

Four Disease State Theories

May 8, 2018

Dr. Wu and Zha have proposed many diseases theories. The following four theories imply that all diseases are curable. Those theories are critical to understanding the nature, development, prevention and reversal of diseases. IF one fully understands those disease theories, curing incurable diseases is a matter of re-training the biological mind in the brain, and one normally can achieve a good outcome by persistent tries and hard work.

1. Memory-Maintained Disease State Theory

Dr. Wu developed this theory in 2001 without publishing it (Wu's First Disease Theory). The key substance is stated as follows:

The central nerve system constantly monitors the physiological condition of every organ. which may be a tissue, part of an organ or part of the body. The monitoring of an organ is realized by interactions between neurological signals from the brain and a state property of the organ reflecting its life vitality or physiological properties (“ Σ PP”). We use Σ to stress that all physiological properties are included so that this definition is different from its traditional meaning used in dictionaries. The brain is able to understand the physiological properties of the organ. As a result of constant neurological signal exchanges, the state of the organ is permanently recorded in special memory of the brain.

The central nerve system also controls the physiological properties of every organ and every part of the body by periodically and/or constantly sending regulatory signals to the organ or the part, in consistent with the current physiological condition of the organ and the part.

Throughout the fetal development and the adult life, the central nerve system has developed healthy regulatory signals for every organ in consistent with its healthy physiological conditions. When a disease develops in an organ by a cause such as an injurious agent, Qi in the organ is changed. The central nerve system detects the disease state from changed Qi.

The central nerve system adjusts its regulatory signals in response to the changed state of the organ. In an effort to compensate for changed, lost or impaired physiological functions of the organ, the central nerve system alters regulatory signals that are sent to the diseased organ and all related organs and parts of the body. Changes are made to protect the diseased organ. By this mechanism, mind and disease condition are interlocked.

If the disease is not healed in a reasonable time, altered regulatory signals permanently replace prior healthy regulatory signals in the memory; the altered physiological properties of the diseased organ will be accepted as current

physiological conditions. The prior regulatory signals may be further inhibited by constant reinforcement of the altered regulatory signals, and thus prior normal physiological properties of the diseased organ cannot be recovered.

The altered regulatory signals cause all other related organs to protect the diseased organ and its current physiological properties. The ability of the central nerve system to memorize regulatory signals is essential for maintaining the stability of the organ and other organs, but prevents the diseased organ from reversing from the diseased state to the normal state.

Reversal of the disease state is prevented by persistent signal exchanges between the organ and the brain and interactions between the diseased organ and all related organs of the body. Therefore, removing the cause is no longer a sufficient condition for curing the disease. A cure for the disease must include both the removal of the cause, a graduate change of regulatory signals, and cooperative change of all related organs.

Diseases in an organ or the body include any abnormal or changed physiological properties that may manifest as fibrosis, tumor, scar, inflammation, and mineral deposits. When any of the diseases develops, the central nerve system gradually accepts altered diseased tissues and sends regulatory signals to inhibit the immune system from attacking them and prevent healthy cells from successively replacing them. That is why diseased tissues that do not have healthy biological potentials can survive in the body while internal immune cells cannot destroy them and surrounding healthy tissues cannot gradually replace them.

Infinitesimal disease state changes theory

This theory (Wu' second disease theory) can be readily derived from the memory-maintained disease state theory. Since a disease can develop from a healthy organ to a diseased organ gradually, it must be possible to reverse it by infinitesimal state changes in a reversal direction. When the condition of the diseased lesion is changed, it causes all cooperative organs to change in consistent with the improvement in the disease organ. With time passing, the brain records the changed physiological properties in its special memory and accepts the improved state of the organ as the current state.

Dr. Wu (2001) predicted that all diseases are reversible and curable. For reversing a chronic disease, five conditions must be met: creation of thermodynamic condition in favor of reversing, provision of activation energy for all underlying biochemical processes, cooperative actions of the brain in favor of improvement of the diseased organ, whole body-cooperation for improvement of the diseased organ, and the ability to maintain an improved state. Wu's disease theory predicts that no cure can be prescribed as a single drug, but key component of cures is within the brain.

Unfortunately, curing a fully developed disease is more difficult than

stopping it before it becomes a disease of clinical significance. It would be a hardest battle to fight a chronic disease (see Chronic Disease Reversal Speeds).

2 Multiple Random Factors Disease Causes Theory

Wu and Zha (2017) proposed this theory (“Quantitative disease causes theory”) when they wrote their first book in Health Optimization Engineering. It is intended to be a new foundation for treating future diseases. This theory may be referred to as quantitative disease causes theory.

Each chronic disease is caused by a large number of unpredictable and random factors as disease causes. As shown in the causes for high blood pressure, hundreds of factors can contribute to an elevated blood pressure. Many of the factors are unpredictable and highly dynamic because they may be present in some cases but absent in other cases.

All of the factors are random variables: they make contributions to the disease in a quantitative manner. Any factor can contribute nearly zero, a tiny little bit, a little bit, some, a lot, a great deal, or nearly all of disease-causing effects to the disease, just like a random variable defined by a bell with two long tails. This theory is applicable to any chronic disease. Each of causal factors makes a quantitative contribution to the disease.

All diseases are caused by changes in physiological properties (“ΣPP”) in the body or relevant tissues. Physiological properties may also be referred to as “physiological environment” or “chemical environment” when it is referenced relative to a special subject such as a tissue or an organ. Physiological properties in a tissue are defined by all present compounds, all structural cells in the tissue, all mobile cells, pollutants and foreign agents, and remaining metabolic products etc.

Physiological properties are greatly influenced by circulating blood and tissue fluid. Physiological properties in a tissue depends upon, among others, nutrients, water activity or osmotic pressure of the liquid phase, compound concentrations and their gradients, fluid acidity, cell health conditions, their physiological and biological activities (enzymes and other biological molecules), and nerve signals from the brain or other organs. Physiological properties are related to tissue vitality, Qi level (or external signals for stem cell differentiation), inflammation driving force and tissue repairing mechanisms.

Anything that can permanently cause changes in the physiological properties of a tissue or organ or the whole body can make a contribution to one or more diseases. Different set of factors may result in different physiological properties, thus causing different diseases. All known disease agents make diseases by influencing physiological properties.

Long-term abuse of nutritional supplements may result in next national health crisis because the extreme high concentrations used in a long term basis can disturb physiological properties of the body.

In a tissue, all physiological processes and biochemical reactions take place in an open system. This openness nature was known more than 1700 years ago. Such an open system contains a large number of substances that are from foods, air, and water and distributed by the circulating blood and moving body fluid.

Every one of substances in the open system can affect the physiological processes and biochemical reactions in any part of the body even though it is not a reactant or product in the biological processes and reactions. The substance can exert its effect by affecting fluid acidity, water activity/osmotic pressure, fluid pH, fluid viscosity, compound-compound interactions, physical absorption on tissue cells, inorganic balance, nutrition competition, nutritional balance (total calories balance, fatty-acid ratios, amino acid ratios, and mineral balance etc.), ionic strength, interference to cell functions by a large number of ways, interfere with molecular recognition mechanisms, interference with diffusion speeds of others, altering volume concentrations of other components, physical space effects, and interactions with nerve signals.

Therefore, the human body cannot be treated as a closed chemical reactor where reactants and other chemical compositions can be controlled and everything else can be ignored. This reality dictates that a disease cannot be cured by working on only one, two or a few reactants or compounds. It is so even though a distinctive compound is known to start, stop and control a specific biochemical reaction for a disease in a model study. There is no way to change this distinctive compound without adjusting the physiological properties. This is why a single compound cannot cure a disease.

Essentially, Qi is highly related to physiological properties. Qi is all physical properties that can be added or superimposed on nerve signals directly or indirectly. Qi is an excellent term when it is used to understand how the central nerve system communicates with any tissue and organ because the information must be added on to nerve signals. Qi is also very good term when it is evaluated by subjective feeling. Qi, which can be felt by human beings, include force, physical strength, life vitality, energy for think, desire to do thing, subtle signals, warned temperature and subtle inner feel. All of those things require free usable energy.

However, Qi is difficult to understand by ordinary people, especially Western people, and it cannot be directly linked to most health factors such as nutrition, foods, lifestyle, exercise, pollution, emotion, temperature, humidity.... Worst, scientific discoveries made in the last century cannot be linked to Qi. By using physiological properties as a bridge to Qi, we can combine all scientific discoveries with life vitality, Qi.

Physiological properties in the human body and Chinese balance theory are highly related. The overall balance in the human body includes all kinds of sub-level balances including biological process balance, energy production and consumption balance, nutrient supply and consumption balance, inorganic

balance, signal balance, functional balance, structural balance, muscle usage balance, force balance etc.

Any of those balances can be destroyed by altering the physiological properties in organs, tissues or the body. Those balances can be disturbed by changing body temperature, mechanical force, electrical field, various physical waves, fluid pH, nutrition amounts and nutrient ratios, concentrations and concentration gradients of compounds, component physical dimension, compound concentrations, nerve signal transmission, muscle usages, catalysts, chemicals that can interact with any of essential compounds, chemicals that can interfere with molecular recognition mechanisms, and cells health condition etc.

We could show thousands of ways to disrupt balances. For example, raising temperature by as little as 0.5 degrees can totally disrupt the biological process balance: a higher temperature would change reaction speeds of different reactions by different degrees due to their differences in activation energies, thereby disrupting the normal steady-state condition. Applying mechanical force to the body can change blood pressure in affected area and results in discomfort. Introducing food of large acid or basic capacity can disrupt pH of the body fluid and the blood, and, thus, cause catastrophic adverse impacts. Changing nutrients can result in insufficient reactants or excessive products. Changing concentrations of oxygen and glucose, for example, can change their abilities to reach cells in tissues. Using muscles with high repetition can cause permanent muscle damages.

Neural signals disturbed by bad information and emotion distress can cause pain and mental disorders. Increasing the fraction of inert gases in breathed air can impair the metabolic functions with adverse impact on the whole body. Changing dimension of capillaries can dramatically increase flow resistance because the diameter of red blood cells is even larger than the diameter of a capillary.

Introducing into the body unwanted catalysts or removing essential catalysts can destroy biochemical process imbalance. Synthetic compounds in the human body can affect biological processes by interacting with natural compounds by any physical mechanisms and chemical reactions. Radioactive materials can damage other compounds and damage cells, thus changing their functions. Lack of antioxidants can result in more damages to cells by free radicals. Toxins, pollutants and toxic by-products can cause progressive damages to cells in tissues. Therefore, anything that can alter any of those balances can be viewed as disease agents although most significant disease agents are well known.

Small imbalance in a short term is generally not important unless the magnitude of its impact is large. When an imbalance is caused by a factor by a trivial amount, damages is realized by cumulative effect of the imbalance in a long term. Whenever, an imbalance of any kind exists, the physiological properties in an organ, a tissue, or the body must have been changed. Thus, all

imbalances must be reflected in the physiological properties.

While physiological properties can be used to describe disease cause factors, there is no way to find distinctive mechanisms for any of the chronic diseases. No disease is caused by a change in a single chemical reaction or a single biological path.

It is a flaw to think a disease as a problem in a static chemical reactor, where all problems can be attributed to a distinctive problem in one or more chemical reaction. There is no conceivable basis to explain why a biological path is weakened or sped up. This is why all methods that are normally used to diagnose a controlled static system cannot be used to study health problems of such an open complex system. This is the main reason for the colossal failure of modern medicine.

We believe that the general veracity of this disease theory is not subject to dispute. It predicts that the presumption that each disease is defined by a well distinctive disease mechanism, and treating each disease using a same method must fail with few exceptions. This is why modern medicine has consistently failed in finding cure for chronic diseases.

True disease causes cannot be defined for any chronic disease. Binary yes-no states are not applicable to any of disease-causing factors. There is no way to define the scope of disease factors and the quantitative contributions of each disease cause factor to the disease. For high blood pressure, cancer, auto immune disease, or any other chronic diseases, when disease data for a population of similar disease patients are summed and averaged, any conclusion based upon summed data can represent only an abstract person that simply does not exist in the world. Conclusions from such studies have no relevance to nearly all patients, from whom the data is acquired. This big flaw is created by common-law rulers and have been misapplied to natural phenomena.

If a disease is caused by hundreds of factors, the hundreds of factors can be used to adjust the physiological properties, thereby curing the disease. This approach would be effective for a super majority of people. Due to the nature of open system of the body, we anticipate that some disease cause factors are not understood, they might be left out. This will be reason for inability to cure certain diseases for some time. For example, the role of the gut flora in causing autoimmune diseases was not known until recently. Many factors are yet to be found. That is the challenge.

For further discussion, please see an exemplar disease causes model for high blood pressure in Section 1.6.

3. Multiple Random Factors Disease Reversal Theory

Wu and Zha (2017) proposed this theory (“Quantitative disease causes reversal theory”). This theory may be referred to as quantitative disease reversal theory. This theory is an application version of the holistic principle that has been

known for more than 4000 years. It is used to cure diseases in a concrete way for the first time.

We have pointed out that the human body is an open system. Any chemical compounds can get into the body and reach every cell in a matter of minutes to hours. The globalization and food sharing have completely changed the scope of exposure to food-borne disease agents.

In any one day, a typical American might be exposed to chemicals compounds, toxins, pollutants and other materials from several to tens other nations. Air-borne disease agents are also shared by all people in the planet. For example, Japanese radiation-polluted air has long reached the U.S.; the radioactive ashes from U.S. must have reached other nations; and polluted air in China must have reached the U.S. Information can be a primary disease agent of mental and emotional diseases.

The internet has changed the scope of information reach and the speed of its reach. A person can be harmed by any unwelcome information or sad and harmful news. A person can be found all over the places in just one week.

All health properties of human beings are affected by a gigantic number of diseases agents on the planet. Thus, human body has become an extremely open system that no science has ever studied in a systematic way. It is impossible to find the types and amounts of disease agents a particular person has been exposed to.

This extreme openness nature and constant material exchanges, energy exchanges, and information changes determine that no duplicate and distinctive disease mechanisms can be found and that health problems cannot be studied by using controlled methods. In treating diseases, any methods based upon closed systems will not work on real people and all generalized methods based upon population studies are meaningless.

Based upon our Multiple Random Factors Disease Causes Theory, the practical inability to control exposure to disease agents, and impossibility to know prior exposed disease agents, there is no way to identify one or more cause factors for any patient in treating a disease. Moreover, multiple cause factors tend to present in a super majority of patients. Even if a disease is triggered by an initial cause factor, a large number of other factors will soon become contributing cause factors. Moreover, there is no way to fix functional and structural problems directly (note surgery is not applicable to most chronic diseases). Thus, we must conclude that the most rationale and only workable treatment method is to use all potential cause factors to change physiological properties of diseased tissues in order to reverse the disease.

Hundreds of factors can make different-amount contributions to high blood pressure, and thus one cannot just stare at one or two factors in reversing the disease. While a population study shows one, two or a few factors or certain

patterns, conclusions in the studies are not applicable to any particular person in the study or anyone in the general population. Legal rule can be imposed on anyone, but health parameters cannot. Data from other persons cannot be used to treat a specific person. Readers can understand our theory by reading our long analysis of the quantitative disease causes model for high blood pressure.

As we stated above, exposure to disease agents in such an extremely open system cannot be known in a future time (with rare exceptions). The disease cause factors for one person will never be the same as those for others in both quantitative and qualitative scales. In addition, contributions of genetic and lifestyle factors cannot be ascertained with any reliability in practice and treatment methods developed from model studies cannot be used in real life. Using averaged data or population data cannot address the problems caused by the open system.

The notion of treating same disease by same method must be abandoned. We believe that a large portion of liver damages (as related to heart diseases) are caused by imitating successful stories without understanding differences between individual patients.

Our theory also implies that it is impossible to tell whether a particular treatment is working based on incremental improvements of a disease condition. Due to the existence of a large number of cause factors and a long-time lag between changes in physiological properties and disappearance of symptoms, it is impossible to tell which method is working or which is not.

If the symptoms of a disease gradually disappear, final success should be attributed to all methods that can be reasonably identified. It is not a right approach to just identify one or two methods even if they appear to be the most critical.

Patients should clearly understand that comfort medicines are used for different purposes and should not be used in lieu of methods intended to get rid of root causes.

A workable approach to cure is not studying the infinitely large number of cause factors for each patient because it is impossible and impracticable. Rather, the most reasonable approach is using all known or potentially relevant factors to reverse disease-moving direction with stress being directed to the most probably cause factors.

Recent advancements in research in inflammation driving force and stem cells repairing mechanisms underscore needs for using our generalized treatment approach. It is known that some small compounds are responsible for triggering inflammation or controlling stem cell repairing mechanisms. The only way to make the body generate certain compounds is through changing the physiological properties of the body.

Abundant evidence on food roles has been acquired even though those

studies are biased in failure to discover true effects. A large number of those findings can be used as rough guidance for developing most suitable set of cause factors for curing diseases. We have no doubt that future success will depend upon the knowledge of how to alter physiological properties in the body for treating each of challenging diseases. While physiological properties is a general term for all diseases, future medicine may focus on some of the properties in dealing with a specific disease.

We propose eleven wonder cures for chronic diseases, which are food, exercise, emotion control, herb formulations, massage, deep breathing exercise, mind-regulation, relaxation, meditation, resting cycle, and toxin reduction. If they are used correctly to address right health problems, any one of them can become a wonder cure. If they are misused, none of them can do much.

Food alone can be a cure if it is used wisely and timely, but can be a health destroyer too. Emotion control and mind regulation are for treating mental problems. Many wonder cures (except active Qi circulation) are available by birth. We believe that when they are used correctly and persistently or in a right combination, they can overcome all challenging medical problems.

We do not list prescription drugs because even if they do very well in controlling symptoms, they could not get rid of root disease causes in nearly all cases and have unavoidable side effects. Most side effects cannot be identified and lost in the forest of the half national population of sick people.

One example of application of our theory is our detailed method for preventing stroke discussed. The same methodology can be used to cure other chronic diseases. For example, if you want to figure out how to cure an autoimmune disease, you look into your genetics, the immune system, all of those nutrient balances, inflammation-driving force, exposure to disease agents such as pollutants and special chemicals, your stress level, familial and social factors, and overall condition of the gut flora etc.

You can find hundreds of sub-level factors to be considered. You will note that many factors are same as those used to deal with stroke and vascular diseases, but others are unique for your condition. Reversing a disease requires a great deal of time and thought: some successful cases may require one to several years to see a final change. Also, correcting a health problem needs to overshoot by a little bit.