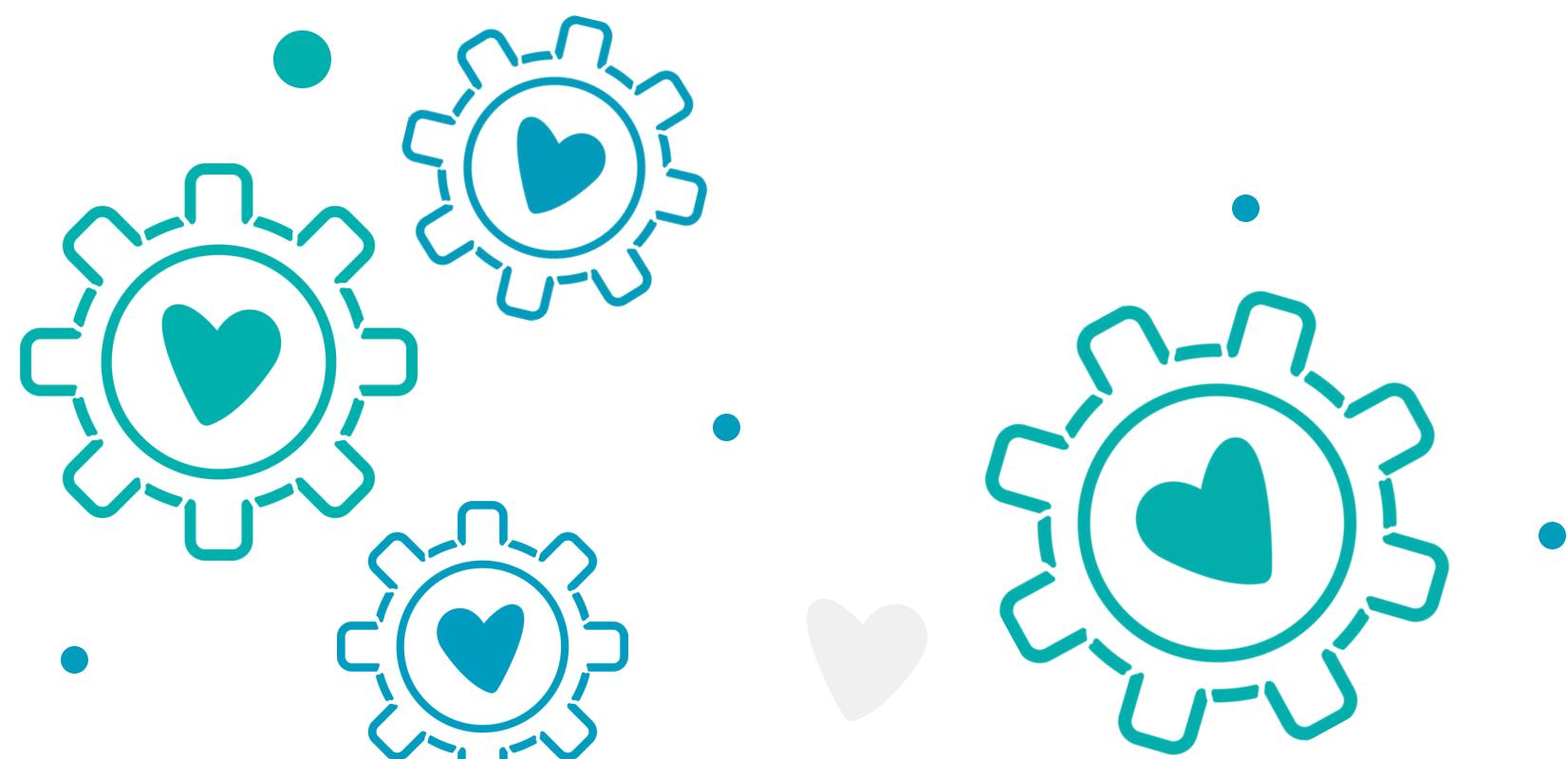


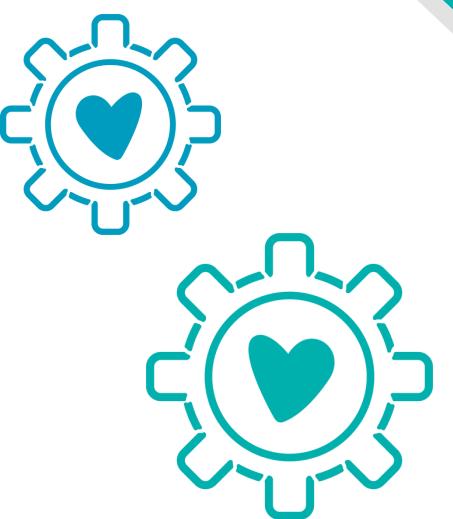
Pais

# Autismo: Treinamento para pais

## Aula 12- Por que meu filho tem autismo?

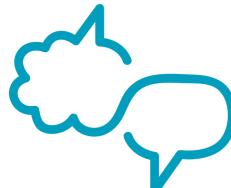
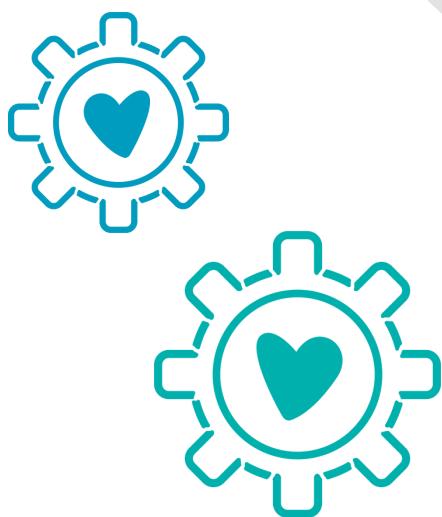


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**Quando assumimos que temos controle de tudo,  
nos culpamos injustamente pelo que não  
podemos controlar. Importante aceitarmos  
nossa vulnerabilidade.**

*- Rodrigo Silveira*



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# 70 MILHÕES

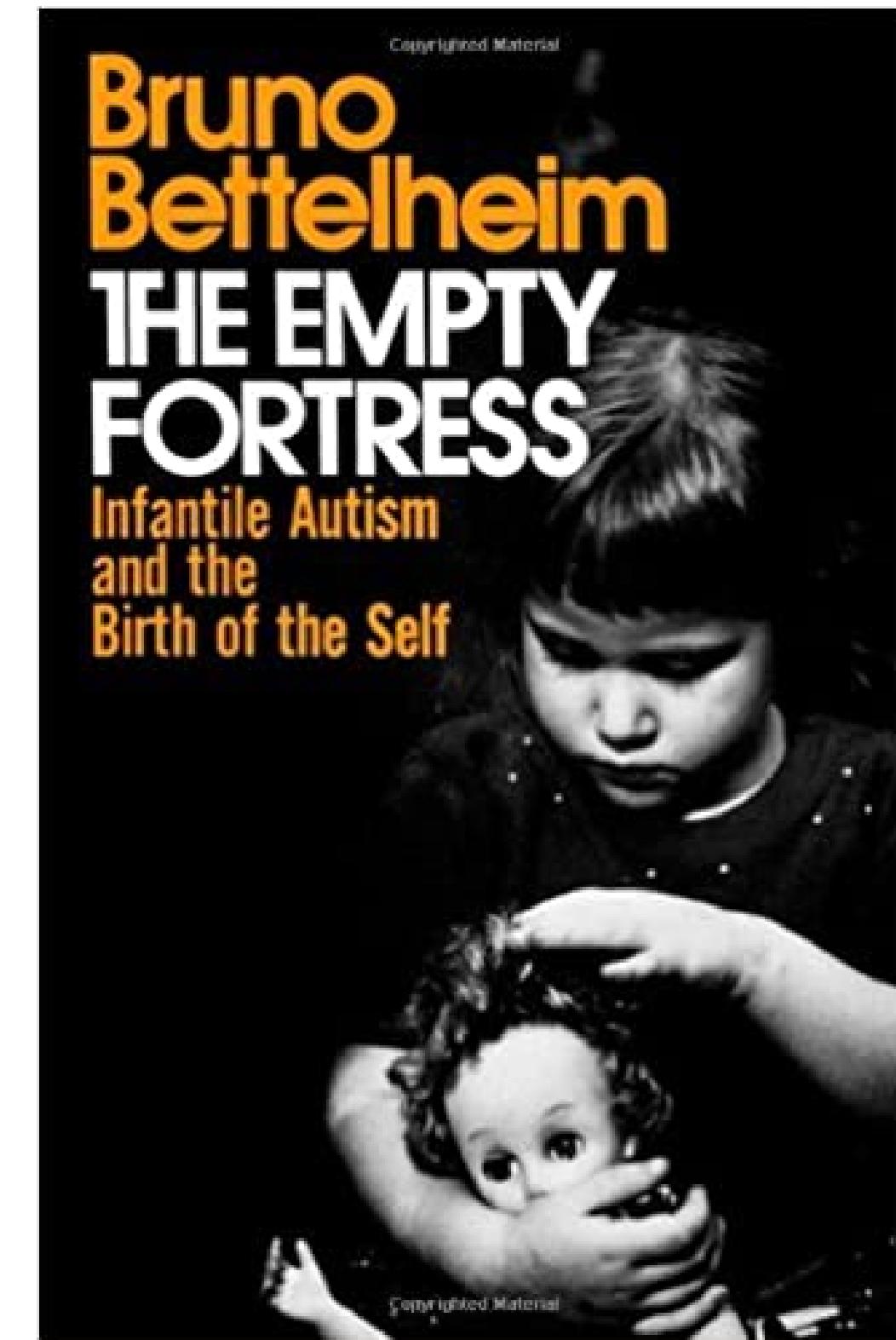
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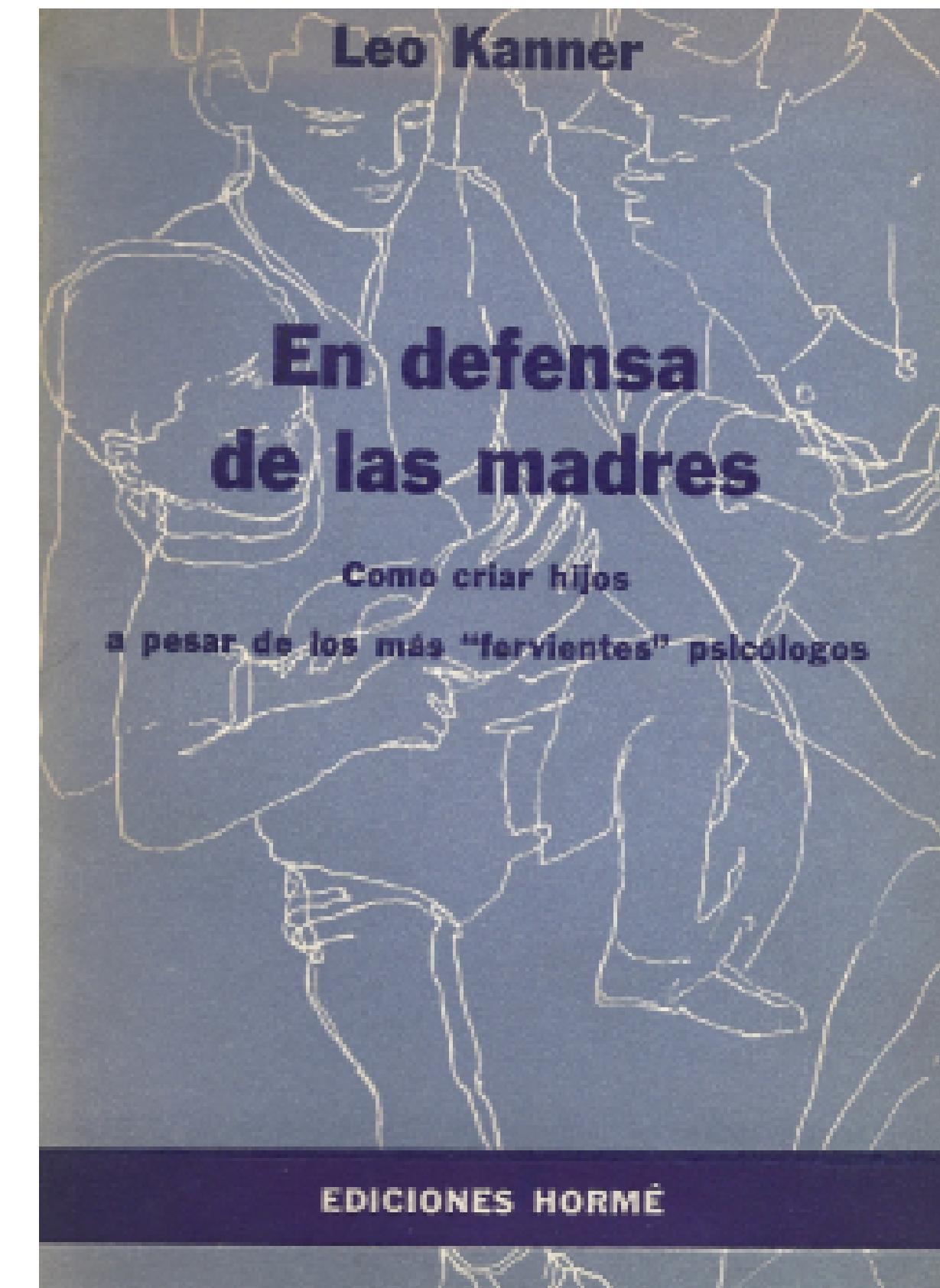
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# AS MÃES GELADEIRA 1967

Triste passado de achar culpado.

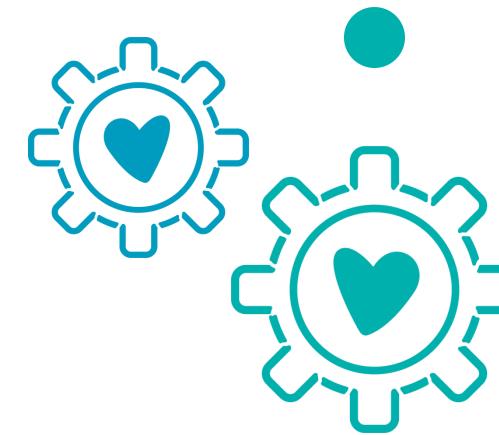
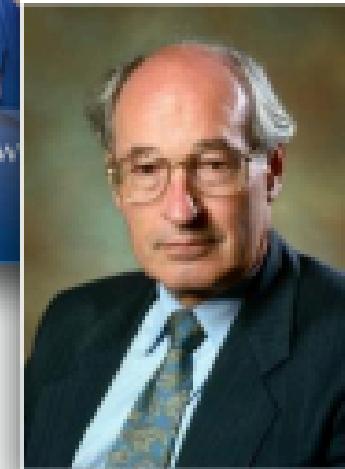
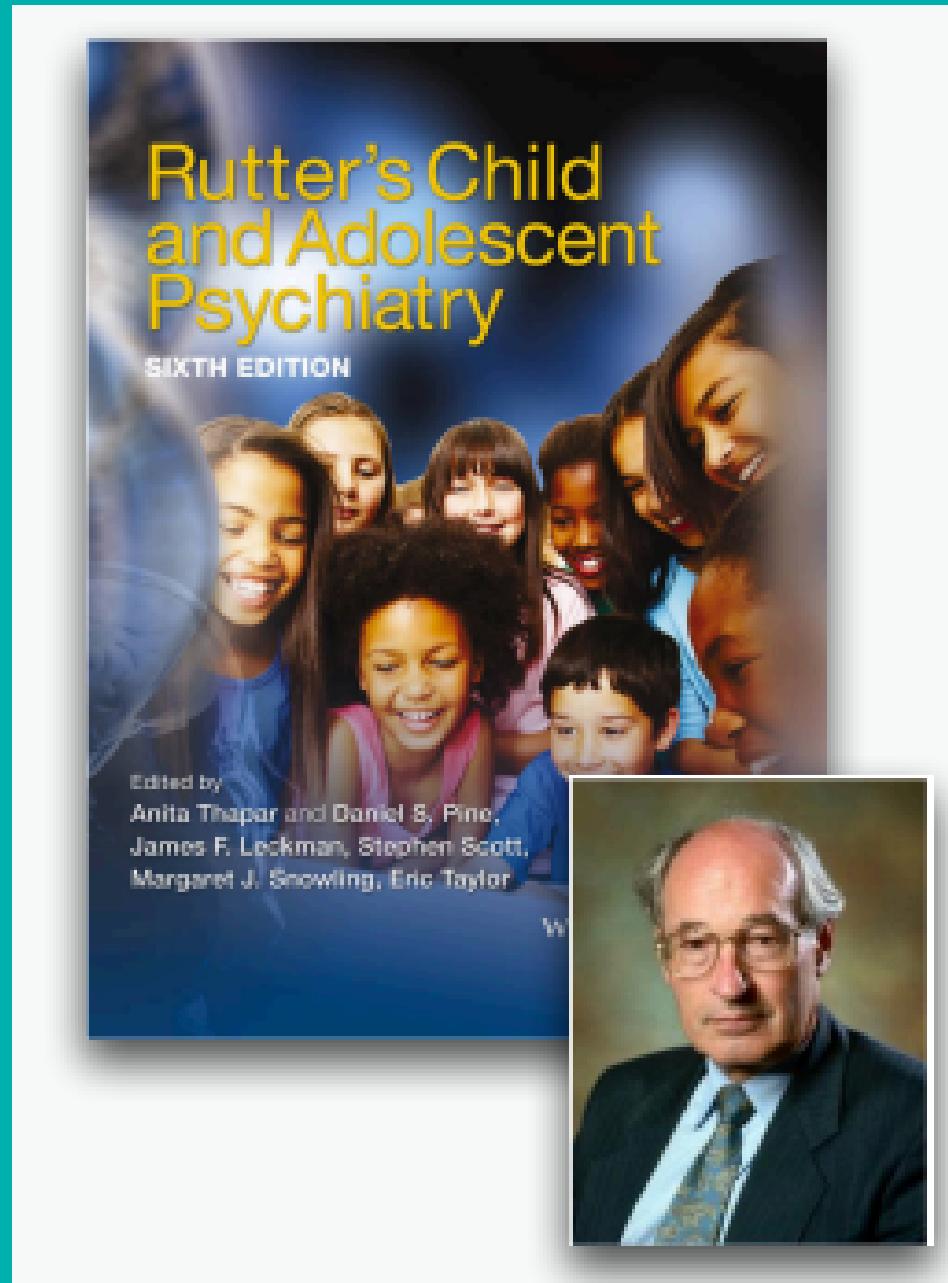
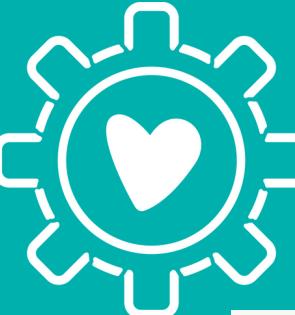


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A CIÊNCIA  
DESFAZENDO  
A INJUSTIÇA...





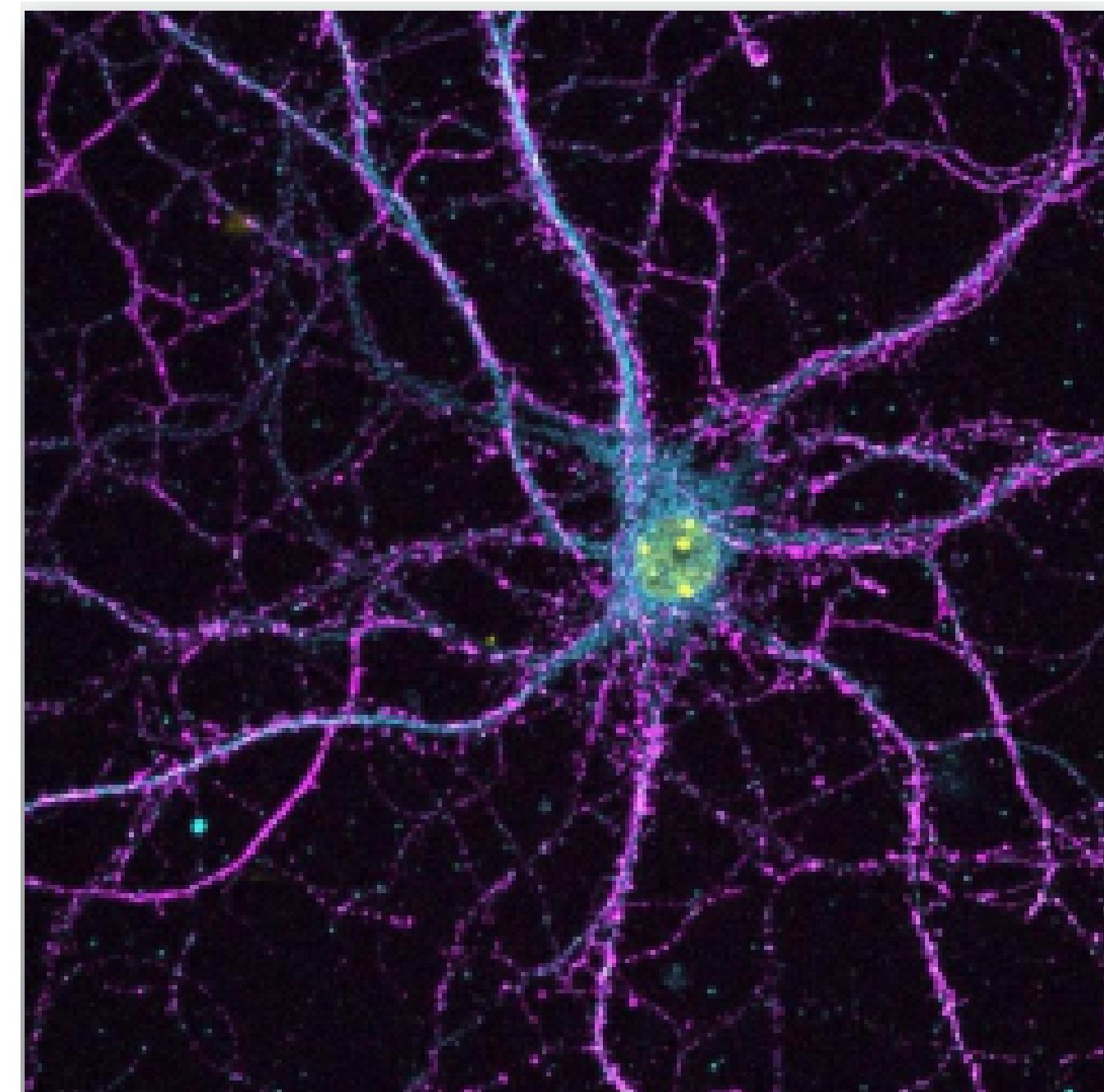
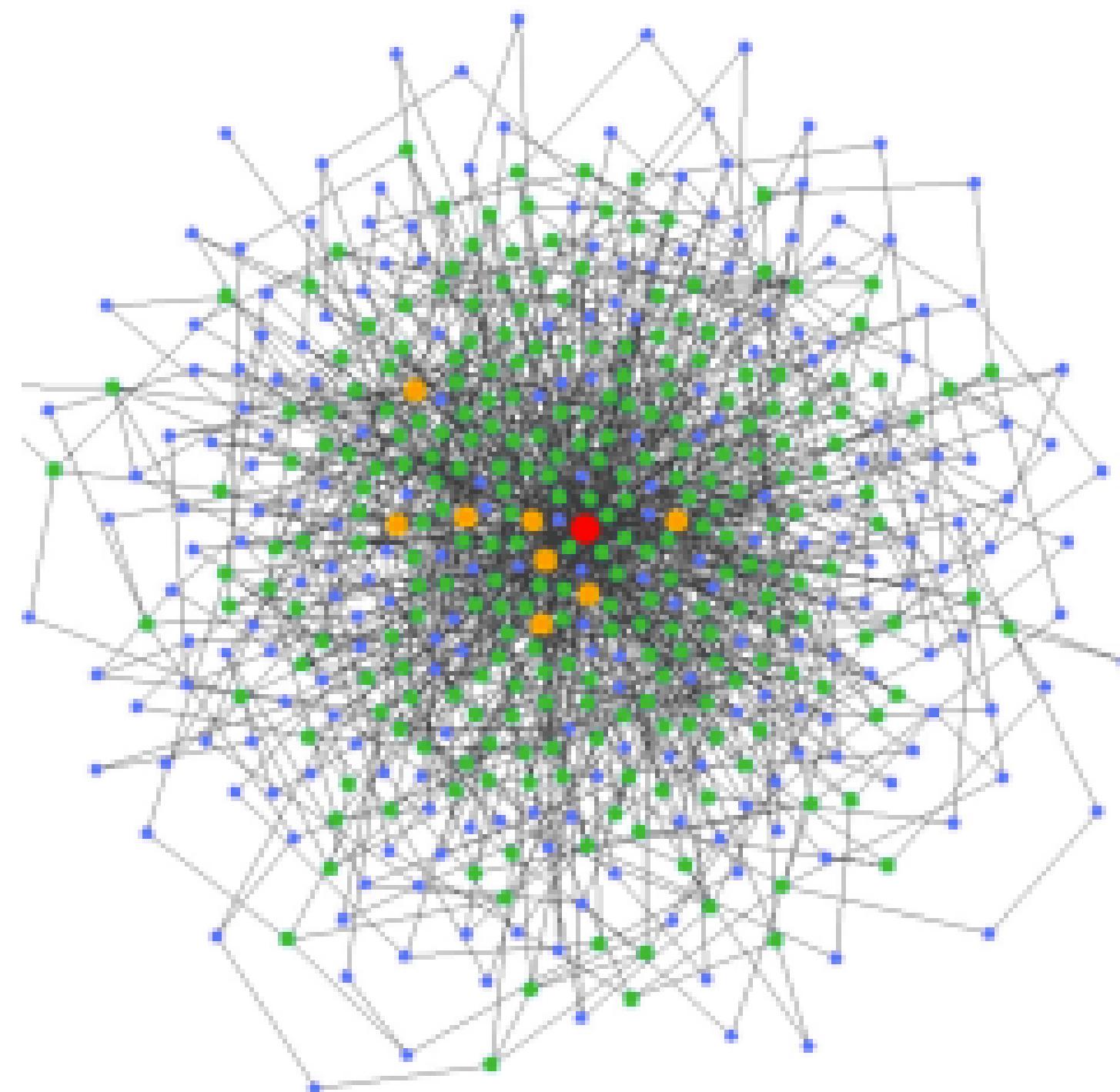
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## MICHAEL RUTTER, 1978

- Atrasos no desenvolvimento SOCIAL
- Problemas de COMUNICAÇÃO
- ESTERIOTIPIAS
- Sintomas presentes antes de 30 meses



# COMPLEXO



PAIS



# RESPOSTA SIMPLES E ERRADA

PAIS

THE LANCET

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LETTER REPORT | VOLUME 351, ISSUE 9103, PAGES 547-549, FEBRUARY 28, 1998

RETRACTED: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

Dr A J Wakefield, FRCS, J A SH March, MB, A Anthony, MD, J Linnell, PhD, DM Carson, MRCP, M Malik, MRCP, et al.  
Show all authors

Published: February 28, 1998 • DOI: [https://doi.org/10.1016/S0140-6736\(97\)31699-0](https://doi.org/10.1016/S0140-6736(97)31699-0)

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PlumX Metrics

Summary  
Introduction  
Patients and methods  
Results  
Discussion  
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Article info  
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**RETRACTED**

We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

Methods

12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI),



# REVISÃO SISTEMÁTICA VÁRIOS CENTROS DE PESQUISA



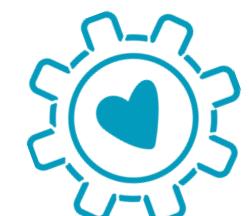
## Vaccine Safety: Myths and Misinformation

Sarah Geoghegan<sup>1,2</sup>, Kevin P. O'Callaghan<sup>1</sup> and Paul A. Offit<sup>1\*</sup>

<sup>1</sup> Division of Infectious Diseases, The Children's Hospital of Philadelphia, Philadelphia, PA, United States, <sup>2</sup> National Children's Research Centre, Dublin, Ireland

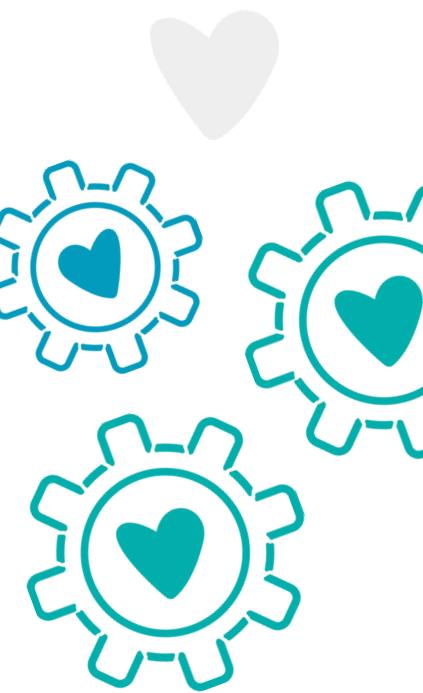
The World Health Organization has named vaccine hesitancy as one of the top ten threats to global health in 2019. The reasons why people choose not to vaccinate are complex, but lack of confidence in vaccine safety, driven by concerns about adverse events, has been identified as one of the key factors. Healthcare workers, especially those in primary care, remain key influencers on vaccine decisions. It is important, therefore, that they be supported by having easy access to trusted, evidence-

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**TEA 80%**  
**HEREDITÁRIO**  
**DEPENDE FATORES GENÉTICOS**



PALS

# ESTUDO TEVE 2 MILHÕES DE PESSOAS AVALIADAS

## Concluiu que a causa é 80% hereditária

JAMA Psychiatry | Original Investigation

### Association of Genetic and Environmental Factors With Autism in a 5-Country Cohort

Dan Imai, MSc; Benjamin Hon Kai Yip, PhD; Gayle C. Windham, PhD, MSPH; Andre Sourander, PhD; Richard Francis, PhD; Rizat Yolfe, MPH; Emma Gleson, PhD; Behrang Mohajeri, PhD; Auli Saarinen, MSc; Helen Leonard, MBChB, MPH; Mika Grisler, PhD; Joseph D. Buxbaum, PhD; Kingsley Wong, PhD; Diana Schendel, PhD; Anat Kodish, MD; Michaeline Bresnahan, PhD, MPH; Stephen Z. Levine, PhD; Erik T. Palmer, PhD; Stefan H. Hansen, PhD; Christina Hultman, PhD; Abraham Reichenberg, PhD; Sven Sandin, PhD

**IMPORTANCE:** The origins and development of autism spectrum disorder (ASD) remain unresolved. No individual-level study has provided estimates of additive genetic, maternal, and environmental effects in ASD across several countries.

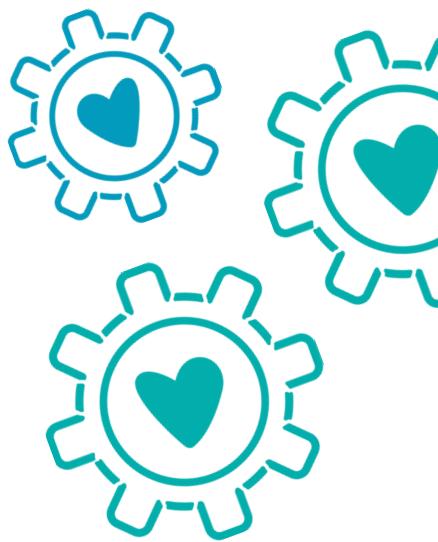
**OBJECTIVE:** To estimate the additive genetic, maternal, and environmental effects in ASD.

**DESIGN, SETTING, AND PARTICIPANTS:** Population-based, multinational cohort study including full birth cohorts of children from Denmark, Finland, Sweden, Israel, and Western Australia born between January 1, 1998, and December 31, 2011, and followed up to age 16 years. Data were analyzed from September 23, 2016 through February 4, 2018.

**MAIN OUTCOMES AND MEASURES:** Across 5 countries, models were fitted to estimate variance components describing the total variance in risk for ASD occurrence owing to additive genetics, maternal, and shared and nonshared environmental effects.

**RESULTS:** The analytic sample included 2 001 631 individuals, of whom 1 027 546 (51.3%) were male. Among the entire sample, 22 156 were diagnosed with ASD. The median (95% CI) ASD heritability was 80.8% (73.2%-85.5%) for country-specific point estimates, ranging from 50.9% (25.1%-75.6%) (Finland) to 86.8% (89.8%-100.0%) (Israel). For the Nordic countries combined, heritability estimates ranged from 81.2% (73.9%-85.3%) to 82.7% (79.0%-86.0%). Maternal effect was estimated to range from 0.4% to 1.6%. Estimates of genetic, maternal, and environmental effects for autistic disorder were similar with ASD.

**CONCLUSIONS AND RELEVANCE:** Based on population data from 5 countries, the heritability of ASD was estimated to be approximately 80%, indicating that the variation in ASD occurrence in the population is mostly owing to inherited genetic influences, with no support for contribution from maternal effects. The results suggest possible modest differences in the sources of ASD risk between countries.



Pais

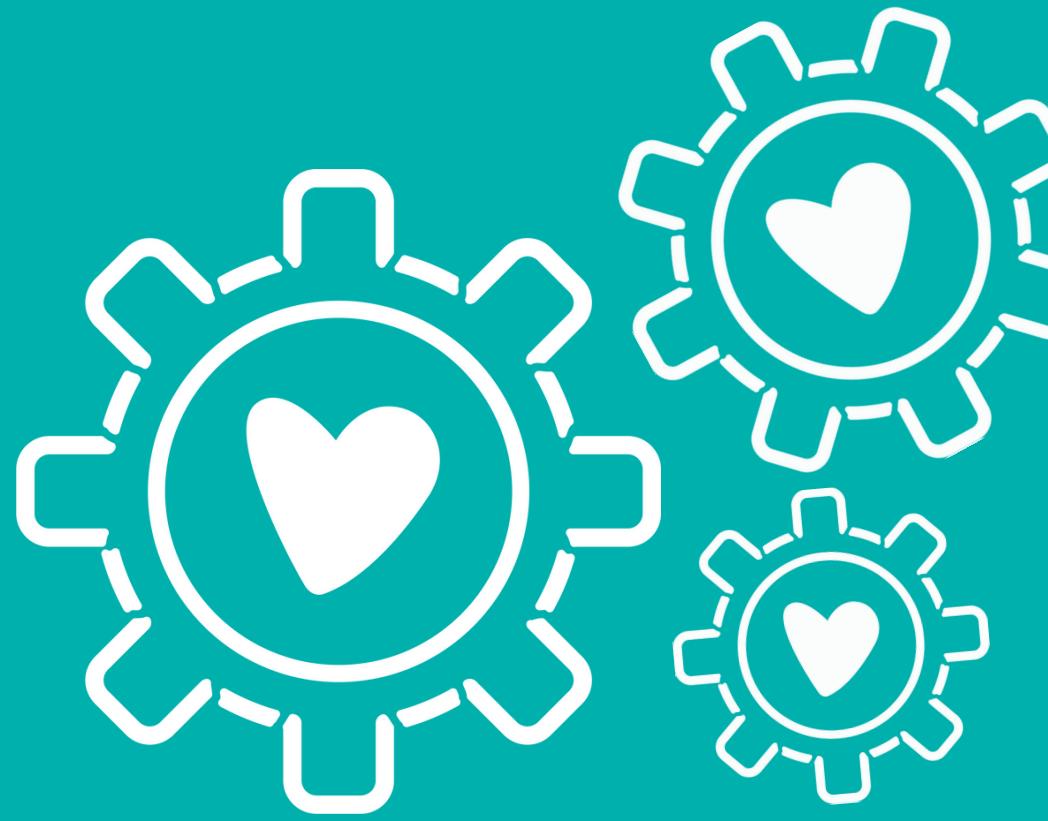
**Os pais não precisam saber ler artigos científicos, mas precisam saber questionar as fontes de informação.**

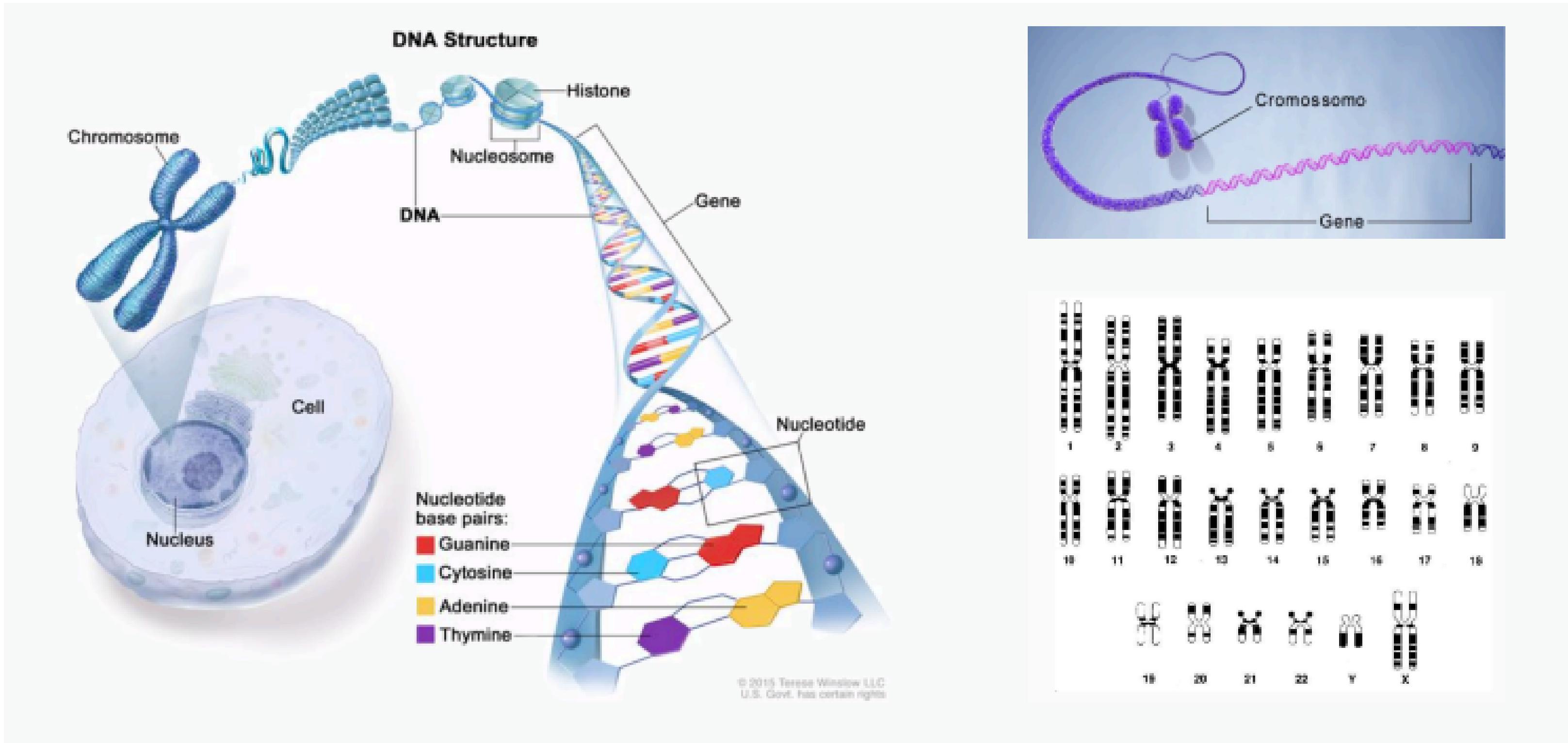
- Rodrigo Silveira



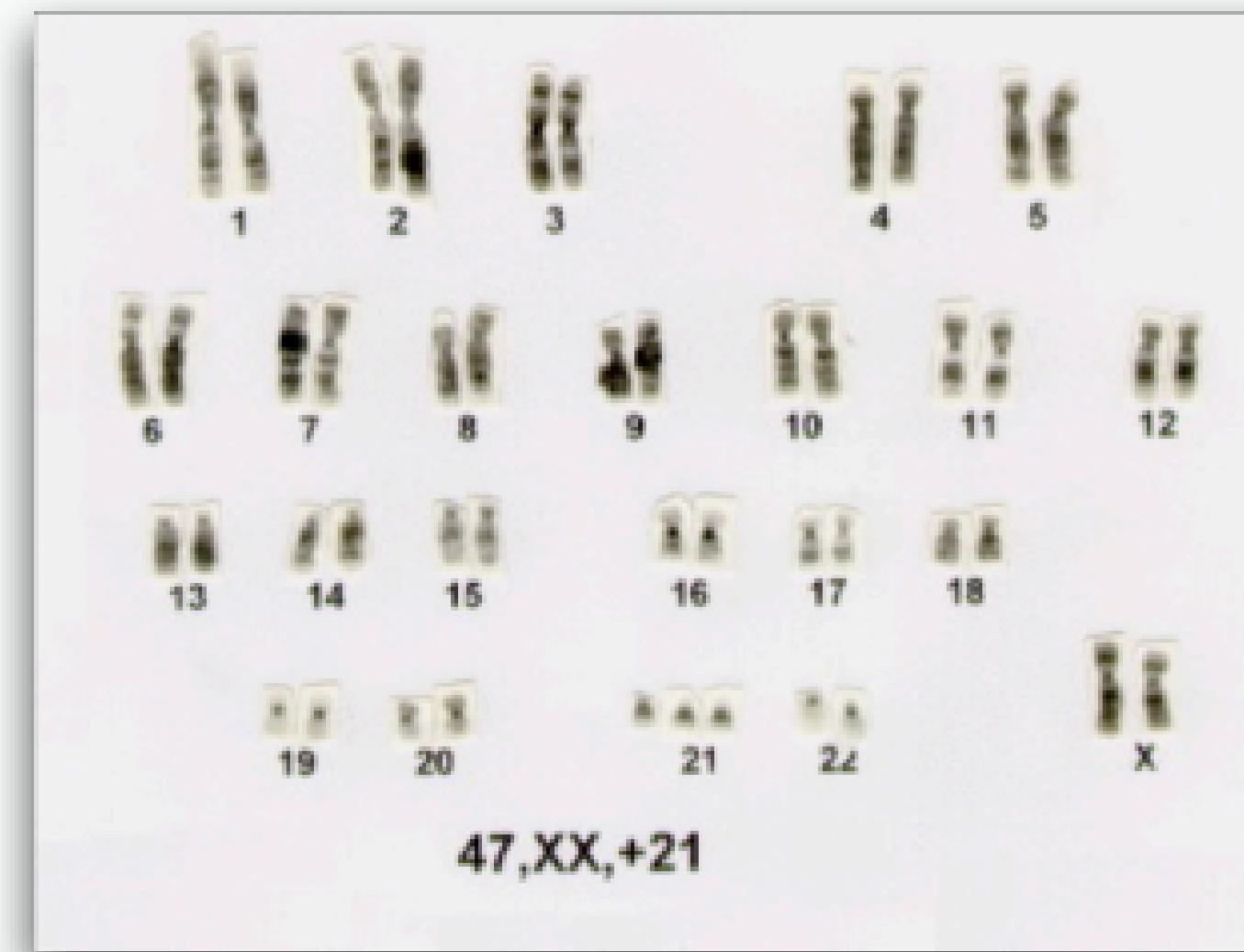
PAIS

# TEA É POLIGÊNICO

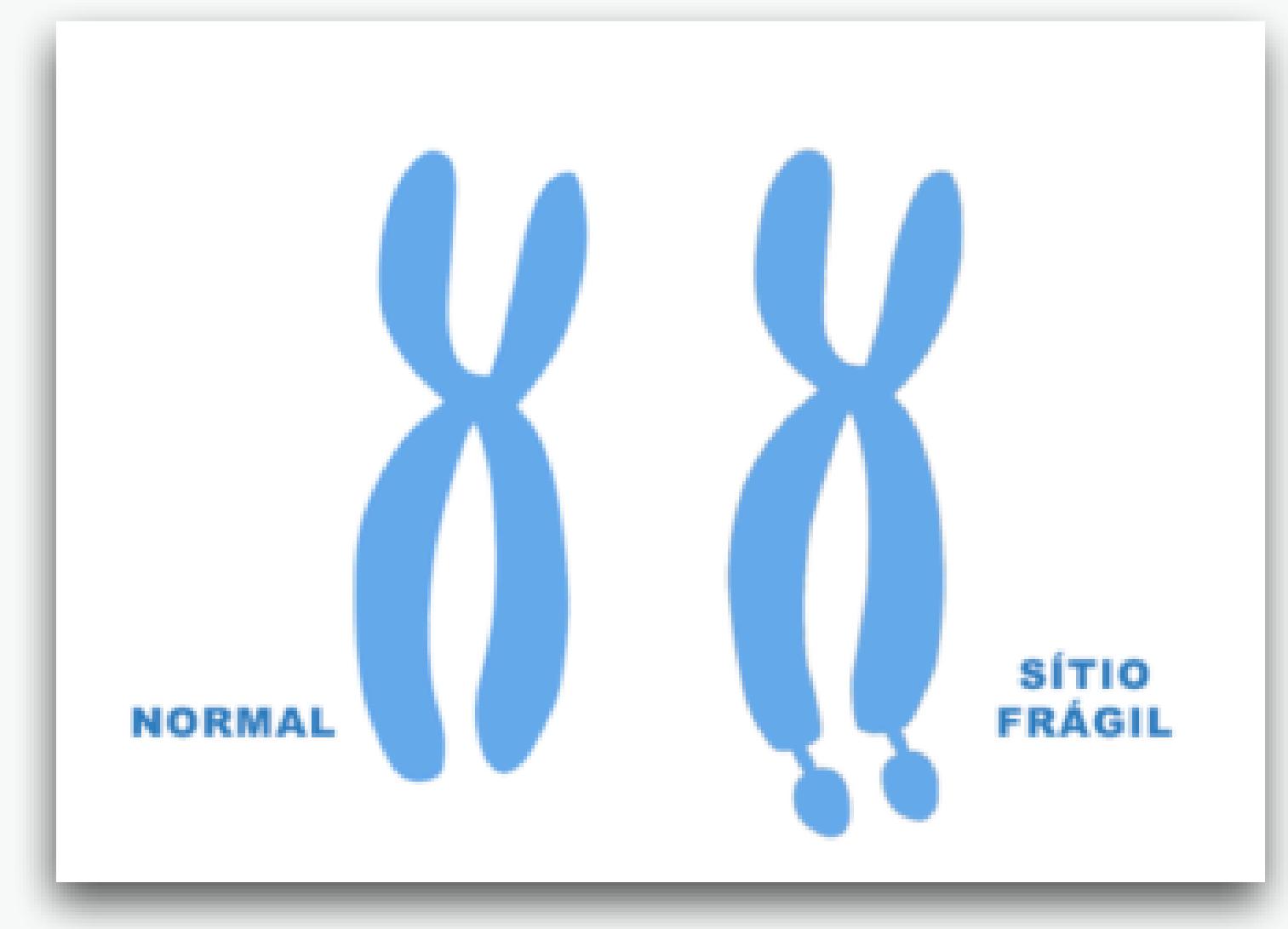




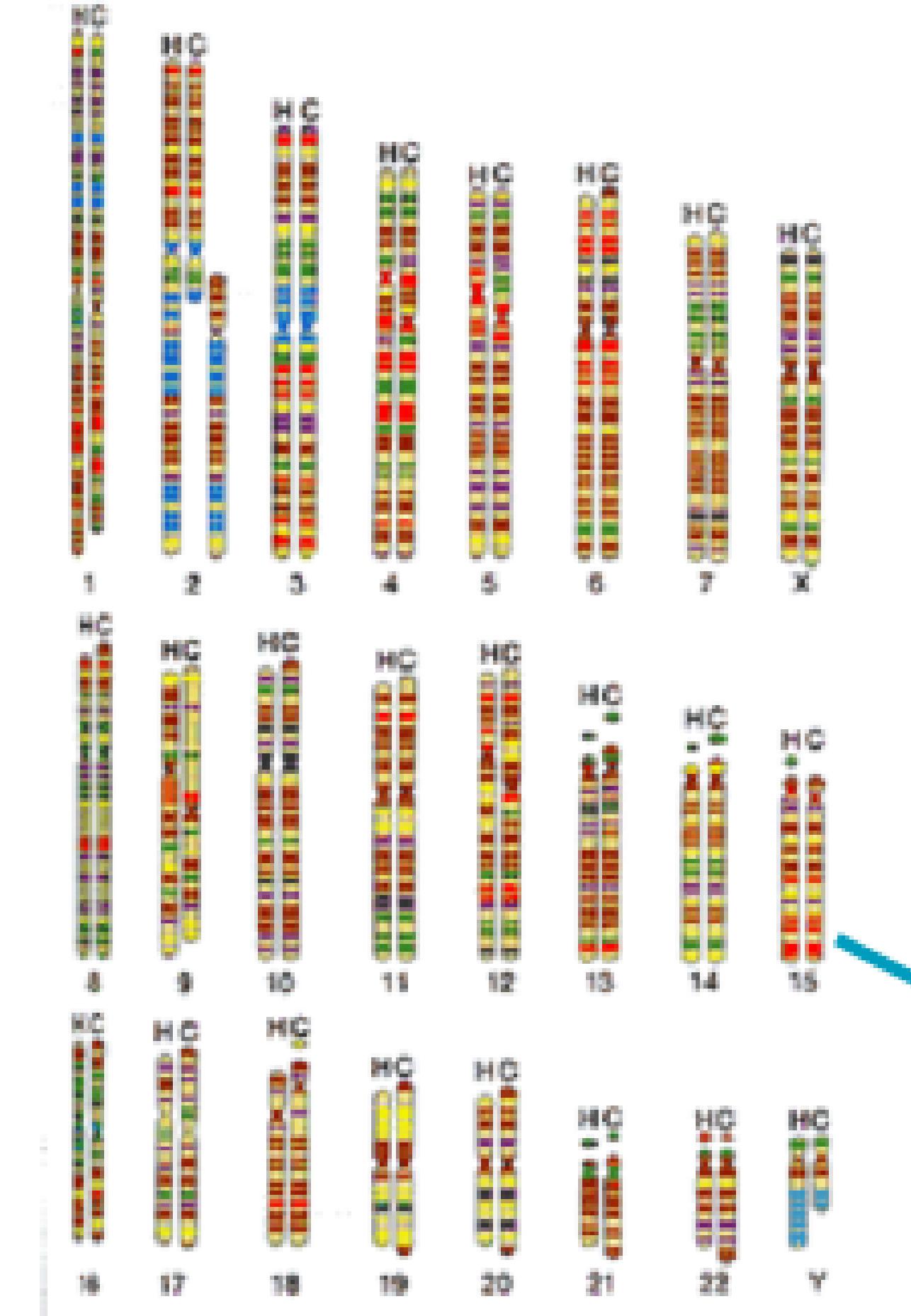
## S. DOWN



## S. X FRÁGIL

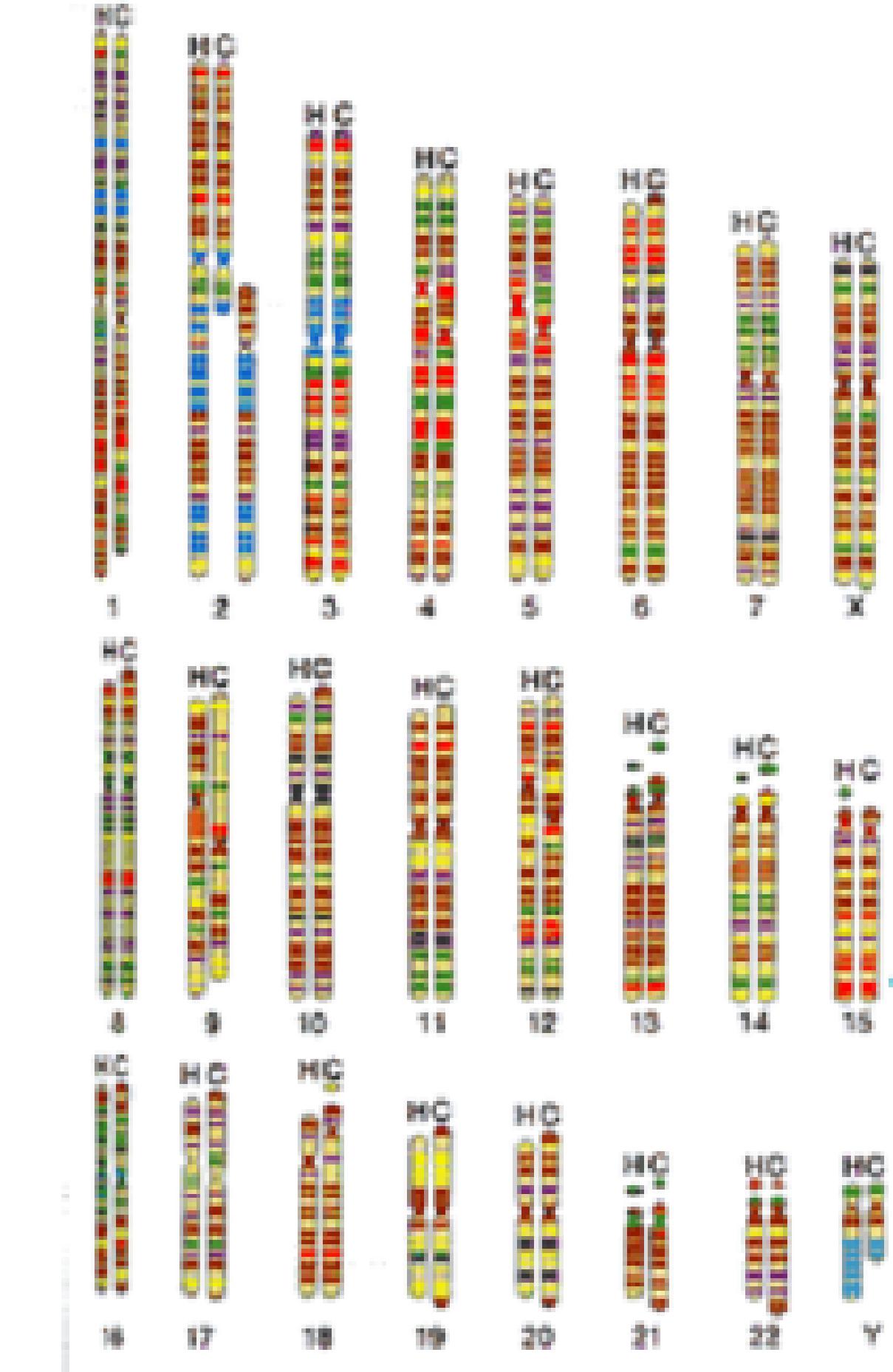


**CADA UMA  
DAS CORES É  
UM GENE!**

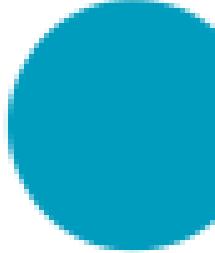


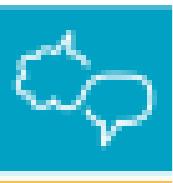
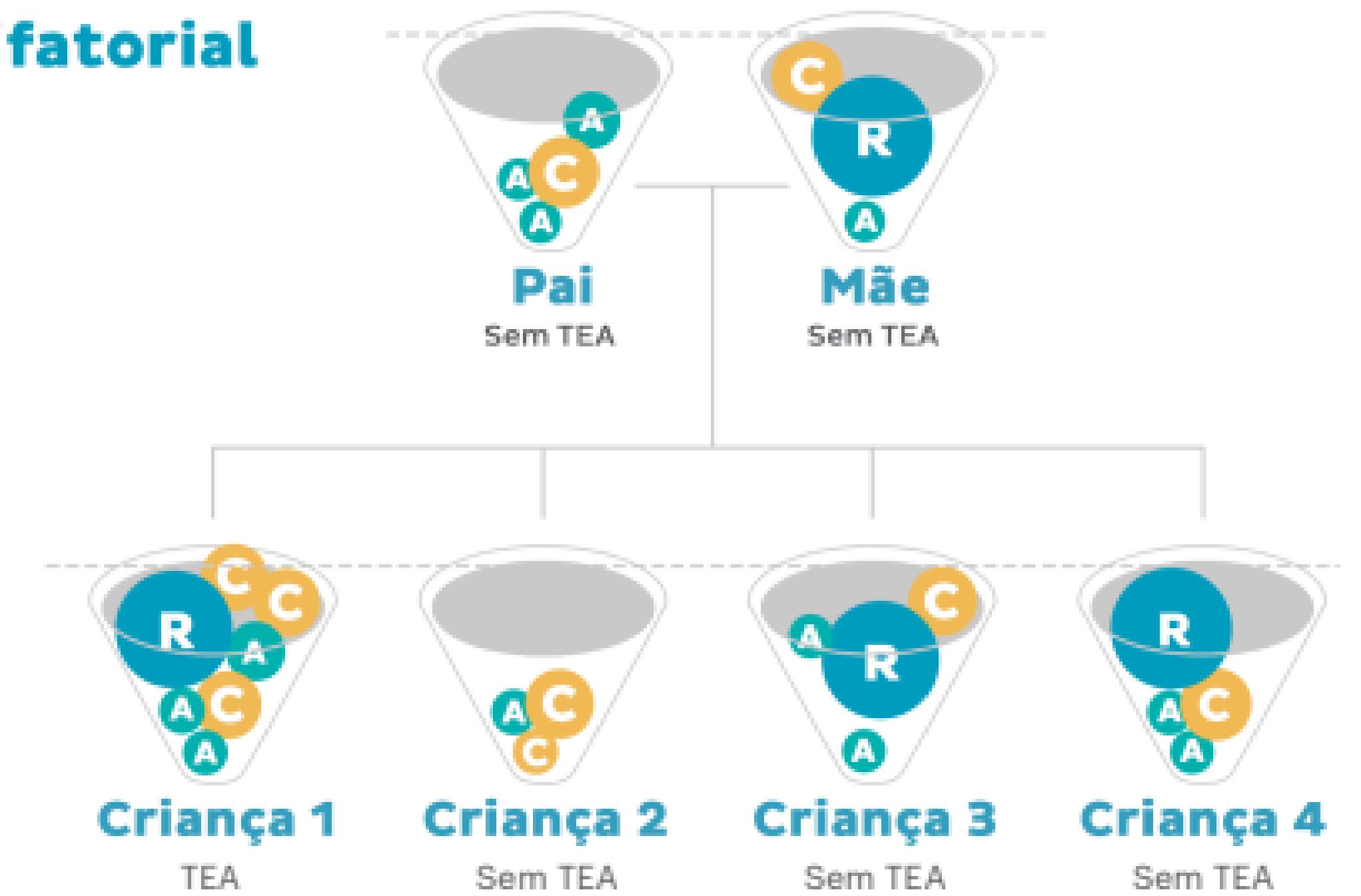
**PALS**

# NO TEA EXISTEM MAIS DE 600 GENES RELACIONADOS



# Modelo de copo - TEA Multigênico, Multifatorial e Aditivo

-  Variante Comum
-  Variante Rara
-  Fatores Ambientais



# Áreas implicadas no TEA

## Áreas ligadas a prejuízos na interação social

Côrtex orbitofrontal (OFC)

Côrtex cingulado anterior (ACC)

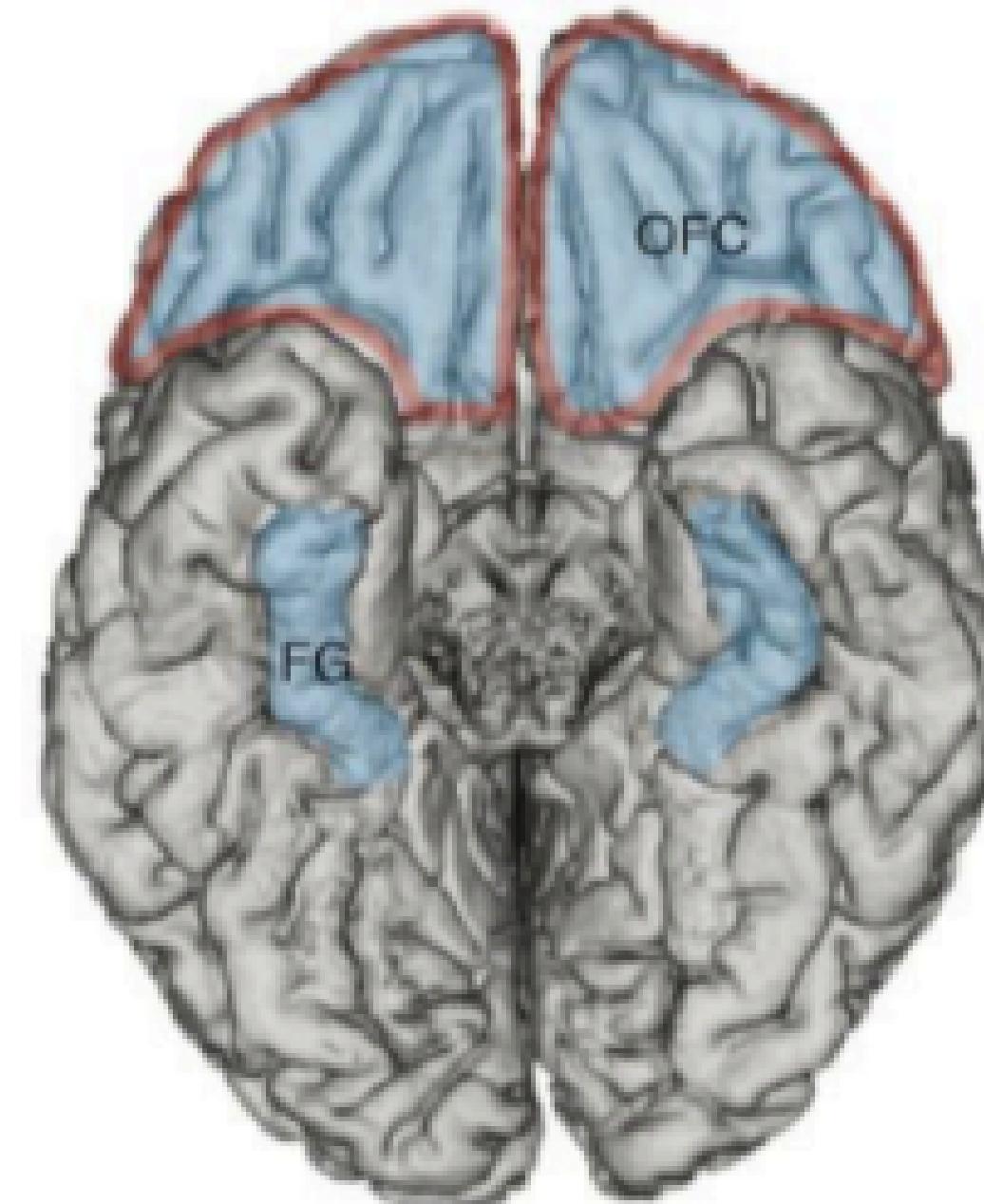
Giro fusiforme (FG)

Sulco temporal superior

Regiões de neurônio espelho da amigdala

Giro frontal inferior

Côrtex parietal posterior (PPC)



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# INSTITUTO SINGULAR

MAYRA GAIATO

