

### Understanding the Biological The Matrix

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### Gaia Principle

### James Lovelock and Lynn Margoulis

- Why is there life on earth and how did we get here?
- Life exists on earth because conditions are suitable for survival
- Conditions on earth are suitable for survival because there is life on earth
- Life creates a vast feedback that ensures its own survival



## Gaia Principle

 All creatures from bacteria to humans contribute to maintaining an optimal environment for life

 Life is a superorganism which has emerged because of its ability to ensure its own survival

For the first time ever, the human species is not ensuring its own survival and the outcome is uncertain.



#### The Matrix

All life on earth requires a complex, completely interdependent system of feedback loops created from information in the environment

The *MATRIX* is the meeting ground, the organizing force that has created life



#### The Matrix

 Each input to the system causes a small change in the ENTIRE system

The matrix is the message and the messenger

 The Matrix is the underlying concept for Bioregulatory Medicine



#### The Matrix

- For the past 3 or 4 decades, environmentalists have promoted an understanding of "external ecological" systems
  - i.e., rain forests, wetlands, watersheds
- Principles of modern western medicine have ignored the tenets of interdependence
- Bioregulatory medicine is the new medicine because the premise includes systems thinking



#### Western Medicine Model

- Western medicine represents a very influential understanding of health/disease based on increasingly precise detailing of organ systems
- Western medicine model has succeeded in reducing the ravages of infectious diseases and has provided pharmaceuticals and incredible surgical techniques to restore function



#### Failure of Western Medicine

 Western medicine is ineffective at resolving the new chronic illnesses of this century

- New complex chronic illnesses of the 21st century REQUIRE a complete change in paradigm
  - > This Paradigm is **Bioregulatory Medicine**
  - > The infrastructure is the **Matrix**



## Understanding the Matrix

#### **EFFECT/ SIDE EFFECT**

simple model: prescription medications

The effect varies according to the specialist's organ system

The physician states the effect and mumbles the side effects

If the side effect is overwhelming, you call and are politely told to wait a little longer so the side effect can become less noticeable



### Side Effects/ Effects

An EFFECT and a SIDE EFFECT are the same

The desired goal of the therapy - the effect - and everything else - the "side effect".

Example: Minoxidil

- Revolutionary way to lower BP
- Very effective, but when you suddenly lower a blood pressure think of the effect on the entire system



## Bioregulatory Medicine

 The side effects of a sudden lowering of your BP may seen overwhelming at first

 If you call your physician to report these side effects you will be told, "Don't worry about these side effects. The goal is to lower your BP. The nasty side effects will pass. You will get used to these."



#### Effect / Side Effect

- It's true! With time, the side effects often become less intrusive
- Taking Minoxidil will lower your blood pressure
- Suddenly lowering BP causes dizziness and sleepiness and many other symptoms
- Your doctor is right though: if you tolerate the side effects, over time the side effects will lessen



#### Effect / Side Effect

- Why is that?
- What amazing systems we humans have!
- Side effects really do become less bothersome
- (THIS IS BIOREGULATION AT WORK)
- With Minoxidil some people began to notice another side effect: Anyone know?



#### Effect / Side Effect

- Enter ROGAINE!!! Rogaine is minoxidil with another name!
- This can be an amazing treatment for baldness!
- ROGAINE! Has the excellent effect of curing baldness and a nuisance side effect of dizziness, sleepiness and - yes - low blood pressure



# Shortcomings of Current Medical Paradigm

- Insistence on treating the symptoms of disease instead of eliminating the cause
- Insistence on a model of
  - Specialists ("ologists"): gastro, derm, onc, cardio, pulmon
  - SUB Specialists: electrophysiologists, hepatologists, allergists, etc.
- Refusal to adopt the systems thinking that has allowed all other areas of expertise to meet the challenges of the 21<sup>st</sup> century



#### Features of the Matrix

- The "internal" human matrix is an internal ecosystem which is constantly changing
- It is a spontaneously self-organizing system
- It evolves over time to include more complex adaptations in response to the environment, with an ever-increasing order and complexity



#### Features of the Matrix

The Matrix is **CHAOTIC**: The order or balance of any component of the matrix creates change in the entire matrix in ways that are not predictable

The Matrix is **COMPLEX**: with a dynamic underlying order which is not consistent or readily apparent. The order is **DYNAMIC** and is established by interlinking components with a multiplicity of networking

The Matrix is **ADAPTIVE**: responds and changes to environmental input, be it toxic or therapeutic, and, in a larger context, experiential



### Practice of Bioregulatory Medicine

- The practice of Bioregulatory medicine requires a deep understanding of the complex, chaotic and adaptive systems which are NEVER static
- Bioregulatory medicine requires each of us to remember that every therapeutic intervention changes and reorganizes the ENTIRE ecosystem
- Bioregulatory medicine is the superb art of relationship



#### Characteristics of the Matrix

- Broad-based dispersal of "power"
- No one component is more fundamental than others
- There is a chaotic but predictive emergence of dynamic regulation in each of us



#### Homeostasis

Walter Canon MD was a professor of physiology at Harvard Medical School

Using a concept originally described by Claude Bernard in 1865, he invented the word homeostasis

Homeostasis is the 'property' of a system inside an animal in which a variable, such as blood pH or temperature, is actively regulated to remain very nearly constant



#### Homeostasis vs Allostasis

- Homeostasis as proposed by Canon requires
  - physiological set points which are
  - unchanging, within a very narrow range
- Many theories were proposed and argued to address the gaps in Canon's model of regulation
- The theory of allostasis became the most accepted model



#### Allostasis

- Allostasis in summary means stability through change
- This model was one of the first notions of regulatory medicine
- In order to be adaptive, a system must be dynamic
- Dynamic means constantly changing



#### **Allostasis**

Allostasis attempts to describe the activation of adaptation, increasingly complex organization, and cooperation resulting in the activation of more sophisticated, complex and wise mechanisms to maintain balance/health



### Understanding the Matrix

- Provides a new paradigm through which true health can be restored
- Bioregulatory medicine demands an understanding that a state of dynamic balance in an increasingly wise and complex system is NOT achieved by "protocols" or linear solutions
- Single local rebalancing techniques will not achieve a state of dynamic balance



## **Understanding Bioregulation**

- Each intervention effects the entire system: restoring health means constant learning on the part of the practitioner as well as the patient
- Be present, be astute
- Do not ignore it when a patient tells you the intervention has made him/her worse
- Every change you make to one system effects EVERY OTHER SYSTEM (even ones that did not need changing)



### Bioregulation

- Matrix regulation results in reconstitution at ever new set points with elaborate checks and balances
- Practicing Regulatory Medicine requires a deepening respect and understanding of the complex and completely interdependent Biological matrix

Every encounter with a patient provides a unique opportunity



- ✓ Take a very detailed history: this requires both time and attention
- ✓ Allow the patient to tell his or her story: listen, engage in the story to make sure you understand
- Retell the patient story as you heard it and allow the patient to clarify



### Measuring Allostatic Response

#### TESTS FOR BIOREGULATING

- Heart Rate Variability
- CRT (Computerized Regulation Thermography)
- Kinesiology
- Vega Testing
- Pulse Diagnosis



Develop a tool kit to evaluate the patient's ability to regulate

Testing includes (but is not limited to):

- Hormone testing (adrenal, thyroid and reproductive must be take as a unit and treated as a unit)
- Neurotransmitter testing
- Mapping the intestinal microbiome



- Ability to drain and detoxify
- Excesses and deficiencies: Toxic loads of organic pollutants and heavy metals
- Stressors (past traumas and current stressors)
- Quality of the food you eat
- Coping skills and daily stress busting activity:
  - What do you do for fun?
  - Do you exercise?
  - How often do you feel joyful?



- Assess pain levels: Where do you hurt?
- Include your physical body and in your being?
- What are the triggers antecedents and mediators of physical or emotional pain?
- Where is your community? Where do you belong?
- What are you passionate about?



What is your connection to spirit/purpose?

Return on a regular basis to the Gaia Principle.

The new medicine is a science and an art with limitless combinations and possibilities.

