

Homeopathy: Miasms as Epigenetic factors - The root cause of Chronic Disease

Presented by J D Millar BSc ND DHANP CCH HD

A presentation for the OAND Convention 2010

Part 1: Miasm and Chronic disease

Hahnemann's System of Disease Classification

Acute Disease

- Individual Acute: Is in fact an acute expression of the chronic (see complimentary remedies). Occasioning causes include excess of pleasures or deprivations, physical trauma, becoming chilled or overheated, fatigue, sprains and strains
- Epidemic Acute: A disease state that is expressed in a number of individuals in the same place at the same time. Occasioned by calamities such as war, floods

Disease Classification Continued

Acute Disease (continued)

- Sporadic Acute: A disease state that expresses in a number of individuals at different localities at the same time. Occasioned by meteoric and telluric forces
- Acute Miasmatic Type 1: A variety of disease state that occurs once in a lifetime. Typical childhood diseases are of this class
- Acute Miasmatic Type 2: A variety of disease state that may occur more than once in a lifetime. Most tropical diseases are of this class

Disease Classification Continued

Chronic Disease

- Chronic Miasmatic Disease: All disease states that are the outgrowth of a chronic miasmatic soil
- Chronic Non-Miasmatic Disease: Chronic lifestyle-related diseases. Disease from occupational and environmental health hazards. These are not amenable to Homeopathy
- One-sided Disease: Pathological disease states that are so progressed that only the common symptoms of the disease can be perceived

Disease Classification Continued

Chronic Disease (continued)

- Mental Disease of Wrong Thinking: Mental emotional disturbances and psychosomatic diseases that are the result of an incongruous belief system, one that is not conducive to health and well-being. These are diseases for counseling and not homeopathy
- Chronic Iatrogenic disease: See Petrochemical Miasm
- Intermittent Disease:
- Alternating Disease:

Acute vs Chronic Disease

- An Acute disease is self limiting and results in either recovery or death.
- A Chronic disease is one which progressively worsens with time and continues until expiration.

Acute vs Chronic Prescribing

- Acute Prescription is required when the reaction of the organism is appropriate and proportionate to the stimulus at hand. An Acute prescription is based on the totality of the Characteristics Symptoms.
- A Chronic Prescription is required when the reaction of the organism is inappropriate and disproportionate to the stimulus at hand. A Chronic prescription is based on the strange, rare and peculiar symptoms of the given case of disease.

What is Miasm??????

- An acquired or inherent taint
- The results of the suppression of the acute reaction phase of disease
- An accumulation of all tendencies, resulting in epigenetic alterations i.e. in Phenotype (See Epigenetics and Miasms, Millar 2010)
- John Davidson, a researcher and author on bioenergetics, states that, "Miasms are essentially an energy disharmony, disease pattern or imbalance."
- The basis for all Chronic Degenerative disease
- Miasms function as a practical classification system for remedies and diseases

Miasm: Psora

- For Hahnemann, the psoric miasm was the many-headed hydra at the root of all but venereal based chronic disease. It was said to be the result of the suppression of itch, and includes all sorts of viral, fungal and parasitic diseases in today's terms as well as inherent results of nutritional excesses, deficiencies and imbalances.
- In a psoric state things are perceived as solvable. Even though it will be a struggle there is an optimism that things will be OK.

Miasm: Psora

- In the successful psoric state, there is an effort to get things done.
- In the failed side, the psoric gives up easily, there is a despair of recovery and a lack of confidence.
- The general attitude, however, is that if an effort is made, success will result.

Miasm: Psora

- Sensation is as learning a new skill.
- **Typical Remedies: Sulph Psor., cupr.,**
- Psora encompasses leprosy, very prevalent in the 13th century (2000 homes for lepers in France alone).
- Psora can be spread by contact or shared laundry. It has become essentially universal.

Miasm: Psora

- Conventional medicine of his day taught that eruptions of itch were only local, and not systemic.
- Psora results from environmental and lifestyle factors accumulating from previous generations
- Psora is fundamentally a disease of deficiency resulting in hypofunction

Miasm: Syphilitic

- The syphilitic state is one of “neverendingness”. Things are hopeless and well beyond one’s capacity. Though the goal may never be reached, it is one’s highest and sole responsibility to do it. The responsibility is joined with a guilt of having committed some unpardonable crime.
- When one is successful, there is a concerted effort to just take it on, doing the utmost all of the time. They can be in a high position, a leader, a king.

Miasm: Syphilitic

- In the failed aspect of the state, there is complete despair. Self-destructive including alcoholism, homicide and suicide. Total withdrawal and indifference, catatonia.
- The attitude is one of acceptance of the total hopelessness of the situation and the sense of being obliged to do the best they can.
- A situation as if you are the captain of a sinking ship.
- The syphilitic diseases express a basic dysfunction or distorted function.

Miasm: Sycotic

- There is a fixed weakness perceived with the sycotic state. The weakness must be hidden as there is some guilt associated.
- In order to be successful, the sycotic must cover up and hide their weakness. It is a life of fixed ideas and ritualistic behaviour.
- Often more and more things excite the state and the individual becomes more fixed and rigid.
- In the failed state, the guilt, remorse and self-reproach ensue.

Miasm: Sycotic

- The attitude is one that, while one cannot change the internal weakness, it is important that others not see it.
- Typical Remedies: Med., Thuja., Nat-s., Puls., Lac-c
- Hahneman's sycosis or figwart disease can be viewed with 2 subtypes: those relating to all gonorrhoeas and those relating to HPV
- Sycotic diseases express hyperfunction and excesses of tissue growth

Miasm: Pseudopsora, Tubercular

- The state of the tubercular is one of oppression, of being caught, compressed and suffocated. Time is short (running out) and one must hurry.
- When approached with some success, life is full of hectic activity. There are all sorts of efforts to "get out from under".
- In the failed aspect of the state there is "Burn Out" tending towards total destruction.

Miasm: Pseudopsora, Tubercular

- The general attitude is that time is short. There is much to do and little time to do it. It's as if one is trapped in a tight tunnel.
- Typical Remedies: Tub., Bac., Dros., Calc-p., Phos., Tarent.,
- Tubercular is a combination miasm of the psoric and syphilitic group.

Miasm: Acute

- Hahnemann speaks of the acute miasm in terms of standard childhood illnesses and endemic tropical diseases, but in his day it was still a planetary miasm.
- Acute miasmatic states are perceived as if the organism were faced with a sudden intense (large) danger or threat.
- Active reaction: Escape, acting on instinct, beside oneself
- Passive Reaction: Panic, shock, stupified, frozen, immobile

Miasm: Acute

- Feeling: Helpless, Run for your life
- Attitude: Once the danger is over you are safe again
- Situations as if: Explosion, earthquake
- Typical remedies: Acon., Bell., Stram., Verat., Camph., Hydro.,
- In Hahnemann's time, these diseases were not yet inherent, but as the result of chemical suppression and the vaccination process they have become chronic inheritable disease states.

Miasm: Typhoid

- Here there is a situation of a sudden loss of a position of relative comfort. It must be gotten back or all is lost. Though the situation is risky and dangerous, there is a great urgency to get back what is lost so that all may be okay.... Everything is a Crisis....
- Active reaction: Short, intense effort, do or die, impatient, demanding, risk-taking, reaching, grabbing on
- Passive reaction: collapse, given up, sinking, no action of will

Miasm: Typhoid

- Feeling: If I come out of the Crisis, fine; if not, I'm sunk....
- Attitude: I need to give a short, very intense effort to find rest
- Situation as if: A house on fire, a sinking ship, market crash
- Typical remedies: Nux-v., Hyos., Pyro., Rhus-t., Bry., Bact.,
- The Typhoid group sits between the Acute and psoric group and is conceptually a new miasmatic group

Miasm: Ringworm

- In the Ringworm state, the situation is viewed as a difficult one beyond easy reach, but one must try
- In the successful phase, there is an alternation between struggle and resignation. Trying is the key.
- In the failed phase, there is no trying, just resignation and waiting until the time is right again. The situation must change first.

Miasm: Ringworm

- The general attitude is that I shall try. If I succeed, good; if not, I must remain and wait.
- The situation is as if one had a handicap in a given situation.
- Typical Remedies: Calc-s., Ringworm., Calc-sil., Mag-s.,
- Provings of the Ringworm nosode led to the development of this new miasmatic group

Miasm: Malarial

- The malarial state is a state of resigned “stuckness” with intermittent acute attacks. There is a sense of being limited, dependant, unfortunate and even imprisoned.
- In order to succeed in this state one must accept one’s limits and occasionally attack in one’s defense and then retreat to dependence.
- In the failed state, there is lamenting; nothing is right. Sentimental miserable brooding. Paroxysmal phobia.

Miasm: Malarial

- There is a general attitude that due to one’s limits and dependency one must accept these periodic attacks.
- There is a general sensation as if one is being harassed in a situation that one must bear as one lacks the power to change it.
- Typical remedies: China-s., Nat-m., Coloc., Caps., Ant-c.,
- The malarial miasm can be viewed as a combination of the sycotic and the acute miasms.

Miasm: Leprose

- The Leprose state is one of being dirty and disgusting. Life is perceived as being hunted down, displaced, destroyed, isolated, poisoned, or put in the corner.
- The best successful response is to simply avoid, stay out of the way, don't be seen..... This is the best that can be done.
- In the failed expression, desperation ensues, suicide, homicide.
- The main feeling focuses on contempt. Contempt for self, contempt for other, other's contempt for self

Miasm: Leprose

- Life is experienced as being an outcast. There is no hope of being normal. I must disguise and isolate myself.
- In Hahnemann's time, the Leprose group was part of the Psoric miasm.
- It can be viewed as a combination of the Acute and Syphilitic miasms.

Miasm: Cancer MM

- The task of living is beyond my limits. In order to manage, I must control it all; if not, destruction and chaos will ensue.
- In order to succeed, one must stretch beyond one's limits and be in total control of one's self and environment. Cancer miasm requires perfectionism and fastidiousness.
- In the failed state, everything is out of control and chaotic. Nothing can be done.
- It's as if a child living with alcoholic parents.

Miasm: Cancer MM

- The cancer type tends to be intellectual, sympathetic, artistic, naïve, idealistic.
- Typical Remedies: Carc., Staph., Con., Ars., Ign., Nit-ac., Anac.
- This is one of today's most prominent miasms and can be viewed as a combination of Psora, Sycosis and Syphilitic miasms.

Miasm: Petrochemical

- Miasm since the Fixation of Nitrogen
- IG Farben.... Drugs, Synthetics, etc.
- This is a kind of modern day Psora. Remedies in this group include homeopathic preparations of all sorts of drugs, industrial chemicals, food additives and environmental pollutants. These will be some of the primary remedies for the future.

Miasm: Radiation

- Miasm of the nuclear age
- Remedies in this group may include X-ray, Radium, Positronium, Diopsis Kali
- This group would have been part of Hahnemann's Psora as it relates to environmental issues
- However today, since 1944, this has become a miasm closely related to the Cancer miasm

Miasm: AIDS

- Combination miasm: Cancer plus Acute
- This is one of the newest miasms and work is still being done on it
- The AIDS nosode is a central remedy

The Cause of Chronic Disease

- "... they are diseases of such a character that, with small, often imperceptible beginnings, dynamically derange the living organism, each in its own peculiar manner, and cause it to deviate from the healthy condition in such a way that the automatic life energy, called vital force, whose office it is preserve the health, only opposes to them at the commencement and during their progress, imperfect, unsuitable, useless resistance, but must helplessly suffer (them to spread and) itself to be more and more abnormally deranged, until at length the organism is destroyed; these are termed chronic diseases. They are caused by infection from a chronic miasm."

Part 2 : Epigenetics and Chronic disease

Conventional Genetics



- In 1865 Gregor Mendel discovered what we now know as the Mendelian laws of heredity
- Since the cracking of the genetic code by James Watson and Francis Crick in 1953, DNA has assumed an all-powerful status.
- In 2000 when the **Human Genome project was accomplished.**
- The 'central dogma' of modern orthodox biology is that life is controlled by genes.

Conventional Genetics



- DNA carries all our heritable information and that nothing an individual does in their lifetime will be biologically passed to their children.
- The conventional wisdom on genes goes something like this: DNA is transcribed onto RNA, which form proteins, which are responsible for just about every process in the body, from eye colour to ability to fight off illness. But even after the sequencing of the human genome (completed in April 2003), there were many unaccountable facts to deal with.



Jean-Baptiste Lamarck 1744-1829

Before Gene Theory



Gregor Mendel 1822-1884

- Lamarck expounded a classic theory, commonly referred to as the theory of adaptation, that characteristics acquired by an organism through adaptation during its lifespan would be passed on to its offspring.
- Gregor Mendel with his pea plant and his theory that characteristics were inherited through genes had totally supplanted Lamarck's ideas.
- It's time to dig out Lamarck's theory from the rubbish bin. New research on genetics suggests that although Lamarck was wrong, he was not totally wrong.

It's a Matter of the Numbers

- Only two percent (**2%**) of our DNA – via RNA – codes for proteins.
- About **18,000** different mutations of human genes are recorded.
- More than **80** human genes are known to be parentally imprinted, their expression depending on their parental origin.
- Studies of protein synthesis reveal that epigenetic factors can create **2,000** or more variations of proteins from the same gene blueprint.

It's a Matter of the Numbers

- Prior to the Human Genome Project, scientists held that one gene was needed to provide the blueprint for each of the over **100,000** different proteins that make up our bodies. Since there are also over **20,000** regulatory genes, the human genome was expected to contain a minimum of **120,000** genes located in the **23** pairs of chromosomes.
- However, geneticists were shocked to discover that the human genome consists of only about **25,000** genes. *More than 80% of the DNA that was thought to be required does not exist!* The one-gene, one-protein concept, which was a fundamental tenet of genetic determinism, has therefore had to be consigned to the scrap heap.

It's a Matter of the Numbers

- The microscopic nematode roundworm known as *Caenorhabditis elegans* has a body consisting of 969 cells and a simple brain of about 302 cells, yet its genome consists of as many as **24,000** genes.
- The fruit fly has **15,000** genes – **9,000** fewer than the more primitive *Caenorhabditis* worm.

It's a Matter of the Numbers

- One model of the brain as a wiring board shows that **there is not enough information in DNA** to construct even the vertebrate brain, let alone the rest of the animal. If this is correct, it implies that a higher-order control system must exist whereby epigenetic information interacts with the DNA to inform the complete genetic information.
- Considering the immense number of 100,000 biochemical reactions taking place per second in our cells it seems near at hand that they might be controlled by some kind of energy (Vital Force !??)

What is Epigenetics?

- Epigenetics is a new stream of science which deals with the effect of environmental and other factors on our genetic phenotype. It basically studies the heritable effects of what we do and experience in this life time in our future generations and has strong parallels with Hahnemann's theory of chronic miasms.
- Epigenetics concerns the chemical groups that bind to DNA and its associated proteins. These help determine the selective use of genes and influence cell fate. **Abnormal epigenetic modifications and control can cause disease, including cancer.**

What is Epigenetics?

- Epigenetics adds a whole new layer to genes beyond the DNA. It proposes a **control system** of 'switches' that turn genes on or off – and suggests that things people experience, like nutrition and stress, can control these switches and cause heritable effects in humans.

What is Epigenetics?

- Epigenetic information modulates gene expression without modifying actual DNA sequence. DNA methylation patterns are the longest-studied and best-understood epigenetic markers, although ethyl, acetyl, phosphoryl, and other modifications of histones, the protein spools around which DNA winds, are another important source of epigenetic regulation. The latter presumably influence gene expression by changing chromatin structure, making it either easier or more difficult for genes to be activated.

What is Epigenetics?

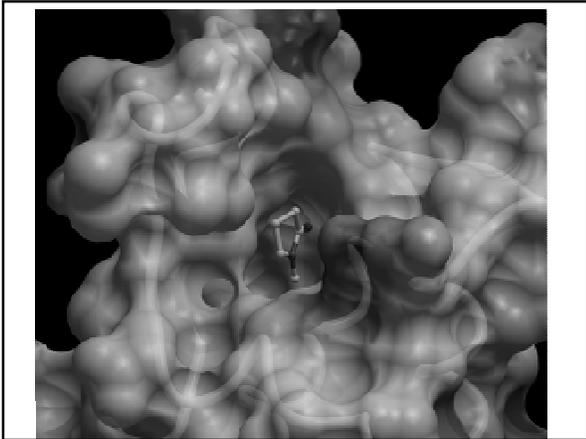
- Jirtle says epigenetic inheritance provides a “rapid mechanism by which [an organism] can respond to the environment without having to change its hardware” R.A. Waterland, R.A. Jirtle, “Transposable elements: targets for early nutritional effects on epigenetic gene regulation”. Mol Cell Biol, 23:5293-300, 2003.

What is Epigenetics?

- The science of epigenetics tries to explain these differences which cannot be accounted for by the conventional approach of genetics.
- Epigenetics delves deeper into our genome, involving “information stored in the proteins and chemicals that surround and stick to DNA.”

What is Epigenetics?

- In 1942 Conrad H. Waddington defined epigenetics as “the interactions of genes with their environment that bring the phenotype into being.” Epigenetic modifications are not seen as alterations of the DNA sequence but rather as DNA methylation, non-coding RNA molecules or modification of histone proteins. They act on a higher level coordinating gene expression within a single cell up to the entire organism.



The Three Main Types of Epigenetic Information

- Cytosine DNA methylation is a covalent modification of DNA, in which a methyl group is transferred from S-adenosylmethionine to the C-5 position of cytosine by a family of cytosine (DNA-5)-methyltransferases. DNA methylation occurs almost exclusively at CpG nucleotides and has an important contributing role in the regulation of gene expression and the silencing of repeat elements in the genome. (Psora???)

The Three Main Types of Epigenetic Information

- **Genomic imprinting** is parent-of-origin-specific allele silencing, or relative silencing of one parental allele compared with the other parental allele. It is maintained, in part, by differentially methylated regions within or near imprinted genes, and it is normally reprogrammed in the germline (Sycosis??)

The Three Main Types of Epigenetic Information

- **Histone modifications** – including acetylation, methylation and phosphorylation – important in transcriptional regulation and many are stably maintained during cell division, although the mechanism for this epigenetic inheritance is not yet well understood. Proteins that mediate these modifications are often associated within the same complexes as those that regulate DNA methylation. (Syphilis??)

Genomic Imprinting and Disease

- The addition of methyl groups to the DNA backbone is used on some genes to distinguish the gene copy inherited from the father and that inherited from the mother.
- Because of their **growth-related aspects**, imprinted genes likely play a major role in the development of cancer and other conditions in which cell and **tissue growth is abnormal**. (Sycosis)
- Imprinted genes in which the copy from the mother is turned on (maternally expressed) usually **suppress growth**, while paternally expressed genes usually **stimulate growth**.

Genomic Imprinting and Disease

- In cancer, some tumor suppressor genes are actually maternally expressed genes that are mistakenly turned off, preventing the growth-limiting protein from being made. Likewise, many oncogenes — growth-promoting genes — are paternally expressed genes for which a single dose of the protein is just right for normal cell proliferation. However, if the maternal copy of the oncogene loses its epigenetic marks and is turned on as well, uncontrolled cell growth can result.
- In the collection of birth defects known as Beckwith-Wiedemann Syndrome (BWS), abnormal epigenetics leads to abnormal growth of tissues, overgrowth of abdominal organs, low blood sugar at birth and cancers.

Genomic Imprinting and Disease

- Similarly, in the imprinting disorder Prader-Willi Syndrome, abnormal epigenetics causes short stature and mental retardation as well as other syndromic features.
- The expression of human growth-controlling genes is also regulated by genomic imprinting.
- Recent findings which lead to the assumption that there is an increased occurrence of imprinting errors in children after IVF or ICSI.

Dr. Weston Price conducted ground-breaking research on diet and health in the 1930s, leading modern day researchers into a new field: epigenetics.

- Groups eating their *native diet* tended to be healthier, more resistant to all diseases, and have overall better dental health than groups who switched over to a modern diet. So-called degenerative diseases such as arthritis were almost non-existent. Almost all groups ate a combination of fruits, vegetables, and animal products such as meat or milk, but not in the combinations we think of as 'healthy' today. Some groups, such as African tribes, subsisted almost entirely on milk, meat and animal blood, while other Groups in the Pacific ate fish, other seafood, sea vegetables and plants harvested in the wild.

Dr. Weston Price conducted ground-breaking research on diet and health in the 1930s, leading modern day researchers into a new field: epigenetics.

- When groups began eating white sugar products, overall health declined, especially dental health. In the group of Swiss villagers, for example, he noted that mothers asked him to fit their daughters with dentures so they could get married – their teeth were already rotted and falling out before the age of 30!
- Even though many groups had no source of toothbrushes, toothpaste or fluoride, if they abstained from white sugar and white flour products, they had few to no cavities or dental problems

Dr. Weston Price conducted ground-breaking research on diet and health in the 1930s, leading modern day researchers into a new field: epigenetics.

- The diets eaten by groups varied considerably, but all groups consumed unadulterated products with a good portion of the foods harvested from the wild or from animals grazed in the wild. For example, the Swiss villagers eating their ancestral diet consumed mostly rye bread and rye flour products and dairy. The dairy products were especially rich in Vitamin A, since the cows grazed on fresh grass on the hillsides of the Swiss valleys. Children eating this diet were healthier and more robust than their counterparts in the so-called modernized Swiss cities.

Dr. Weston Price conducted ground-breaking research on diet and health in the 1930s, leading modern day researchers into a new field: epigenetics.

- Price’s work continues to be studied and analyzed, especially in light of new epigenetic findings.

Dutch Famine 1944

- **Lumey LH:** “Decreased birthweights in infants after maternal in utero exposure to the Dutch famine of 1944–1945”. *Paediatr Perinat Ep* 1992, 6:240-53.

Dutch Famine 1944

- Toward the end of World War II, a Nazi-imposed food embargo in western Holland – a densely populated area already suffering from scarce food supplies, ruined agricultural lands, and the onset of an unusually harsh winter – led to the death by starvation of some 30,000 people.

Dutch Famine 1944

- The adult rations were dropped to as low as 580 calories per day, about one quarter of the minimum. Unfortunately, the winter of 1944–45 was unusually harsh, making greater demands on the available food. It was later called the Dutch Famine of 1944, or the Hunger Winter. As you would expect, in the mid-1940s, the pregnant women gave birth to smaller-than-normal babies — after all, they were being starved.

Dutch Famine 1944

But here's the weird part.

- *When these girl babies grew up into women, and in the 1960s had babies themselves, their new babies were also smaller than normal. And, when these girls grew up, in the 1980s they in turn gave birth to babies that were smaller than normal.*

Dutch Famine 1944

- Detailed birth records collected during that so-called Dutch Hunger Winter have provided scientists with useful data for analyzing the long-term health effects of prenatal exposure to famine. Not only have researchers linked such exposure to a range of developmental and adult disorders, including low birth weight, diabetes, obesity, coronary heart disease, breast and other cancers, but at least one group has also associated exposure with the birth of smaller-than-normal grandchildren.

Dutch Famine 1944

- The finding is remarkable because it suggests that a pregnant mother's diet can affect her health in such a way that not only her children but her grandchildren (and possibly great-grandchildren, etc.) inherit the same health problems. (Epigenetics Miasms)

• **Kaati G, et al.:** "Cardiovascular and diabetes mortality determined by nutrition during parents' and grandparents' slow growth period"
Eur J Hum Genet 2002, 10:192-6

- In another study, unrelated to the Hunger Winter, researchers correlated grandparents' prepubertal access to food with diabetes and heart disease.[2]
- **In other words, you are what your grandmother ate.** But, wait, wouldn't that imply what every good biologist knows is practically scientific heresy: The Lamarckian inheritance of acquired characteristics?

• Marcus Pembrey, a Professor of Clinical Genetics at the Institute of Child Health in London

- Marcus Pembrey, a Professor of Clinical Genetics at the Institute of Child Health in London, in collaboration with Swedish researcher Lars Olov Bygren, has found evidence in these records of an environmental effect being passed down the generations. They have shown that **a famine at critical times in the lives of the grandparents can affect the life expectancy of the grandchildren. This is the first evidence that an environmental effect can be inherited in humans.**

Marcus Pembrey, a Professor of Clinical Genetics at the Institute of Child Health in London

- In November 2005, Marcus Pembrey, a clinical geneticist at the Institute of Child Health in London, attended a conference at Duke University to present intriguing data drawn from two centuries of records on crop yields and food prices in an isolated town in northern Sweden. Pembrey and Swedish researcher Lars Olov Bygren noted that fluctuations in the towns' food supply may have health effects spanning at least two generations. **Grandfathers who lived their preteen years during times of plenty were more likely to have grandsons with diabetes**—an ailment that doubled the grandsons' risk of early death. Equally notable was that the effects were sex specific. A grandfather's access to a plentiful food supply affected the mortality rates of his grandsons only, not those of his granddaughters, and a paternal grandmother's experience of feast affected the mortality rates of her granddaughters, not her grandsons.

Marcus Pembrey, a Professor of Clinical Genetics at the Institute of Child Health in London

- He analyzed 320 persons from three succeeding generations. The outcome of his study shows a **correlation between the diet of the parents and the state of health of their children.**

Marcus Pembrey, a Professor of Clinical Genetics at the Institute of Child Health in London

- This led Pembrey to suspect that genes on the sex-specific X and Y chromosomes were being affected by epigenetic signals. Further analysis supported his hunch and offered insight into the signaling process. It turned out that timing—the ages at which grandmothers and grandfathers experienced a food surplus—was critical to the intergenerational impact. The granddaughters most affected were those whose **grandmothers experienced times of plenty while in utero or as infants, precisely the time when the grandmothers' eggs were forming.** The grandsons most affected were those whose **grandfathers experienced plenitude during the so-called slow growth period, just before adolescence, which is a key stage for the development of sperm.**

Marcus Pembrey, a Professor of Clinical Genetics at the Institute of Child Health in London

- The studies by Pembrey and other epigenetics researchers suggest that our diet, behavior, and environmental surroundings today could have a far greater impact than imagined on the health of our distant descendants.

• Professor Wolf Reik, at the Babraham Institute in Cambridge

- Professor Wolf Reik, at the Babraham Institute in Cambridge, has spent years studying this hidden world. He has found that merely manipulating mice embryos is enough to set off 'switches' that turn genes on or off.
- It has been shown that babies conceived by IVF have a three- to four-fold increased chance of developing Beckwith-Wiedemann Syndrome.
- Reik's work has gone further, showing that these switches themselves can be inherited. This means that a **'memory' of an event could be passed through generations**. A simple environmental effect could switch genes on or off – and this change could be inherited.

Epigenetics in Major Psychosis

- Arturas Petronis, MD, PhD, Head of the Krembil Family Epigenetics Laboratory at the University of Toronto, in an article in the Nov 2003 American Journal of Medical Genetics, fills in some of the blanks: We know that there is a high concordance of identical twins with bipolar disorder, but **epigenetics, he explains, may account for the 30 to 70 percent of cases** where only one twin has the illness. Identical twins share the same DNA, but their epigenetic material may be different. Moreover, whereas DNA variations are permanent, epigenetic changes are in a process of flux and generally accumulate over time. This may explain, Dr. Petronis theorizes, why bipolar disorder tends to manifest at ages 20–30 and 45-50, which coincides with major hormonal changes, which may “substantially affect regulation of genes ... via their epigenetic modifications.”

Epigenetics in Major Psychosis

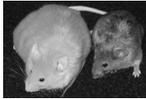
- Petronis and colleagues examined DNA-methylation patterns in brain tissue from deceased people who had had schizophrenia or bipolar disorder and from deceased people who had been mentally healthy. The group surveyed more than 7,000 CpG islands and found that about one in every 200 was methylated differently in people with major psychosis — a collective term for schizophrenia and bipolar disorder — than in people free from those disorders. That means that many genes are regulated differently in people with schizophrenia and bipolar disorder.

Petronis 2003

- In a 2003 pilot study, Dr. Petronis and his colleagues investigated the epigenetic gene modification in a section of the dopamine 2 receptor genes in two pairs of identical twins; one pair with both partners having schizophrenia and the other having only one partner with the illness. What they discovered was that the partner with schizophrenia from the mixed pair had more in common, epigenetically, with the other set of twins than his own unaffected twin.

Randy Jirtle at Duke University has done some interesting things with Agouti mice.

(Nat Cell Biol. 2003 Aug;23(15):5293-300)



The agouti gene gives mice yellow fur, and a strong predisposition to obesity, cancer and diabetes. Jirtle fed pregnant agouti mice vitamin B-12, folic acid, choline and Betaine. This is pretty much the same formula naturopathic doctors often prescribe in order to lower homocysteine levels. These nutrients are collectively referred to as 'methyl donors' and they are often used to promote methylation. They apparently bookmarked the agouti gene and prevented its expression.

Most of the offspring of the mice fed these diets rich in methyl donors were born with brown coats and did not become fat or develop the expected diseases. The control group of mice not fed the methyl donor enriched diet were born with yellow fur and got sick and died as expected.

Nutritional supplements shown to impact health for multiple generations of offspring

- (NaturalNews) A mother's diet during pregnancy not only affects her child, but also the child's future offspring, according to a new study from researchers at Children's Hospital Oakland Research Institute.
- The study's lead author, Dr. David Martin, and colleagues split a group of genetically identical pregnant mice into two groups. The first group was fed a standard laboratory diet, while the second group was fed an identical diet supplemented with folate, choline, zinc and vitamin B12.

Nutritional supplements shown to impact health for multiple generations of offspring

- When the mice in both groups gave birth, the offspring were examined for coat color, and the female babies from both groups were then mated and fed a diet without added supplements. When the offspring gave birth, the researchers found that the original mice's supplemental diet affected the genetic coat color of not only the children, but also the grandchildren.

Nutritional supplements shown to impact health for multiple generations of offspring

- "The idea that some sort of toxin or nutrition could affect not just individuals but future generations is very powerful," Martin said.
- Previous studies in epigenetics have shown that a pregnant woman's environment -- including diet and nutritional supplementation -- can influence future generations' risks of breast cancer, obesity and heart disease.

Anway MD, Cupp AS, Uzumcu M, Skinner MK 2005 "Epigenetic transgenerational actions of endocrine disruptors and male fertility".
Science 308:1468-1469

- In another experiment, scientists exposed mid-gestation pregnant rats to an environmental toxin (endocrine disruptor) at the time of embryonic gonadal (testis) sex determination. The offspring, or first generation males, had lower sperm counts and abnormal spermatogenesis (sperm production) in the testis. Approximately 10% of the animals were completely infertile. [3]

Anway MD, Cupp AS, Uzumcu M, Skinner MK 2005 "Epigenetic transgenerational actions of endocrine disruptors and male fertility".

Science 308:1466-1469

- When this first generation was mated, the males passed down the same male low fertility disease state to the second-generation males, and so on. We found **this disease state passed on through the four generations examined**. This transgenerational disease condition (Miasm) occurred in over 90% of all males in all the generations we examined.

Anway MD, Cupp AS, Uzumcu M, Skinner MK 2005 "Epigenetic transgenerational actions of endocrine disruptors and male fertility".

Science 308:1466-1469

- The frequency of disease transmission cannot be explained with a genetic DNA sequence mutation that would occur in less than 1% of progeny. Analysis suggested an epigenetic mechanism involving abnormal methylation of specific genes.

Anway MD, Leathers C, Skinner MK 2006 "Endocrine disruptor vinclozolin induce epigenetic transgenerational adult-onset disease"

Endocrinology 147:5515-5523

- In a repeat experiment, transient exposure of a gestating female rat during the period of sex determination to the endocrine disruptor vinclozolin (i.e. anti-androgenic endocrine disruptor used as a fungicide in the fruit industry) induced an adult phenotype in the first F1 generation of breast tumors, prostate disease, kidney disease, immune abnormalities and premature aging. **These adult onset diseases were transferred through the male germ-line to 85% of all males of all subsequent generations examined (ie F1-F4)**. The frequencies of diseases are similar to those observed in the human population. **The mechanism involved is an epigenetic one involving an alteration in DNA methylation of sperm and the induction of new imprinted-like genes that modify the epigenome**. This reprogramming of the epigenome becomes permanent and allows the abnormal pathology to be transferred transgenerationally to all subsequent progeny.

Dr. Benito de Lumen at the University of California, Berkeley
_Nutr Rev. 2005 Jan;63(1):16-21. Cancer Lett. 2007 May 2;

- Lunasin is a novel, cancer-preventive peptide whose efficacy against chemical carcinogens and oncogenes has been demonstrated in mammalian cells and in a skin cancer mouse model. Isolated and characterized in soy, lunasin peptide is also documented in barley. Lunasin is found in all of the genotypes analyzed from the US soy germ plasm collection and in commercially available soy proteins. Pilot studies show that lunasin is bioavailable in mice and rats when orally ingested, opening the way for dietary administration in cancer prevention studies.

Dr. Benito de Lumen at the University of California, Berkeley
_Nutr Rev. 2005 Jan;63(1):16-21. Cancer Lett. 2007 May 2;

- Lunasin internalizes into mammalian cells within minutes of exogenous application, and localizes in the nucleus after 18 hours. It inhibits acetylation of core histones in mammalian cells. In spite of its cancer-preventive properties, lunasin does not affect the growth rate of normal and established cancer cell lines. An epigenetic mechanism of action is proposed whereby lunasin selectively kills cells being transformed or newly transformed by binding to deacetylated core histones exposed by the transformation event, disrupting the dynamics of histone acetylation-deacetylation and leading to cell death.

• **Morley R** 2006 "Fetal origins of adult disease". *Semin Fetal Neonatal Med* 11:73-78 **
Hales CN, Barker DJ 2001 "The thrifty phenotype hypothesis". *Br Med Bull* 60:5-20 ***

- An important emerging literature in humans is based on the observation that birth weight is inversely associated with a cluster of metabolic disorders now identified as the metabolic syndrome[**].
- These disorders include obesity, hypertension, hyperlipidemia, and type 2 diabetes[***].

• **Morley R** 2006 "Fetal origins of adult disease". *Semin Fetal Neonatal Med* 11:73–78 **
Hales CN, Barker DJ 2001 "The thrifty phenotype hypothesis". *Br Med Bull* 60:5–20 ***

- Moreover, these maladies are transmitted transgenerationally.
- In humans, this explains patterns of disease, especially those for which risk is determined in part during development, such as type 2 diabetes, cardiovascular disease and the rising risks of childhood obesity.

Epigenetics in Psychic Disorders

- **The transmission of epigenetic effects from generation to generation is also seen with psychic disorders.** Offspring of people who survived the Holocaust suffer more often of depression, anxiety or lack of confidence than other people.

• Michael Meaney, a biologist at McGill University and a frequent collaborator with Szyf, has pursued an equally provocative notion:

- That some epigenetic changes can be induced after birth, through a mother's physical behavior toward her newborn.
- For years, Meaney sought to explain some curious results he had observed involving the nurturing behavior of rats. Working with graduate student Ian Weaver, Meaney compared **two types of mother rats: those that patiently licked their offspring after birth and those that neglected their newborns.**

Michael Meaney, a biologist at McGill University and a frequent collaborator with Szyf, has pursued an equally provocative notion:

- The licked newborns grew up to be relatively brave and calm (for rats). The neglected newborns grew into the sort of rodents that nervously skitter into the darkest corner when placed in a new environment.
- Traditionally, researchers might have offered an explanation on one side or the other of the nature-versus-nurture divide. Either the newborns inherited a genetic propensity to be skittish or brave (nature), or they were learning the behavior from their mothers (nurture). Meaney and Weaver's results didn't fall neatly into either camp.

Michael Meaney, a biologist at McGill University and a frequent collaborator with Szyf, has pursued an equally provocative notion:

- After analyzing the brain tissue of both licked and non-licked rats, the researchers found distinct differences in the DNA methylation patterns in the hippocampus cells of each group. Remarkably, the mother's licking activity had the effect of removing dimmer switches on a gene that shapes stress receptors in the pup's growing brain.
- The well-licked rats had better-developed hippocampi and released less of the stress hormone cortisol, making them calmer when startled. In contrast, the neglected pups released much more cortisol, had less-developed hippocampi, and reacted nervously when startled or in new surroundings.
- Through a simple maternal behavior, these mother rats were literally shaping the brains of their offspring.

The Biology of Belief: Unleashing the Power of consciousness, matter and miracles by cellular biologist Bruce H. Lipton, PhD.

- Lipton rejects the orthodox idea that the nucleus is the cell's brain. If their nuclei and genes are removed, cells can survive for up to two months or more. They continue to exhibit complex, coordinated, life-sustaining behaviors, but eventually die – not because they have lost their brain but because they have lost their reproductive capabilities and are unable to replace failed proteins or replicate themselves.

The Biology of Belief: Unleashing the Power of consciousness, matter and miracles by cellular biologist Bruce H. Lipton, PhD.

- In other words, the nucleus is the cell's gonad. Lipton comments: Confusing the gonad with the brain is an understandable error because science has always been and still is a patriarchal endeavor. Males have often been accused of thinking with their gonads, so it's not entirely surprising that science has inadvertently confused the nucleus with the cell's brain! (p. 66)

The Biology of Belief: Unleashing the Power of consciousness, matter and miracles by cellular biologist Bruce H. Lipton, PhD.

- Instead of the cell's operations being controlled by DNA blueprints stored in the nucleus, as conventional biology would have us believe, Lipton proposes that this is done by integral membrane proteins (IMPs)
- Lipton says that thoughts directly influence how the physical brain controls the body's physiology. Thought 'energy' can activate or inhibit the cell's function producing proteins ...

But What Controls the Controllers

- Our diet, environment, toxins, our social environment and family bonds – all have the ability to modify our genetic code and its expression. This is not just a new understanding into our evolution and adaptation but it is very fascinating too!
- Astonishingly nutrition, medicine and other environmental factors can affect epigenetic modifications of the DNA. If this influence occurs during gametogenesis the alteration is transmitted to the next generation.
- A number of epigenetic effects are already described but we still do not know how the epigenetic modifications themselves are regulated.

But What Controls the Controllers

- As the epigeneticist and former professor Richard Strohman (University of California) remarks: “ The key concept here is that dynamic/epigenetic networks have a life of their own – they have network rules – not specified by DNA: and we do not understand these rules. But this is only one level of epigenetic regulation. There is a kind of infinite regress here since we now have to ask, “***What controls the control of gene regulation?***”
- The big question that I will probe in the next part of this article is, ‘Can long-term chronic infectious disease like Scabies, Gonorrhea and Syphilis induce epigenetic changes in our genetic code?’

Beyond Molecular Controls

- In the 1920s the physicist Albert Einstein discovered that matter can be converted into energy and vice versa.
- To date this aspect is largely neglected in biology. Only a few bold and unconventional scientists like Marco Bischof or Fritz-Albert Popp investigate the role that biophotons play in cell metabolism.
- Homeopathy is a form of therapy acting on an energetic level thus having a deep impact on our organisms.
- Samuel Hahnemann described miasms as predisposition to acquire or inherit certain diseases.

Beyond Molecular Controls

- The same goes for genetic imprinting. It can be acquired during life or is passed to us by our ancestors.
- Miasms can be passed from parents to children without any change in the DNA sequence. Isn't that Epigenetics ?
- According to our present knowledge the only way to transmit genetic information apart from altering the base sequence is through epigenetic effects.
- Maybe Hahnemann's “vital force” is the answer to Strohmann's question of how gene expression is controlled. The presence of a coordinating force acting on an energetic level could be the corresponding equivalent to the material level of the DNA molecule.

- The HeartMath model therefore proposes that coherent energy structures exist in the quantum vacuum, and these structures are organized according to principles of quantum holography and form "holographic blueprints" that serve to maintain and evolve the organization of biological and physical structures. These structures project an epigenetic information field that guides cell organization and sets the boundaries for an organism's ability to vary in its physical, mental, and emotional domains.

- In living systems, information appears to be encoded in the language of pattern. Patterns occur at all levels of scale within an organism. Highly specific spatial patterns characterize the most fundamental structures that comprise a living system. An obvious example of a spatial pattern capable of encoding vital information in biological systems is the "genetic code."
- Nobel Prize winner David Baltimore has said, 'it is clear that we do not gain our undoubted complexity over worms and plants by using more genes. Understanding what does give us our complexity ... remains a challenge for the future'

Vitalism Materialism

- Vitalists believed that a force or energy was responsible for life and that all living things somehow shared this vital force (see Luke Skywalker).
- These ideas were opposed by another group called Materialists who believed that life was what happened when the parts were put together correctly and energy was applied to the mechanism.
- The Vitalists saw disease as a disruption or distortion of the vital force
- Materialists saw all cause related to the physical mechanism being broken or misaligned.

Part 3 : Homeopathic Treatment of Epigenetic/Homeopathic Factors in Chronic Disease

Are Homeopathy and Epigenetics Saying the same thing??

- Both Homeopathy and Epigenetics propose that various factors and events experienced in one generation can have effects on subsequent generations
- Both point out the importance of Family History in case taking and analysis
- Both point out the importance of a natural food supply
- Both point out the importance of Critical periods in the individuals life when epigenetic/miasmatic changes can occur.

Are Homeopathy and Epigenetics Saying the same thing??

- Both point out the importance of the gestational period for the mother and the conceptual period for the father in the history of the case.
- Both provide an explanation of transgenerational inheritance patterns of health and disease
- Epigenetics seems to provide a “Scientific” explanation for the phenomenon observed by Hahnemann

Sins of the Fathers

- Drugs of one generation will be the remedies of the next
- The Condiments of one generation will be the remedies of the next

Nosodes in the treatment

- Miasmatic Theory functions as a disease classification system
- Each miasm has a central nosode as well as a remedy from each kingdom
- Other nosodes are applicable outside the model (the map is not the territory)

Isodes

- See Millar 2009 : Homeopathy and Environmental Toxicology

Disease as a Delusion: Dr. R. Sankaran

- Disease is a Delusion of a situation that once existed in the life of the sufferer or their ancestor
- In Chronic disease the organism is reacting as if something were the case when it is not!

Each Miasm has its Clinical Indicators

- Psora
- Sycosis
- Syphilis
- Tubercular
- Cancer

A Case of MS from the Gulag

- Extremities; FORMICATION, crawling; feet; extending; upward (4) *: bell.1, nat-m.58, stann.1, zinc-s.58
- Extremities; HEAVINESS, tired limbs; upper limbs; exertion, from (3) ***: 3Phos.58, 3Pic-ac.36, 3Stann.36
