Mentoring the Mentor

Mentor goals:

- To declare what is possible and establish a commitment to that possibility
- Address personal and professional barriers limiting the ability to serve
- Evolution of vision/mission/ethics that drive success
- Create immediate action steps to apply learning and growth
- Construct the round table of applied trophologists

Mentoring the mentor:

- Who are the mentors? – Practitioners
- Who are we mentoring? – Patients and GAP
- What’s the purpose? – Optimized life
- How does it work? – Whatever you learn you teach someone else (anyone else)
- Who’s is included? – Self selection, you pick yourself
Mentoring the mentor:

- Each participant attends monthly teleconferences (1 hour in duration, 4th Thursday of month) creating a round table discussion/exploration of the dynamics and details of a nutrition-based holistic practice.
- Each participant chooses how to convey the notes and information to their world and community – no information squandering.

Mentor Considerations

- Practice Ideas – Creating lifetime patients: Essentials of long-term health partnerships
- Introduction to The Signs – Predicting genetic predisposition

Three Types of Medicine - Allopathy

<table>
<thead>
<tr>
<th>Entry - Illness</th>
<th>Entry - Wellness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allopathic Treatment – Symptom based</td>
<td></td>
</tr>
<tr>
<td>Diagnosis – Treatment of symptoms</td>
<td></td>
</tr>
<tr>
<td>Drugs, Therapy, Surgery – Symptoms arrested/masked</td>
<td></td>
</tr>
<tr>
<td>Suffering eased – comfort</td>
<td></td>
</tr>
<tr>
<td>No change to lifestyle or expression</td>
<td></td>
</tr>
<tr>
<td>No change or evolution or genetic modulation</td>
<td></td>
</tr>
<tr>
<td>Negative abnormal findings</td>
<td></td>
</tr>
<tr>
<td>No treatment</td>
<td></td>
</tr>
</tbody>
</table>
Mentoring the Mentors

Three Types of Medicine - Functional

Entry - Illness

 Functional Medicine – Cause of symptom
  Assessment of deviation from optimal function
  Treatment Initiated – Etiology based
  System changed usually by environmental factors
  Lifestyle and environment cause change in epigenetics and person

Entry - Wellness

Three Types of Medicine - Transformational

Entry - Illness

 Transformational Medicine – Change based
  Assessment of target upregulation
  Treatment Initiated – Lifetime patient
  Change measured in consciousness - subjective
  Change and evolution in epigenetics and person – longing for more

Entry - Wellness

Sequential Up-Regulation

- The original sequential Immune Up-regulation was an invention named upon the realization of the process with a patient starting in 1998
- The concept of sequential detoxification and hormonal up-regulation was named after the process was well known about a year ago during a Mentor call by one of the participants
- So now the immune and hormonal up-regulation meet one another as two aspects of one evolutionary event sequentially unfolding for each of our patients
- Indeed all nutritional intervention is in fact a sequential up-regulation gradually increasing and improving tissue, system and global functionality – this promotes evolution and it could be said that our practice is about assisting people through multiple evolutions of their phenotypical expression
- It is the hope that this will describe a more universal process at work in the common and extraordinary cases we undertake with our patients
Eternal truth -

To study the healing way is to study the self;
To study the self is to forget the self;
To forget the self is to be enlightened by the ten thousand paths;
To be enlightened by the ten thousand paths is to remove the barrier between the self and the others;
No trace of enlightenment remains, and this no trace continues endlessly.

Dogen Zenji
Creating lifetime patients

- Every patient has this potential
- Not every one will be lifetime – many variables – spiritually intended, ego complications, $, evolution fetters, doctor development to list a few
- There are always strategic moments over the course of a lifetime – prepare and be ready for these, including being ready for the moment of death (I’m not so good at this yet)
- It is that the practitioner is irreplaceable and it shows
- No one decides to make a lifetime relationship – it just turns out that way

Essentials of long-term health relationships

- Accountability
- Bravery
- Honesty
- Therapeutic Rationale
- Measurements
- Milestones – marking the journey
- The future – describe it and plan for it
- Incentive – rehearsal, discounts to honor loyalty, doctor accessibility
- Being in the moment!
- Immediate steps to long-term journeys!
Patient Follow-up

- Compliance/Adherence to recommendation
- Start in visit #1 by interviewing what are the patient’s goals and reasons for initiating – write those goals down and own them as your own
- Never stray from those original objectives
- The first interview is a template for future work – it is about identifying the known and less known hopes and desires of the patient
- As the patient reveals these write them down as primary objectives – just like a navigation system

Therapeutic Dimension

- Dimensionality of therapy must be demonstrated on each visit to engage compliance
- Navigation systems (GPS) start by entering the destination as a goal, identifying where you are now, then calculating a route, and then clicking down toward the destination and the time duration involved
- “You have reached your destination”
- Interview is greatest tool for tracking, reinforcement and instilling compliance

Tracking the process/progress

- Even difficult resistive cases become exciting and rewarding when the interviewing reveals steps achieved toward the destination
- Most fulfilling part of my practice is interviewing and reviewing and declaring progress – or not!
Patient Communication

- Top 10 conversations to have
  - Functional medicine
  - Traditional medical approaches
  - Describing the destination – naming
  - Addressing resistance – nobelizing
  - Family member issues
  - The aging process
  - Transformation – Changing deliberately
  - Speed bumps – healing partnership
  - Accountability and refunds
  - Primary complaint to chronic issues

Patient Communication

- Top 10 handouts
  - The healing process – Peeling the onion
  - 7 Pillars of Health
  - Start to Finish
  - Quick checks
  - Allergies & Inflammation
  - Maintenance Care
  - Autoimmunity
  - Migraines
  - Phase II Diet
  - Sensuality vs. Sexuality

Mission Communication

- Describing the Transformative Process
  - “Do not sit in that chair if you don’t want to change”
  - Declare I intend to change you – gradually and safely
  - Differentiate the change process from symptom suppression
  - Incremental impact
  - When change occurs distinguish it
  - “You will never be the way you were again”
  - “You can’t go back to the way you were”
Review - Distinguish yourself

• It is more apparent why people are choosing alternative health care professionals who specialize in a functional approach.
• No matter your specialty or technique you must distinguish yourself as an expert—people are just seeking to understand and they need you to do so.
• Typically in the healthcare industry, people are receiving shallow answers that leave them puzzled with the mystery of "Why is this happening to me?" and "What can I do about it?"
• Trends research over 10 years ago identified a number of factors essential to being successful in the nutritional field—one of those was establishing yourself as an expert.

Review - Explanation as hope

• The practitioner's ability to explain health issues and therapeutic outcomes creates an inflation of understanding in the patient which feels like hope.
• Today in the professional world, there is so much avoidance of "giving false hope" that often we end up offering little hope at all.
• I propose another model that bolsters hope and expectation and subsequently practices accountability as to whether the therapeutic endeavors are achieved or not.
• As long as the hope that has been instilled is revisited and acknowledged as being accomplished or not, the betrayal of false hope can be avoided.
• As an example, if a practitioner was describing the potential for nutritional intervention through supplements and diet modification to improve the lipid profile, then she would need to revisit to success or failure of the experiment within a reasonable period of time.
• Our community is starving for legitimate hope, as a starting place, as empowerment to begin, as an idea to act upon.
• There is genius in hope.

The Human Genome

- The human genome is made up of trillions of pieces of information.
- 90% is garbage DNA.
- The goal is to encourage the 10% that is life giving and suppress the 90% that distorts physiology.
- Nutrients, drugs, xenobiotics, neuro-hormonal transmitters/messengers, electromagnetic fields, emotional factors activate and suppress.
Epigenetics - Already doing it!

- All nutrition no matter how basic is epigenic in its influence
- We must exceed intimidation and admit that we have been modulating the genetic expression and repairing DNA since we began seeing macroscopic clinical signs of improvement in health expression with nutrient influence
- All nutrition is information
- In the largest view nutrition and genetics is where the human becomes one with the environment
- We need the environment to fully elaborate ourselves – to turn on the machinery

Unified Mechanisms

- As always there are some pathways that may be relevant not only to some people but to all, because of the high upstream nature of that genetic event
- The NF kappa beta gene activation has previously been observed as a gene code that may amplify inflammatory activity when engaged, and thus strategies have been developed to reduce and limit activation of this gene function
- It is well known that if the factors that reduce and limit NF kappa beta activation are employed downstream pro-inflammatory events may be effected
**The Signs**

**The Science of genetics**

From past to present

---

**How did we get here -**

- The sequential development of thinking and investigation into the antecedents of health and healing has resulted in our current understanding.
- Let’s review how we got here – to understand the building blocks of our thinking clearly illuminates the present, just as studying Plato or Socratic thinking helps us understand deductive reasoning.
DNA – Learning about it

- Like many scientific advances that propel us forward in our thinking, the discovery of the structure of DNA resulted from the efforts of many scientists over many years.
- To study the gradualism of discovery is to build that same understanding for ourselves – let us review.

Stages of Development -

- These scientists have helped us understand how suffering, disease and illness are affected by and effect multiple levels from molecular to societal and everything in between.

Archibald Garrod, MD

- In the early 20th century he investigated the genetic metabolic diseases of infancy such as alkaptonuria which led to the discovery of phenylketonuria and the role of phenylalanine-restricted diets to manage this.
- He postulated that although the disease originates in the genes it is the exposure of those genes to factors in the environment that determines the disease expression.
- In 1902 he wrote, “It might be claimed that what used to be spoken of as a diathesis of a disease is nothing else but chemical individuality. It is nearly true to say that the factors which confer upon us our predisposition and immunities from disease are inherent in our very chemical structure, and even in the molecular groupings which went to the making of the chromosomes from which we sprang.”
DNA – Photographed

DNA – Erwin Chargraff

- Another vital piece of information came from Erwin Chargraff and colleagues who studied the chemical nature of DNA to show that the amount of purine in DNA always equals the amount of pyrimidine and the ratios between adenine and thymine and between cytosine and guanine are always 1:1

Linus Pauling, PhD

- In the 1949 Science magazine article on the origin of sickle cell anemia he taught us that single point gene mutation could contribute to disorders that effect organ systems and produce multiple symptoms – he introduced the term “molecular medicine”
- He revealed that gene mutation on the heavy chain of the globin molecule of hemoglobin contributed to a structural change in the 3-dimensional molecule resulting reduction of oxygen binding to the heme portion of hemoglobin and thus would "cut" its way through the vasculature creating pain and dysfunction
- He predicted that the future would find ways to modify the expression and function of the genes and thus reduce or prevent the expression of disease
- In 1997, 48 years later, a paper in the New England Journal Of Medicine validated his thesis, showing that administering intravenous hydroxy urea would up-regulate the expression of fetal hemoglobin and reduce the number of sickle events and reduce the degree of symptomatic expression
Cause -

You can trace every sickness, every disease, and every ailment to a nutritional deficiency.

Dr. Linus Pauling, Winner 2 Nobel Prizes

James Watson & Francis Crick & Wilkins

In 1953 they published a hypothesis for the structure of DNA as a double helix and explained how the nucleotides fit together.

Two months later they published another paper proposing that complementary strands of their model could explain replication and explained that genetic information could be stored in the sequence of nucleotide bases and that mutations might result from changes in that sequence.

In the ensuing years numerous scientists proved their model and in 1962 they were awarded the Nobel Prize, which included Wilkins.

Roger Williams, PhD

• In 1956 Dr. Williams published a book called ‘Biochemical Individuality’ after discovering a number of the B-complex vitamins in which he proposed the role of nutrients in preventing ‘genetotrophic disease’
• He theorized that the major chronic diseases of aging are related to genetotrophic imperfections, wherein there is a mismatch of the genes and the environment.
• At the gene level individuals need different amounts of nutrients to promote proper phenotypic expression and health – if the need was not met the resulting under-nutrition could cascade into patterns of illness and disease – this revolutionized thinking about age-related disorders.
• Dr. Williams said, “Nutrition is for real people. Statistical humans are of little interest. People are unique. We must treat people with respect to their biochemical uniqueness.”
Genotype to Phenotype

- Investigators from Karolinska Institute, Sweden reported in 2002 on 44,788 pairs of twins – study showed identical twins do not experience cancer at the same rate – the study reported that “Inherited genetic factors make a minor contribution to susceptibility to most types of neoplasms”, indicating that the environment has the principle role in causing sporadic cancer.
- Roger Williams in 1950 wrote a paper “The Concept of Genotrophic Disease” (Lancet) advancing the concept that a number of diseases whose origins were not understood at that time could be associated not with malnutrition, but with under-nutrition based on the individual’s unique genetic needs – he postulated that heart disease, cancer, diabetes, arthritis, schizophrenia and alcoholism could be considered genotrophic origins proposing that under-nutrition would result in suboptimal metabolisms within susceptible individuals resulting in chronic illness over decades of imbalance.
- Medicine did not embrace that idea quickly, but 50 years later with the Human Genome Project revealing how macro and micro nutrients influence gene expression science has rediscovered Williams’ ideas, who predicted a transition in medicine from a meta-science largely empirical to a predictive science based on unified mechanisms of disease.

Abram Hoffer, MD, PhD

- A psychiatrist with a doctorate in organic chemistry discovered that the urine of schizophrenic individuals presented oxidative byproducts of adrenaline that created CNS toxicity – and so he proposed that some mental illness resulted not from ‘bad’ early childhood events but from altered brain chemistry.
- He found that increased doses of common B vitamins, niacin and pyridoxine, could threat these conditions in some schizophrenics.
- This provided the bridge that allowed psychiatry to enter a field of biochemically based functional therapy.

Hans Selye, MD, PhD

- Selye was the father of the physiological definition of the word ‘stress’ wherein he introduced the idea of the mind in the function of the body – from his insights the field of psychoneuroimmunology was born.
- The combination of the physiology of stress mapped and defined in addition to the understanding of the influence of perceived stress on genetic expression has evolved our current paradigm.
Bruce Ames, PhD

- Ames published a landmark paper in 2001 that proved Williams postulates on genetotrophic disease, revealing that gene polymorphic mutations result in enzyme pathway lower rates of reaction.
- This has given us our greatest insight into the unified mechanism of how genes and gene variations influence outcomes.
- He also states that administration of higher doses of cofactors (specific vitamins and minerals) to the polymorphic gene variations restores them to near-normal or normal levels of function.
- He concludes that “nutritional intervention in the genomics era to improve health are likely to be a major benefit.”

Dietary Reference Intake (DRI)

- Ames et al in 2001 in landmark paper reported “as many as one third of mutations in a gene result in the corresponding enzyme having an increased Michaelis constant, or Km (decreased binding affinity), for a coenzyme resulting an a lower rate of reaction” – this means some people carry unique polymorphisms that are critical in determining the outcome of their health and administration of higher that DRI vitamins and minerals and cofactors to these unique polymorphic genes can restore activity to near-normal or even normal levels.
- Genetic uniqueness may cause some individuals to require 100 times more of a particular vitamin, mineral, or accessory nutrient as another individual in good health.
- Now we’re talking! What’s the RDA again and why is it relevant.

Our take away -

- So let’s synthesize:
  - Biochemical individuality
  - Molecular medicine – ways to modify the gene expression
  - Genetotrophic disease – mismatch genes and environment
  - Biochemical function to influence disease expression
  - Stress physiology & psychoneuroimmunology
  - Gene variances change enzyme pathway rates of reaction – finally a unified mechanism
- In our words, with the concepts of epigenetic modulation of unique individual polymorphisms it is possible to promote healthy states and prevent disease expression.
- This is a new way of looking at the upstream cascades that create downstream outcomes.
- So how do we do this in practice?
Take heed -
Genetic and environmental factors, including diet and life-style, both contribute to cardiovascular disease, cancers and other major causes of mortality, but various lines of evidence indicate that environmental factors are most important. Overly enthusiastic expectations regarding the benefits of genetic research for disease prevention have the potential to distort research priorities and spending for health. However integration of new genetic information into epidemiologic studies can help clarify causal relations between both lifestyle and genetic factors and risks of disease. This a balanced approach should provide the best data to make informed choices about the most effective means to prevent disease.

Walter Willet, Harvard School of Public Health, 2002

Rate of Reaction

• This is the unified mechanism that allows us to understand genetic influence and bio-individuality

Chromosomes – 46, 23 pairs

Chromosomes are a linear arrangement of DNA. Each chromosome contains genes that determine heredity, traits, and characteristics. Genetic information is passed from one generation to the next through the process of reproduction. In human cells, there are 46 chromosomes, which are arranged in 23 pairs. Each chromosome pair contains one chromosome from each parent. The two chromosomes in each pair are homologous, meaning they have a similar structure and carry genes for the same traits. The centromere is a region that helps to divide the chromosomes during cell division. Chromosomes are also characterized by their centimere and banding patterns.
Seven Pillars
Unified Mechanisms of Health
Promoting Physiology

7 Pillars of Healing
7 Unified Mechanisms of Health
- Endocrine/Hormonal
- Glycemic Management
- pH Bioterrain
- Immuno-Inflammatory
- Circulatory Status
- Digestive Potency
- Cellular Vitality

Normal Miracle

Endocrine Hormonal
Cellular Vitality
Glycemic Management
Digestive Potency
pH Bioterrain Minerals
Immune Inflammatory
Circulatory Status
**DNA Promotion Sequence**

- Liver Support (Phase I & II): 
  - A & D Requirement
  - Omega, Iodine, Glutathione
- B Vitamins, Magnesium and minerals
- Tongue cracks persist
  - Skin dry, slow to heal
- Autoimmunity, Immune dysregulation
- Balance Methylation with Acetylation
  - Inositol, Choline, Cataplex C monitor pH, observe subjective findings to ascertain

---

**The secret formula for encouraging a healthy 2 to 16 ratio**

**Brussel Sprouts**

**Cruciferous Complete™**

**Supplement Facts**

<table>
<thead>
<tr>
<th>Serving Size: 1 capsule</th>
<th>%DV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>5</td>
</tr>
<tr>
<td>Vitamin K</td>
<td>4 mg</td>
</tr>
<tr>
<td>Potassium</td>
<td>10 mg</td>
</tr>
<tr>
<td>Iodine</td>
<td>300 mg</td>
</tr>
<tr>
<td>Brussel sprouts</td>
<td>300 mg</td>
</tr>
</tbody>
</table>
Cruciferous Complete is a combination of kale and brussel sprouts to protect against free radicals and now also is shown to up-regulate Nrf2 gene activity and subsequent survival compound status increase, including glutathione synthesis. This nutrient supports Phase I & II detoxification pathways, promoting reduction of toxic load in the body and well as supports repair mechanisms involving the eye. It contains a myriad of nutrients including vitamins B6, C, K, calcium, copper, potassium, and dietary fiber. It also contains carotenoids, which include beta carotene and lutein which help quench free radical ROS effects and retinal repair activity.

Cruciferous Complete capsule:
- Vitamin K 4 mcg
- Potassium 10 mg
- Kale 300 mg
- Brussel Sprouts 300 mg

Looking to the source -

Upstream circuitry takes us to sources that are far less impressive that the downstream events compelling action.

The source of the Nile River is far less impressive that the river as it winds through Egypt. Yet introducing change in a more subtle source can meet much less resistance and be more far reaching on multiple levels than struggling with the impressive downstream imbalances.

As well upstream changes will reveal more global changes and thus show the intricacy of relationships to the practitioner.

Principles at work

- Sufficient vitalization of target tissues, glands and organs results in up-regulation of that target function and subsequent detoxification and reduction of toxic or immune burden, resultant augmentation in function, balance, tissue fortification and promotes healthy genetic expression
- This of course results in component circuitry fortification, so that the rest of the circuitry improves globally and distal to the target strengthening
- The mistake made in nutritional therapy in this regard relates to under utilization and application of the therapy (not long enough) wherein it is discontinued to early and deep and profound repair is not accomplished
Sequential Intervention

- By giving hope through discussion of therapeutic rationale and then accountably determine if the therapy had efficacy it is possible to initiate activity that may assist a person to make the changes that result in healing.
- Sequential intervention and accountable follow-up can show what has worked and what may still need to be employed.
- Promote an understanding of intervention that creates evolutions in individual physiology and show the effect of that intervention.
- Allow every condition to become a strategic consideration of possible etiology and therapeutic rationale – people are in search of experts – reveal yourself.
- The comprehensive nature of nutritional therapy means there is always more physiology to optimize and support leaving an individual constantly refining as long as they wish to further improve their status.
- If the practitioner is accountable s/he will be allowed to experiment with reasonable ideas.

Change the world
It wants to