Autism and Epigenetics

Who will have a child on the spectrum? You eat organic, have taken your vitamins, have done everything from conception to birth, not vaccinated the child – and still…. What went wrong?

The epigenetic consequences of wars, starvation, poverty, struggle, of polluting and radiating the body - and other traumata in the family biography

The Vertical Transmission of Faulty Epigenetic Mechanisms (Epimutations)

- **from paternal, maternal or ancestral exposure to toxins, trauma, infections and electrosmog, passed on to future generations**
- **Leading to faulty gene expression in future generations**
- **Until family line dies out**

What is not healed in the past may come to haunt you – and your children

Trauma blocks the correct transscription of DNA for generations

a. Trauma in infancy

1. Isabelle Mansuy (Universität Zürich) submitted rat babies for the first 2 weeks after their birth to stress. The animals developed depression and anxiety disorders later in life. These „children“ were then treated with love and caring, and so was their offspring. However, the next 3 generations – as far as the study went – developed the same disorders. Mansuy could show that these changes were passed on epigenetically, not in the genes . Important genes of the fathers were incorrectly methylated, also several genes tracked in egg and spermcells of the offspring

2. Prof. Eric Richards (Univ. of Washington. St. Louis) could show, that the way rat babies were treated by their moms and caretakers determined, if and how a certain receptor on the hippocampus is methylated. Positive experiences permanently activate this receptor, a single negative experience was enough to permanently disable the receptor. This setting was passed on to the following generations

3. A recent study in Holland on women who gave birth to children in the time just after WW II (hunger, powerty, illness), revealed, that their daughters had twice the rate of schizophrenia as the control group. The researchers could show, that changes in the epigenetic controls of several genes responsible for development and growth were responsible

b. Intra-uterine Trauma: causes chronic illness in adulthood, and also in the lives of the children of those adults, their grandchildren and beyond

1. Eva Jablonka and Gal Raz (Univ Tel Aviv) demonstrated that **chemical toxins,** which affect the aspects of the hormonal system responsible for reproduction, lead to permanent changes in the reproductive system and to **decreased fertility. *These changes are passed on epigenetically to their offspring, generation after generation***, until this family line dies out

2. "Annual Research Review: *Prenatal stress and the origins of psychopathology: an evolutionary perspective".* J Child Psychol Psychiatry. 2011 Apr;52(4):356-67. Glover V. ***Emotional stress in the womb leads to epigenetic changes and psychiatric illnesses in adulthood***

3. "*Epigenetics and prenatal influences on asthma and allergic airways disease*". Chest. 2011 Mar;139(3): 640-7. Martino D, Prescott S.: **emotional stress, smoking, alcohol, environmental toxins and infections of the pregnant mom** are responsible for the epigenetic **changes of the methylation cycle,** leading to **asthma**

4. “Effects of prenatal **infection** (and/or inflammation) on brain development and behavior: A review of findings from animal models”. Brain Behav. Immun. (2010), Boksa, P. .
Infection in the womb is common and leads to permanent neuro-developmental changes, *mediated via methylation cycle abnormalities*

5. “Prenatal glucocorticoid overexposure causes permanent increases in renal Erythropoietin expression and red blood cell mass in the rat offspring”. Endocrinology. 2011 Jul;152(7):2716-21 Tang JI, Seckl JR, Nyirenda MJ. :***Stress in the womb changes and re-sets the coagulation system and many angiological parameters, setting the stage for stroke, heart attack, chronic infections in adulthood***

*6. Boksa, P. “Effects of **prenatal infection** (*and/or inflammation) on **brain Development And behavior**: A review of findings from animal models”. Brain Behav. Immun. (2010)*

*7. Thompson JA, Regnault TR.: “In utero origins of adult **insulin resistance** and Vascular dysfunction”. Semin Reprod Med. 2011 May;29(3):211-24. Epub 2011 Jun 27*

*8. **Fetal Origins of Heart Disease**,* D J P Barker ; BMJ 311: 171 (Published 15 July 1995
The Barker Hypothesis

Impaired Sulfate Metabolism and Epigenetics: Is There a Link in Autism?†

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Review

Impaired Sulfate Metabolism and Epigenetics: Is There a Link in Autism?

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Abstract

Autism is a brain disorder involving social, memory, and learning deficits, that normally develops prenatally or early in childhood. Frustratingly, many research dollars have as yet failed to identify the cause of autism. While twin concordance studies indicate a strong genetic component, the **alarming rise in the incidence of autism in the last three decades suggests that environmental factors play a key role** as well. This dichotomy can be easily explained if we invoke **a heritable epigenetic effect as the primary factor**. Researchers are just beginning to realize the huge significance of epigenetic effects taking place during gestation in influencing the phenotypical expression. Here, we propose the novel hypothesis that sulfates deficiency in both the mother and the child, brought on mainly by excess exposure to environmental toxins and inadequate sunlight exposure to the skin, **leads to widespread hypomethylation in the fetal brain with devastating consequences.** We show that many seemingly disparate observations regarding serum markers, neuronal pathologies, and nutritional deficiencies associated with autism can be integrated to support our hypothesis.

Keywords: autism; epigenetics; cholesterol sulfate; DNA methylation; sulfotransferases; heparan sulfate;folate; cobalamin; zinc

Epigenetic vertical transmission of trouble

Diagnosis and energetic treatment:

- 1. Bert Hellinger's family constellation work
- 2. Dietrich Klinghardt Psychokinesiology

Physical/biochemical treatment:

- 1. Quinton water
- 2. Methylation factors given orally or with photopheresis (5-MTHF, B12, Glycine etc.)

Family systems oriented transpersonal psychotherapy

Many aspects of the vertical transmission of ancestral trauma and unresolved conflicts can be erased with this approach. I offer evening and weekend workshops to my patients and also individual healing work utilizing the genogram and background information from living family members, public records and internet based resources (www.sophiaHI.com, www.KlinghardtInstitute.com). This work can dramatically improve treatment outcomes in the ASD community. It is very effective psychotherapeutic work that can be done for ASD children. They do not need to be present. The parents have to do the work.

- *"Wirksamkeit von Systemaufstellungen: explorative Ergebnisse der Heidelberger RCT Studie"*. Familiendynamik;1, 42-53, 2013, J.Weingold et al
- *Handbuch der Mentalfeld-Techniken*, VAK 2009, D.Klinghardt, A.Maurer)

In psychotherapy memories must be reactivated to have their neuronal connections altered, so they can be transcribed and changed. *"Fear memories require protein synthesis in the amygdala for reconsolidation after retrieval"*. Nature, 406 (6797): 722-26; 2002; J.Debiej et al

- *"Toward a Neurobiology of Pychotherapy: Basic science and clinical applications"* J of Neuropsychiatry and Clinical Neurosciences, 17: 145-58, 2005. Kandel et al