

COINVOLGERE I PADRI/PARTNER IN OSPEDALE

**NON E' UNA MODA
E' UN ATTO DI CURA**

Ciro Capuano

 SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA

 RER
Emilia-Romagna

Seminario regionale

L'ALLATTAMENTO IN EMILIA-ROMAGNA

Allattamento e benessere di madri e lattanti: la voce dei punti nascita



Venerdì 25 settembre 2026 | ore 8.30 - 13.30



Sala Auditorium, Ospedale Maggiore
Largo Bartolo Nigrisoli 2, Bologna



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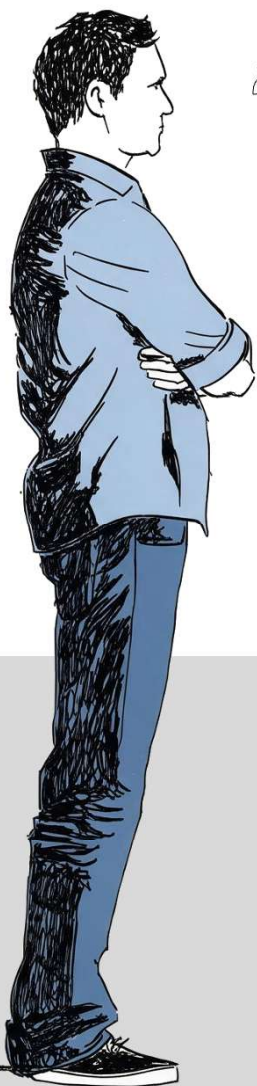


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2014: NON C'E' ANDATO...
E L'HANNO CRITICATO !!!

theguardian

Nicolas Sarkozy missed the arrival of his daughter Giulia. So does the father have to be at the birth?

Carla Bruni Sarkozy's husband, the French president, was not present when their baby was born last week - he was busy sorting out the euro. Most dads now turn up at the labour ward, but is that good for mother and baby?



French president Nicolas Sarkozy was unable to attend the birth of a daughter to his wife Carla Bruni-Sarkozy because he was attending eurozone crisis talks. Photograph: Reuters



allfem • Segui



allfem 9 sett

Da una parte Jérémy Doku, calciatore della nazionale belga che ha deciso di ritirarsi dai Mondiali per assistere alla nascita del figlio. Dall'altra, Leo Ostigard, difensore norvegese, che ha deciso di restare, assistendo al parto via FaceTime. Due scelte diverse, di cui solo una, però, è stata oggetto di pesanti critiche. Quale? La prima. Sì, perché nel 2026 è considerato ancora assurdo che un uomo rinunci, anche solo momentaneamente, ad ambizioni e carriera per essere un padre e marito presente.

E voi che cosa ne pensate?

[#alfemminile](#) [#genitorialità](#)
[#mondiali2026](#) [#worldcup](#) [#jeremydoku](#)



3881



256



22 giugno

[Accedi](#) per mettere "Mi piace" o commentare.

2026: C'E' ANDATO...
E L'HANNO CRITICATO !!!





Non voglio perdermi un momento del genere.

Così Jérémie Doku, calciatore belga-ghanese, ha comunicato la scelta di ritirarsi dai Mondiali per stare al fianco della moglie Shireen Doku durante il parto.

Tra le più feroci, quelle della giornalista France Pierron, che in diretta tv si è lasciata andare a considerazioni molto controverse:

“Ci sono centinaia di calciatori che farebbero carte false per essere al tuo posto.

E tu lasci tutto per andare ad assistere alla nascita di tuo figlio, un momento in cui il padre è inutile, è solo una comparsa”.



Insomma, nel 2026 i padri vengono ancora considerati genitori di serie B

E questo episodio ne è la triste conferma.



Daphna Joel

> [Proc Natl Acad Sci U S A](#). 2015 Dec 15;112(50):15468-73. doi: 10.1073/pnas.1509654112.
Epub 2015 Nov 30.

Sex beyond the genitalia: The human brain mosaic

Daphna Joel¹, Zohar Berman², Ido Tavor³, Nadav Wexler⁴, Olga Gaber⁵, Yaniv Stein⁴,
Nisan Shefi⁶, Jared Pool⁷, Sebastian Urchs⁷, Daniel S Margulies⁷, Franziskus Liem⁸,
Jürgen Hänggi⁹, Lutz Jäncke⁹, Yaniv Assaf¹⁰

**ESISTE UN "CERVELLO MASCHILE"
O UN "CERVELLO FEMMINILE" ?**

SUCCEDE IN TUTTE LE CASE...

**GUARDA
BENE !**

**QUI
NON C'E'**



...È PROVATO SCIENTIFICAMENTE

**LO VEDO
DA QUI !**

**QUI
NON C'E'**





Israel Abramov
(#santosubito)

> Biol Sex Differ. 2012 Sep 4;3(1):20. doi: 10.1186/2042-6410-3-20.

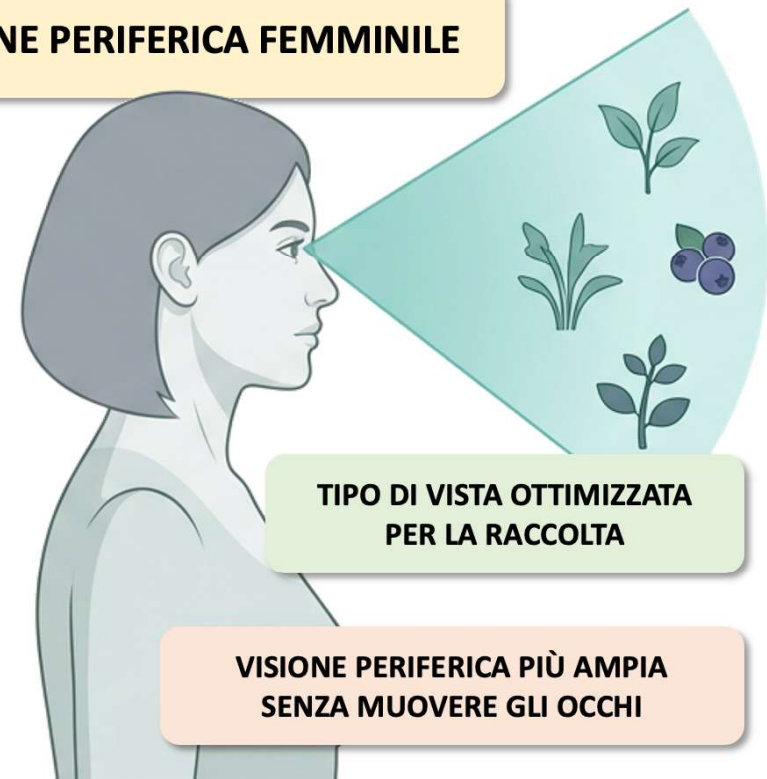
Sex & vision I: Spatio-temporal resolution

Israel Abramov¹, James Gordon, Olga Feldman, Alla Chavarga

VISIONE FOCALE MASCHILE



VISIONE PERIFERICA FEMMINILE





Daphna Joel

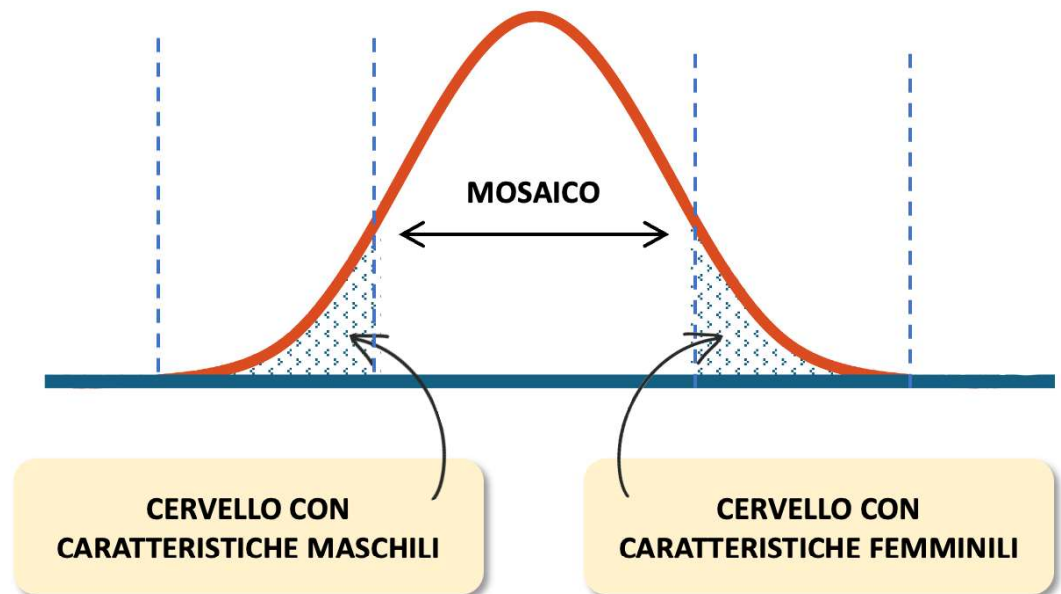
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**NON ESISTE UN "CERVELLO MASCHILE"
O UN "CERVELLO FEMMINILE"**

**ESISTONO MOSAICI "ZONALI"
LEGATI ALLA NEUROPLASTICITA'**





Daphna Joel

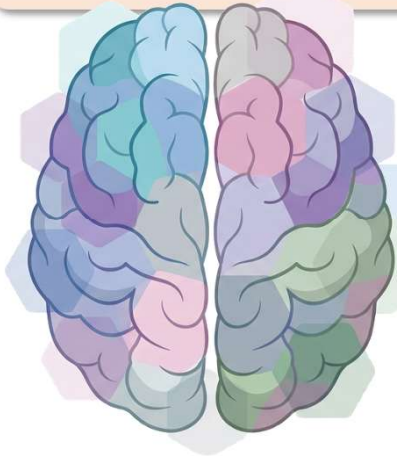
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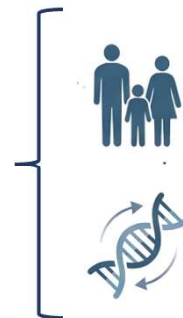
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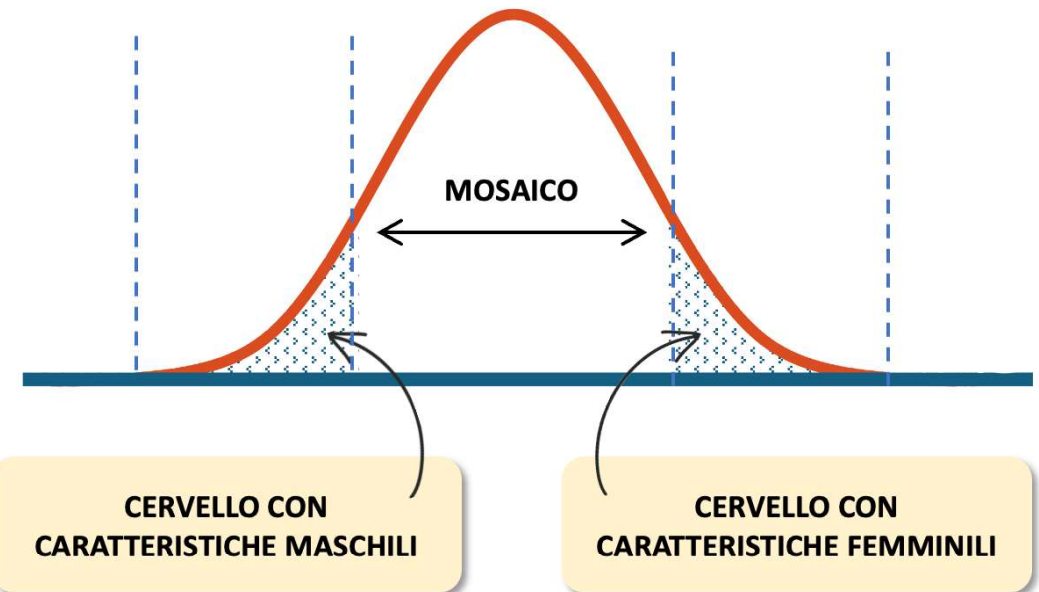
PLASMATO DA



AMBIENTE - CONTESTO

GENETICA - ESPERIENZE

**anche
TRANSGENERAZIONALI**



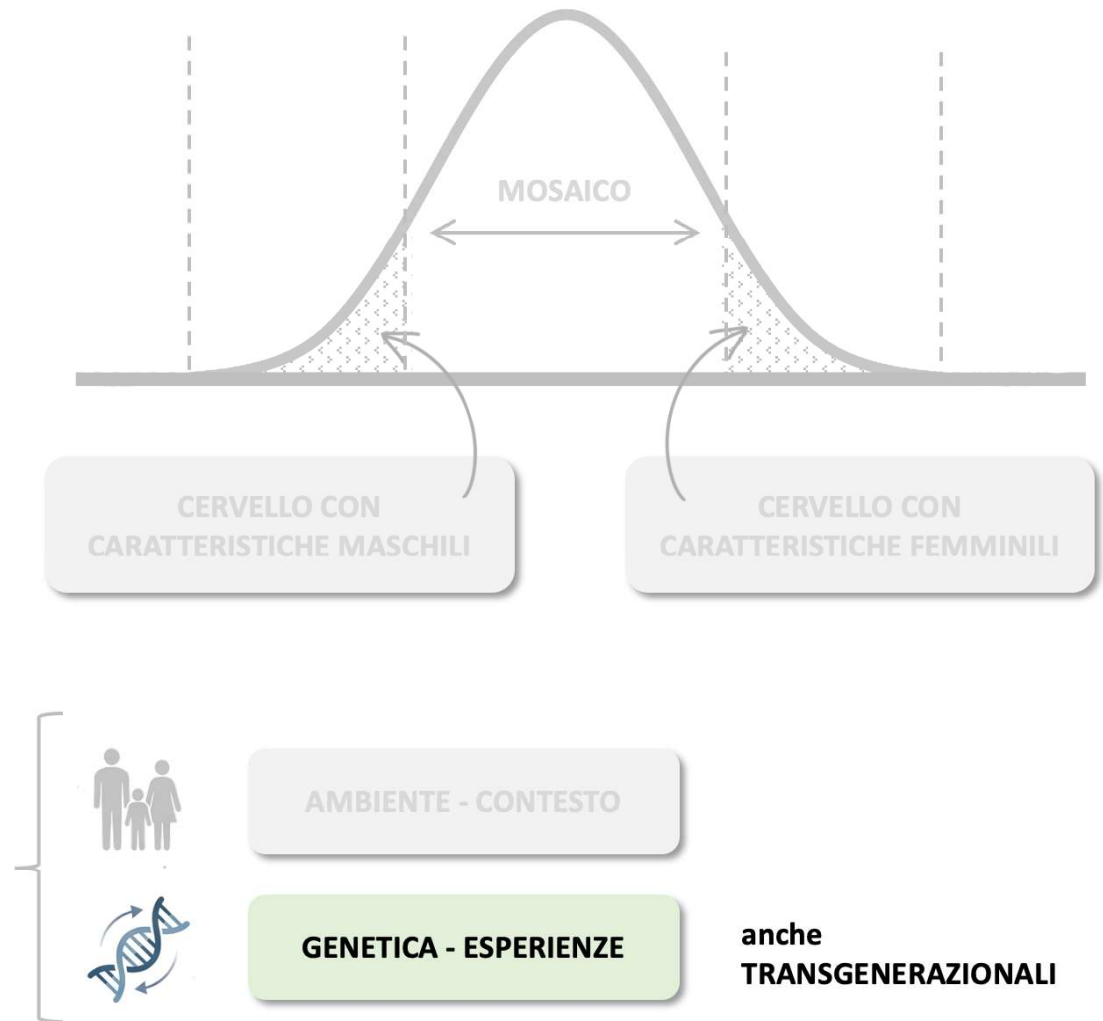
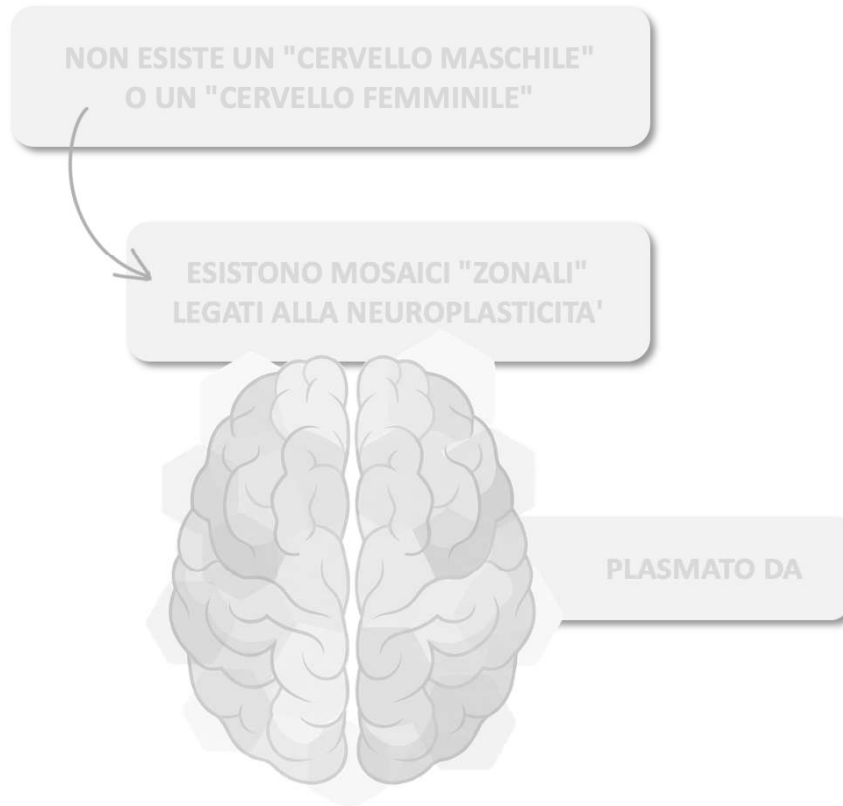


Daphna Joel

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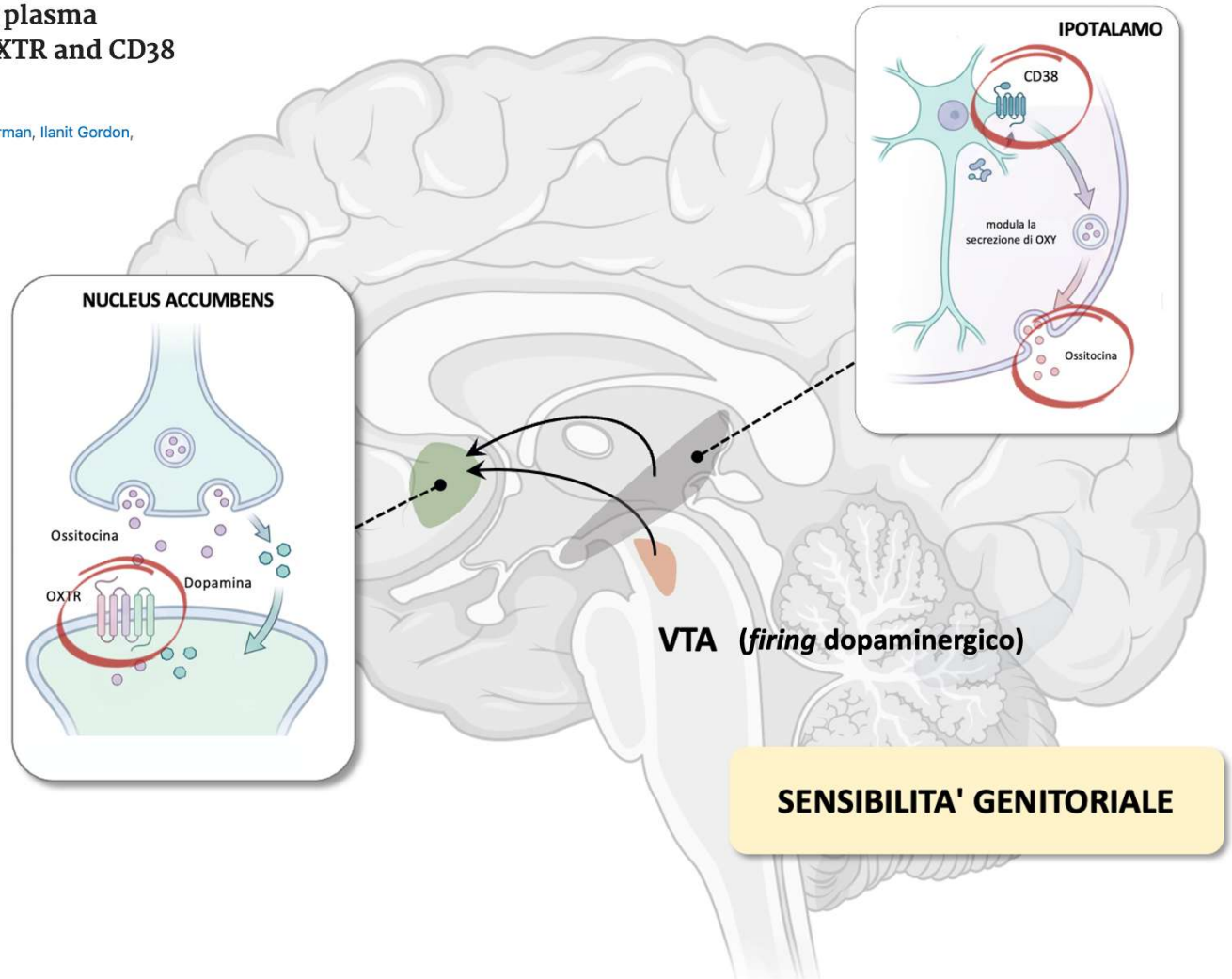


Ruth Feldman

> *Biol Psychiatry*. 2012 Aug 1;72(3):175–81. doi: 10.1016/j.biopsych.2011.12.025. Epub 2012 Feb 14.

Sensitive parenting is associated with plasma oxytocin and polymorphisms in the OXTR and CD38 genes

Ruth Feldman¹, Orna Zagoory-Sharon, Omri Weisman, Inna Schneiderman, Ilanit Gordon, Rina Maoz, Idan Shalev, Richard P Ebstein



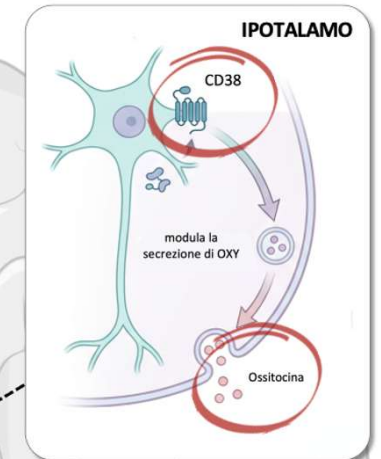
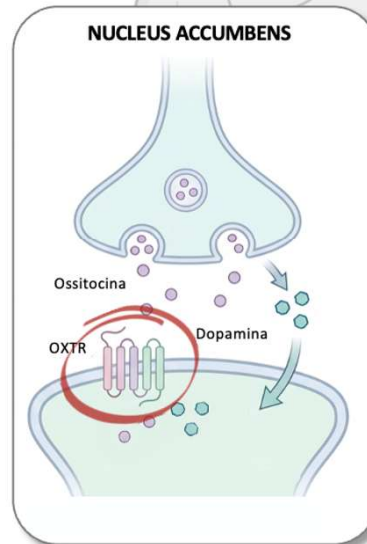
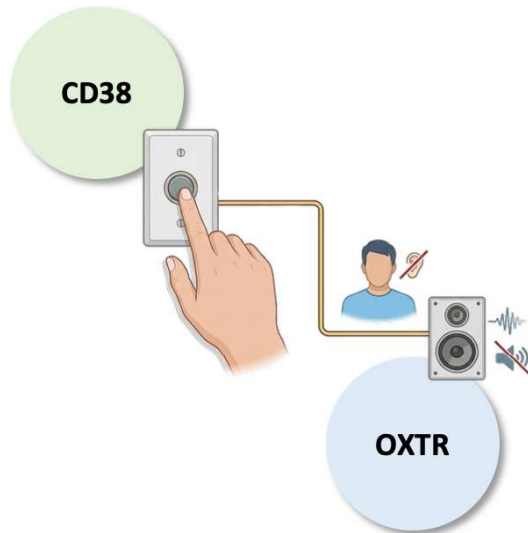


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VTA (*firing dopaminergico*)

SENSIBILITA' GENITORIALE



Madelyn Nance

Review > *Pediatr Res.* 2024 Nov 15. doi: 10.1038/s41390-024-03563-z. Online ahead of print.

The impact of the early environment on oxytocin receptor epigenetics and potential therapeutic implications

Madelyn G Nance # ¹, Kelsey M Sullivan # ², Meghan H Puglia ¹

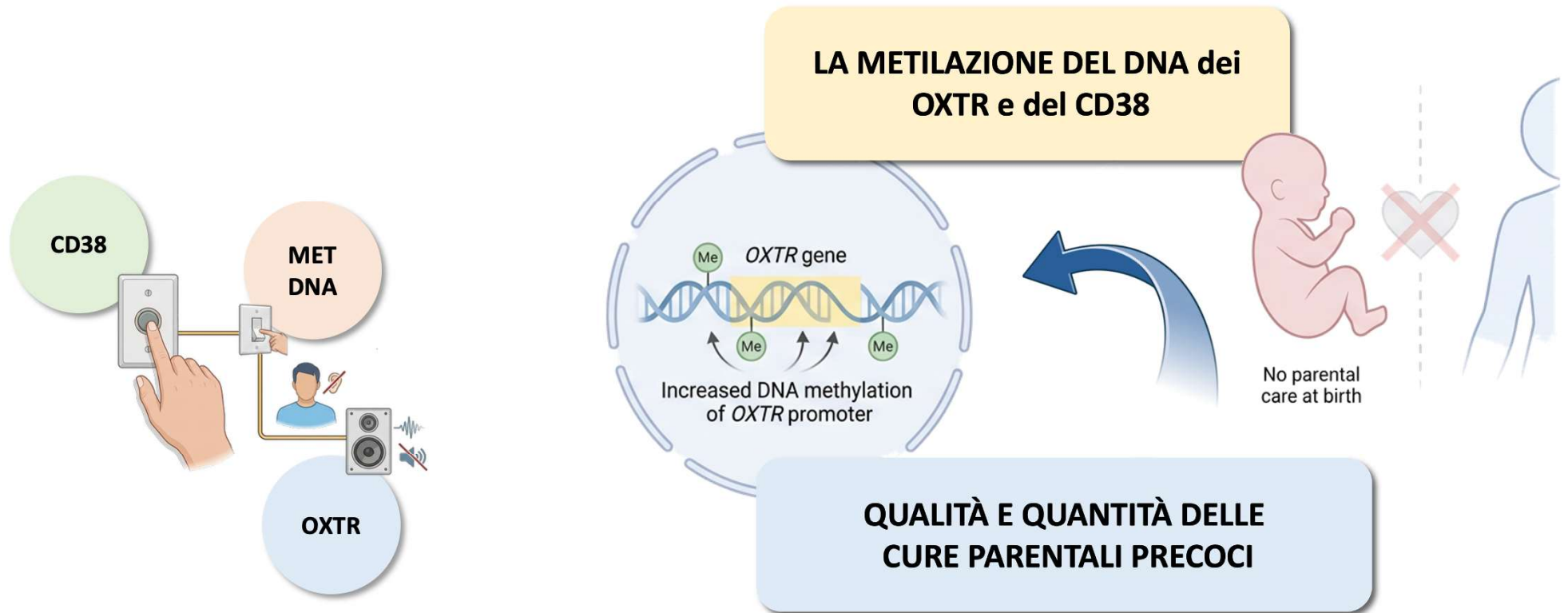
> *Psychoneuroendocrinology.* 2024 Jan;159:106419. doi: 10.1016/j.psyneuen.2023.106419. Epub 2023 Oct 13.

Genetic variability in the oxytocin system is linked to individual differences in cuddliness among human infants

Tobias Grossmann ¹, Merle Fairhurst ²



Tobias Grossmann



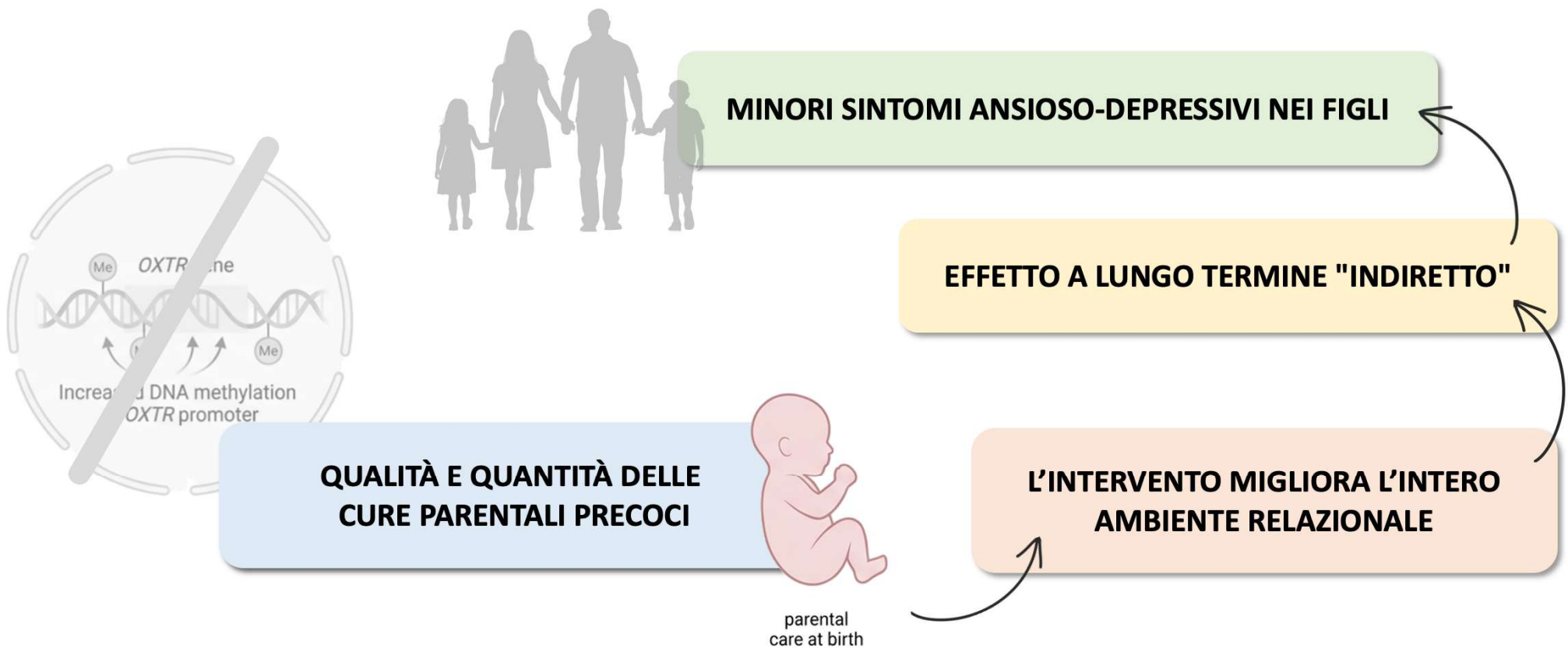


Ruth Feldman

> *Biology (Basel)*. 2023 Jun 13;12(6):847. doi: 10.3390/biology12060847.

Developmental Cascades Link Maternal-Newborn Skin-to-Skin Contact with Young Adults' Psychological Symptoms, Oxytocin, and Immunity; Charting Mechanisms of Developmental Continuity from Birth to Adulthood

Adi Ulmer-Yaniv ¹, Karen Yirmiya ¹, Itai Peleg ¹, Orna Zagoory-Sharon ¹, Ruth Feldman ¹



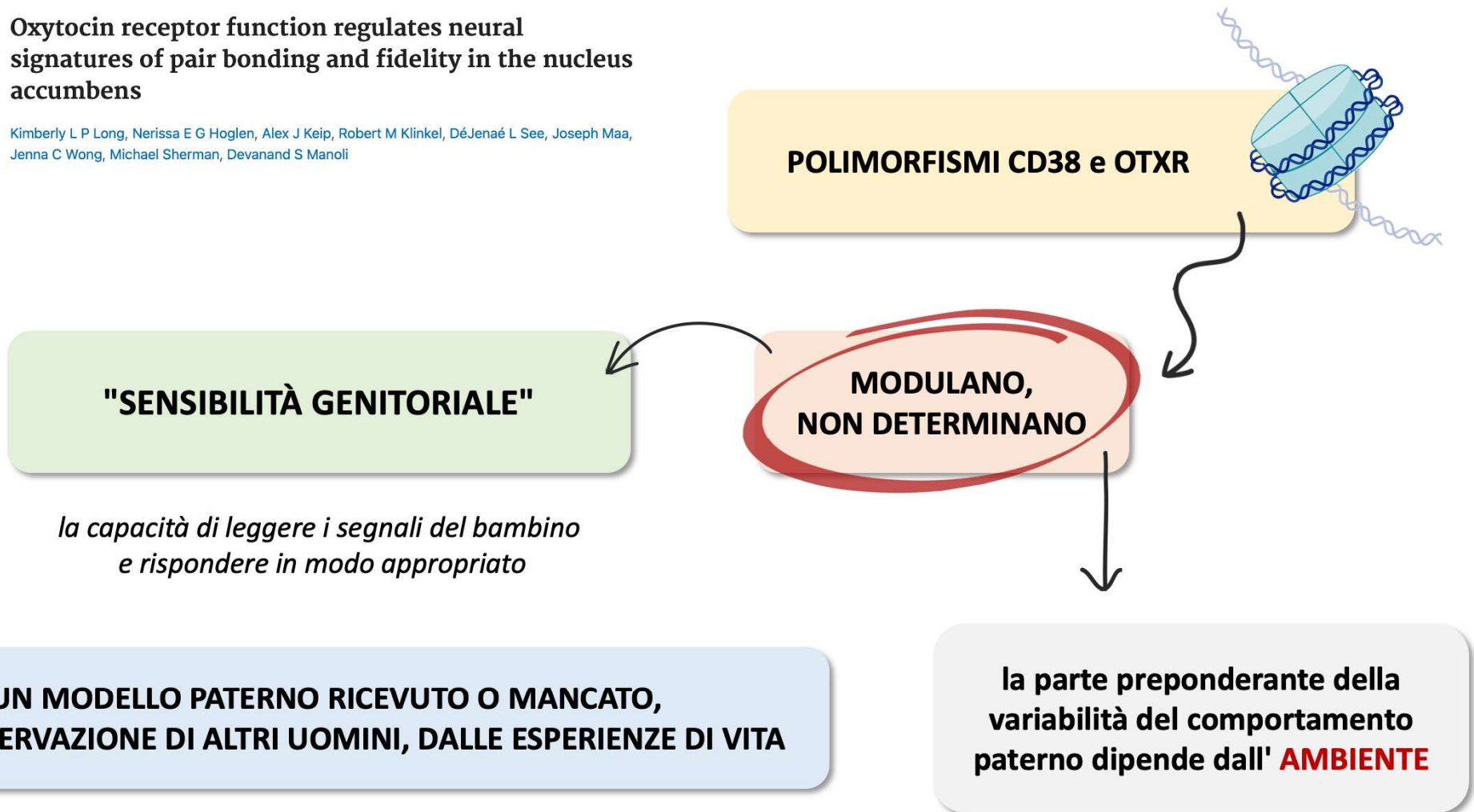


Devanand Manoli

> bioRxiv [Preprint]. 2024 Jun 24:2024.06.23.599940. doi: 10.1101/2024.06.23.599940.

Oxytocin receptor function regulates neural signatures of pair bonding and fidelity in the nucleus accumbens

Kimberly L P Long, Nerissa E G Hoglen, Alex J Keip, Robert M Klinkel, DéJenae L See, Joseph Maa, Jenna C Wong, Michael Sherman, Devanand S Manoli





Marian Bakermans

> J Neuroendocrinol. 2023 Jul;35(7):e13230. doi: 10.1111/jne.13230. Epub 2023 Jan 17.

Parental protection in fathers with negative caregiving experiences: Heightened amygdala reactivity to infant threatening situations

Madelon M E Riem^{1 2}, Annemieke M Witte², Anna M Lotz^{2 3 4}, Maaïke Cima¹,
Marinus H van IJzendoorn^{5 6}, Marian J Bakermans-Kranenburg²

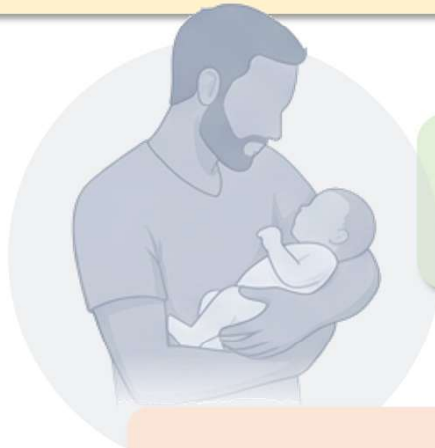
Father's Childhood Experience



Infant Threat

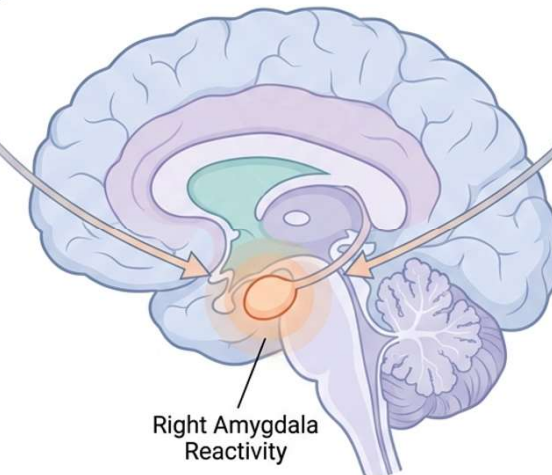


IL PADRE CHE È STATO ACCUDITO MALE DA BAMBINO



**PORTA IN REPARTO UN
CERVELLO PIÙ REATTIVO ALL'ALLARME**

NON UN PADRE PEGGIORE, MA UN PADRE DA SOSTENERE DI PIÙ



Right Amygdala
Reactivity

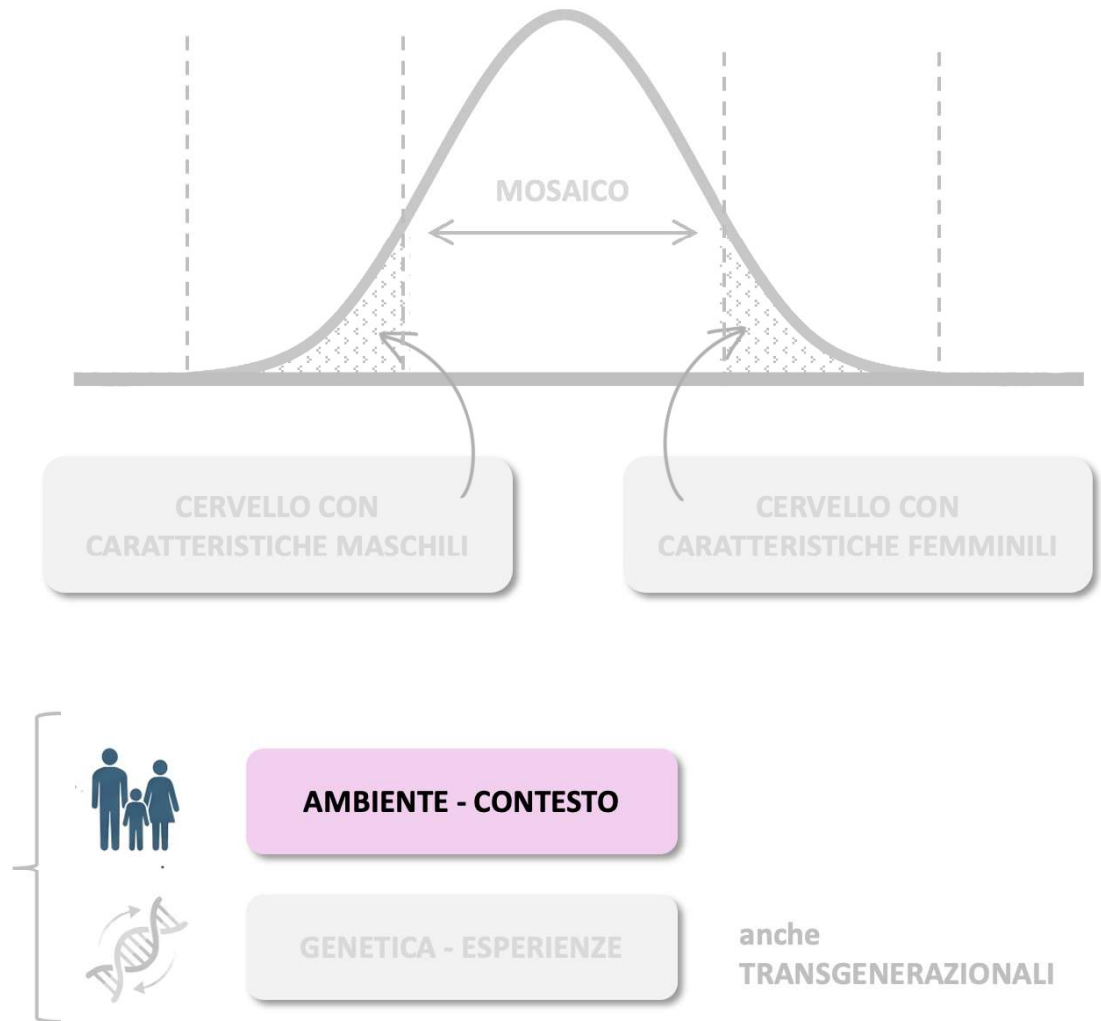
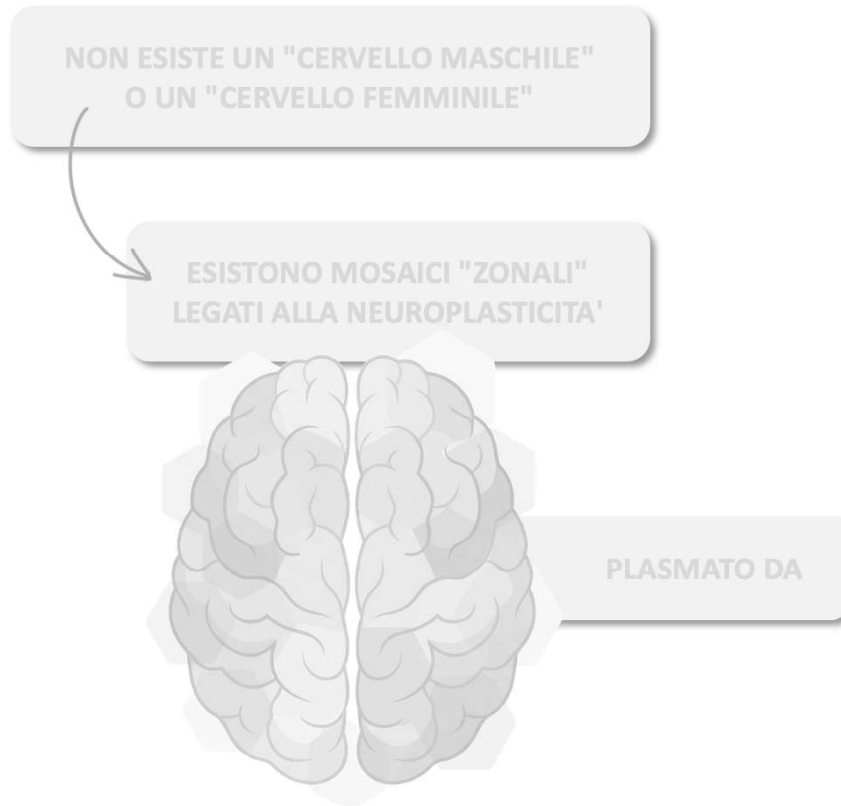


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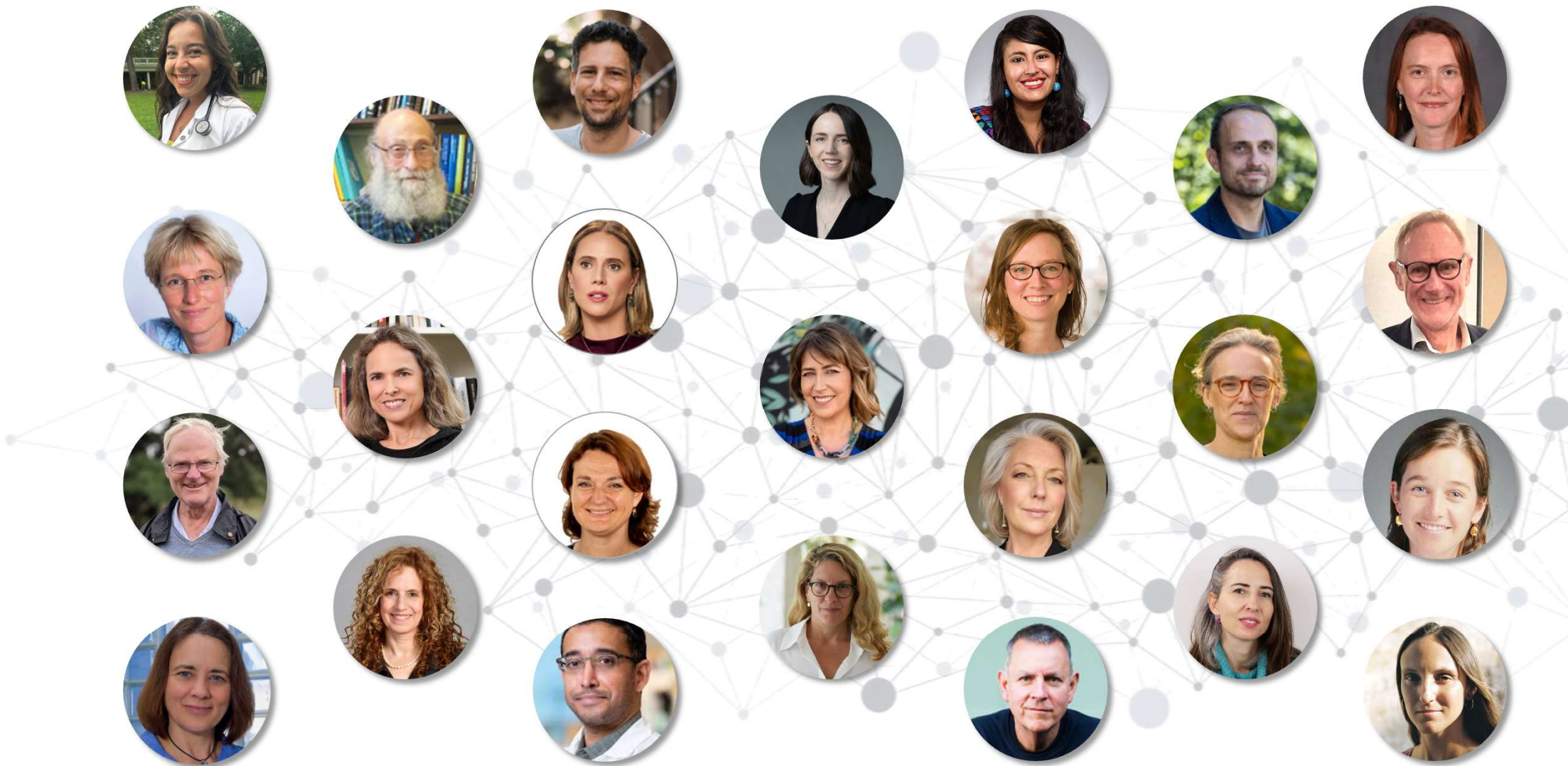


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(fathers[MeSH] OR "paternal behavior"[MeSH] OR father*[tiab] OR paternal[tiab] OR co-paren*[tiab] OR coparent*[tiab] OR partner[tiab] OR companion*[tiab] OR "same-sex parents"[tiab] OR "same-sex couples"[tiab] OR "gay fathers"[tiab] OR "gay parents"[tiab] OR "two-father"[tiab] OR homoparent*[tiab] OR "same-gender parents"[tiab] OR "primary caregiving father*" [tiab]) AND (testosterone[tiab] OR oxytocin[tiab] OR prolactin[tiab] OR cortisol[tiab] OR vasopressin[tiab] OR neuroendocrine[tiab] OR "hormonal changes"[tiab] OR neuroplasticity[tiab] OR "brain plasticity"[tiab] OR "gray matter"[tiab] OR "grey matter"[tiab] OR "white matter"[tiab] OR "parental brain"[tiab] OR neuroimaging[tiab] OR fMRI[tiab] OR amygdala[tiab] OR "limbic system"[tiab] OR "nucleus accumbens"[tiab] OR striatum[tiab] OR "ventral striatum"[tiab] OR "reward system"[tiab] OR "reward circuit*" [tiab] OR dopamin*[tiab] OR OXTR[tiab] OR CD38[tiab] OR "oxytocin receptor"[tiab] OR "oxytocin receptor gene"[tiab] OR polymorphism*[tiab] OR epigenetic*[tiab] OR heritability[tiab] OR "biobehavioral synchrony"[tiab] OR "biobehavioural synchrony"[tiab] OR synchrony[tiab] OR "physiological linkage"[tiab] OR "cortisol linkage"[tiab] OR coregulation[tiab] OR "labor support"[tiab] OR "labour support"[tiab] OR "continuous support"[tiab] OR "postpartum support"[tiab] OR "father support"[tiab] OR "partner support"[tiab] OR breastfeeding[tiab] OR "maternal separation"[tiab] OR "mother-infant separation"[tiab] OR "mother-infant dyad"[tiab] OR "skin-to-skin"[tiab] OR "kangaroo care"[tiab] OR "family-centered care"[tiab] OR NICU[tiab] OR bonding[tiab] OR attachment[tiab] OR tokophobia[tiab] OR tocophobia[tiab] OR "fear of childbirth"[tiab] OR "fear of birth"[tiab] OR "childbirth fear"[tiab] OR "prenatal anxiety"[tiab] OR "antenatal anxiety"[tiab] OR "pregnancy-related anxiety"[tiab] OR "perinatal anxiety"[tiab] OR "maternal anxiety"[tiab] OR "paternal anxiety"[tiab]) AND ("transition to parenthood"[tiab] OR "first-time"[tiab] OR expectant[tiab] OR pregnan*[tiab] OR prenatal[tiab] OR antenatal[tiab] OR perinatal[tiab] OR postpartum[tiab] OR postnatal[tiab] OR infant*[tiab] OR newborn*[tiab] AND (tokophobia[tiab] OR tocophobia[tiab] OR "fear of childbirth"[tiab] OR "prenatal anxiety"[tiab] OR "antenatal anxiety"[tiab] OR "pregnancy-related anxiety"[tiab])



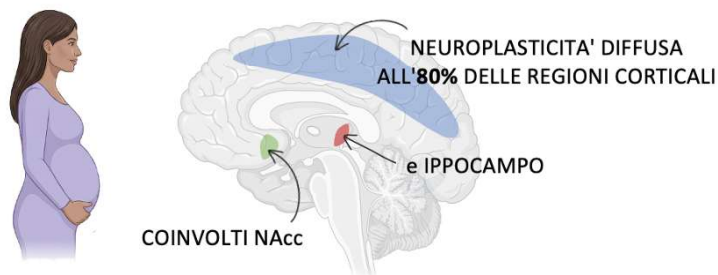
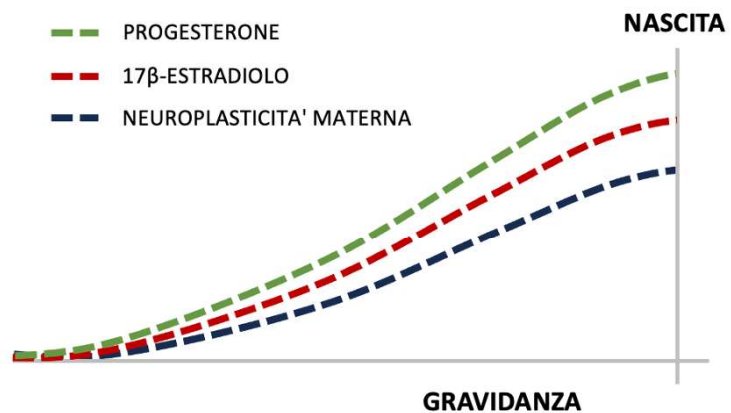


Elseline Hoekzema

> *Nat Neurosci.* 2017 Feb;20(2):287-296. doi: 10.1038/nn.4458. Epub 2016 Dec 19.

Pregnancy leads to long-lasting changes in human brain structure

Elseline Hoekzema^{1 2 3}, Erika Barba-Müller¹, Cristina Pozzobon⁴, Marisol Picado¹, Florencio Lucco⁴, David García-García⁵, Juan Carlos Soliva¹, Adolf Tobefia¹, Manuel Desco⁵, Eveline A Crone^{2 3}, Agustín Ballesteros⁴, Susanna Carmona^{1 5 6}, Oscar Vilarroya^{1 7}

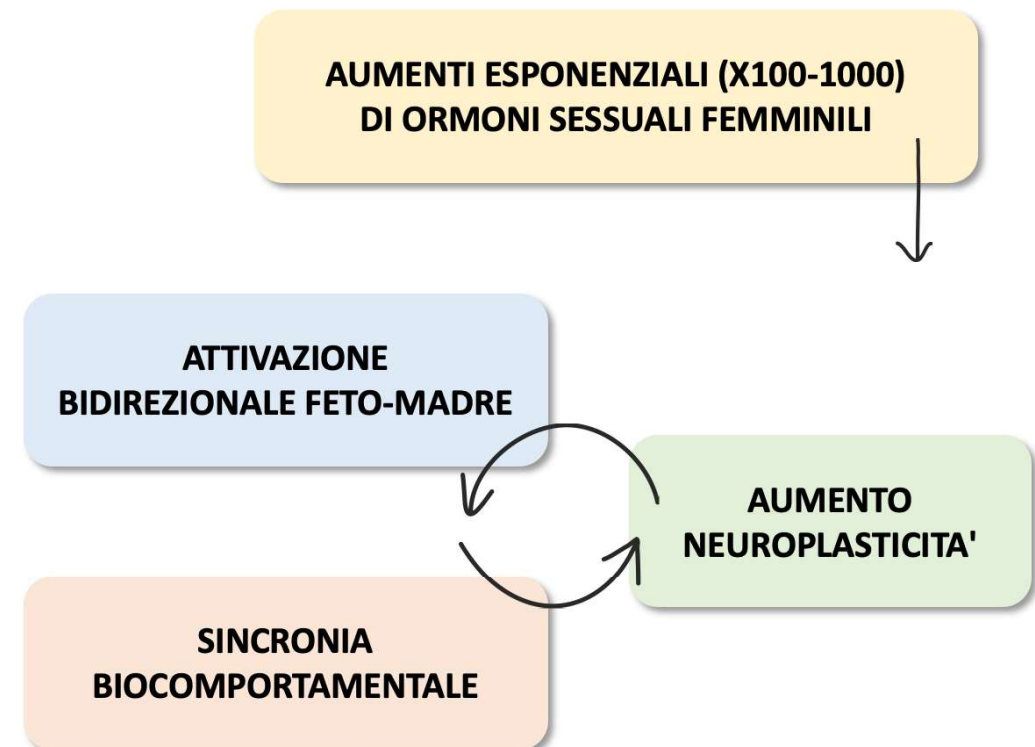


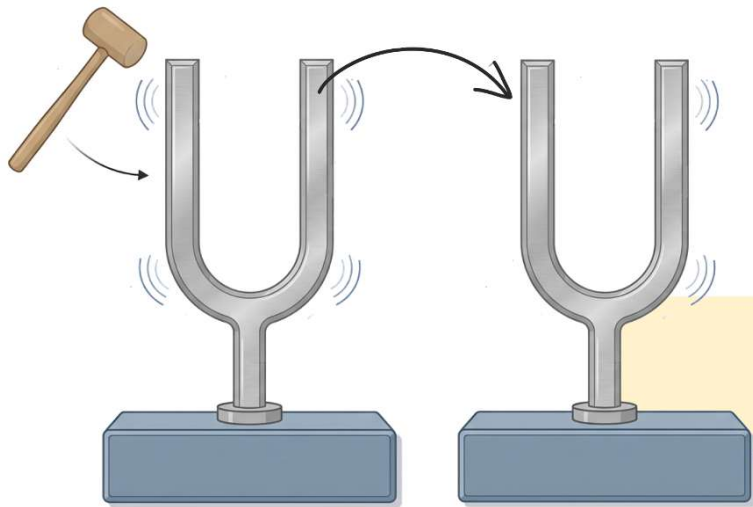
Darby Saxbe

> *Cereb Cortex.* 2023 Mar 21;33(7):4156-4163. doi: 10.1093/cercor/bhac333.

First-time fathers show longitudinal gray matter cortical volume reductions: evidence from two international samples

Magdalena Martínez-García^{1 2}, María Paternina-Die^{1 2}, Sofía I Cardenas³, Oscar Vilarroya^{4 5}, Manuel Desco^{1 2 6 7}, Susanna Carmona^{1 2}, Darby E Saxbe³





Review > J Child Psychol Psychiatry. 2007 Mar-Apr;48(3-4):329-54.
doi: 10.1111/j.1469-7610.2006.01701.x.

Parent-infant synchrony and the construction of shared timing; physiological precursors, developmental outcomes, and risk conditions

Ruth Feldman¹



Ruth Feldman

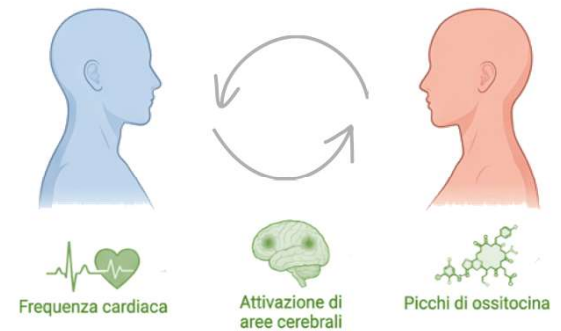
**COLPITE UN DIAPASON E
AVVICINATENE UN SECONDO, FERMO...**

... COMINCERÀ A VIBRARE DELLA STESSA NOTA, SENZA ESSERE TOCCATO

SINCRONIA BIOCOMPORTAMENTALE

comportamento,
fisiologia e neurochimica

LA RISONANZA TRA GENITORI ANTICIPA IL LEGAME FAMILIARE



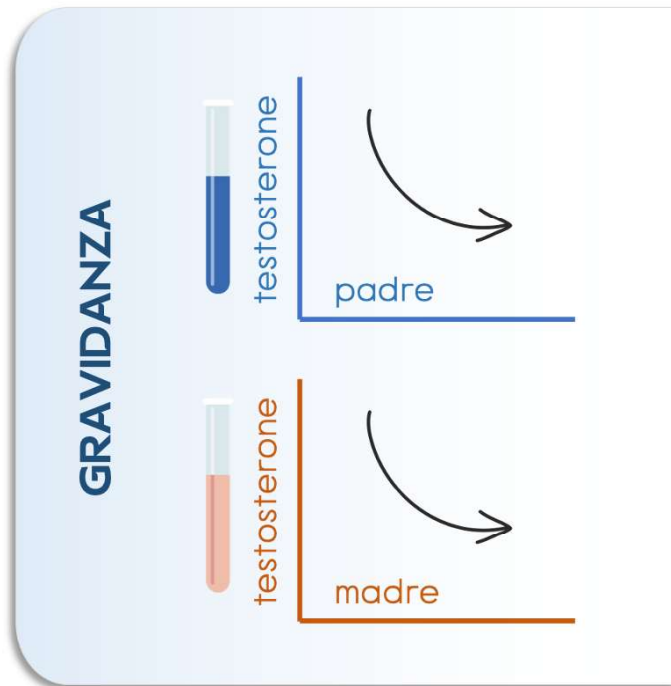


Darby Saxbe

> *Horm Behav.* 2017 Apr;90:39–47. doi: 10.1016/j.yhbeh.2016.07.005. Epub 2016 Jul 25.

Fathers' decline in testosterone and synchrony with partner testosterone during pregnancy predicts greater postpartum relationship investment

Darby E Saxbe¹, Robin S Edelstein², Hannah M Lyden³, Britney M Wardecker⁴, William J Chopik⁵, Amy C Moors⁶

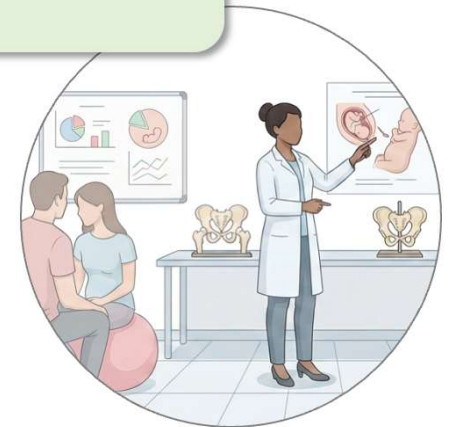


**COINVOLGERE IL PARTNER IN
GRAVIDANZA CREA LE CONDIZIONI**

**FAVORISCE LA SINCRONIA
ORMONALE TRA I GENITORI**



**VICINANZA, INTERAZIONE CONDIVISA,
ESPERIENZA COMUNE**



**SUBSTRATO DELLA SINCRONIA
BIOCOMPORTAMENTALE**



Emily Jacobs

> Nat Neurosci. 2024 Nov;27(11):2253-2260. doi: 10.1038/s41593-024-01741-0. Epub 2024 Sep 16.

Neuroanatomical changes observed over the course of a human pregnancy

Laura Pritschet¹, Caitlin M Taylor², Daniela Cossio³, Joshua Faskowitz⁴, Tyler Santander², Daniel A Handwerker⁴, Hannah Grotzinger², Evan Layher², Elizabeth R Chrastil^{# 5}, Emily G Jacobs^{# 6 7}

> Nature. 2024 Dec;636(8043):583-584. doi: 10.1038/d41586-024-03942-w.

Pregnancy restructures the brain to prepare for childbirth and parenthood

Clare McCormack, Moriah Thomason



Clare McCormack

DIFFERENZE DI VOLUME DI SOSTANZA GRIGIA, SPESSORE CORTICALE E INTEGRITÀ DELLA SOSTANZA BIANCA

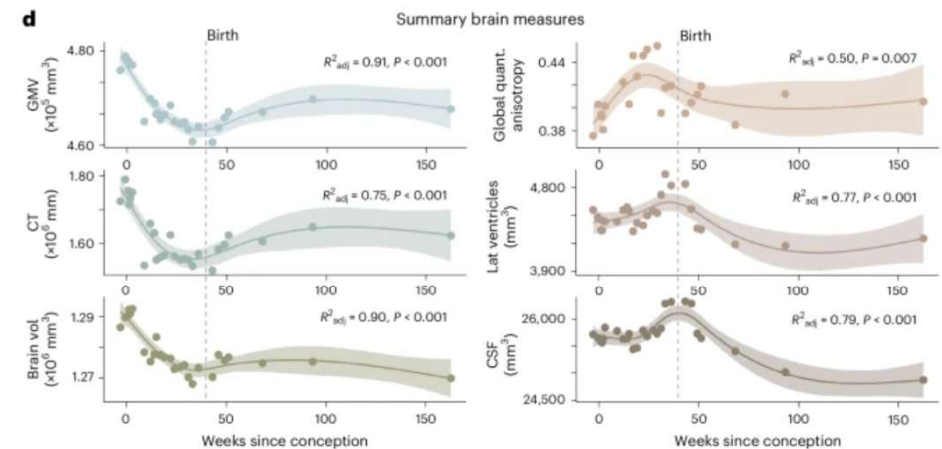
"pattern specifici - praticamente diagnostici"

DAL CONCEPIMENTO AI 2 ANNI POSTPARTUM

LA GRAVIDANZA NON LASCIA IL CERVELLO MATERNO INDENNE



LO RISTRUTTURAZIONE PER LA GENITORIALITÀ



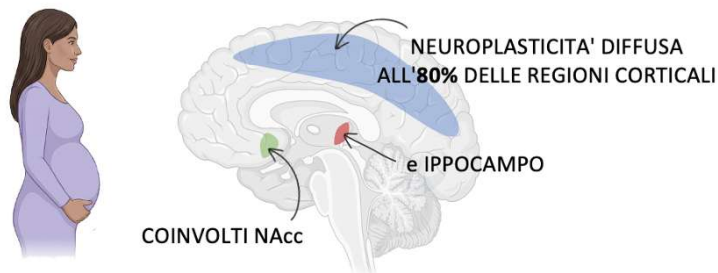
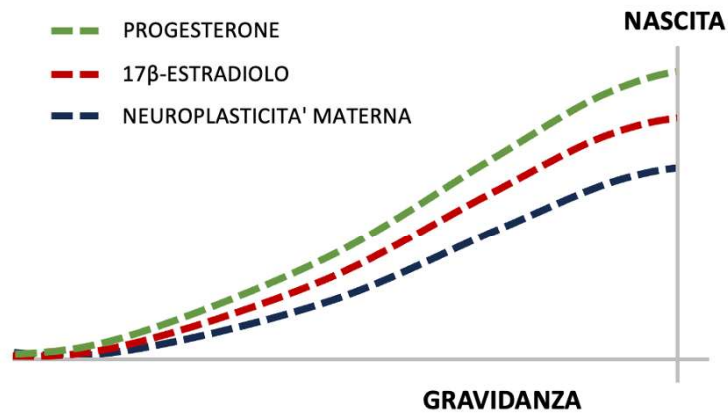


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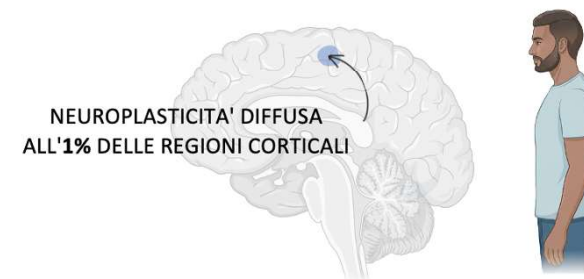
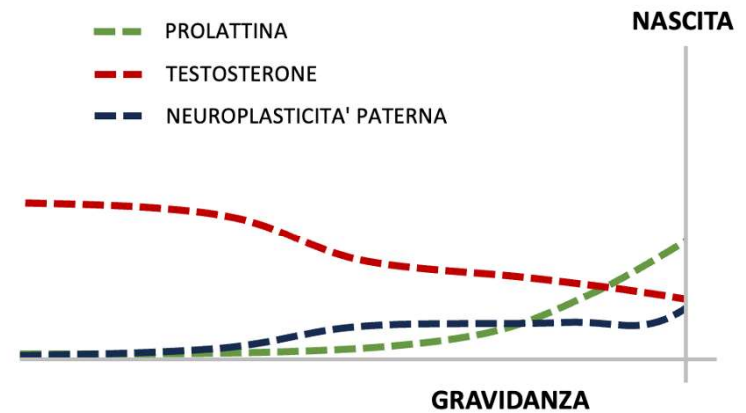
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> *Cereb Cortex.* 2023 Mar 21;33(7):4156-4163. doi: 10.1093/cercor/bhac333.

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Magdalena Martínez-García^{1 2}, María Paternina-Die^{1 2}, Sofia I Cardenas³, Oscar Vilarroya^{4 5}, Manuel Desco^{1 2 6 7}, Susanna Carmona^{1 2}, Darby E Saxbe³



Darby Saxbe



Darby Saxbe

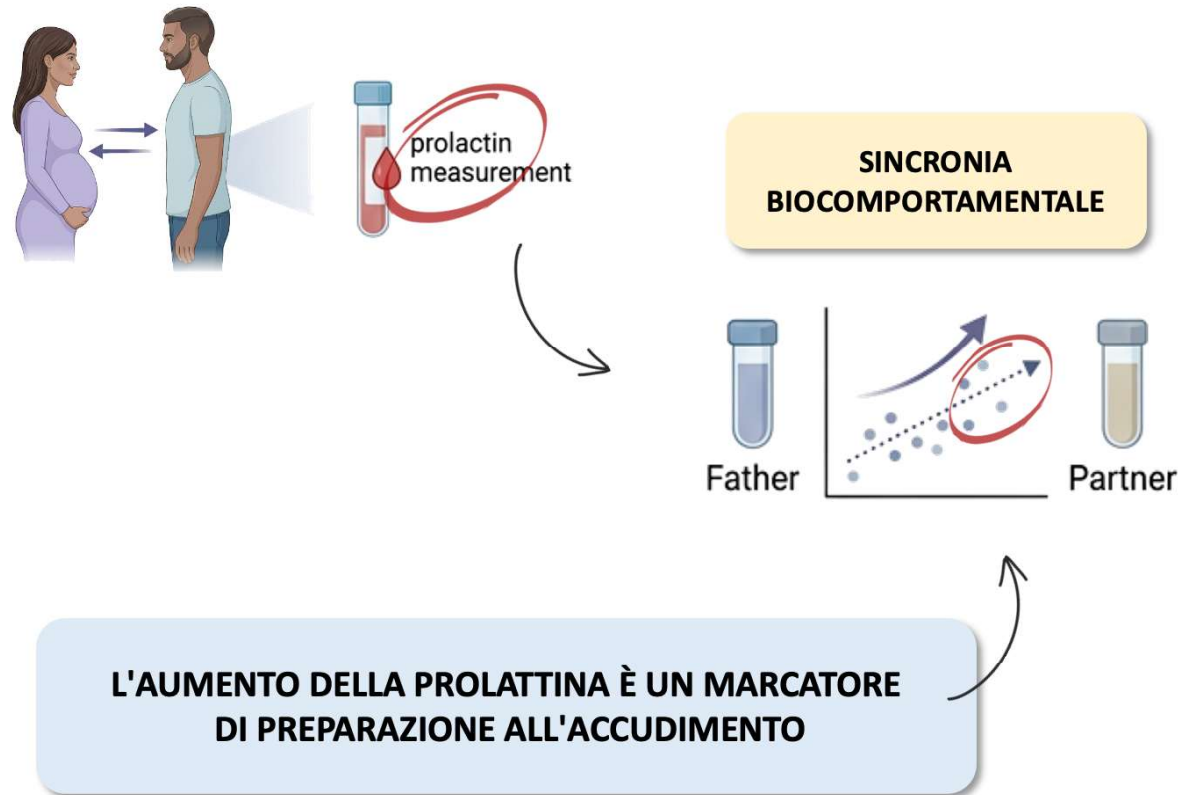
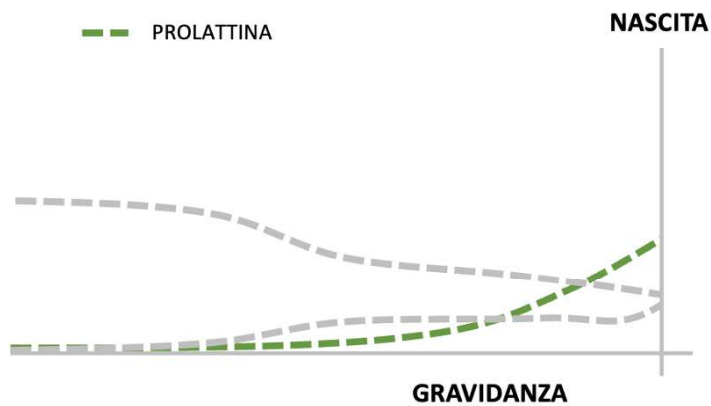


Magdalena Martínez-García

> *Psychoneuroendocrinology*. 2023 Oct;156:106332. doi: 10.1016/j.psyneuen.2023.106332.

Prenatal prolactin predicts postnatal parenting attitudes and brain structure remodeling in first-time fathers

Elizabeth C Aviv¹, Sofia I Cardenás², Gabriel León², Yael H Waizman², Cassin Gonzales², Genesis Flores², Magdalena Martínez-García³, Darby E Saxbe²





Darby Saxbe

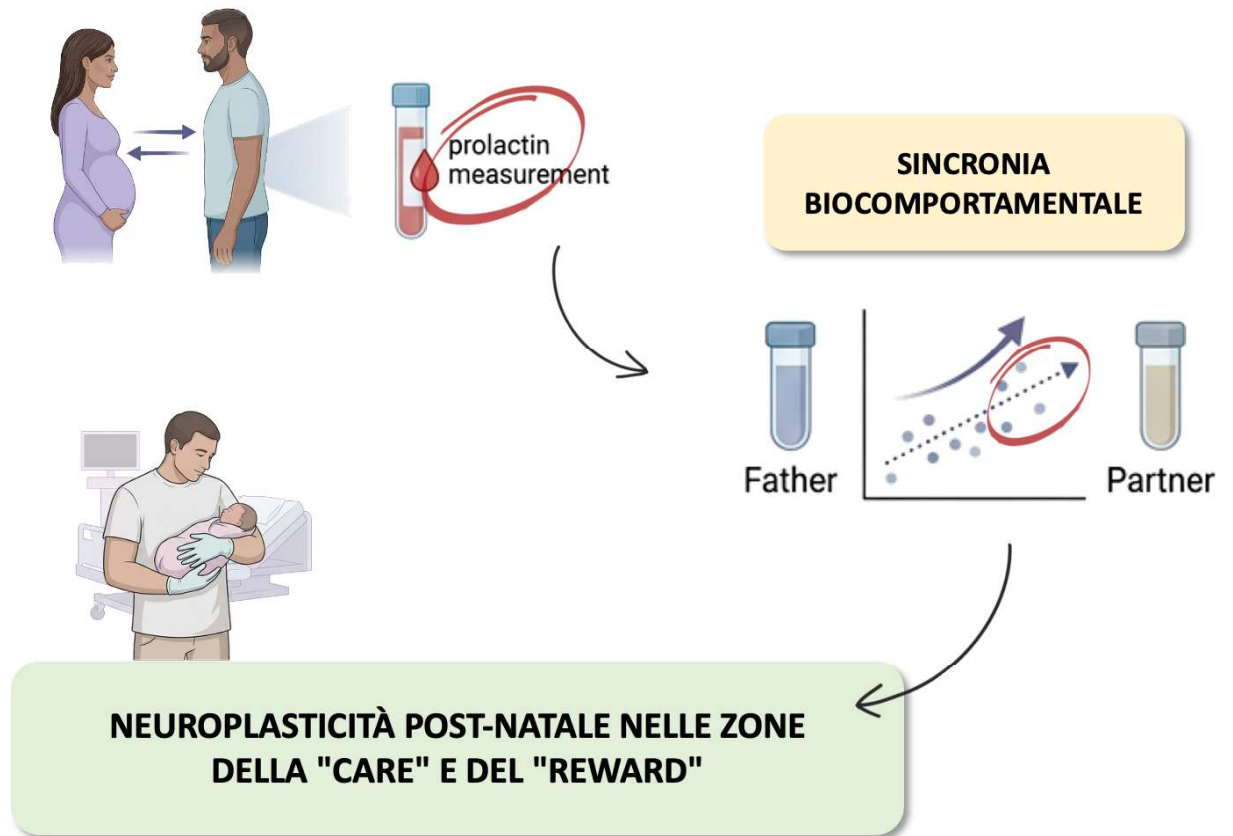
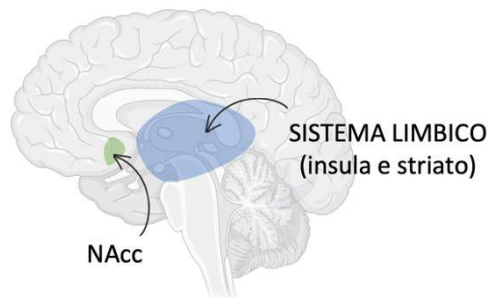
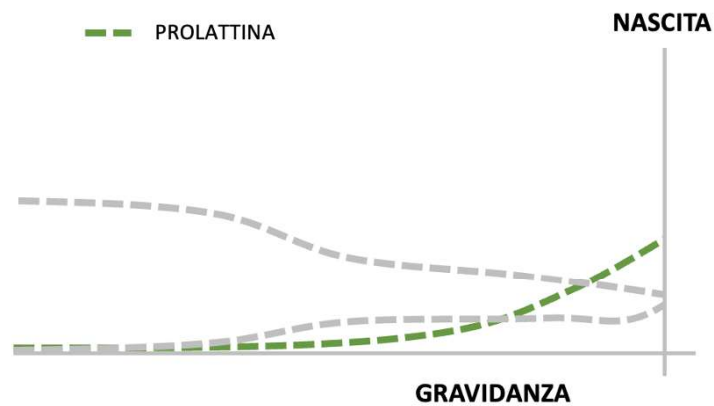


Magdalena Martínez-García

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Darby Saxbe

> [Horm Behav.](#) 2023 Nov;156:105440. doi: 10.1016/j.yhbeh.2023.105440. Epub 2023 Oct 19.

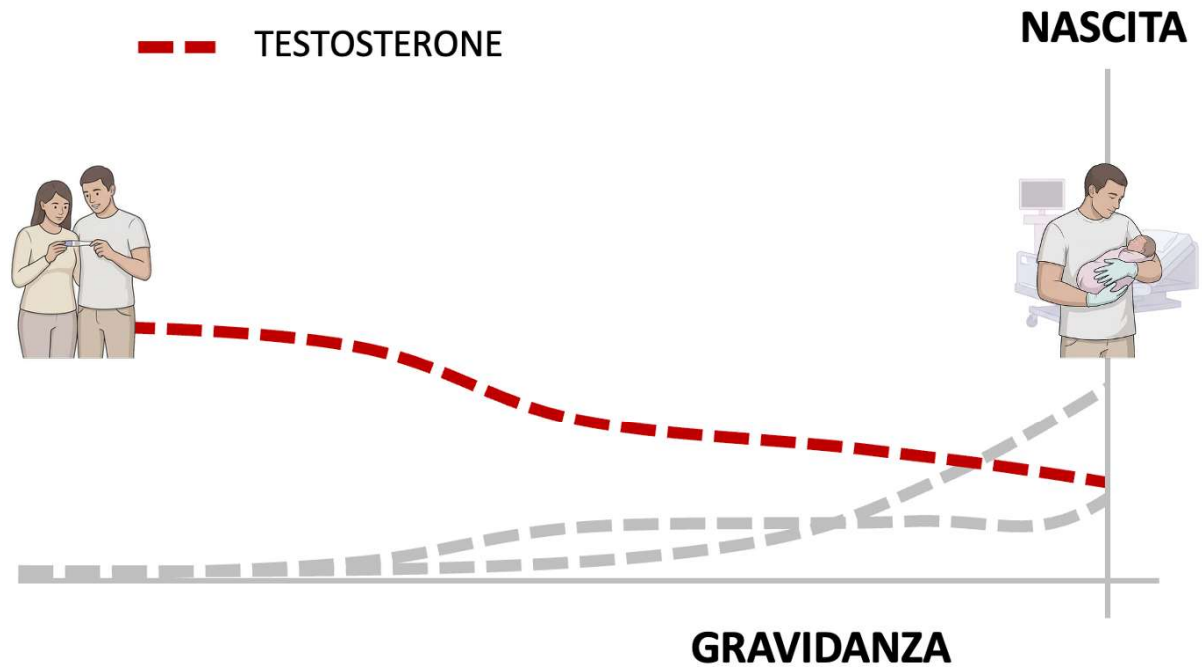
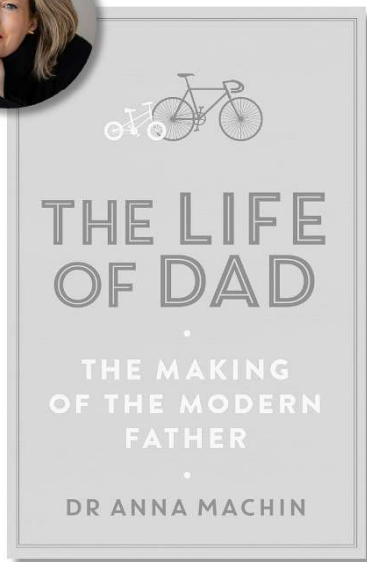
Prenatal testosterone synchrony in first-time parents predicts fathers' postpartum relationship quality

Sofia I Cárdenas ¹, Winnie Tse ², Gabriel León ², Alice Kim ², Kayla Tureson ², Mark Lai ², Darby E Saxbe ²

> [Horm Behav.](#) 2017 Apr;90:39-47. doi: 10.1016/j.yhbeh.2016.07.005. Epub 2016 Jul 25.

Fathers' decline in testosterone and synchrony with partner testosterone during pregnancy predicts greater postpartum relationship investment

Darby E Saxbe ¹, Robin S Edelman ², Hannah M Lyden ³, Britney M Wardecker ⁴, William J Chopik ⁵, Amy C Moors ⁶



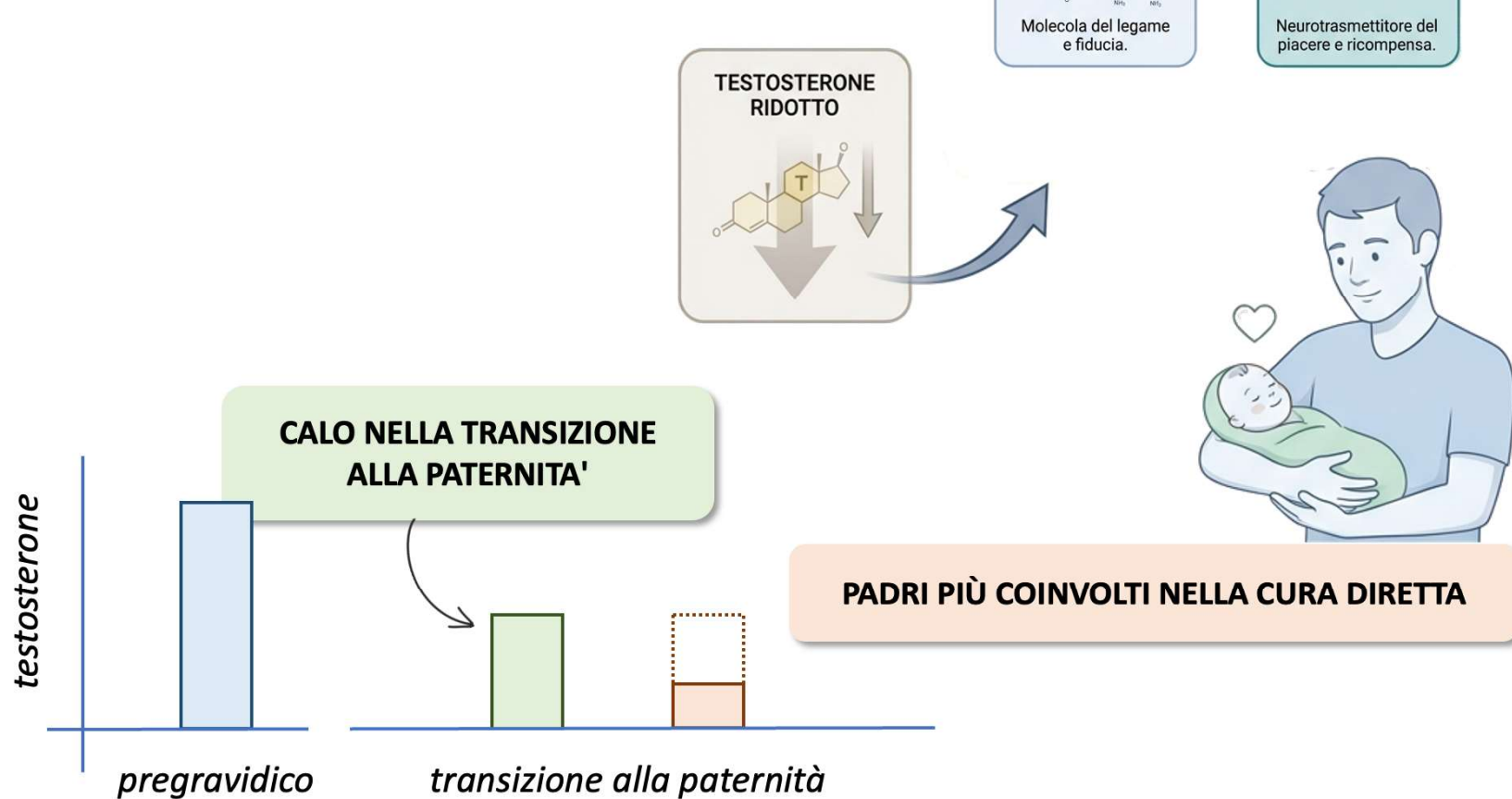


Lee T. Gettler

> [Proc Natl Acad Sci U S A. 2011 Sep 27;108\(39\):16194-9. doi: 10.1073/pnas.1105403108.](#)
Epub 2011 Sep 12.

Longitudinal evidence that fatherhood decreases testosterone in human males

Lee T Gettler¹, Thomas W McDade, Alan B Feranil, Christopher W Kuzawa





Darby Saxbe



Magdalena Martínez-García

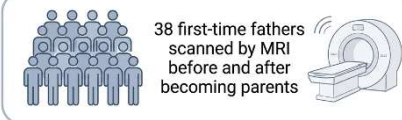


Susanna Carmona

> J Neuroendocrinol. 2023 Jul;35(7):e13270. doi: 10.1111/jne.13270. Epub 2023 May 4.

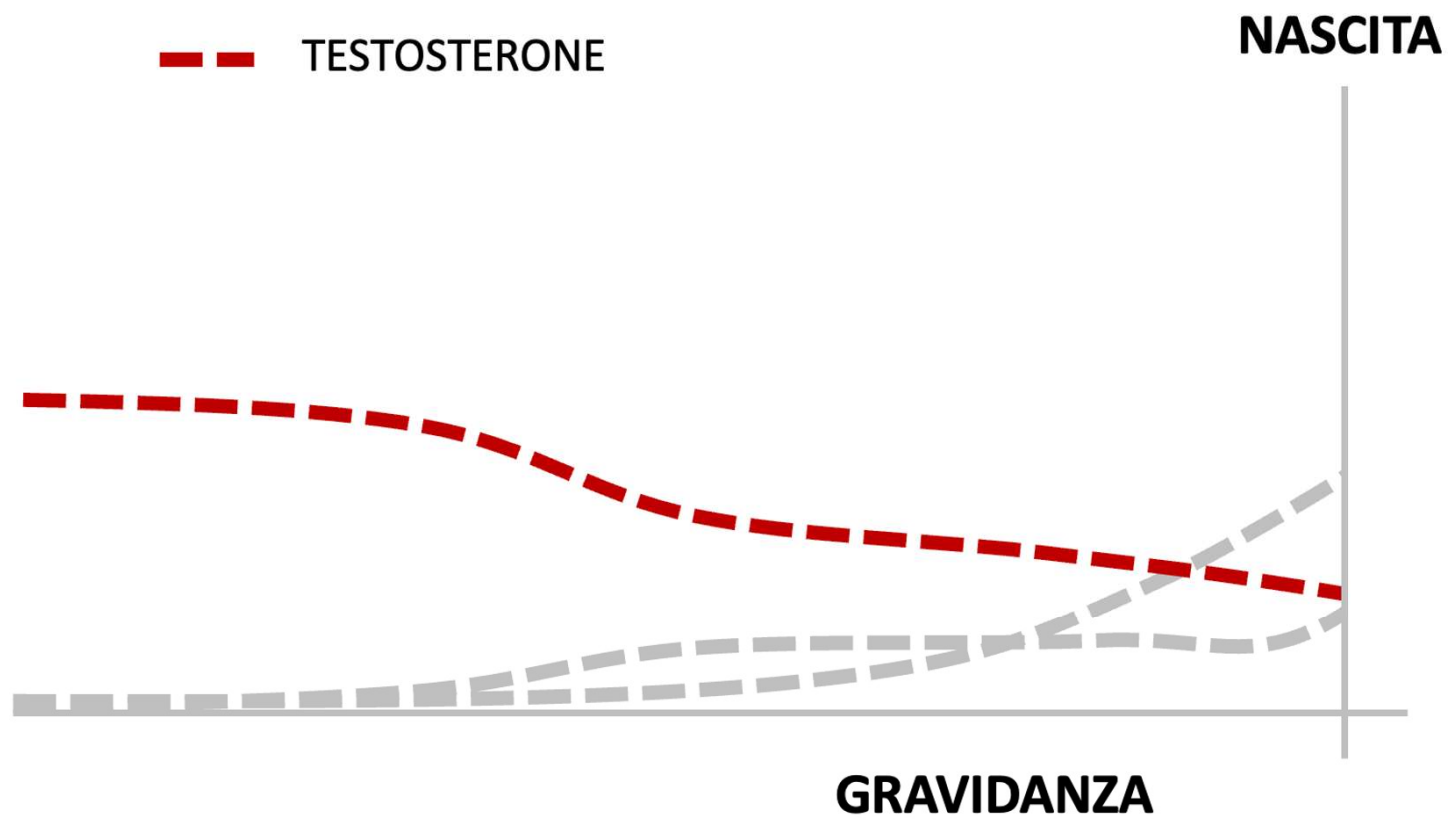
Changes in left hippocampal volume in first-time fathers: Associations with oxytocin, testosterone, and adaptation to parenthood

Darby Saxbe¹, Magdalena Martínez-García², Sofia I Cardenas¹, Yael Waizman¹,
Susanna Carmona²



38 first-time fathers
scanned by MRI
before and after
becoming parents







Associations of Unintended Pregnancy With Maternal and Infant Health Outcomes: A Systematic Review and Meta-analysis

Heidi D Nelson¹, Blair G Darney^{2 3 4}, Katherine Ahrens⁵, Amanda Burgess⁵, Rebecca M Jungbauer⁶, Amy Cantor⁶, Chandler Atchison⁶, Karen B Eden⁶, Rose Goueth⁶, Rongwei Fu⁶

**UNA PATERNITA' "INATTESA"
PUO' AVERE UNA TRAIETTORIA
ORMONALE E NEURALE PRENATALE DIVERSA ?**

... A SCAPITO DEL "PRENDERSI CURA" ?

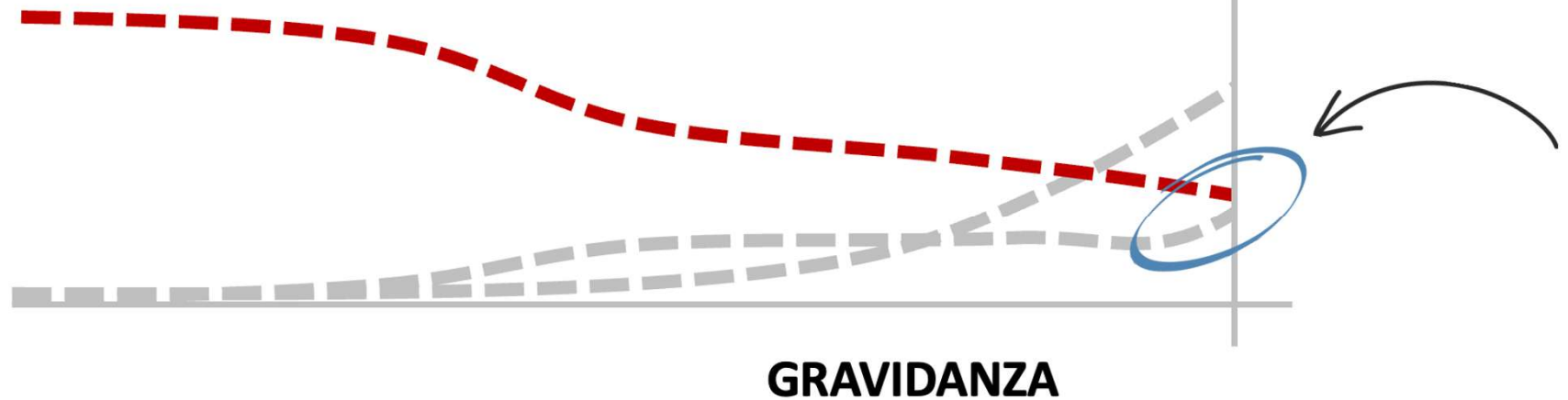
... A SCAPITO DELLA SINCRONIA ?

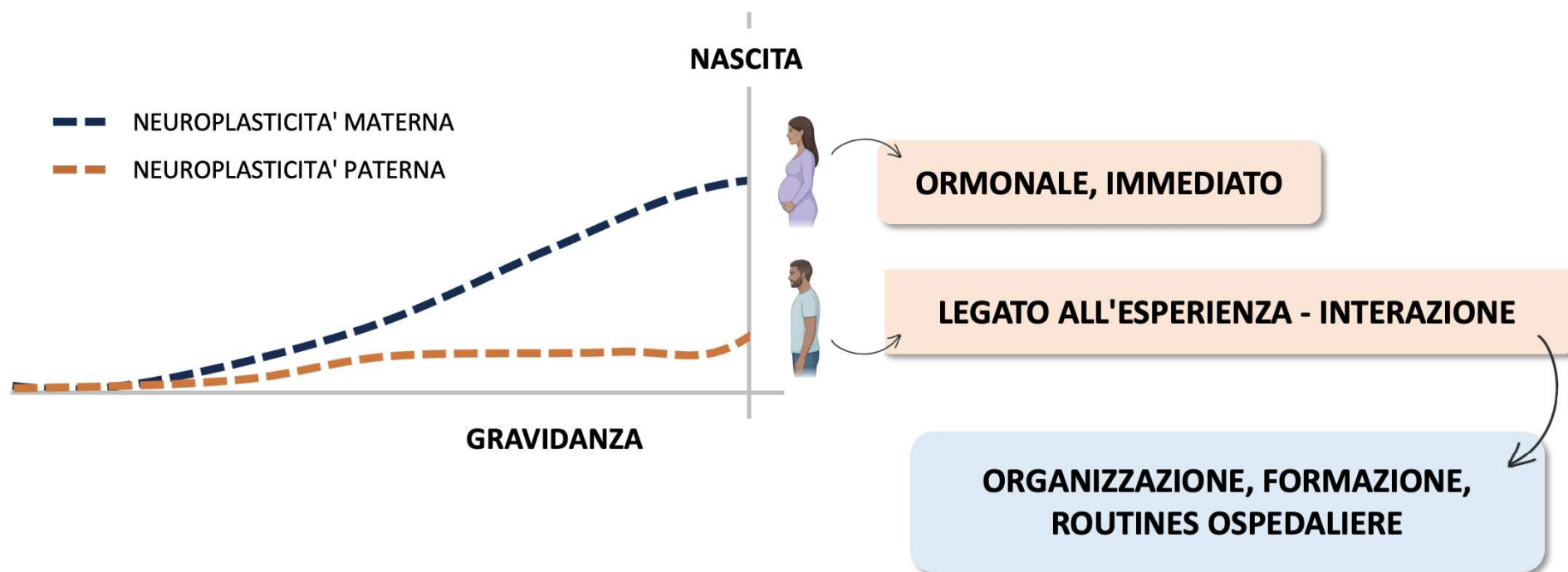


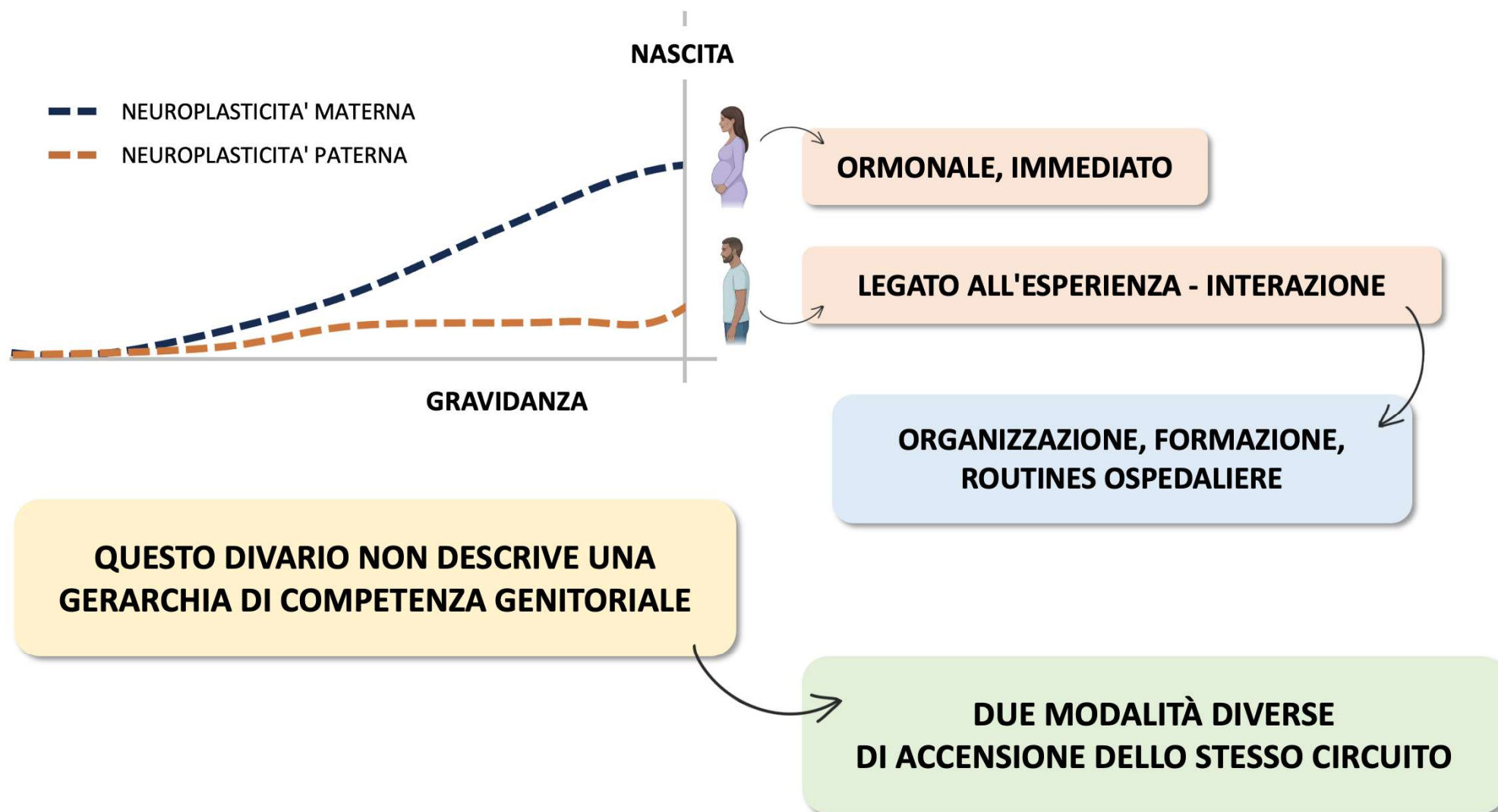
**RIDUZIONE TESTOSTERONE
MA NON DI CORTISOLO E PROGESTERONE**

NASCITA

APPARENTE DISTACCO ? "DON'T PANIC IN LABOR ROOM"









Ruth Feldman

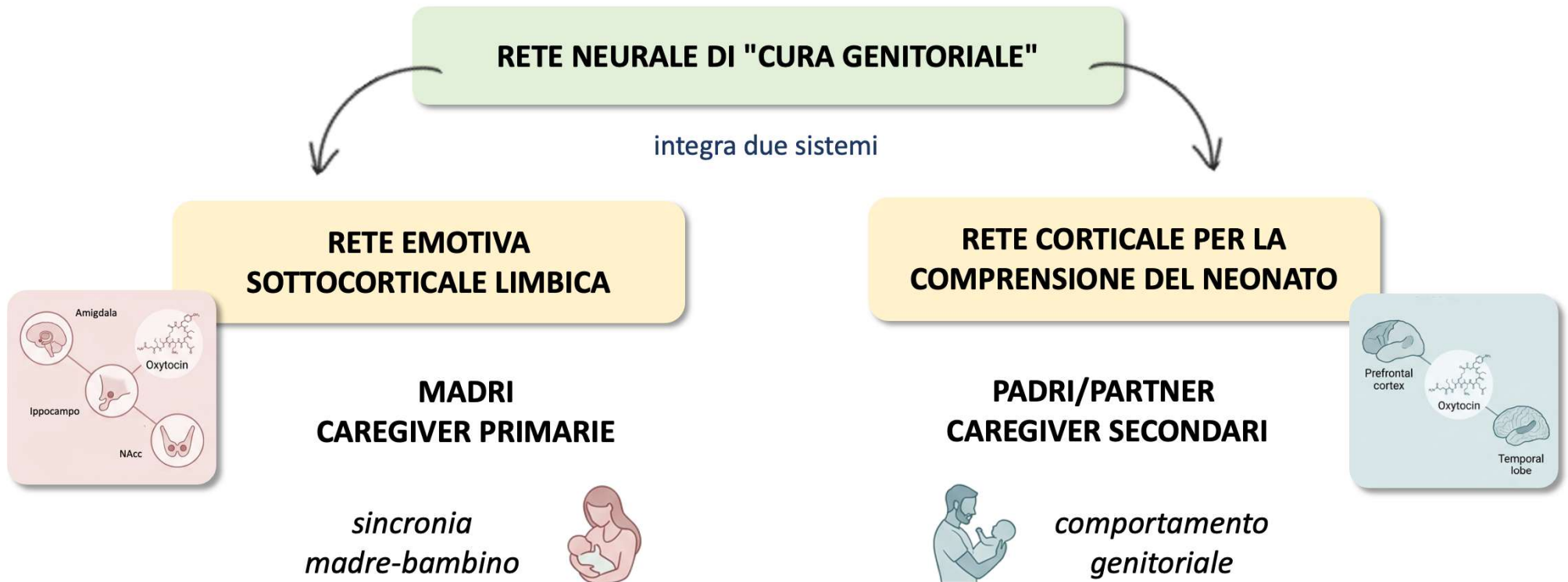


Eyal Abraham

> Proc Natl Acad Sci U S A. 2014 Jul 8;111(27):9792-7. doi: 10.1073/pnas.1402569111.

Father's brain is sensitive to childcare experiences

Eyal Abraham¹, Talma Hendler², Irit Shapira-Lichter³, Yaniv Kanat-Maymon⁴, Orna Zagoory-Sharon¹, Ruth Feldman⁵





Ruth Feldman

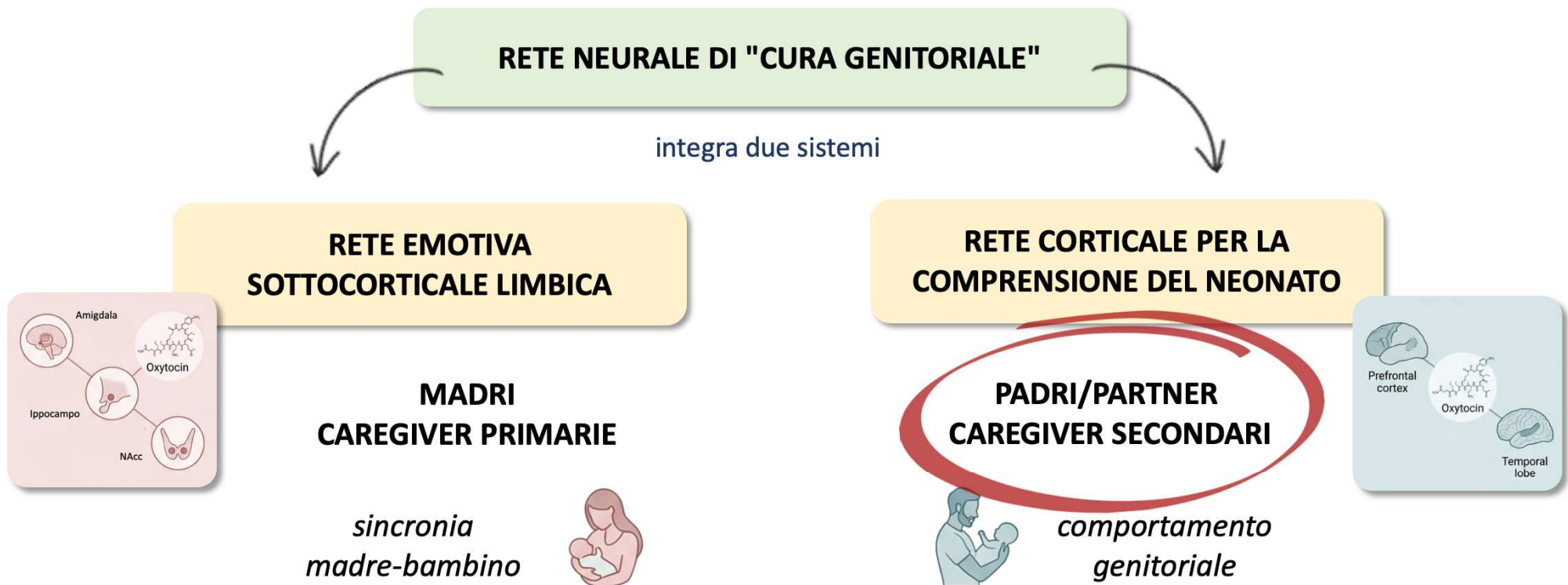


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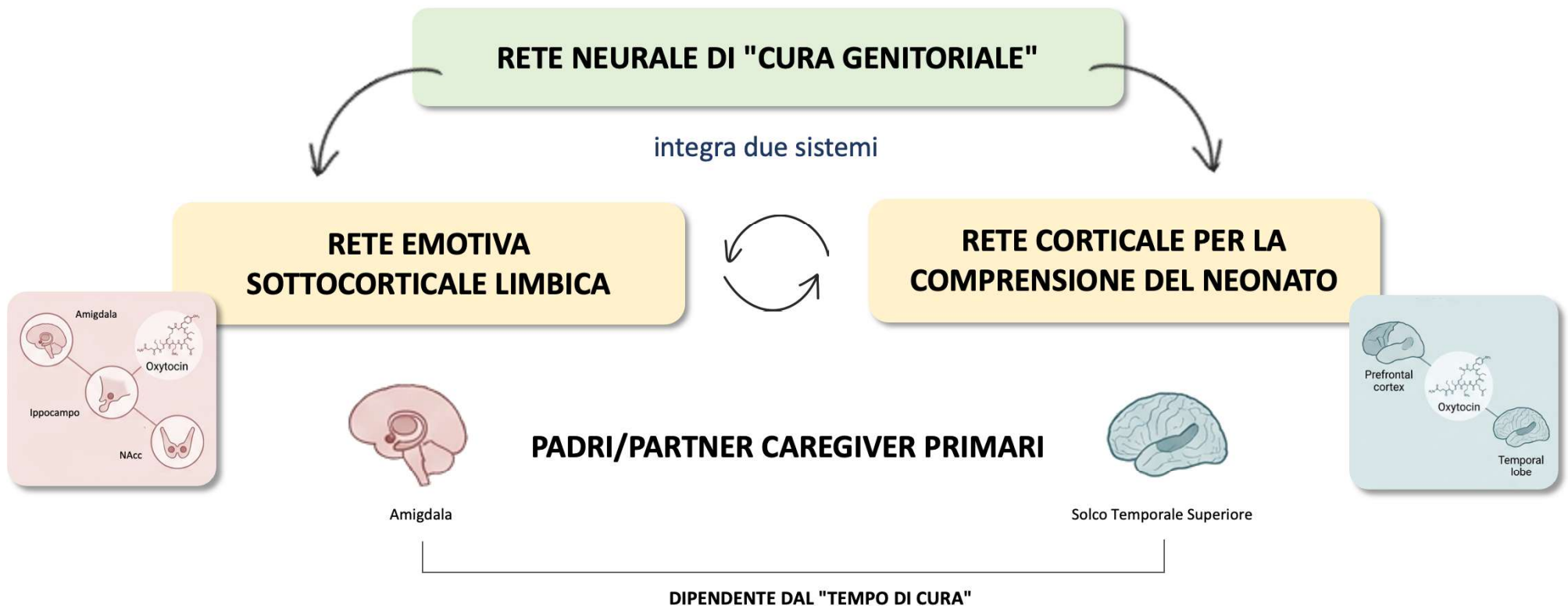


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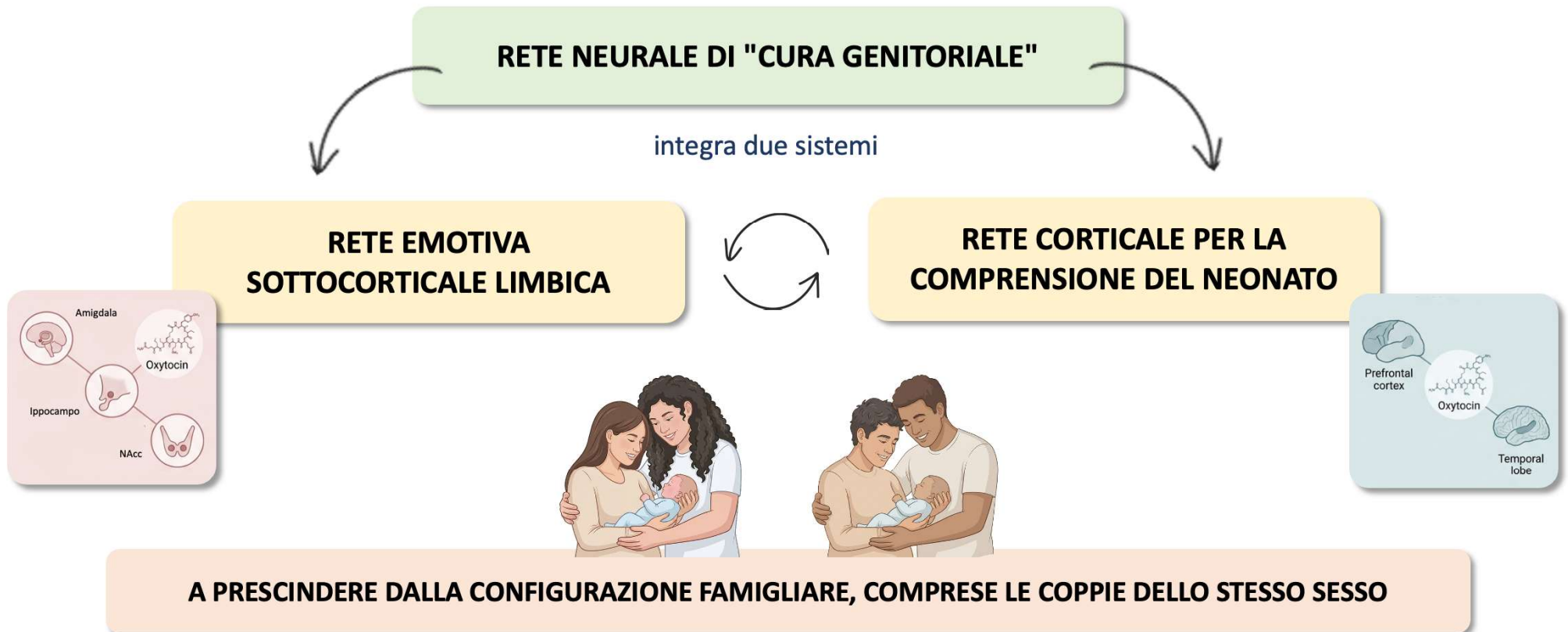


Eyal Abraham

> [Neuropsychopharmacology](#). 2017 Nov;42(12):2301-2313. doi: 10.1038/npp.2017.71.
Epub 2017 Apr 2.

The Human Coparental Bond Implicates Distinct Corticostriatal Pathways: Longitudinal Impact on Family Formation and Child Well-Being

Eyal Abraham¹, Gadi Gilam^{2 3}, Yaniv Kanat-Maymon⁴, Yael Jacob^{2 5}, Orna Zagoory-Sharon¹, Talma Hendler^{2 3 5}, Ruth Feldman^{1 6}





Kerstin Erlandsson

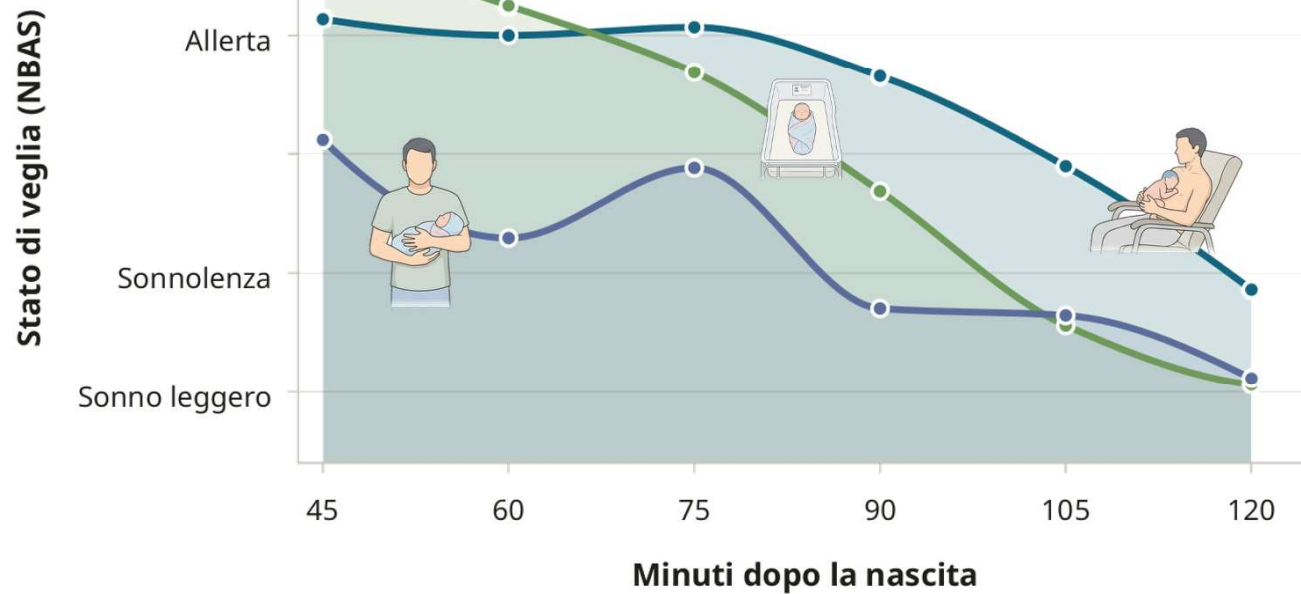
Randomized Controlled Trial > Acta Paediatr. 2021 May;110(5):1461-1467.

doi: 10.1111/apa.15685. Epub 2021 Jan 5.

Newborn infants who received skin-to-skin contact with fathers after Caesarean sections showed stable physiological patterns

Ana Ayala^{1,2}, Kyllike Christensson¹, Eva Christensson³, Gabriel Cavada⁴, Kerstin Erlandsson^{1,5}, Marianne Velandia⁶

**IL PROFILO COMPORTAMENTALE NEL GRUPPO
"SSC CON IL PADRE" POST-TC È SIMILE AL PROFILO NEI NATI DA PS**



**PATTERN CHE FACILITA LA CAPACITÀ DI
AUTOREGOLAZIONE DEL NEONATO**

*richiama la sequenza delle 9 fasi
comportamentali di Widström*



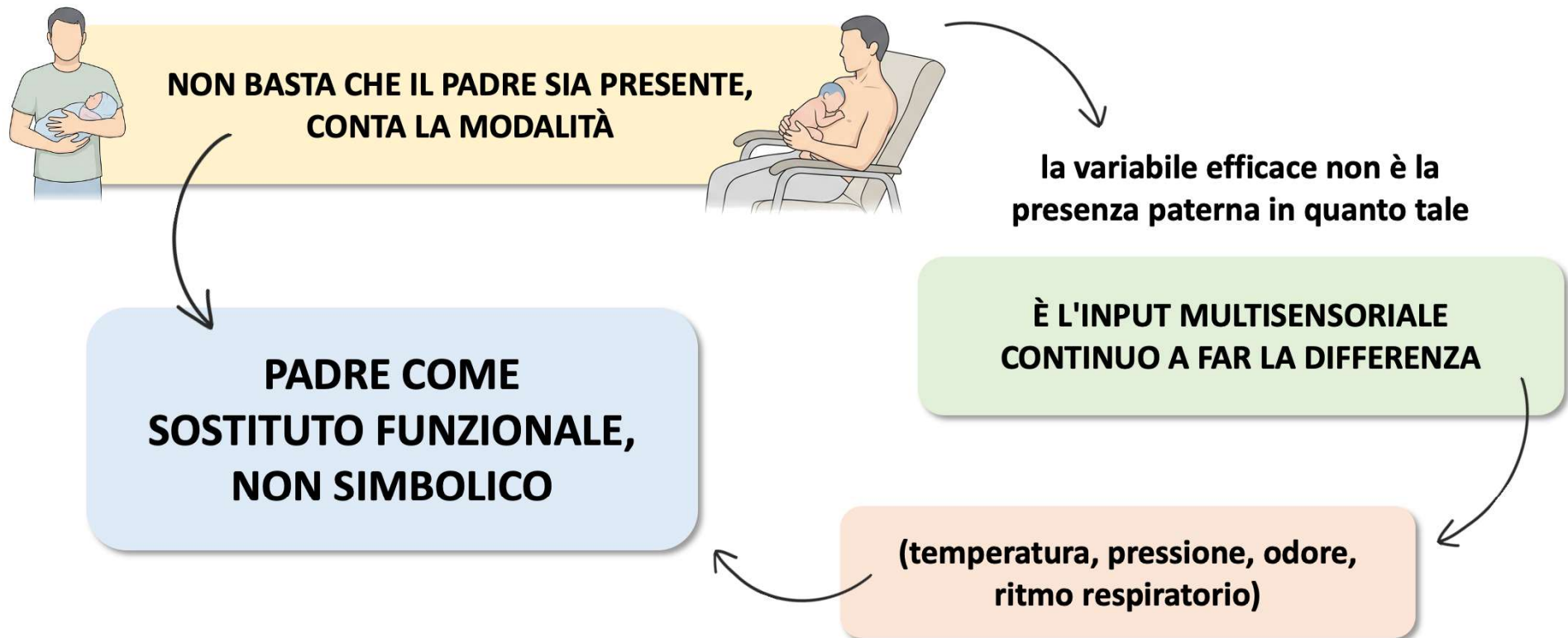
Kerstin Erlandsson

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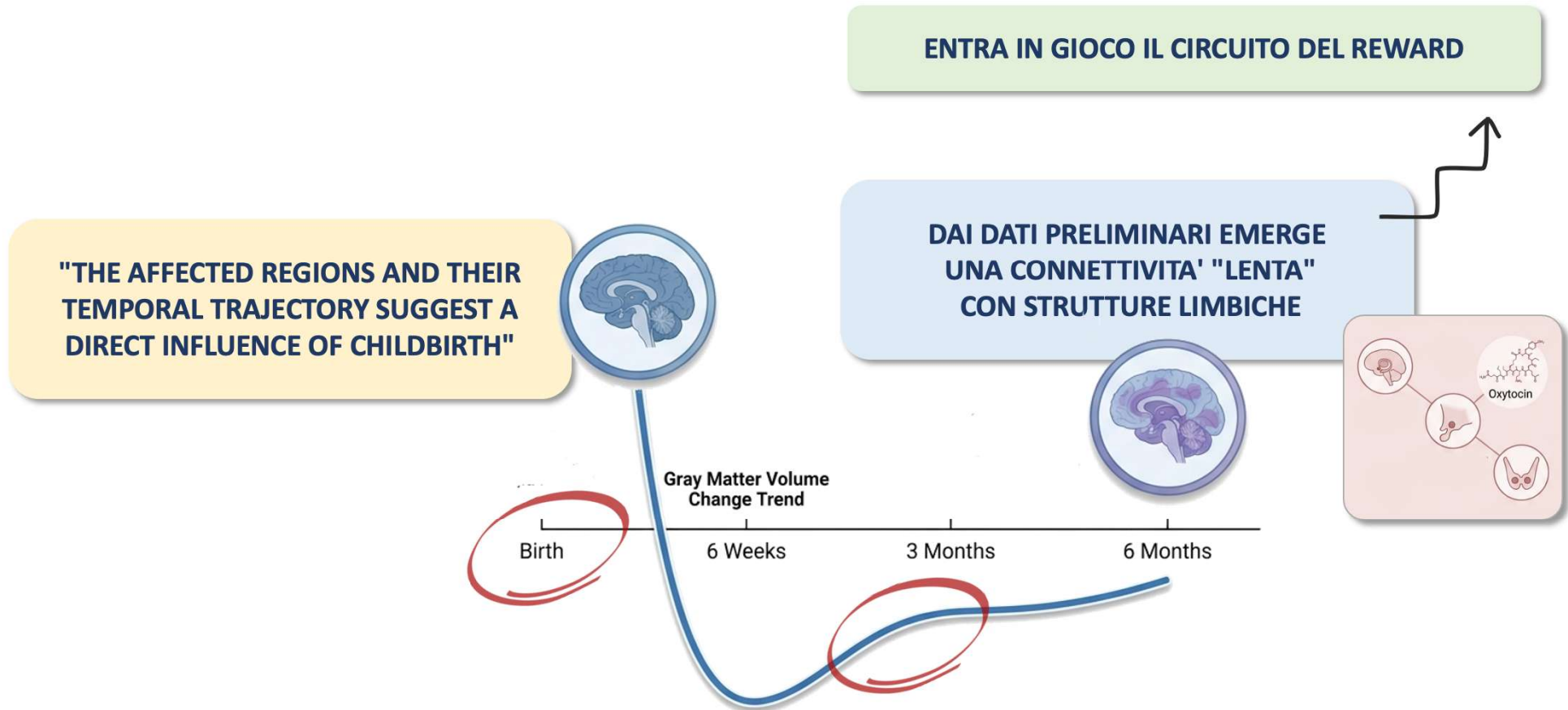


Natalia Chechko

> [Transl Psychiatry](#). 2026 May 14;16(1):247. doi: 10.1038/s41398-026-04082-7.

The paternal brain: longitudinal insights into structural and functional plasticity and attachment over 24 weeks postpartum

Negin Daneshnia ¹, Elena Maria Losse ², Angela Kurz ², Natalia Chechko ^{# 2 3 4}, Susanne Nehls ^{# 2 3}





> [Front Psychol.](#) 2024 Jul 9;15:1385320. doi: 10.3389/fpsyg.2024.1385320. eCollection 2024.

New policies on skin-to-skin contact warrant an oxytocin-based perspective on perinatal health care

Nils J Bergman ¹



Review > [Acta Paediatr.](#) 2021 Nov;110(11):2951-2957. doi: 10.1111/apa.15997. Epub 2021 Jul 1.

Mother-Newborn Couplet Care from theory to practice to ensure zero separation for all newborns

Stina Klemming ¹, Siri Lilliesköld ^{1, 2}, Björn Westrup ²





Skin to skin is the "normal place"

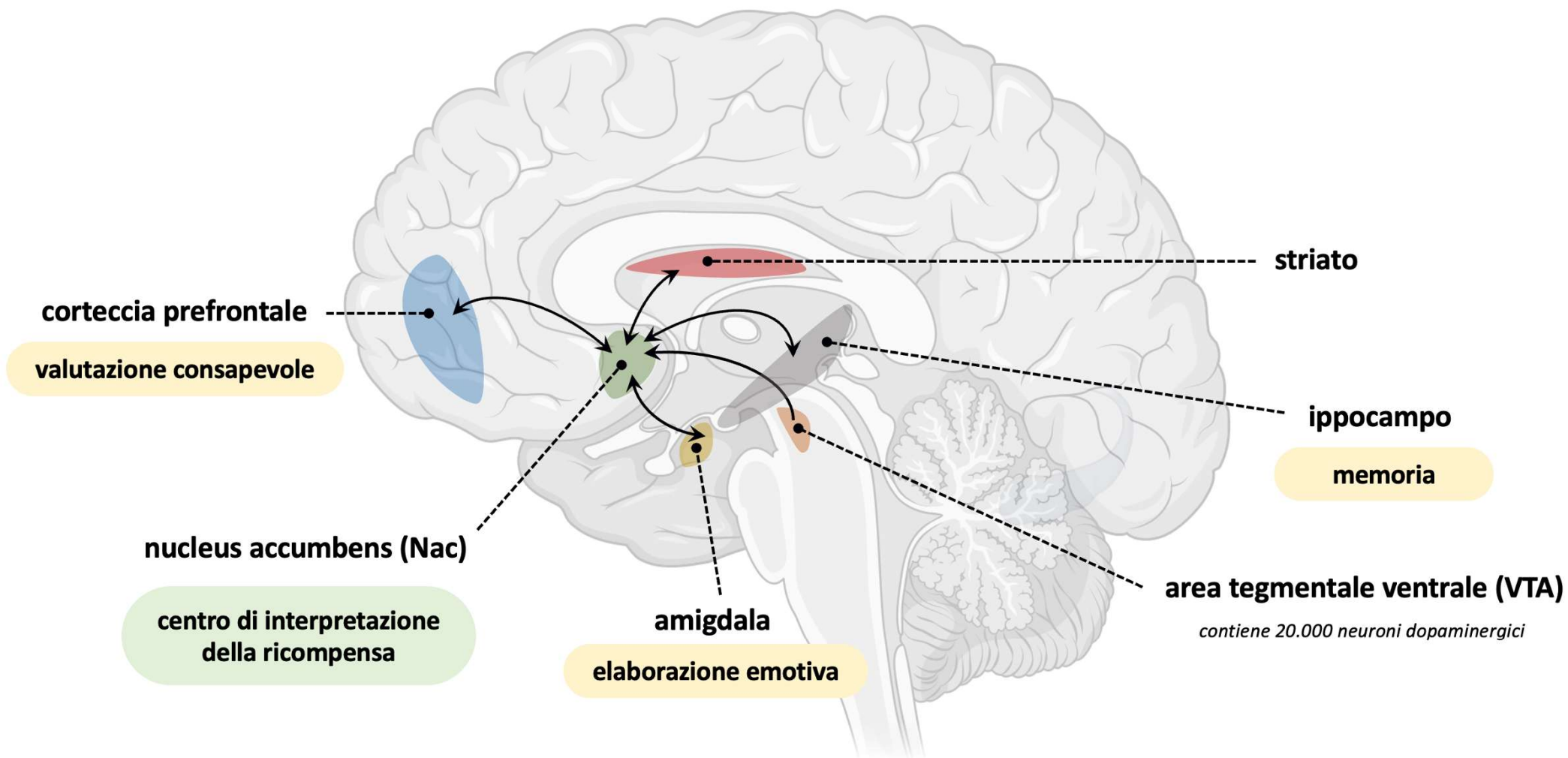


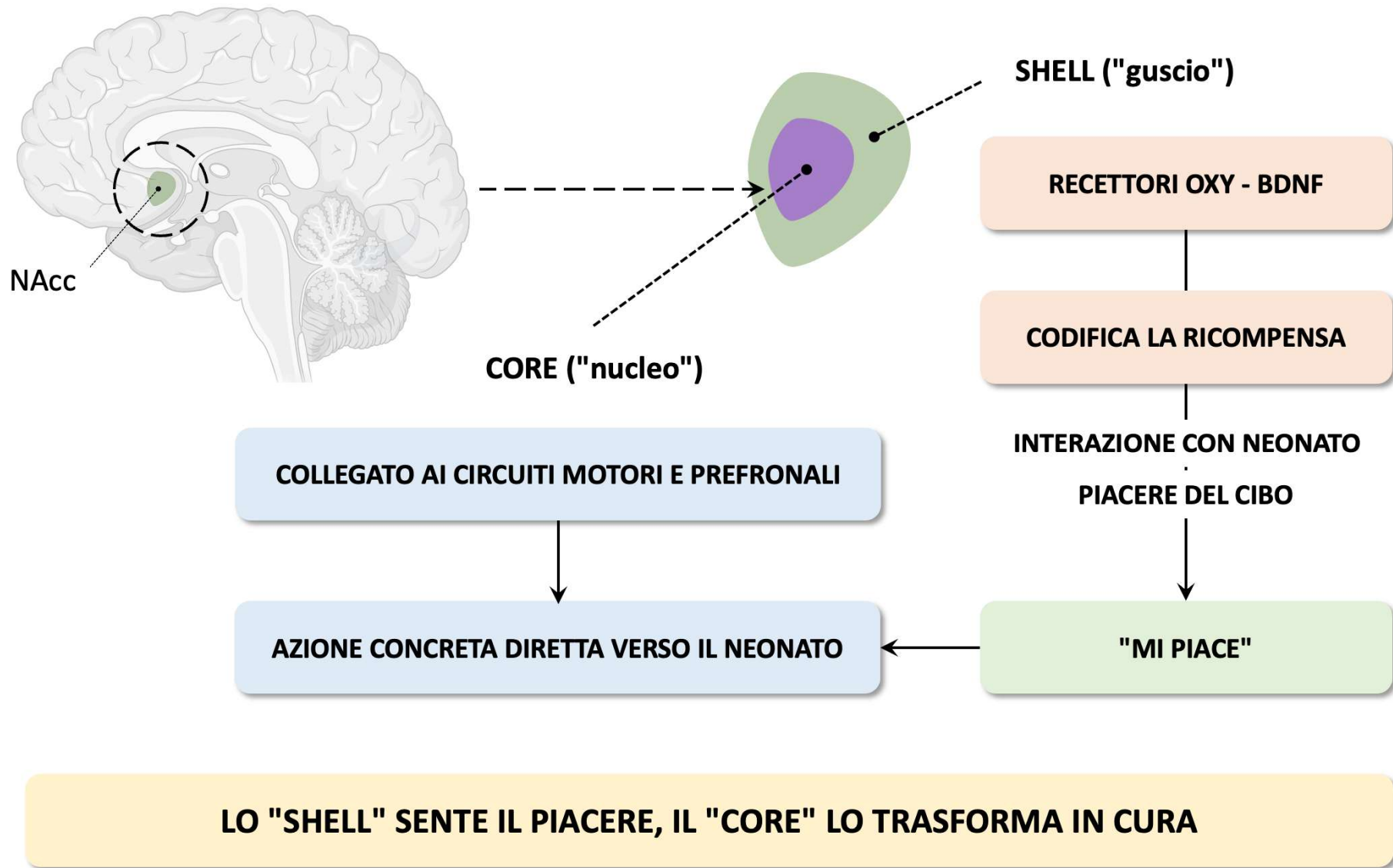
zero separation:
a paradigm for ALL newborn



LEGAME

GRATIFICANTE



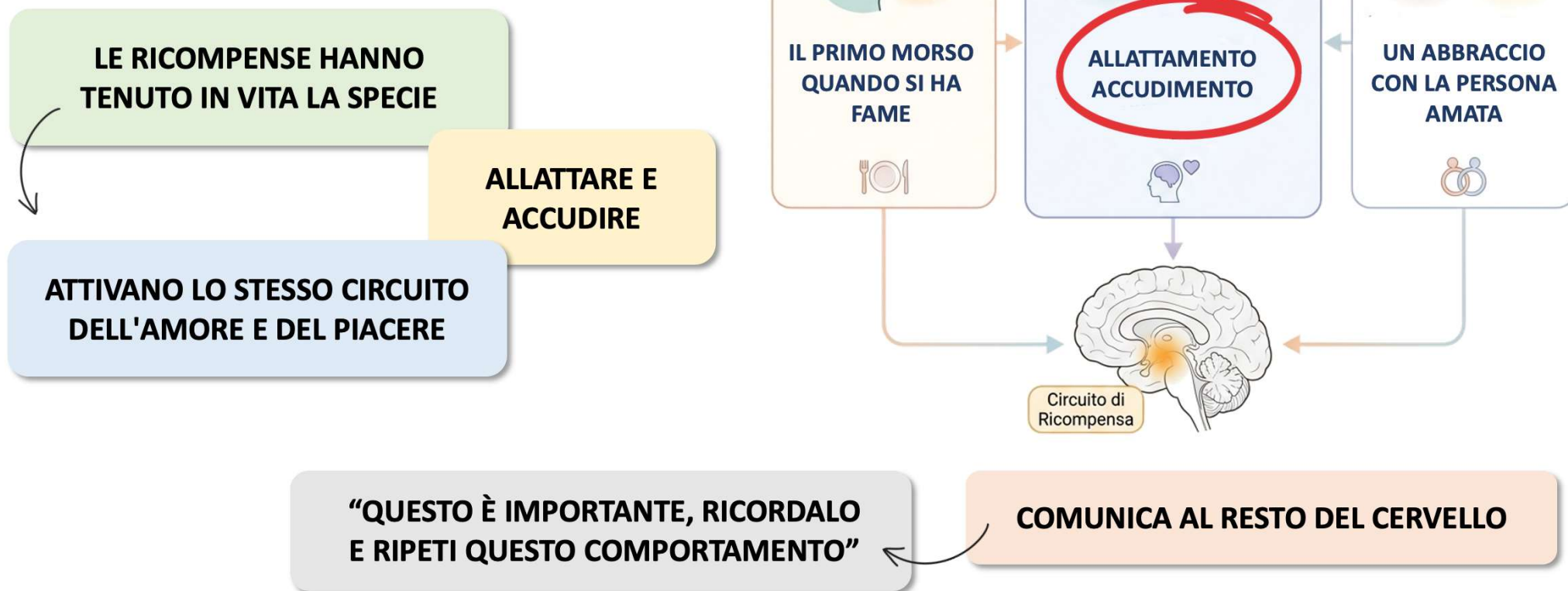




Review > Front Behav Neurosci. 2024 Aug 9:18:1420028. doi: 10.3389/fnbeh.2024.1420028.
eCollection 2024.

The nucleus accumbens in reward and aversion processing: insights and implications

Ying Xu ^{# 1}, Yingjie Lin ^{# 1}, Ming Yu ¹, Kuikui Zhou ¹





Lior Zeevi

> Soc Cogn Affect Neurosci. 2022 May 5;17(5):503-509. doi: 10.1093/scan/nsab116.

Maternal dopamine encodes affective signals of human infants

Lior Zeevi¹, Merav Irani¹, Ciprian Catana², Lisa Feldman Barrett^{2,3}, Shir Atzil¹

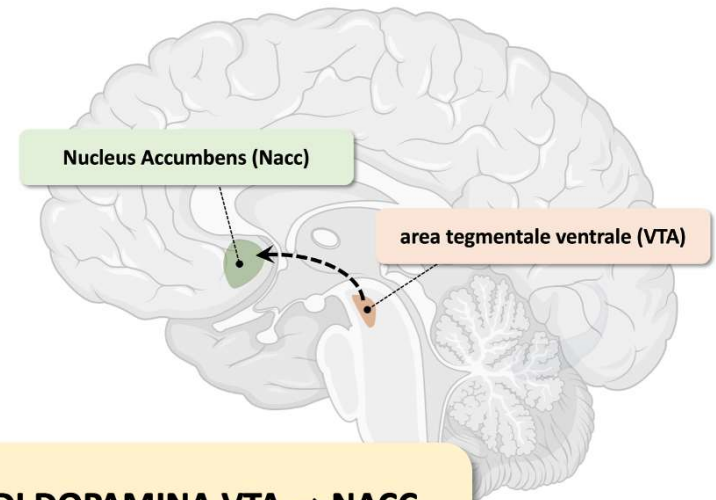


**LA QUANTITÀ DI DOPAMINA
RILASCIATA NON DISCRIMINA TRA**

**SEGNALI POSITIVI
(SORRISO, VOCALIZZAZIONE
GIOIOSA)**

**SEGNALI NEGATIVI
(PIANTO, AGITAZIONE)**

**RILASCIO DI DOPAMINA VTA → NACC
IN RISPOSTA A SEGNALI DEL NEONATO**



*Un genitore attiva il proprio sistema di
ricompensa quando il bambino piange
perché quel pianto è informazione cruciale,
non gratificazione sensoriale*

l'ossitocina che agisce sul nucleo accumbens è indispensabile perché il comportamento materno si accenda

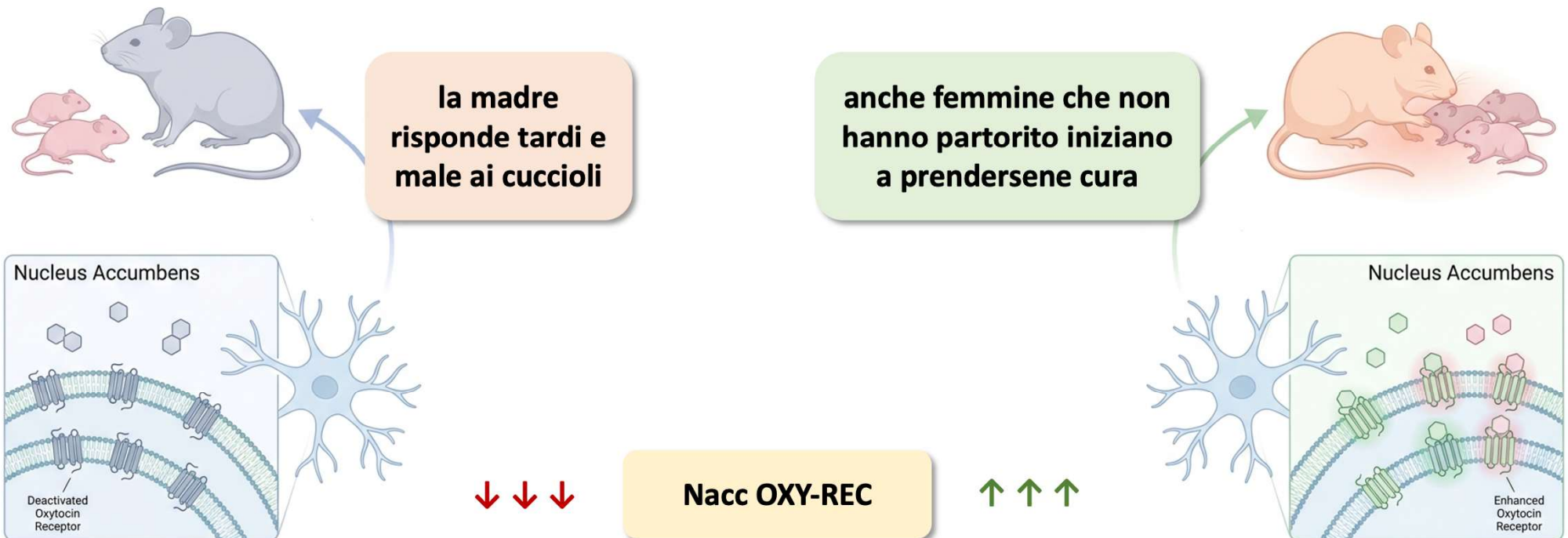
> *Front Neurosci.* 2024 Jul 2;18:1356448. doi: 10.3389/fnins.2024.1356448. eCollection 2024.

Oxytocin receptors in the nucleus accumbens shell are necessary for the onset of maternal behavior

Shannah Witche¹, Alexandra Haupt^{1 2}, Heather K Caldwell^{1 2}



Heather K. Caldwell





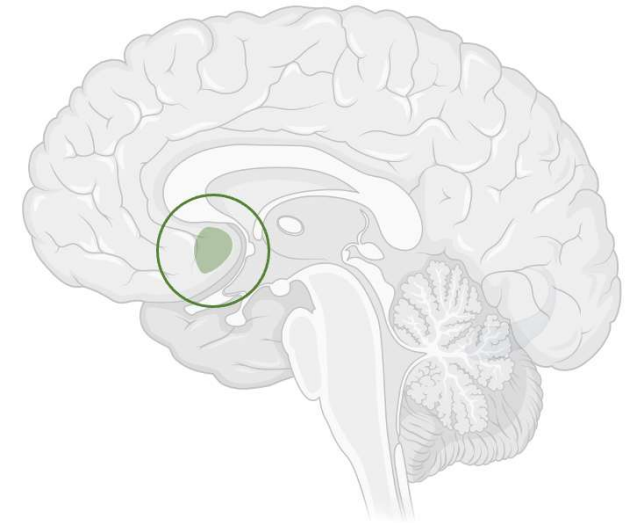
Millie Rincon Cortes

Review > [Front Neuroendocrinol.](#) 2020 Apr;57:100839. doi: 10.1016/j.yfrne.2020.100839.

Epub 2020 Apr 16.

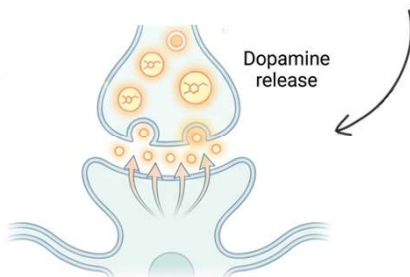
Adaptations in reward-related behaviors and mesolimbic dopamine function during motherhood and the postpartum period

Millie Rincón-Cortés¹, Anthony A Grace²



nel postpartum, il cervello dei genitori cambia

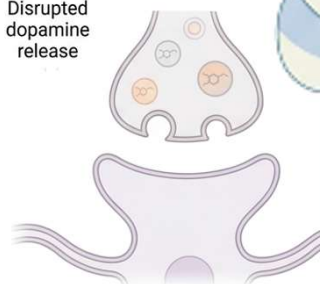
**i segnali del bambino
diventano "più premianti"**



talvolta (es. DPP) questo circuito non funziona



Disrupted
dopamine
release



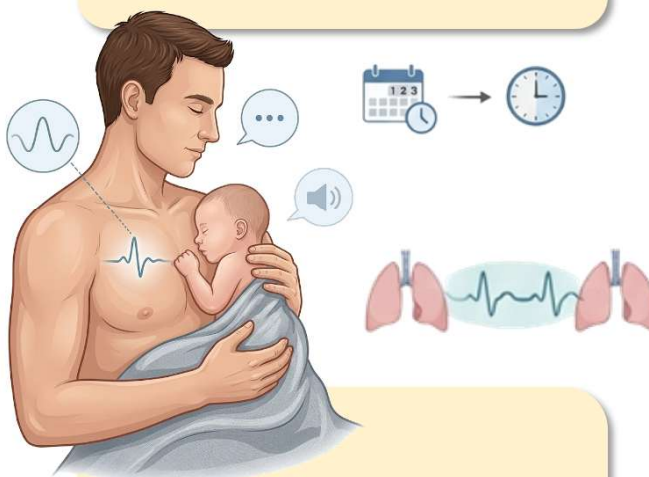
**il cervello smette di "accendersi" davanti allo
stimolo che dovrebbe essere il più importante
in assoluto — il proprio bambino**

**madre tesa
(dolore, incertezza, ansie)**



**neonato irrequieto con
suzione disorganizzata**

STS con il padre
(quotidiano, anche solo 30-60 min.)



CO-REGOLAZIONE
(respiro e stato comportamentale)

**la madre si rilassa
(deattivazione simpatica)**



**il neonato arriva al seno
più "organizzato"**

DURANTE LA POPPATA...

**BAMBINO MANTIENE UNO
STATO DI VEGLIA CALMA**

**AUMENTANO I MOMENTI DI
SINCRONIA MADRE-BAMBINO**

RITMI DI SUZIONE PIU' REGOLARI
CON MIGLIOR COORDINAZIONE
SUZIONE-DEGLUTIZIONE-RESPIRO

**INIBIZIONE SISTEMA
SIMPATICO MATERNO**

FAVORISCE RIFLESSO DI EIEZIONE



IL PASSAGGIO "CHIAVE"



IL PADRE "AIUTA"? NON SOLO...

CO-REGOLAZIONE PADRE-BAMBINO

**"BASE SICURA" a partenza olfattiva
(non connessa a vie talamiche di controllo)
già teorizzata da N. Bergman**

"PREPARA" IL BAMBINO

"SOLLEVA" LA MADRE

FACILITA LA SINCRONIA

Teresa Wilcox



**Cambridge
Elements**
Research Methods
for Developmental
Science

New Approaches to Assessing Behavioral and Brain Synchrony in Infant-Parent Dyads

Teresa Wilcox,
Jacqueline Stotler
Hammack,
Lindsey Riera-Gomez,
Mini Sharma, and
Hila Gvirts

ISSN 2633-9964 (online)
ISSN 2633-9956 (print)

Le nuove tecnologie permettono finalmente di studiare il **padre non come "vice della madre", ma come partner diadico a sé, con la propria firma di accoppiamento** — e, per estensione, di indagare la sincronia in qualunque figura di accudimento, incluse le coppie omogenitoriali



**IL PADRE NON È UN AGENTE
ESTERNO DELLA DIADE: È UN
COREGOLATORE DELLA TRIADE**

**dove è il farsi carico quotidiano del bambino, più del
legame biologico, a plasmare il cervello del caregiver**



MODELLO TRIADICO

cambia il modo in cui pensiamo
e organizziamo le ore subito
successive alla nascita

**L'unità fisiologica da stabilizzare
nelle prime ore è la triade**



Per decenni l'organizzazione di sala parto e
nido è stata progettata sull'assunto implicito



neonato da stabilizzare

la madre, e ancora meno il padre,
stakeholder collaterali del processo



**separazioni, manipolazioni non
necessarie, esclusione del padre,
dolore non gestito**

**discomfort materno e difficoltà
nell'attaccamento e allattamento**



37,1

**DURANTE IL PARTO IL DOLORE È
COSÌ FORTE CHE UNA DONNA
PUÒ ARRIVARE AD IMMAGINARE**

COME SI SENTE UN UOMO CON LA FEBBRE



Robert Sorge

Review > [J Neurosci Res.](#) 2017 Jun;95(6):1271-1281. doi: 10.1002/jnr.23841. Epub 2016 Jul 25.

Sex Differences in Pain

Robert E Sorge ¹, Stacie K Totsch ¹



Channing Paller

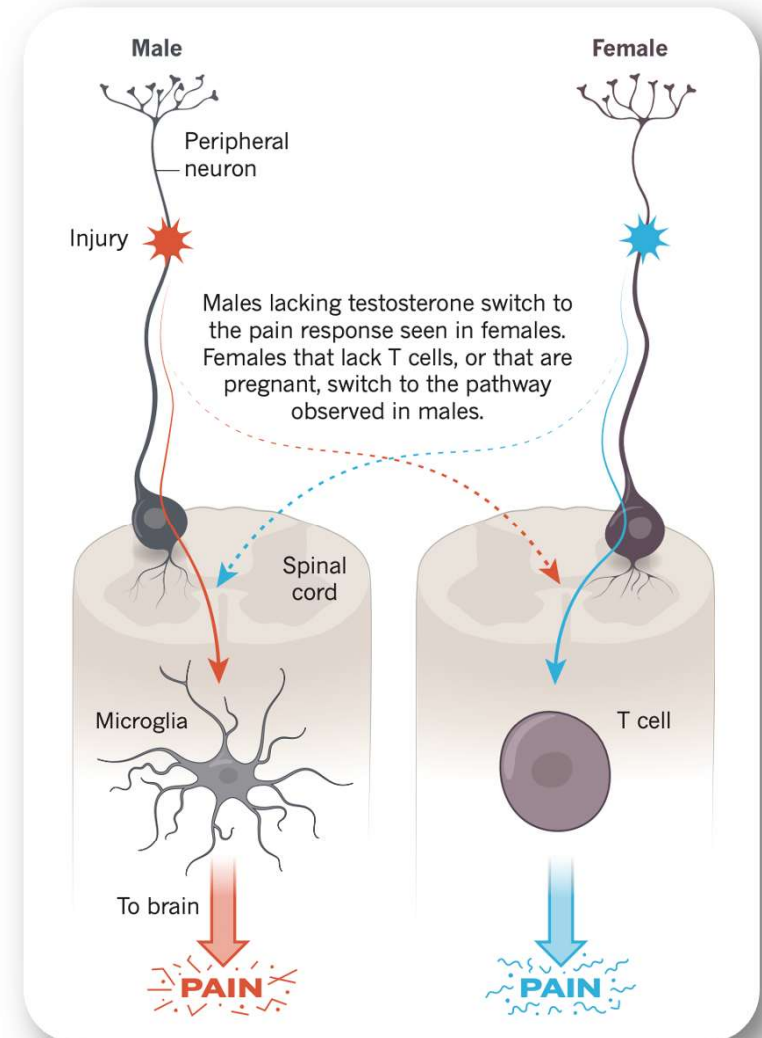
Review > [Pain Med.](#) 2009 Mar;10(2):289-99. doi: 10.1111/j.1526-4637.2008.00558.x. Epub 2009 Jan 16.

Sex-based differences in pain perception and treatment

Channing J Paller ¹, Claudia M Campbell, Robert R Edwards, Adrian S Dobs

THE PAIN GAP

After decades of assuming that pain works the same way in all sexes, scientists are finding that different biological pathways can produce an 'ouch!'.





Robert Sorge

Review > [J Neurosci Res.](#) 2017 Jun;95(6):1271-1281. doi: 10.1002/jnr.23841. Epub 2016 Jul 25.

Sex Differences in Pain

Robert E Sorge ¹, Stacie K Totsch ¹



Channing Paller

Review > [Pain Med.](#) 2009 Mar;10(2):289-99. doi: 10.1111/j.1526-4637.2008.00558.x. Epub 2009 Jan 16.

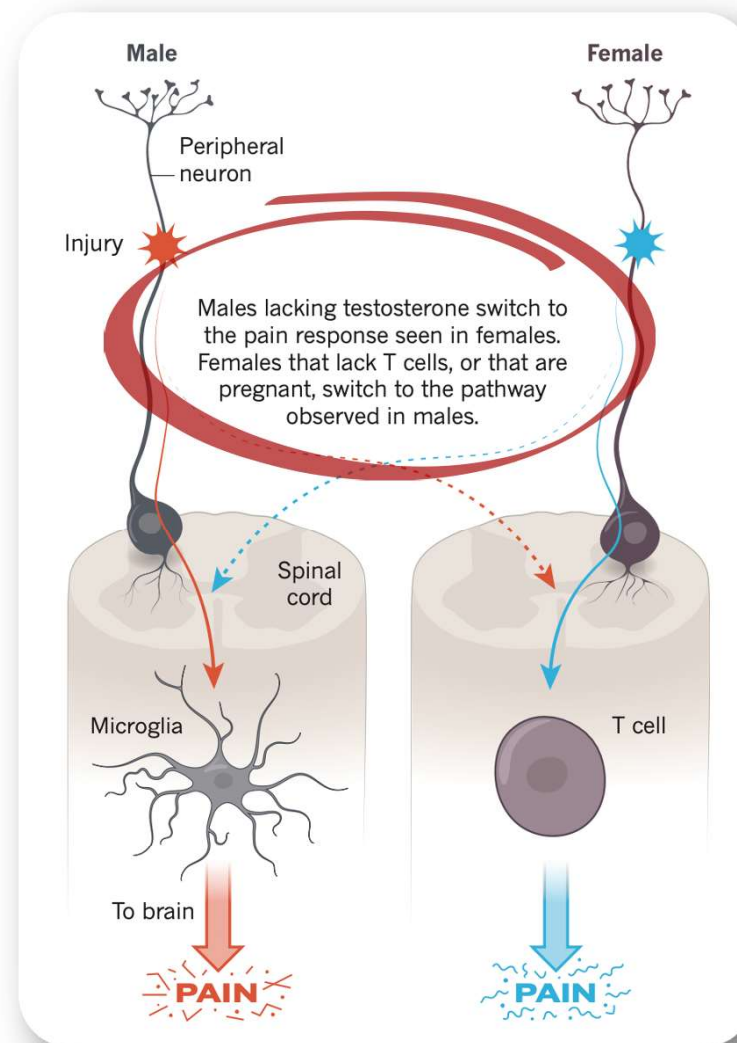
Sex-based differences in pain perception and treatment

Channing J Paller ¹, Claudia M Campbell, Robert R Edwards, Adrian S Dobs

**LA RIDUZIONE DEI LIVELLI
DI TESTOSTERONE**

**PROVOCA UNO "SHIFT" DAL
MODELLO MASCHILE A QUELLO FEMMINILE**

E LA GRAVIDANZA UNO "SHIFT" IN SENSO OPPOSTO



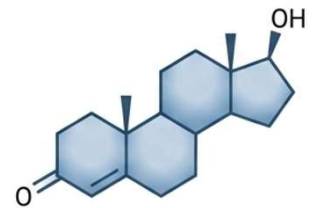


Onawa P. LaBelle

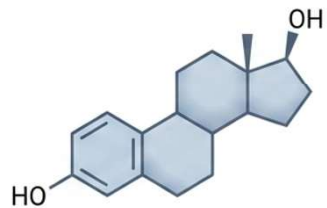
> Dev Psychobiol. 2017 Jan;59(1):77-90. doi: 10.1002/dev.21469. Epub 2016 Sep 8.

Prospective and dyadic associations between expectant parents' prenatal hormone changes and postpartum parenting outcomes

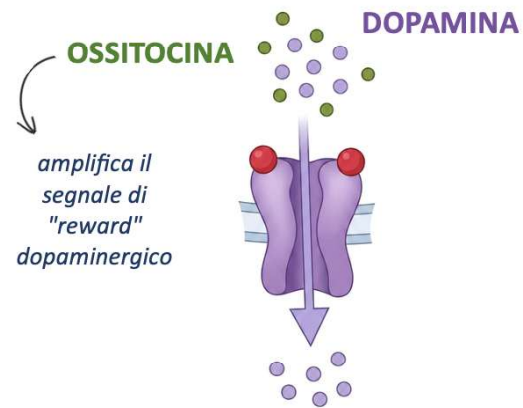
Robin S Edelman¹, William J Chopik², Darby E Saxbe³, Britney M Wardecker¹, Amy C Moors⁴, Onawa P LaBelle¹



**RIDUZIONE
TESTOSTERONE
& ESTRADIOLO**



**AZIONE FACILITANTE SUL
"PRENDERSI CURA"**



"EXPECTANT FATHERS"





Onawa P. LaBelle

> Dev Psychobiol. 2017 Jan;59(1):77-90. doi: 10.1002/dev.21469. Epub 2016 Sep 8.

Prospective and dyadic associations between expectant parents' prenatal hormone changes and postpartum parenting outcomes

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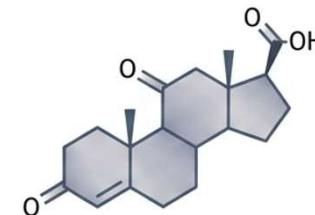


"EXPECTANT FATHERS"

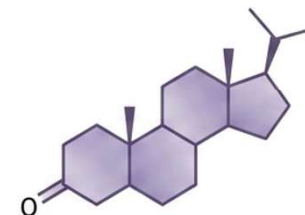
"DON'T PANIC"

**PREOCCUPAZIONE, ANSIA E
STRESS SOTTO CONTROLLO**

INTERAZIONE RITARDATA



**PROGESTERONE &
CORTISOLO NON
MODIFICATI**





Pavel Goldstein

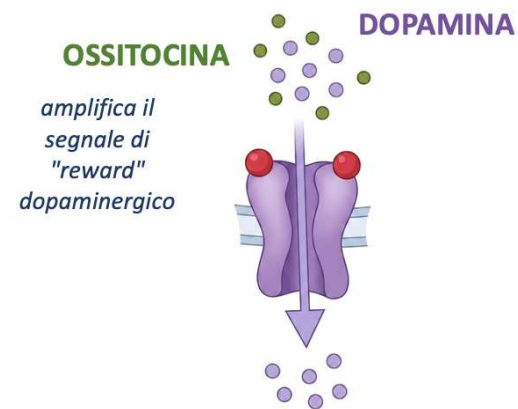
> [Sci Rep](#). 2017 Jun 12;7(1):3252. doi: 10.1038/s41598-017-03627-7.

The role of touch in regulating inter-partner physiological coupling during empathy for pain

Pavel Goldstein ^{1 2 3}, Irit Weissman-Fogel ⁴, Simone G Shamay-Tsoory ⁵



INTERAZIONE MULTI-SENSORIALE



> [Neuropsychologia](#). 2018 Jul 31;116(Pt A):68-74. doi: 10.1016/j.neuropsychologia.2017.04.026. Epub 2017 Apr 22.

Empathy during consoling touch is modulated by mu-rhythm: An EEG study

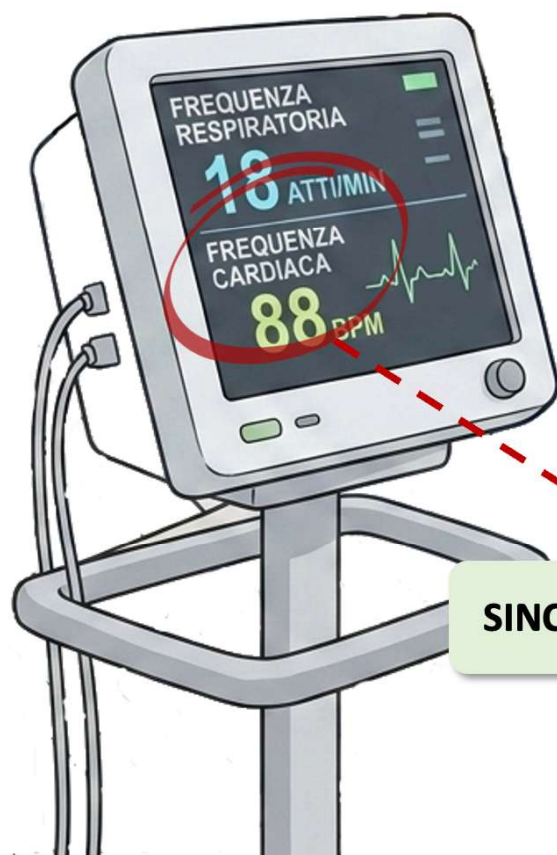
L Peled-Avron ¹, P Goldstein ¹, S Yellinek ¹, I Weissman-Fogel ², S G Shamay-Tsoory ³



L. Peled-Avron



INTERAZIONE MULTI-SENSORIALE CON IL PARTNER



SINCRONIA FC IN CONDIZIONI DI DOLORE



EFFETTO ANALGESICO (SNA)



Pavel Goldstein

> [Proc Natl Acad Sci U S A](#). 2018 Mar 13;115(11):E2528-E2537. doi: 10.1073/pnas.1703643115. Epub 2018 Feb 26.

Brain-to-brain coupling during handholding is associated with pain reduction

Pavel Goldstein ^{1 2 3}, Irit Weissman-Fogel ⁴, Guillaume Dumas ^{5 6 7}, Simone G Shamay-Tsoory ²



> [Sci Rep](#). 2020 Jan 16;10(1):450. doi: 10.1038/s41598-019-57375-x.

Convergence of physiological responses to pain during face-to-face interaction

Aiko Murata ^{1 2}, Hiroshi Nishida ³, Katsumi Watanabe ^{4 5}, Tatsuya Kameda ^{6 7 8}



Tatsuya Kameda





Edwina Orchard

> [PLoS One](#). 2020 Jul 28;15(7):e0236031. doi: 10.1371/journal.pone.0236031. eCollection 2020.

Relationship between parenthood and cortical thickness in late adulthood

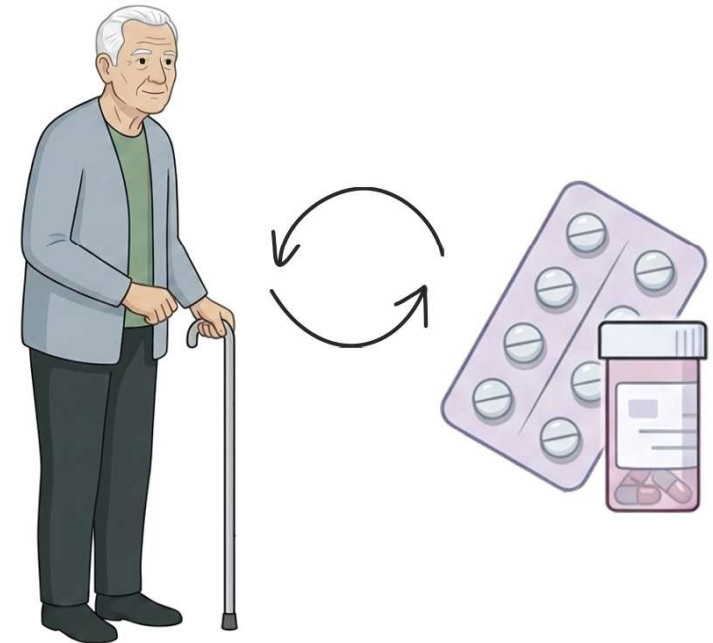
Edwina R Orchard^{1 2 3}, Phillip G D Ward^{1 2 3}, Francesco Sforazzini¹, Elsdon Storey^{4 5}, Gary F Egan^{1 2 3}, Sharna D Jamadar^{1 2 3}

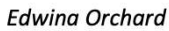
"A PROPOSITO, QUANTI FIGLI HA ?"



MELBOURNE, AUSTRALIA - 2020

**TRIAL CLINICO SUGLI EFFETTI
DELL'ASPIRINA IN SOGGETTI IN ETÀ AVANZATA**





Relationship between parenthood and cortical thickness in late adulthood

TRIAL CLINICO SUGLI EFFETTI DELL'ASPIRINA IN SOGGETTI IN ETÀ AVANZATA

Corteccia cingolata anteriore sinistra

REGIONI COINVOLTE NELLA MENTE

Lobo temporale destro

NEUROPLASTICITÀ "PATERNA" PUÒ PERDURARE PER IL RESTO DELLA VITA

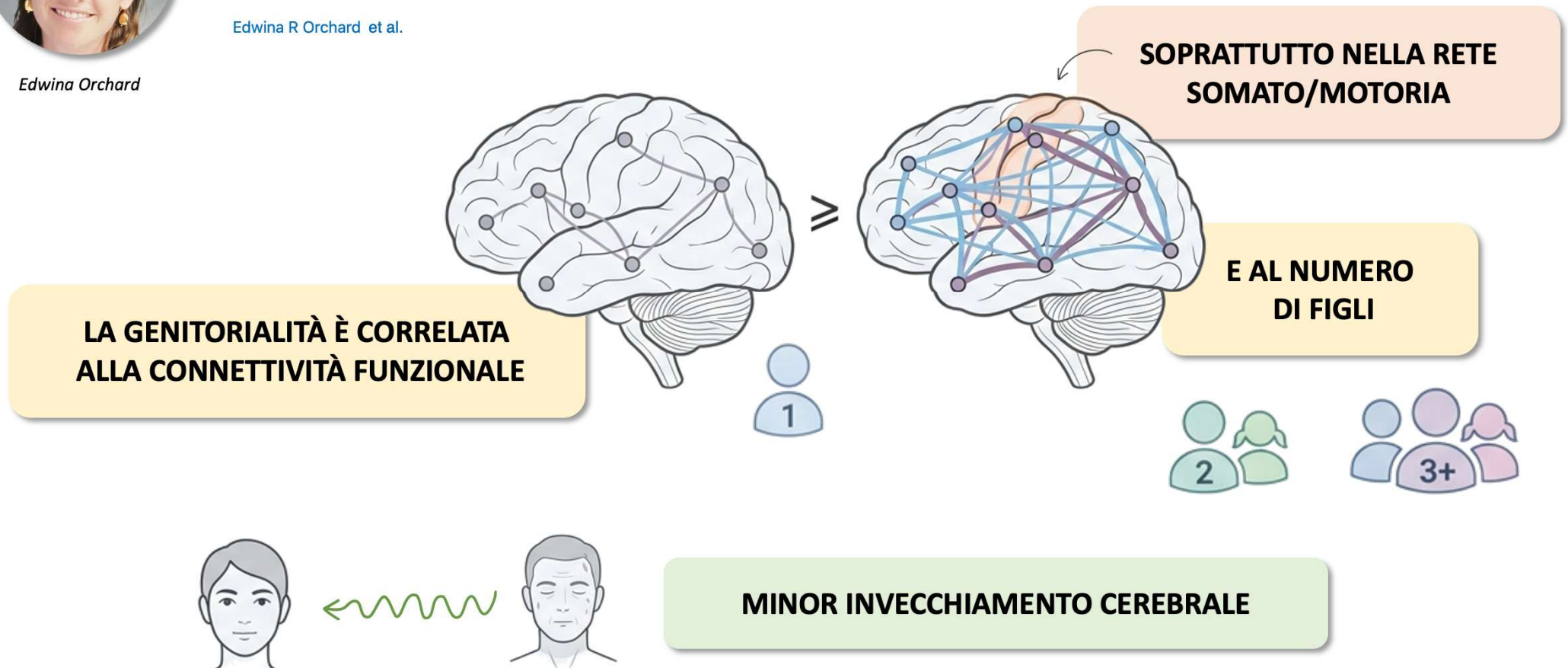


Edwina Orchard

> [Proc Natl Acad Sci U S A.](#) 2025 Mar 4;122(9):e2411245122. doi: 10.1073/pnas.2411245122.
Epub 2025 Feb 25.

Protective role of parenthood on age-related brain function in mid- to late-life

Edwina R Orchard et al.



IL PADRE NON È UN OSPITE. LA SUA PRESENZA NON È UNA CORTESIA.



IN SALA PARTO



IN T.I.N.



IN DEGENZA



A CASA

**È LO STIMOLO CHE ATTIVA LA SUA PLASTICITÀ CEREBRALE E LA SUA SENSIBILITÀ.
OGNI ORA DI CURA DIRETTA LASCIA UNA TRACCIA NEUROBIOLOGICA.**



**IL "RITARDO DEL LEGAME" È
FISIOLOGICO, NON PATOLOGICO.**

**Il padre non è favorito dalla
tempesta ormonale del parto**

**costruisce il legame più lentamente,
attraverso l'interazione.**

**Nella madre è la gravidanza a plasmare il cervello.
Nel padre è l'accudimento**



IL "RITARDO DEL LEGAME" È
FISIOLOGICO, NON PATOLOGICO.

**Il padre non è favorito dalla
tempesta ormonale del parto**

**costruisce il legame più lentamente,
attraverso l'interazione.**

**VA RASSICURATO E SOSTENUTO,
NON GIUDICATO.**



INCLUDERE IL PADRE È UN ATTO DI
CURA PER TRE PERSONE.

**sostiene meglio la madre, protegge
la diade e costruisce le proprie basi
neurali per l'accudimento futuro.**

ESCLUDERLO SIGNIFICA SPRECARE
UNA PREDISPOSIZIONE CHE
L'EVOLUZIONE HA SELEZIONATO



LA DOMANDA NON È PIÙ SE
I PADRI SIANO PREDISPOSTI
A FARE I GENITORI

LO SONO

LA VERA DOMANDA È UN'ALTRA:
STIAMO DANDO AI PADRI
LE CONDIZIONI PER ESPRIMERE
QUESTA PREDISPOSIZIONE ?



PERCHÉ LA NEUROBIOLOGIA
EVOLUZIONISTICA APRE LA PORTA

MA SIAMO NOI, CON LE CONOSCENZE,
LE COMPETENZE, L'ORGANIZZAZIONE
DELL'ASSISTENZA, A DECIDERE SE
LASCIARLA APERTA O CHIUSA

OGNI CRISI, A BEN GUARDARE,
CELA UN'OPPORTUNITÀ



E se meno nascite potessero
significare più attenzioni,
presenza, tempo, ascolto

e un nucleus accumbens
un po' meno sordo al
richiamo di quel bambino ?

QUESTA RELAZIONE VORREI DEDICARLA A JUBA..

JUBA, NATA SU UNA PIATTAFORMA
PETROLIFERA ABBANDONATA IN MEZZO
AL MARE. E SALVATA DA OPEN ARMS.

SCUSATEMI,
IO CONTINUO A NASCERE

MAURO BIANI

