

CASE HISTORY – GAPS DIET



XIAHN WILKENS – 6 YEARS OLD
Have we done all to help this boy?



Brief History – Xiahn Wilkens

- Diagnosed with autism at age 2 (2008)
- REACH AUTISM SA
- SCD – 18 months – Mom: “...my seuntjie se vordering op die SCD dieet en terapie is fenominaal”

Things still needing attention...

- Heavy Metals
(are these the ONLY toxins we should worry about?)
- Oxidative Stress
- Methylation
- Immunity



Treatments?

- **Chelation....**Detoxamin Kids – 375mg.
- What it is? Calcium Disodium EDTA
- DMSA (dimercaptosuccinic acid) has been recommended for the treatment of lead poisoning in children by Poison Centers around the world¹. Prof. Paranandi (Ohio State University): ‘DMSA oral is the best chelator and increases I intra-cellular glutathione’, IAOMT Conference, CT, 2009
- Other chelating agents, such as 2,3-dimercapto-1-propanesulfonic acid (DMPS) and alpha lipoic acid (ALA), are used in conventional and alternative medicine.
- 1. Chisholm JJ. Safety and Efficacy of Meso-2,3-Dimercaptosuccinic acid (DMSA)in Children with Elevated Blood Lead Concentrations. Clin.Tox.2000, Vol.38,No.4,365-375

Chelation Today²

Chelator	Used in
<u>Dimercaprol</u> (British anti-Lewisite; BAL)	<ul style="list-style-type: none"> • acute <u>arsenic poisoning</u> • acute <u>mercury poisoning</u> • <u>lead poisoning</u> (in addition to <u>EDTA</u>) • <u>Lewisite</u> poisoning (for which it was developed as an antidote)
<u>Dimercaptosuccinic acid</u> (DMSA)	<ul style="list-style-type: none"> • <u>lead poisoning</u> • <u>arsenic poisoning</u> • <u>mercury poisoning</u>
<u>Dimercapto-propane sulfonate</u> (DMPS)	<ul style="list-style-type: none"> • severe acute arsenic poisoning • severe acute mercury poisoning
<u>Penicillamine</u>	<ul style="list-style-type: none"> • <i>Mainly in:</i> <u>copper toxicity</u> • <i>Occasionally adjunctive therapy in:</i> • <u>gold toxicity</u> • <u>arsenic poisoning</u> • <u>lead poisoning</u> • <u>rheumatoid arthritis</u>
<u>Ethylenediamine tetraacetic acid (calcium disodium versante)</u> (CaNa ₂ -EDTA)	<ul style="list-style-type: none"> • <u>lead poisoning</u>
<u>Deferoxamine</u> and <u>Deferasirox</u>	<ul style="list-style-type: none"> • acute <u>iron poisoning</u> • <u>iron overload</u>

How Dangerous is chelation?

- Chelation therapy can be hazardous when used inappropriately. In August 2005, IV-chelation therapy conducted by an ACAM member killed a 5-year-old boy with autism³; a 3-year-old non-autistic girl died in February 2005, and a non-autistic adult died in August 2003. These deaths were due to cardiac arrest caused by hypocalcemia during chelation therapy.
- In two of the cases hypocalcaemia appears to have been caused by the administration of Na₂EDTA (Disodium EDTA) and in the third case the type of EDTA was unknown^{4a+b}. Only the 3-year-old girl had been medically assessed and found to have an elevated blood lead level and resulting low iron levels and anaemia, a proper medical cause for chelation therapy to be conducted. According to protocol, EDTA should not be used in the treatment of children⁵. More than 30 deaths have been recorded in association with IV-administered disodium EDTA since the 1970s⁶.

3. Atwood KC, Woeckner E, Baratz RS, Sampson WI (2008). "[Why the NIH Trial to Assess Chelation Therapy \(TACT\) Should Be Abandoned](#)". *Medscape J Med* 10 (5): 115. [PMC 2438277](#). [PMID 18596934](#).

4a. Brown MJ, Willis T, Omalu B, Leiker R (2006). "[Deaths resulting from hypocalcemia after administration of edetate disodium: 2003–2005](#)". *Pediatrics* 118 (2): e534–6. [doi:10.1542/peds.2006-0858](#). [PMID 16882789](#).

4b. Baxter AJ, Krenzelok EP (2008). "Pediatric fatality secondary to EDTA chelation". *Clin Toxicol (Phila)* 46 (10): 1083–4. [doi:10.1080/15563650701261488](#). [PMID 18949650](#).

5. Van der Schaar P. *Textbook of Clinical Metal Toxicology*. IBCMT 2011

6. Atwood KC, Woeckner E, Baratz RS, Sampson WI (2008). "[Why the NIH Trial to Assess Chelation Therapy \(TACT\) Should Be Abandoned](#)". *Medscape J Med* 10 (5): 115. [PMC 2438277](#). [PMID 18596934](#).

Results show no toxic effects of lead in his body – most toxic agent is Nitrosopyrrolidine from cigarette smoke

Acumen: **121531** Patient: **Master Xiahn Wilkens**
 Date of birth: 14/09/2007
 Reported: **01/06/2012** Doctor: **Dr Carin Smit**


Lymphocyte sensitivity test(s)

Background: When sensitized lymphocytes are exposed to a low level of the 'allergen' the responses include the rapid passage of calcium into the cells. In the laboratory, the change is quantified using a calcium-sensitive fluorescent probe pre-loaded into the lymphocytes. Not all lymphocytes carry the same sensitivity information so an integrated result for a large number of the patient's lymphocytes is obtained using micro-plate technology and a Thermo Labsystems Multiscan® Multisoft instrument.

<u>Test substance</u>	<u>Result</u>	<u>Test substance</u>	<u>Result</u>
Aluminium	45	Lindane & isomers	70
Arsenic	70	p-dichlorobenzene	110
Mercury (Inorganic)	80	Carbaryl	70
Mercury (Organic)	95	Bendiocarb	60
Cadmium	160	Nitrosopyrrolidine	360
Chromium(VI)	60	Benzoate	215
Nickel	130		
Phenoxyethanol	75		
Organophosphates	140		
Pentachlorophenol	85		

Reference intervals: up to 100 = normal, 100 - 200 = borderline, over 200 = definite sensitivity

Comments: Intracellular calcium is rather high at 185 nmol/l - deducted in the calculation of the above results.


**SYNAPSE AFRICA NEURO-NUTRITIONAL
 CLINIC - CARIN S. SMIT M/CMT**

Xiahn's Acumen Testing: June 2012

Inadequacy of traditional testing...

- Xiahn tested @ local labs for:

- Full blood count – MCV H and monocytes L (on two occasions) (Intra-cellular bacteria? - Rickettsia)
- **MTHFR Mutation – normal**
- **Liver Function Test –**
 - S-ALT – H 31 (3 – 30)
 - S-AST - H 64 (16 – 46)
- Platelet count H 423 (<140) (7.10.10)
- Vitamin B12 H 725 (133 – 675) (7.10.10)
- **Platelet count – Normal 7.7.11 (Haemolytic anaemia due to infection/ B12 / folate deficiency?)**
- **T3 + T4 – normal**
- **S-TSH 1st test - normal (7.7.11) – normalised after supplements**
- S-TSH H (0.37 – 3.50) (25.1.10) – Mild subclinical hypothyroidism
- S-TSH H 4.13 (0.37 – 3.5) (7.10.10) “ “ “
- **Adenovirus – Negative**
- **Stool microbiology – scanty pus cells – no parasites or ova**
- **Rota virus – negative**
- **Cholesterol - 3.7 (possibly low?)**
- DHEAS – not done
- **Iron – normal**
- Transferrin H 3.3 (1.6 – 3.2)
- **S-Ferritin – normal (7.10.10)**
- **Total IgE – normal (Sept. 08)**
- **Glucose random – normal**
- Plasma Ammonia L 15 (21 – 50)
- **Anti-Streptolysin O – normal [Streptococcal antibodies]**
- **Anti-DNA SE B NEPH – normal [Streptococcal antibodies]**
- **Food Allergy IgG testing July 2009 (many foods) (gluten, chocolate, casein, beef, pork, lamb, duck, goose, chicken, turkey, oats, rye, buckwheat, wheat, peanuts, hazel, brazil, walnuts, almonds, coconuts, banana, orange, green apple, peach, pears, lemons, strawberries, pineapples, tomatoes, spinach, white cabbage, paprika, soy, onion, celery, mushroom, baker’s yeast H, egg H**
- Calproectin – positive (**HUGE INDICATOR THAT CHILD NEEDS GAPS!**)
- Stool SIgA – H 2399 (510 – 2040) (**HUGE INDICATOR THAT CHILD NEEDS GAPS!**)
- **Antimycogram – E. Vulneris resistant to Amoxicillin, Amoxiclav, Heam. Staph. Aureus resistant to amoxicillin, Enterobacter Aerogenes resistant to**
- Biochemistry - S-CO2 L – 20 (22- 30) (cellular acidosis?) 17.7.09

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<u>TOXIC EFFECTS OF CHEMICALS IDENTIFIED BY OTHER TESTS</u>		
Baseline metabolic activity (MA) of mixed leukocytes =	0.71	Flouresc. (Ref 0.67 - 0.82)
Comment on baseline MA: Normal baseline metabolic activity (mixed leukocytes).		
<u>Test substance</u>	<u>% inhibition of MA</u>	<u>Comment:</u>
Cadmium (chloride)	5.5	Mild pre-existing inhibition of metabolic activity.
Nickel (chloride)	3	Insignificant.
Organophosphates (mix)	6.5	Mild pre-existing inhibition of metabolic activity.
Nitrosopyrrolidine	14	Pre-existing inhibition of metabolic activity.
Benzoate (Na benzoate)	11.5	Pre-existing inhibition of metabolic activity.

Metals not (always) the REAL problem

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DNA ADDUCTS (genomic DNA from leucocytes)

Genomic DNA from leucocytes is analysed by gas-liquid chromatography for the group-presence of organic chemicals and by atomic emission for the presence of toxic metals. We identify specific adducts using fluorescent-marker probes, Raman spectrophotometry, fluorimetry and gel electrophoresis. We try to selectively precipitate any abnormal proteins for further investigation by polarisation microscopy and immuno-assay procedures. Whenever possible, we identify the location of the adducted chemical on the DNA and say if it associated with a specific gene or control factor.

Total DNA (from 1ml whole blood) = 64 ug (reference 30 – 60)

<u>Adduct found</u>	<u>ng/ml blood</u>	<u>Gene (if identified)</u>
Benzoate #1	3	Glutamine synthetase #2
Nitrosopyrrolidine #2, #3	2.5	CDK-1 gene 10q21 #4
Fructose-1-phosphate #5	1.5	None gene area, q17

Comments: DNA-associated Zinc = 14 ng/ml (reference 21 - 74)
Low level of DNA-associated zinc. #1 Preservatives in foods, some drugs and soft drinks. #2 Notes attached. #3 A nitrosamine. #4 Cyclin-dependent protein kinase. A cell-cycle control enzyme. #5 Suggests excessive fructose + sucrose intake.

Which Bio-medical intervention works?

Old ways of treating ASD

- GF/CF Diets
- GF/CF/GF Diets
- SCD Diet
- Supplements
- Anti-fungals (nystatin/diflucan)
- Anti - virals
- Chelation of **metals**
- Treating CFD (test FRA)
- Anti-depressants / anti-
psychotics

Newer ways of treating ASD

- Camel's Milk – Frank Smits Netherlands
- GAPS Diet
- Ketogenic diet
- Super-nutrition, as necessary
- Anti - microbials (Apolactoferrin & herbal)
- BH4 augmentation (reduction of ammonia)
- EMR for immune modulation
- Lipid Transfer Therapy **removes metals and chemicals (xenobiotics)**
- With high dose Folinic / Leucovorin and Methyl-B12
- Saffron
- MMS Drops – Kerri Rivera



Camel's Milk

- High levels of Lactoferrin
- Small immuno-globulins that reach right into cells fighting bacteria, viruses, yeasts and molds
- Immune modulating
- Higher in Vitamin C than other milk
- Much higher in iron than all other milk – in its protein bound form.
- Easy digestion
- Gut healing properties
- Allergy curing properties +++++
- Auto-immune-fighting properties (so if FRA is an auto-immune disease, camel's milk is theoretically one of the FEW treatments which could help, providing one gives about 3,2 mg of Folinic acid per day (PK Protocol) or you run a bi-weekly IV with Leucovorin (unnecessary in my opinion if you give Folinic at such high doses!)
- Good quality useable calcium
- Reduces self-stimulatory behaviours
- Increases socialization, improves mood and generally helps autistic children normalize – anything from better eye contact, to better food tolerance, to more substantial and better formed stools, etc.
- Stops diarrhoea (proven in our project in India where children consuming camel milk dropped from up to 32 bowel movements per day to 1 – 3!)
- One of the few foods that has truly anti-viral properties....



Camel's Milk is Extraordinary!

Camel's milk has so much going for it, which **NO COHERENT NUTRIENT OR TREATMENT PROGRAMME DEVELOPED TO DATE IN AUTISM CIRCLES OFFERS.** Camel's Milk heals auto-immune disease in a short span of time.....

Constituents of Camels' Milk

- **CAMELS' MILK** (like all other dairy) should never
 - Be taken in pasteurized form (becomes denatured)
 - Should never be taken as is – *ferment it!*
 - Contains higher fats than human milk
- **CAMELS' WHEY** is:
 - Casomorphine-free
 - Beta-lactoglobulin (beta-LG) free – primary allergen binding to IgE and IgG isotopes!
 - Lactose containing, but due to the high lactoferrin in camels' milk, it doesn't cause the same problems as cows' milk
 - Lower in lactose than other milks
 - Appreciable amounts of essential fatty acids in Camels' milk
- **CAMEL'S MILKS** is:
 - A good FOOD of high nutritive value and therapeutic consideration

CAMEL MILK RESEARCH

- The lactoferrin in camel's milk has antibacterial and antiviral properties. It also has anti-tumor properties (Ueda et al., 1957).
- Positive effect on breast cancer (Eiseler et al., 1998).
- Three times the amount of vitamin C than cow's milk.
- Been used for centuries to treat liver disease, and studies have been performed for hepatitis and liver cancer with promising results.
- Easily digested by lactose-intolerant individuals.
- Rich in B vitamins and iron (10 times higher than cow's milk).
- High in unsaturated fatty acids
- Immuno-globulins in camel milk have been shown to protect against types of cancer (Fage et al., 2005). The International Federation of Gynecology and Obstetrics is reporting on a study published in the FASEB Journal ([Federation of American Experimental Biology Journal](#)) that details a new discovery of camel nano-bodies that may help in the detection and treatment of cancer.

Camel milk has been used to aid in the treatment of the following illnesses:

- **Autism** (Shabo and Yagil et al., International Journal of Human Development, Volume 4, Issue 2, p.67-70 (2005),
- **Milk allergies** (Shabo et al., Immunology and Allergies, 2005),
- **Tuberculosis** (Agarwal et al., 2005),
- **Crohn's Disease** (Shabo et al., 2005, 2006; Donechenko, 1975),
- **Diabetes** (RP Agrawal, R Beniwal, DK Kochar, FC Tuteja, SK - **Diabetes Research and Clinical Practice**, [Volume 68, Issue 2](#) , Pages 176-177, May 2005; 2005 - Elsevier2005-01-01),
- **Immune-diseases** (Konuspayeva G, Faye B, Loiseau G, Levieux D., J Dairy Sci., Jan;90(1):38-46, 2007)

Many other research articles can be found at: <https://sites.google.com/site/allthingscamel/dromedary/research>

WHICH CONDITIONS BENEFIT FROM GAPS DIET?

- ADD, ADHD, Autism
- Dyslexia
- Depression
- OCD
- Bi-polar Disorder
- Epilepsy
- Arthritis
- Asthma, allergies
- Skin problems
- Digestive diseases and
- Auto-immune Disorders

GAPS and Th1 & Th2

- Th1 - responsible for “normal” reactions to environment. Dependent on gut flora
- Th2 – designed to address immune factors INSIDE body
- When Th1 breaks down, Th2 takes over and handles environmental elements *inappropriately* – *allergies x intolerances*
- Food intolerances can manifest hours, days or even *weeks* after consumption
- **KEY TO SOLVING THE SYMPTOM RIDDLE: NOT to determine which foods you’re reacting to in order to avoid them. RATHER NEED TO FOCUS ON HEALING AND SEALING THE GUT – REGAIN Th1 function**

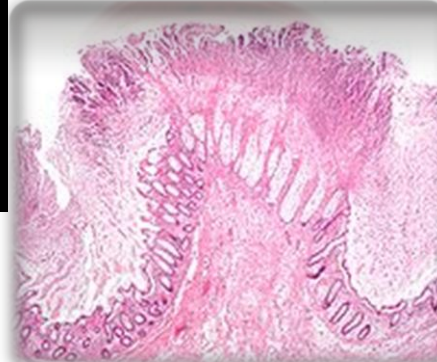
GAPS DIET WORKS!

- Dr. Natasha Campbell-McBride
- Russian Neurologist/Nutritionist
- Autistic son – diagnosed age 3 – no answers from MD's
- Incidence in autism 1980's 1:10000, now 1:66 (UK, July, 2011) 1:88 (USA, March, 2012)
- Son fully recovered at age 12 – off spectrum!
- Practices UK
- ***Gut and Psychology Syndrome*** – makes children very susceptible to vaccine damage (and environmental toxins – CSS)

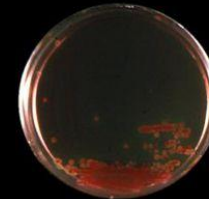
WHY GAPS DIET WORKS!

- It all starts in the GUT

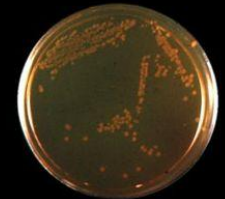
Proteus vulgaris



Shigella sp., Escherichia sp., and Proteus sp.



MacConkey Agar



Shigella-Salmonella Agar



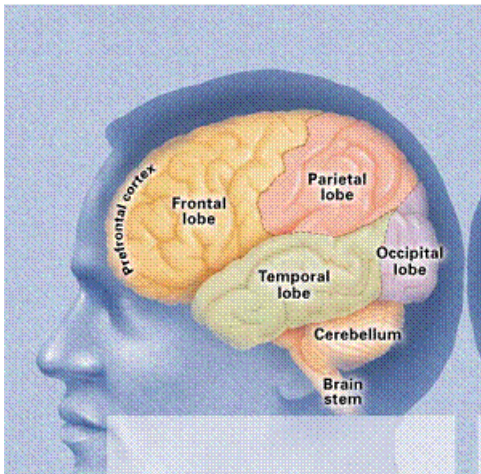
Bismuth Sulfite Agar



Brilliant Green Agar

WHY GAPS DIET WORKS?

- Brain toxicity leads to autistic symptoms...



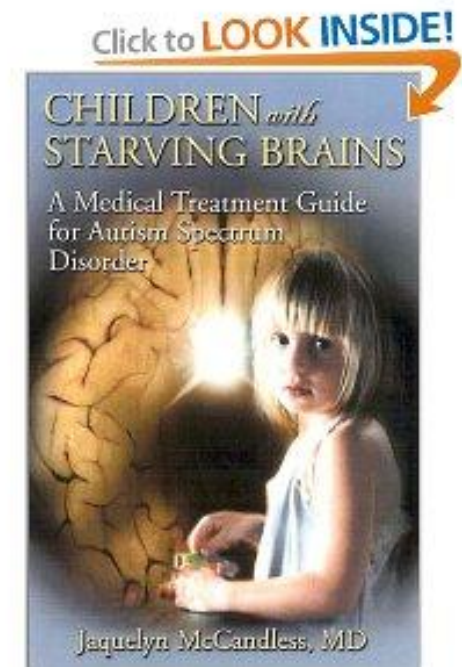
Your Gut Has a
Mind of Its Own

The Second Brain

A Groundbreaking New Understanding
of Nervous Disorders of the
Stomach and Intestine

"Persuasive, impassioned . . . hopeful news [for those]
suffering from functional bowel disease."
— *New York Times Book Review*

Michael D. Gershon, M.D.



- *90 percent of all cells and all genetic material in a human body is our own gut flora* – recently published Scandinavian study.
- *"We are just a shell... a habitat for this mass of microbes inside us. We ignore them at our own peril."* Dr. Campbell-McBride

WHY GAPS DIET WORKS?!

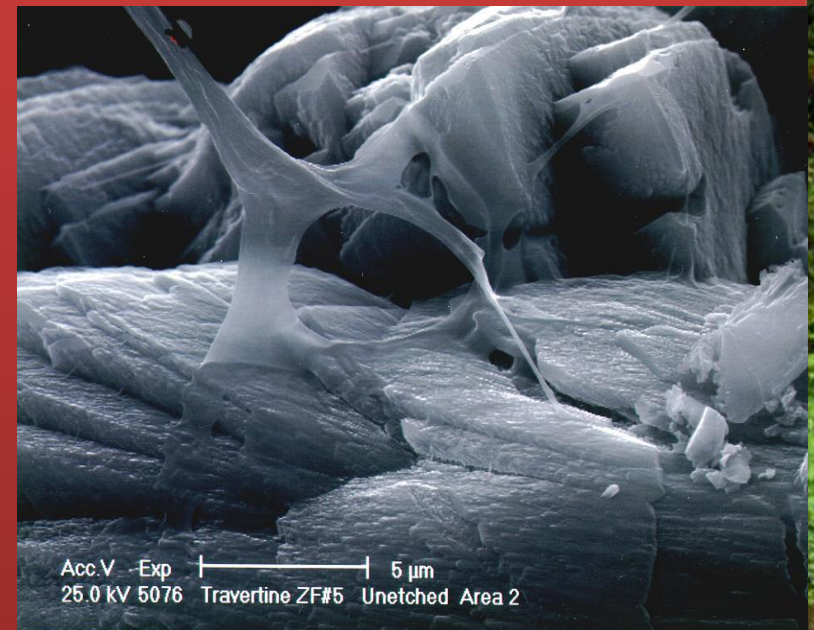
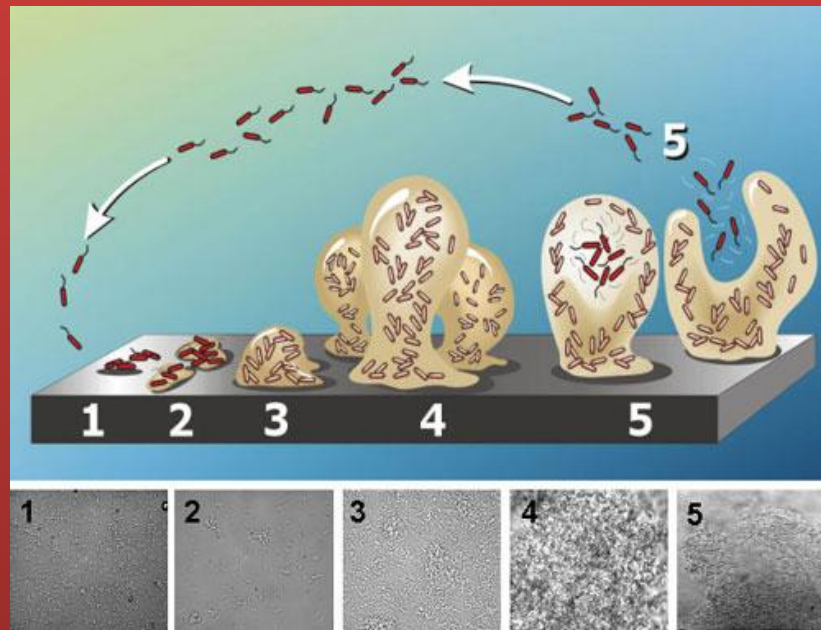
- Role of early antibiotics/cortisone
- Gut system, instead of nourishing the child, becomes a huge source of toxicity
- Pathogenic flora/parasites damage integrity of intestinal tract
- Raw sewerage, other toxicants seep into blood, compromises BBB and affect brain
- Non-breastfed babies affected earlier than breastfed babies

WHY GAPS DIET WORKS?

- Baby gut in utero = sterile
- Obtains bacterial from birth canal from healthy mothers (vaginal thrush)
- *“Growing and a deepening epidemic of abnormalities in the gut flora, which began since Second World War when antibiotics were discovered”.*
- **GAPS:**
 - emphasis on ***fermentation*** – re-seeds the gut!

WHY GAPS DIET WORKS?!

- Fermented foods superior to probiotics.....?
- **WAR IN THE GUT:** *Thousands of different species of downright pathogenic disease-causing microbes; bacteria, viruses, fungi and other microbes.*



WHY GAPS REALLY WORKS?!

- *100 percent of mom's of autistic children have abnormal gut flora and health problems related to that!* Dr. Natasha Campbell-McBride – 2011
- Grandmothers on mother's side too – milder!
- Generational build-up of abnormal gut flora, with each generation becoming ever more prone to being further harmed from the use of antibiotics-and vaccines

WHY GAPS REALLY WORKS?

- Bottle feeding
- Cow's Milk – poorly digested, excessive neural pruning!
- Soya Milk – steals Zinc!
- Antibiotics – the war is on!

WHY GAPS DIET *REALLY* WORKS?!

- **RECIPE FOR DISASTER**

- Large percentage of mothers of autistic children were themselves bottle-fed
- THEN, they received multiple sets of antibiotics which causes gut-flora abnormality to deepen
- THEN, at age 15/16 many young women started taking contraceptive pills – also devastating effect on gut-flora
- THEN, increasing amounts of junk-food consumed – laced with high levels of high fructose corn syrup which further damages the gut-flora of expectant mothers.
- THEN, many still have amalgam fillings ('silver' fillings) in their mouths – amalgam fillings are 50% mercury – the most toxic non-radioactive metal on the planet!

- **END RESULT:** Mothers with poor gut-flora are high risk for a baby who may become autistic due to a Th1/Th2 shift!
- **GOOD NEWS:** Breast-fed babies have entirely different set of gut-flora than bottle-fed babies, providing mothers Th1/Th2 is intact!

WHY *DOES* GAPS DIET WORK?!

- Whilst breast-feeding lasts, protection lasts
- When breast-feeding stops, protection ceases
- Slide into autism begins for those with high levels of pathogenic flora (high exposure to toxic chemicals – CSS)
- Not only autism, also ADD, ADHD, eczema, asthma, learning disabilities, and auto-immune diseases like diabetes Type 1, Coeliac's Disease, etc.
- Add to this the more than 70,000 toxic chemicals in our everyday environments we are exposed to:
RECIPE FOR DISEASE!

CORNERSTONES OF GAPS DIET

- Thoroughly cooked foods
 - Removal of carbohydrate foods
 - High protein and (good) fat/cold-pressed oils
 - FERMENTATION, FERMENTATION, FERMENTATION!
- Minimum digestion (stocks, broths, soups)
 - Grains, potatoes, sweet potatoes, sugars, junk-food leave diet....
 - Recovery of membranes, DNA & RNA
 - Restore equilibrium in gut

PRICELESS: SAFFRON

- Autism and Alzheimers – Research:
 - Medical Research Center – University of Alberta, Canada (Saffron and Neuro-Inflammation);
 - Journal of Psychopharmacology, Berlin/Heidelberg (Saffron and Alzheimer Disease);
 - Journal for Experimental Biology and Medicine (Saffron and cancer);
 - University of Teheran (Saffron and Alzheimers)
- Journal of Immunology: “We there is a compound in Saffron, known as crocin, that exerts a protective effect in brain cell cultures and other models of MS. It prevented damage to cells that make myelin in the brain”.

SAFFRON AND CAMELS' MILK

- **UNBEATABLE CONBINATION:**
- **Testimony 1:** “We started camels’ milk and saffron together. Much prayer, saffron, camels’ milk and removal of dairy and sugar from Noor’s diet “woke him up” in 3 weeks! It was as if he could remember things from when he was 2 (now 4), and as if his brain had come out a long sleep. Then suddenly he started talking, laughing at our jokes, saw the funny side of life.... Started playing with his little sister... he was enrolled into the top school in Dubai last month, 2 months after starting Camel’s milk and saffron and he passed the entrance exam – no-one knew he was autistic!

SAFFRON ALONE

- Testimony 2: *“Carin you mentioned that saffron was used as a natural remedy for Alzheimer’s which gave me such hopes for granny. We are currently giving her saffron tea twice (a pinch) a day for a week now and my aunt has notices such a difference.”*

Dr. Rosignol – The Folate Factor⁷

A newly discovered disorder may play a role in autism.

BY DAN ROSSIGNOL, MD, AND RICHARD FRYE, MD, PHD,

- “Recently, some parents have been using camels’ milk as a treatment in some children with ASD because camels’ milk appears to help food allergies in some individuals. However, the concentration of FRA antigen in camels’ milk is similar to that found in cows’ milk, and its immuno-reactivity with FRA is also similar to the FRA antigen in cows’ milk and is two to three-fold higher than with human milk” (Dr. Quadros, personal communication, 12/21/11).
- **Thus, the use of camels’ milk in children with Folic Receptor Antigen auto-antibodies *may* be problematic.”**
- When I read *Julie Matthew’s* comment, this is what she says Rosignol implied that Quadros said:
 - “In light of this new information, it appears for children who produce auto-antibodies to the folate receptor alpha, camel milk **would be contraindicated and should be avoided**”.
 - **MISQUOTED!**
- SOLUTION? Give children 3,2 mg of Folinic acid **with their camel’s milk per day!**

12/11/2012