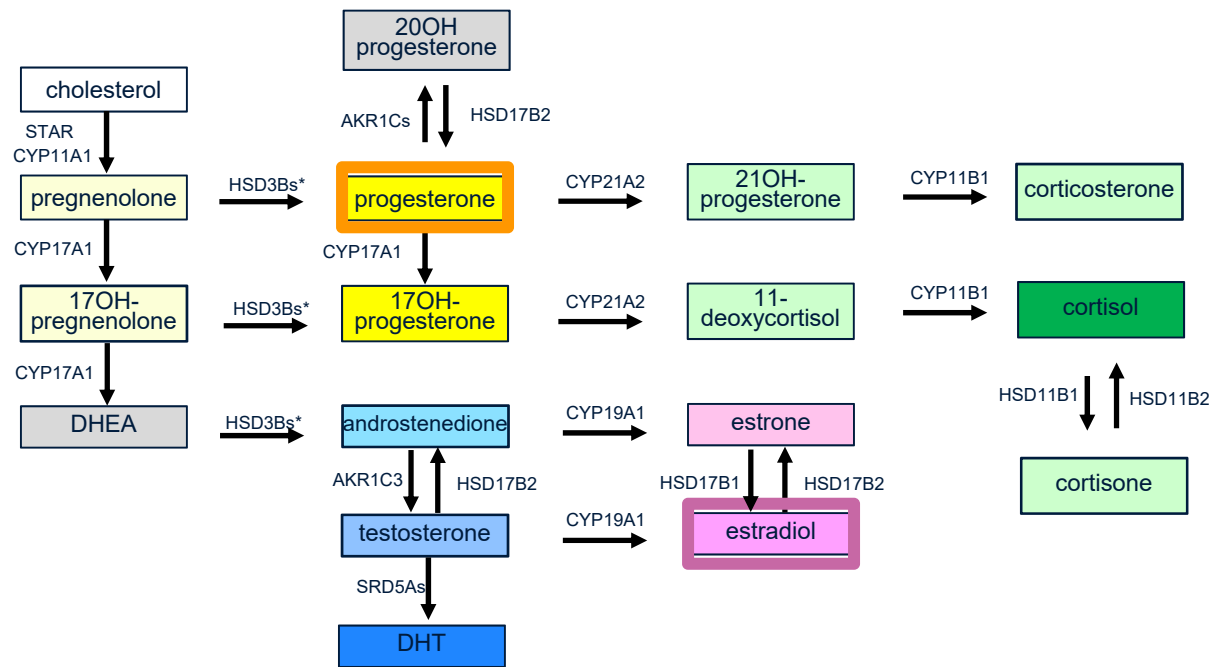
- AROMATIZZAZIONE **ANDROGENI** → **ESTROGENI** (TESSUTO ADIPOSO)
 - INIBITORI DELL'AROMATASI → trattamento tumore al seno
- **TESTOSTERONE** → **DHT** nella PROSTATA

Metabolismo degli ormoni steroidei

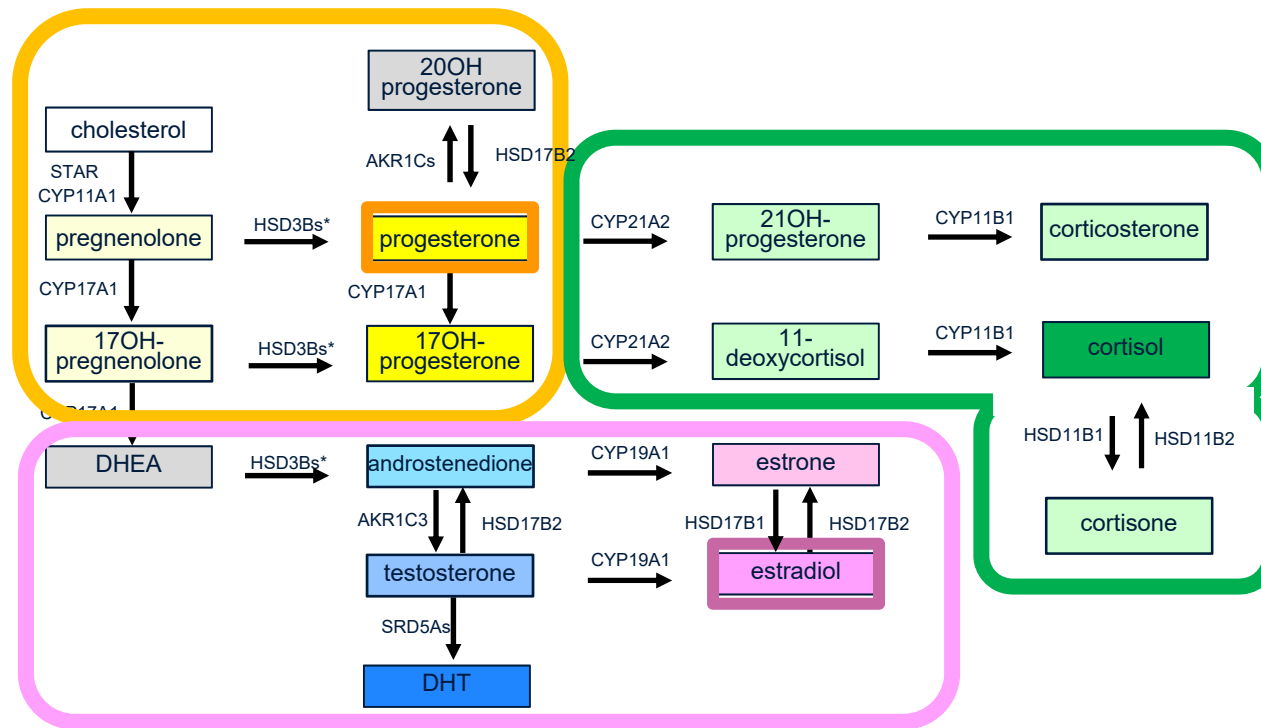
progesterone

estradiolo

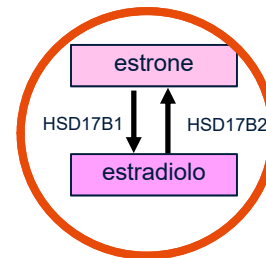
Metabolismo degli ormoni steroidei



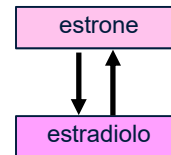
Metabolismo degli ormoni steroidei



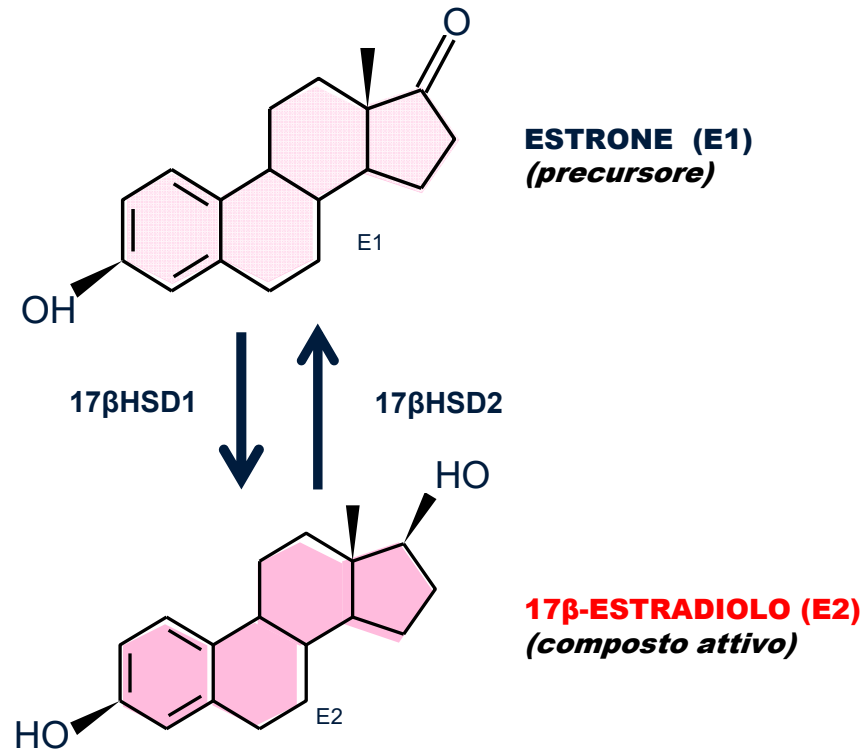
Metabolismo degli ormoni steroidei



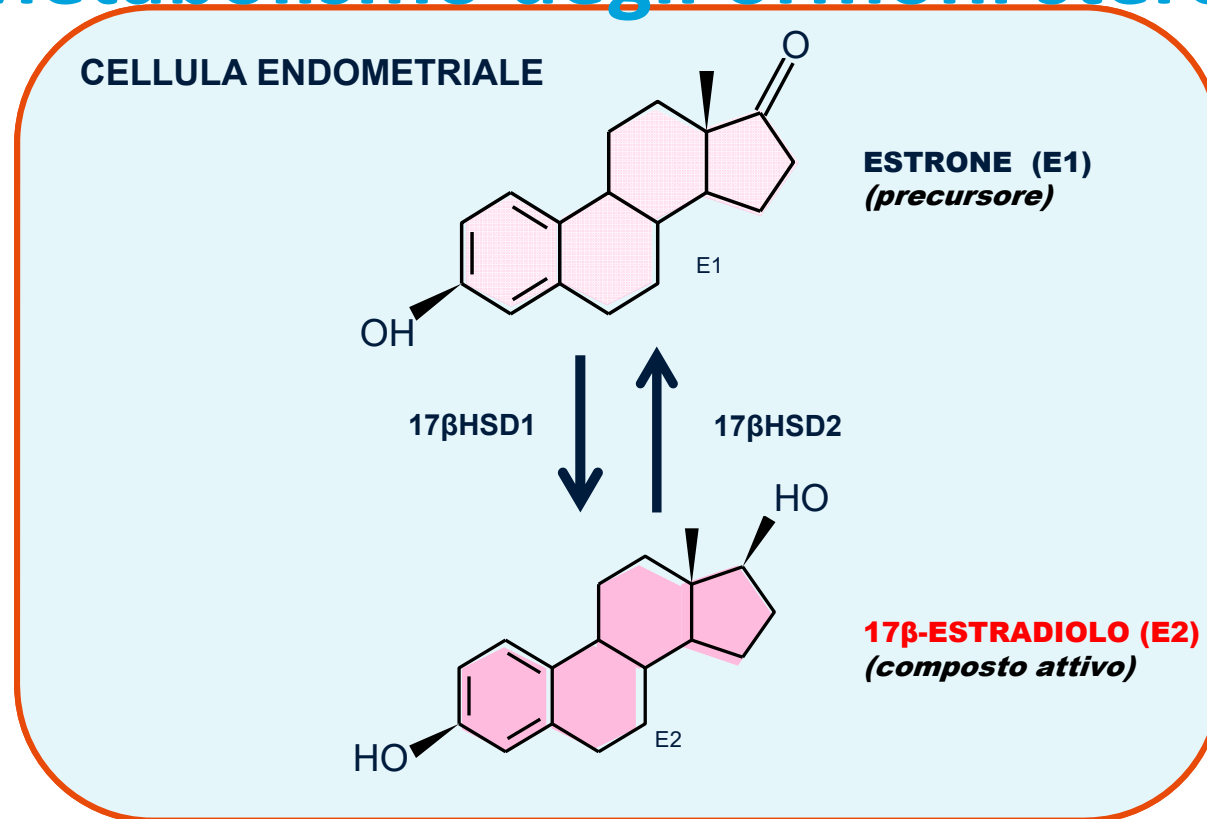
Metabolismo degli ormoni steroidei



Metabolismo degli ormoni steroidei



Metabolismo degli ormoni steroidei



Intracrinologia – Tumore all'endometrio



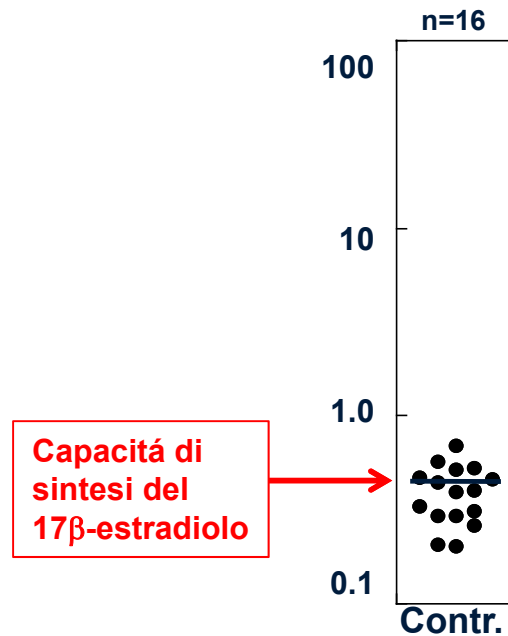
Bert

Intracrinologia – Tumore all'endometrio

attività **riduzione** / **ossidazione** 17 Idrossilasi

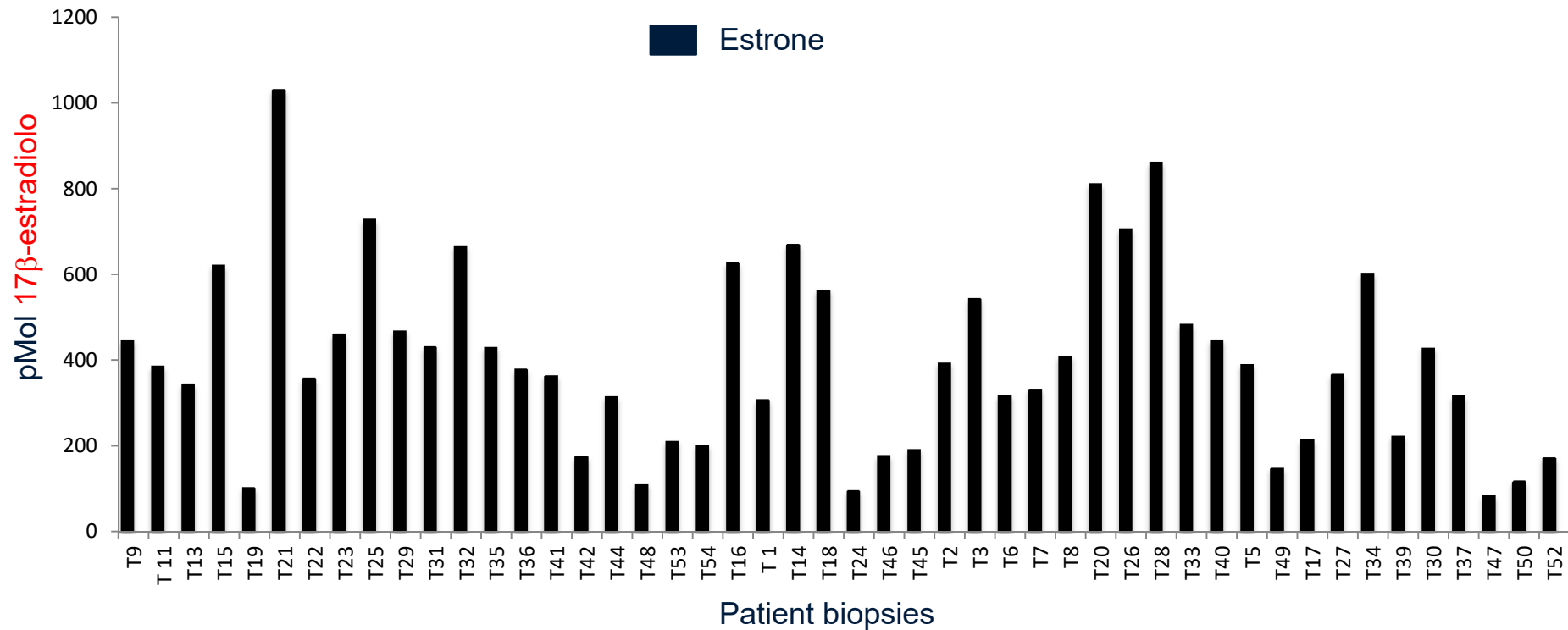


Bert



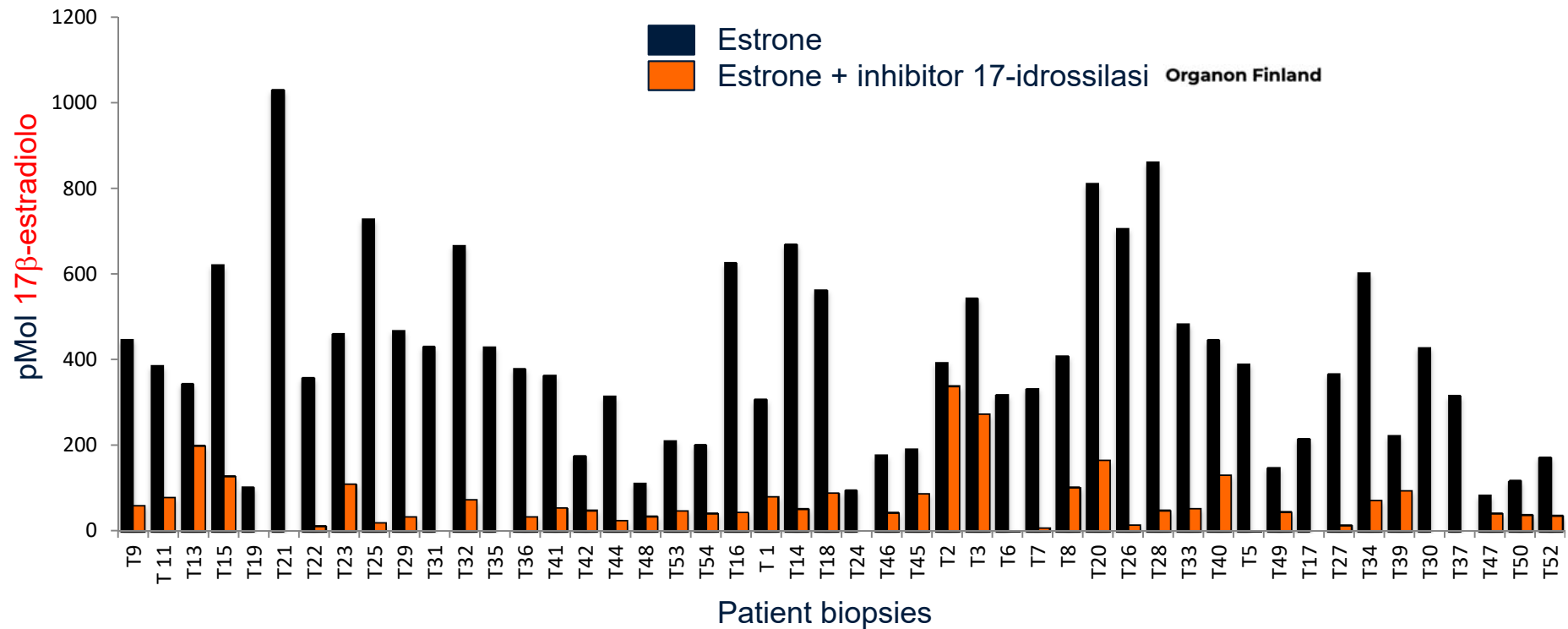
Tumore all'endometrio - Inibizione della 17 β -HSD1

Formazione di 17 β -estradiolo da estrone in biopsie di pazienti



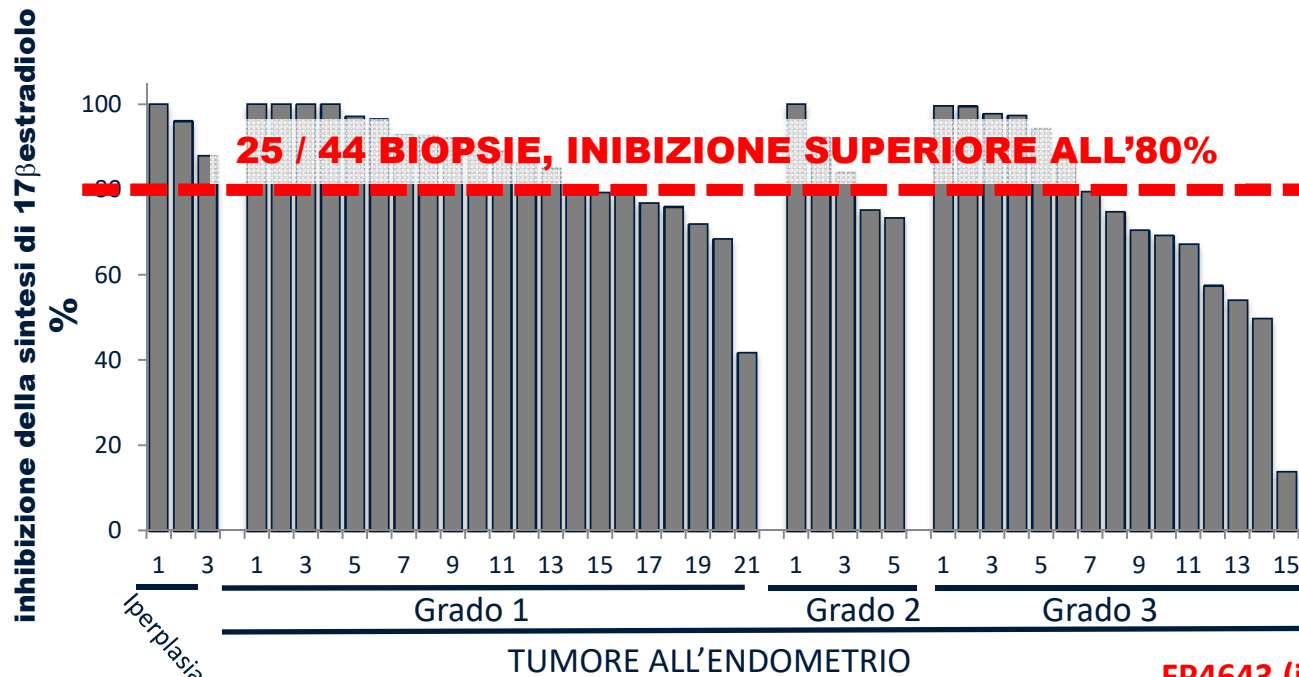
Tumore all'endometrio - Inibizione della 17 β -HSD1

Formazione di 17 β -estradiolo da estrone in biopsie di pazienti



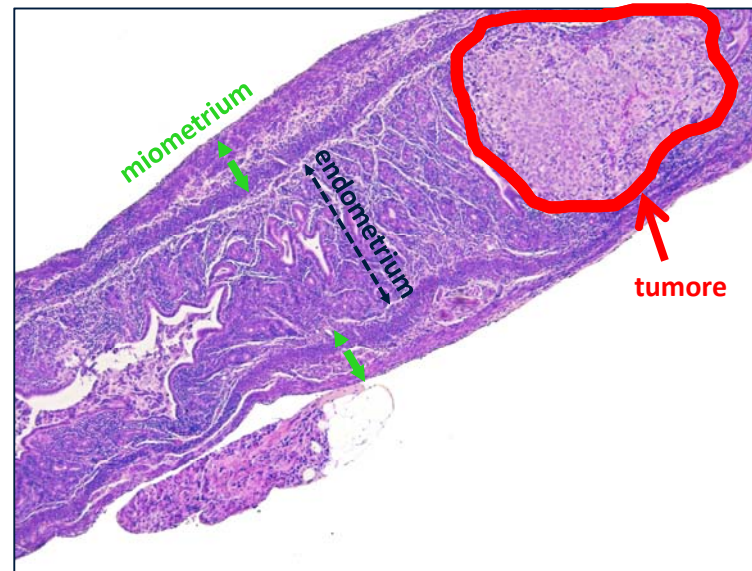
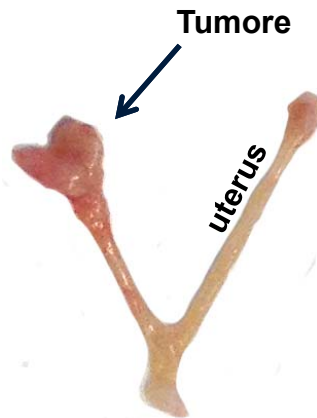
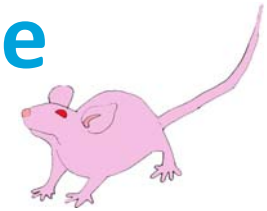
Tumore all'endometrio - Inibizione della 17 β -HSD1

INIBIZIONE DELLA SINTESI DI 17 β ESTRADIOLO IN BIOPSIE DI TUMORE ALL'ENDOMETRIO

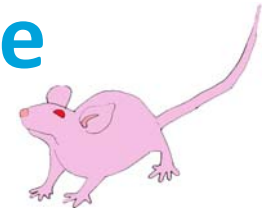


FP4643 (inibitore 17 β -HSD1)
Organon Finland

Intracrinologia – modello animale



Intracrinologia – modello animale



PLACEBO

17 β -estradiolo (E2)



Intracrinologia – modello animale



PLACEBO

17 β -estradiolo (E2)

ESTRONE (E1)



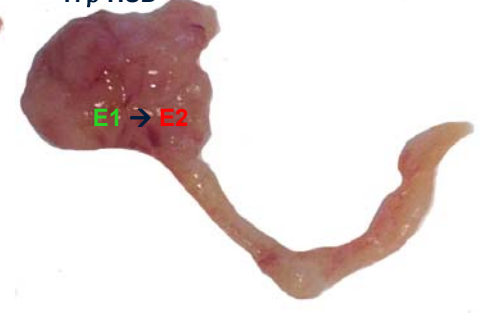
17 β -HSD
negative

E1

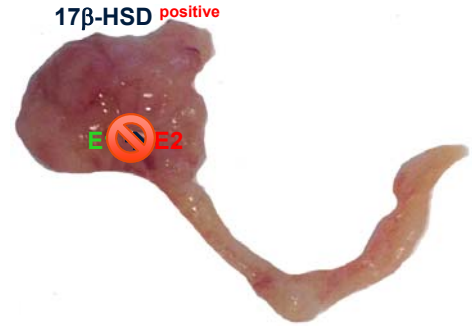
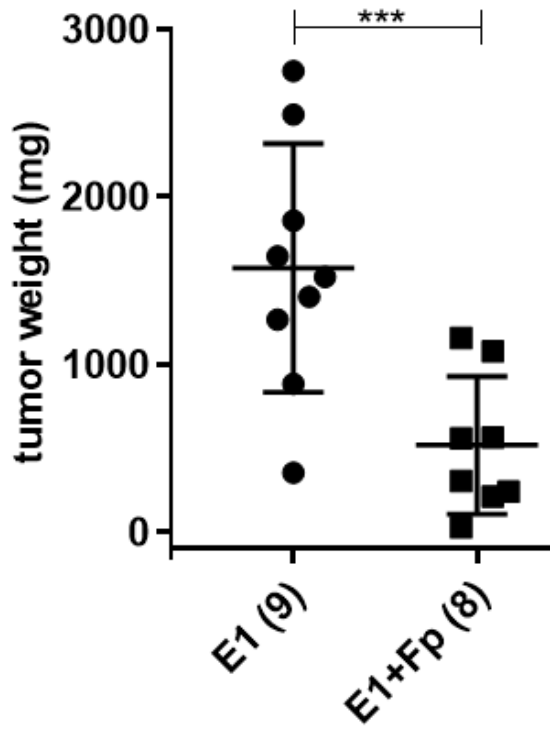


17 β -HSD positive

E1 → E2



Inibizione della 17β-HSD1 – modello preclinico



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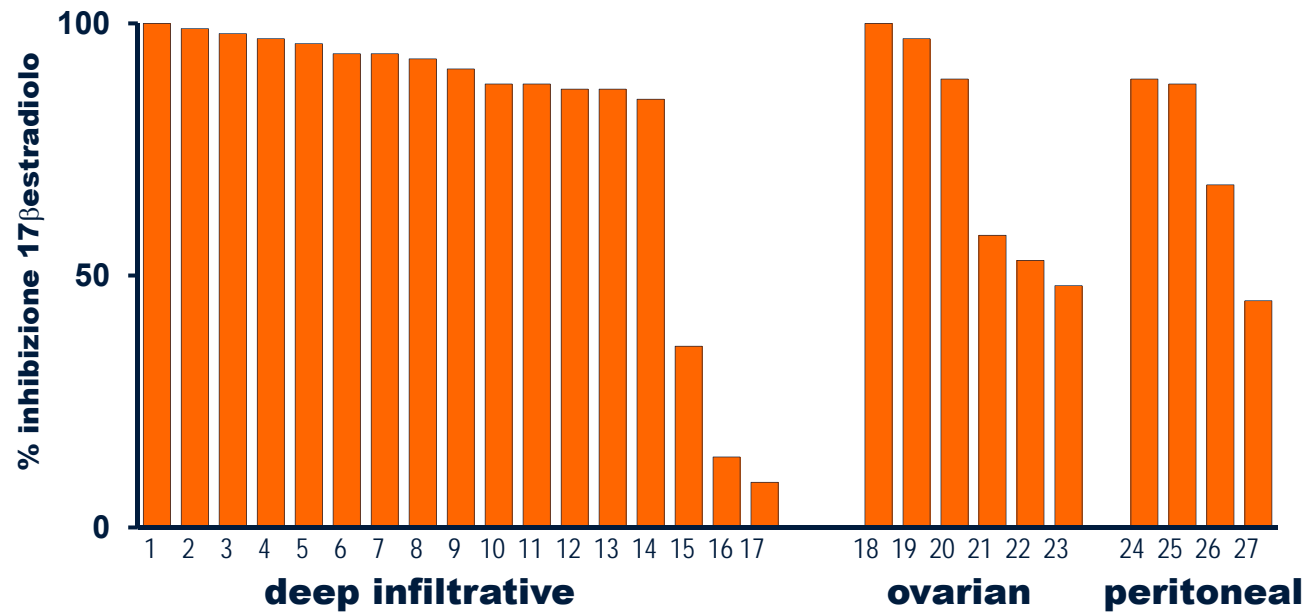
Contenuto

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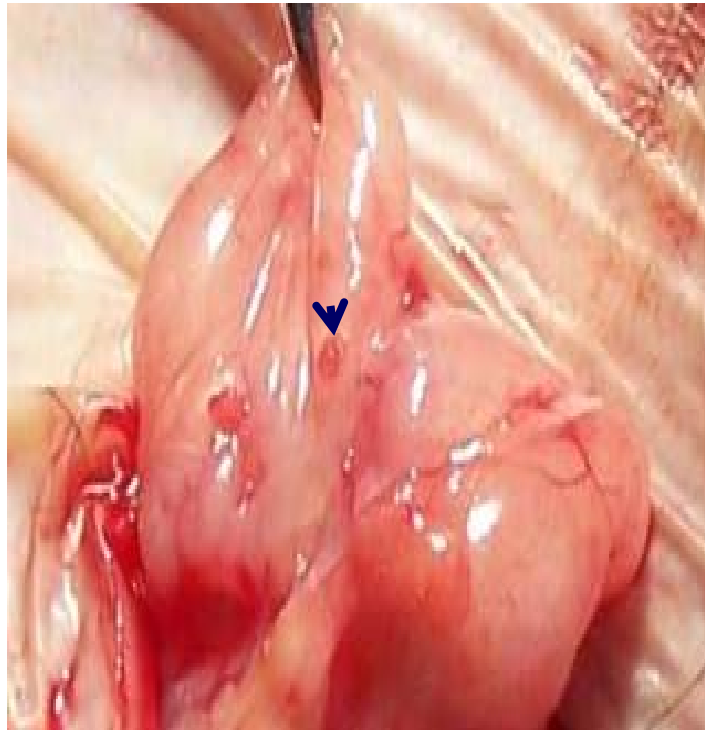
Inibizione della 17 β -HSD1 – endometriosi

INHIBIZIONE DELLA FORMAZIONE DI 17 β -ESTRADIOLO : *EX VIVO*

FP4643 (inibitore 17 β -HSD1)
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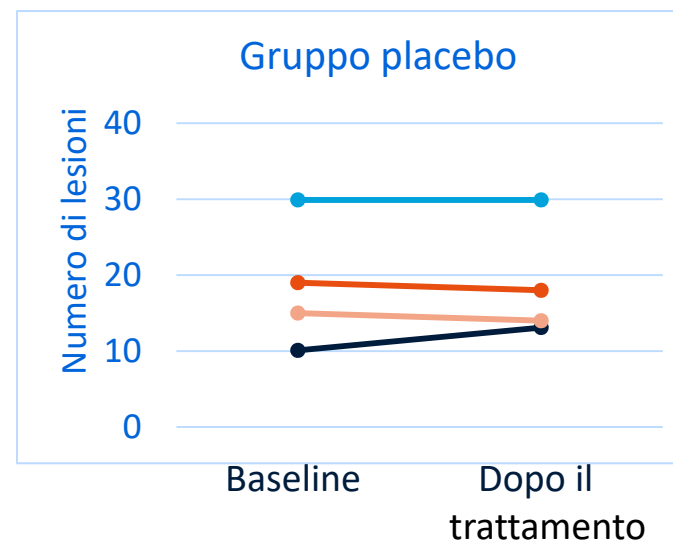
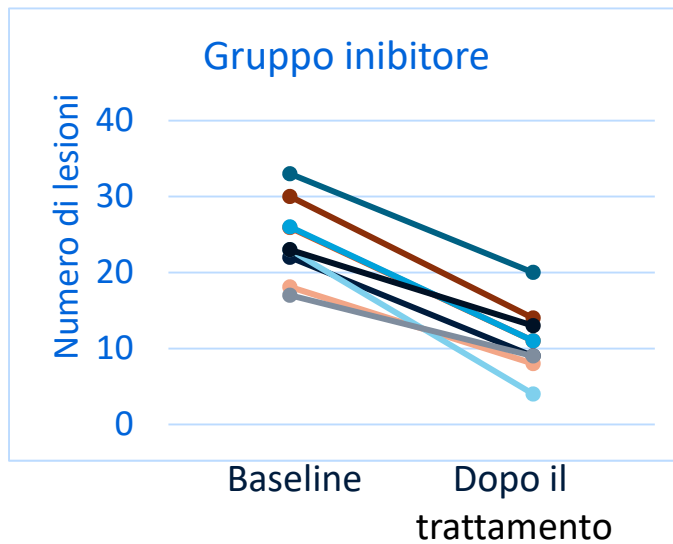


Inibizione della 17 β -HSD1 – endometriosi



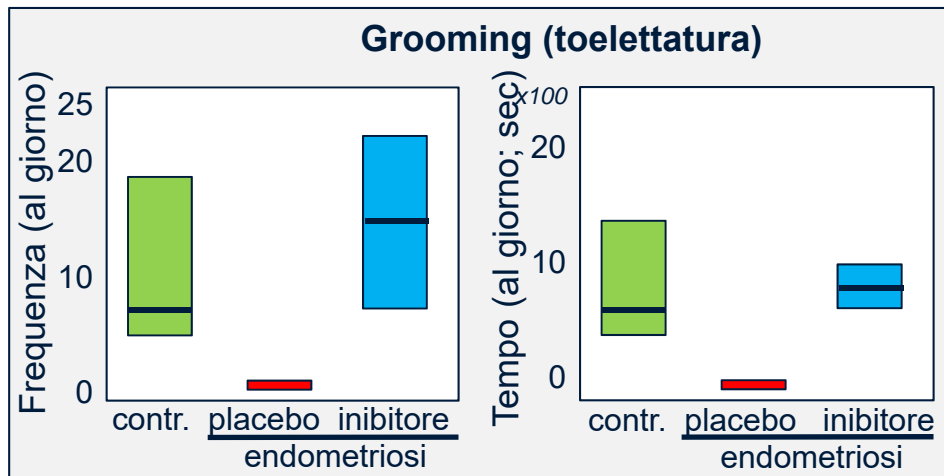
Inibizione della 17 β -HSD1 – endometriosi

- 20 mg/kg al giorno, per 4 settimane
- **55% riduzione del numero di impianti di endometriosi**



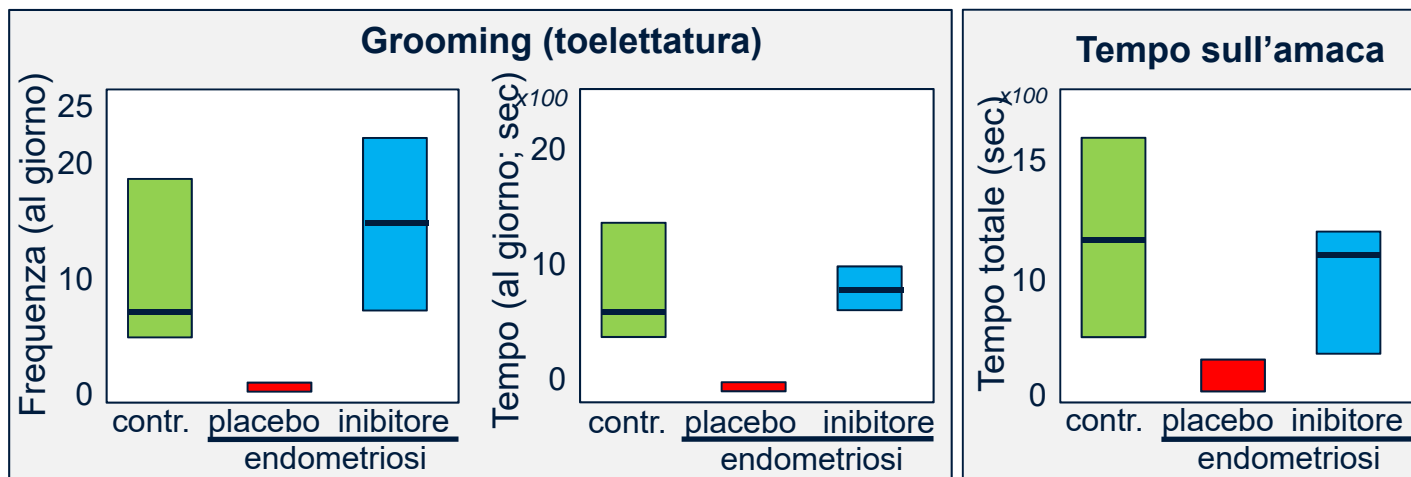
Inibizione della 17 β -HSD1 – endometriosi

Miglioramento comportamento sociale (*Callithrix jacchus*)



Inibizione della 17 β -HSD1 – endometriosi

Miglioramento comportamento sociale (*Callithrix jacchus*)



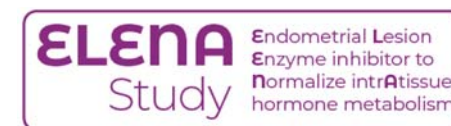
Inibizione della 17 β -HSD1 – endometriosi

FASE CLINICA 1a & 1b (NCT03709420 2018-2020)

→ FOR-6219/OR-6219 (attivo oralmente)

FASE CLINICA 2 (a breve)

→ OR-6219 - efficacia su dolore
- 380 partecipanti
- trattamento fino a 28 settimane

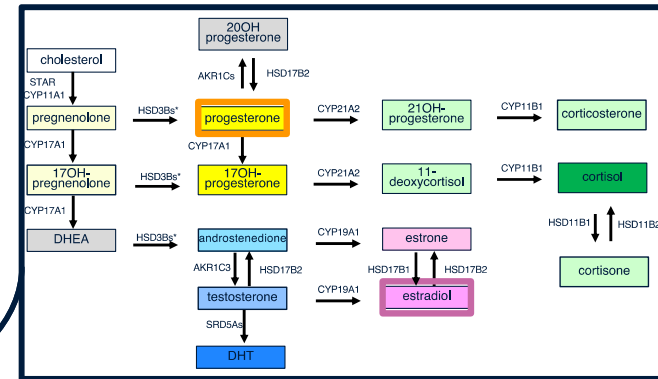
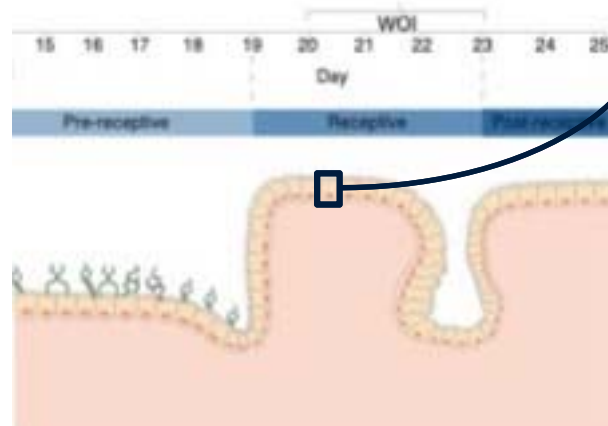


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- **Medicina della riproduzione**

Metabolismo degli ormoni steroidei – Medicina della riproduzione

progesterone estradiol



Metabolismo degli ormoni steroidei – Medicina della riproduzione

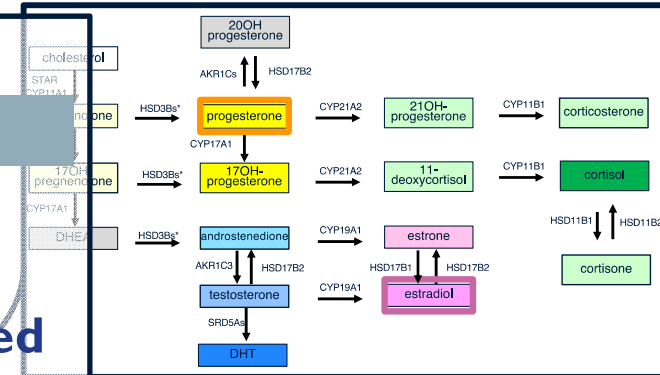
Human Reproduction, Vol.36, No.1, pp. 87–98, 2021
 Advance Access Publication on December 8, 2020 doi:10.1093/humrep/deaa268

human reproduction

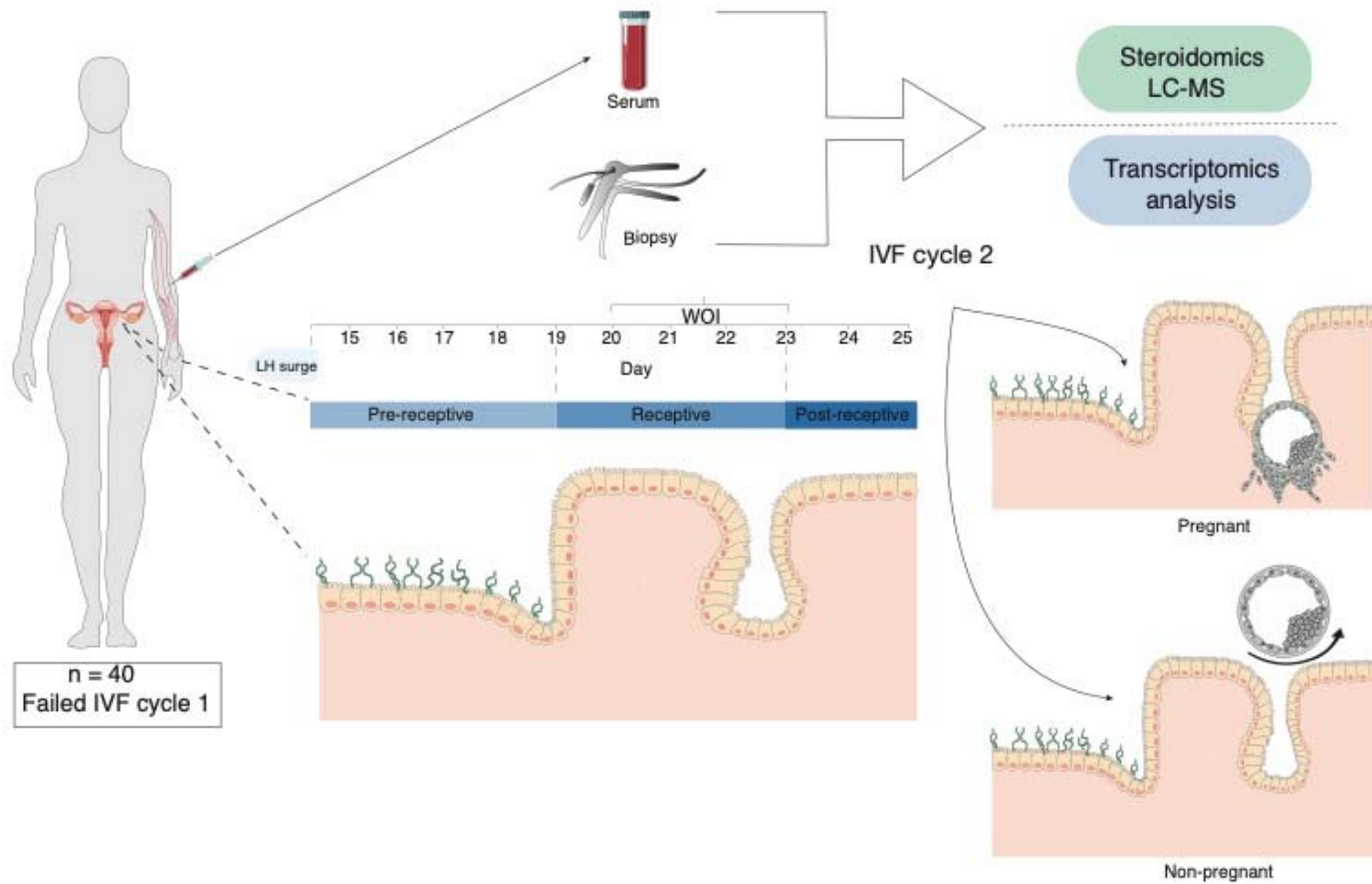
ORIGINAL ARTICLE *Infertility*

Endometrial scratching in women with one failed IVF/ICSI cycle—outcomes of a randomised controlled trial (SCRaTCH)

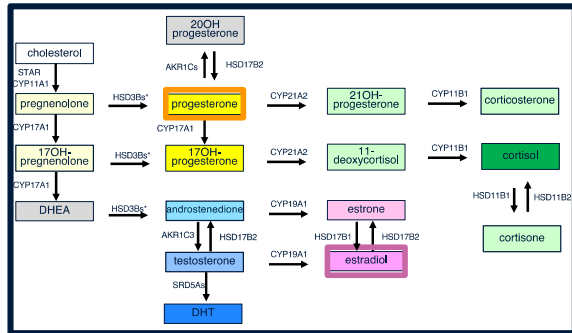
N.E. van Hoogenhuijze^{1,*}, F. Mol², J.S.E. Laven³, E.R. Groenewoud⁴, M.A.F. Traas⁵, C.A.H. Janssen⁶, G. Teklenburg⁷, J.P. de Bruin⁸, R.H.F. van Oppenraaij⁹, J.W.M. Maas¹⁰, E. Moll¹¹, K. Fleischer¹², M.H.A. van Hooff¹³, C.H. de Koning¹⁴, A.E.P. Cantineau¹⁵, C.B. Lambalk¹⁶, M. Verberg¹⁷, A.M. van Heusden¹⁸, A.P. Manger¹⁹, M.M.E. van Rumste²⁰, L.F. van der Voet²¹, Q.D. Pieterse²², J. Visser²³, E.A. Brinkhuis²⁴, J.E. den Hartog²⁵, M.W. Glas²⁶, N.F. Klijn²⁷, S. van der Meer²⁸, M.L. Bandell²⁹, J.C. Boxmeer³⁰, J. van Disseldorp³¹, J. Smeenk³², M. van Wely³³, M.J.C. Eijkemans^{1,34}, H.L. Torrance¹, and F.J.M. Broekmans¹



Metabolismo degli ormoni steroidei – Medicina della riproduzione



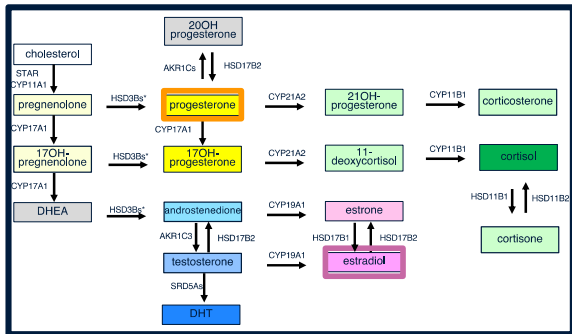
Metabolismo degli ormoni steroidei – Medicina della riproduzione



→ Nessuna differenza tra i due gruppi donne incinta / non incinta



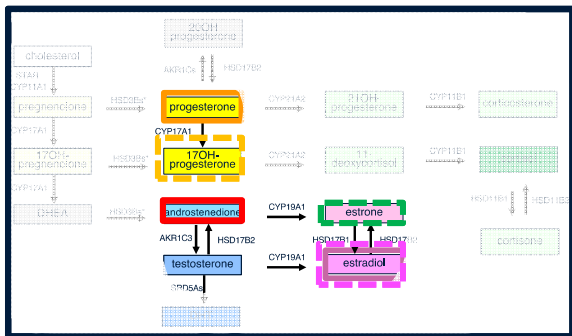
Metabolismo degli ormoni steroidei – Medicina della riproduzione



ANALISI RISTRETTA A INFERTILITA' PRIMARIA



Metabolismo degli ormoni steroidei – Medicina della riproduzione

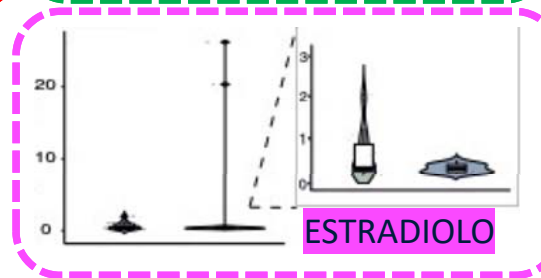
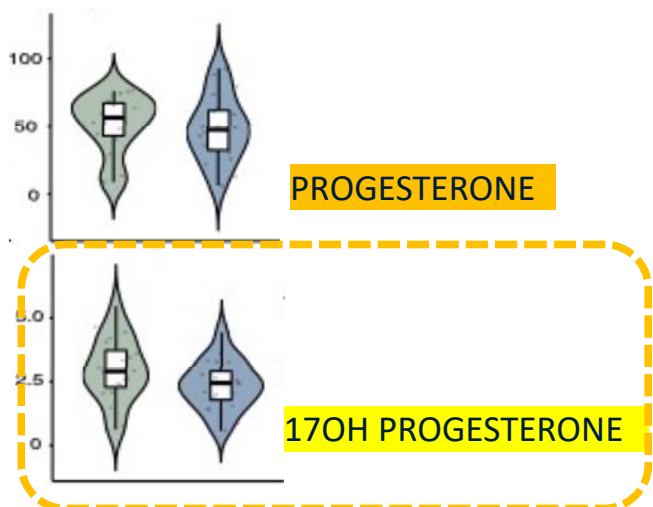


ANALISI RISTRETTA A INFERTILITA' PRIMARIA

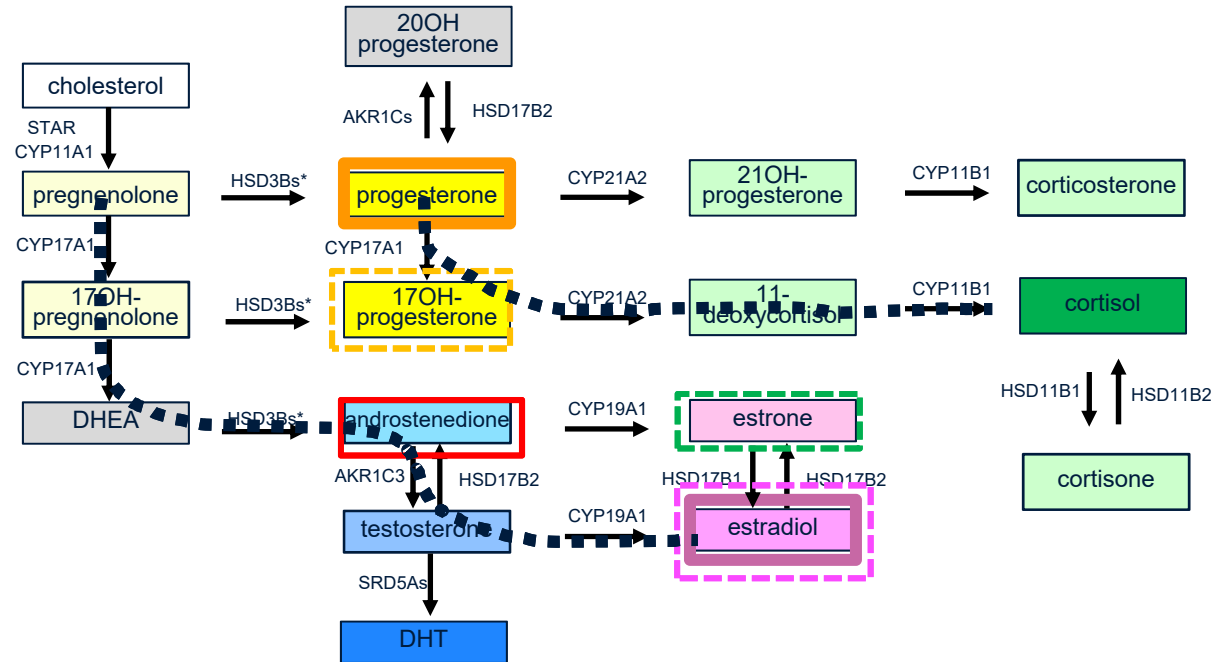
Concentrazione nel tessuto endometriale
pmol / g tessuto



■ Infertilità primaria ■ Infertilità secondaria

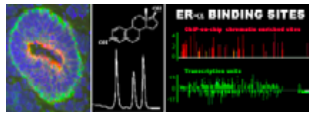


CONCLUSIONI



- Targets per il trattamento medico
- BIOMARKER PER PROGnosi

ACKNOWLEDGEMENTS



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Johanna Koskivuori

Matti Poutanen
Taija Saloniemi-Heinonen



Turun yliopisto
University of Turku



School for Growth & Development



Stichting Fertility Foundation



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Key dates

Abstract submission deadline: ~~30th November 2022~~

Notification to authors: w/c 6th February 2023

Early registration deadline: 28th February 2023

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