

# Homeopathy – Nanomedicine - Mechanism of Action of Homeopathic Medicines

By

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**Keywords:** homeopathy; nanomedicine; mechanism of action; nanoparticles; homeopathic; cure; primary action; secondary action; neuropeptides; immunopeptides; molecules; emotion; stress

## Summary

Homeopathy is an individualistic medicine.

The research done by Dr. Candace Pert concludes that there is a communication between human mind and cells. The neuropeptides and immunopeptides / neuroimmunopeptides are the messengers of this communication<sup>1</sup>. The emotions experienced by human beings can directly impact the cells of human body either causing disease or keeping the human cells in the state of health. Thus through the research done by Dr. Candace Pert the Mind and Body link is established on the basis of molecular research done in her laboratory.

Thus when we homeopathic physician capture the patient's minutest Mental / Spiritual / Emotional details of the patient we cover the disordered cell / organ / part of the body automatically as the human cells / organs / parts in general the physique is in sync with the mental / emotional / spiritual state of the individual. Once we arrive at the key details from the patient we select a homeopathic remedy that is indicated for the same behavioral pattern as well as the same pathology of the patient. A remedy selected on the patient's individuality cures the patient completely and the cure lasts longer even though the patient is exposed to the same trigger factor or allergen<sup>3</sup>.

Prashant Satish Chikramane, Akkihebbal K Suresh, Jayesh Ramesh Bellare, and Shantaram Govind Kane from Department of Chemical Engineering, Indian Institute of Technology (IIT), Bombay, published their research paper<sup>4</sup> - Extreme homeopathic dilutions retain starting materials: A nano particle perspective which stated that the original source molecules are retained by the homeopathic medicines as nano-particle. Which states that homeopathy is a nanomedicine.

In yet another scientifically structured research study<sup>5</sup> Bell I. R. et al have arrived at a clinical outcome that proved the homeopathic principle Similia Similibus Curenter (similar medicines to kill similar disease by creating a pseudo disease to stimulate vital force to instigate cure) through the clinical outcomes of the study. The study reveals: Homeopathic remedies are remedy source nanoparticles and/or remedy-modified silica nano particles that act as environmental stressors to mobilize hormesis and time-dependent sensitization via non-pharmacological effects on specific biological adaptive mechanisms.

We homeopathic physicians ask the patient to keep the medicated homeopathic globules (nanoparticles<sup>4, 5</sup>) in the mouth or below the tongue (sub-lingual) as it acts best. The nanoparticles have capability to cross the blood brain barrier<sup>6</sup>.

The central nervous system (CNS) centers in communication with the cells of the body through neuropeptides / neuroimmunopeptides sends stimulus to restore the sick to the healthy state of being. Such a communication along with healthy state of being creates an electromagnetic resonance around the individual as well as the cells. The CNS communication along with the

electromagnetic resonance in homeopathy collectively labeled as the vital force. Since the process of entry into the organism through nanoparticles which are non-pharmacologic in nature the patient does not experience a sense of being sick and the first thing what is experienced by the patients is the sense of well being followed by total complete cure of chief complaints pertaining to the local cells / organs / parts of the body.

### **Full Text**

Homeopathy is an individualistic medicine. We homeopaths do take case histories for an hour or more which varies from patient to patient. During the case we collect pivotal information about the patient's emotional / mental make up, stress experienced by him / her during the life circumstances. We consider the patient as an individual right since the childhood and in pediatric cases right since the mother's history during pregnancy, the kind of stress she experienced during pregnancy. We study deeply the impact of the mother's stress on the foetus and assess the immune status of the infant as per the emotional turmoil experienced by the mother during pregnancy. All these aspects of case taking help us identifying the individuality of the patients.

Now let's learn more about the research done by [Dr. Candace Pert in linking emotions to the cells of the body](#). Molecules of Emotion: Why You Feel the Way You Feel is a book authored by Dr. Candace Pert<sup>1</sup>. Cell receptors are the interface between emotions and tissue<sup>1</sup>. The cell's brain is the receptors that float on its membrane. A neuron (nerve cell) may have millions of receptors. Dr. Candace Pert has spent her life as a scientist researching the receptors that are located on the cells. She explains how they work. A receptor is a single molecule made up of strings of amino acids, like beads on a necklace, perhaps the most complicated molecule. The 20 known amino acids make up protein and are manufactured in the ribosomes found in every cell. A receptor vibrates and hums as it changes shape, waiting to pick up messages that diffuse through the fluids surrounding the cells. A ligand is the chemical key that fits in the receptor, in a process called binding. About 95% of ligands are peptides, and smaller strings of amino acids. Examples of amino acids are<sup>2</sup>: Epinephrine, Melatonin, Triiodothyronine (T3), Thyroxin (T4). On the other hand examples of peptides are<sup>2</sup>: Amylin, Adrenocorticotrophic Hormone (ACTH), Angiotensin, Antidiuretic Hormone (ADH), Calcitonin, Cholecystokinin, Corticotropin Releasing Hormone (CRH), Erythropoietin (EPO), Follicle Stimulating Hormone (FSH), Gastrin, Glucagon, Gonadotropin Releasing Hormone (GnRH), Growth Hormone, Human Chorionic Gonadotropin (hCG), Insulin, Oxytocin, Parathyroid Hormone (PTH), Prolactin, Renin, Thyroid Stimulating Hormone (TSH), and many others. The peptides are neurotransmitters such as serotonin, usually secreted in the brain to carry information across the neuronal gap (synapse – a gap between two neurons). The chemical exchange of information molecules takes place through out the nervous system as well as the cells on other organs of the body. It allows the different systems to communicate with each other (for example the communication between Endocrine System, Central / Peripheral Nervous System, and Immune System).

The limbic system encircles the top of the brainstem, the source of emotions. The brain's food is glucose, carried in the blood, which fuels the neurons to secrete messenger chemicals (neurotransmitters and neuropeptides) and the glial cells to work on the nerve endings in an "ongoing sculpting of connections." Dr. Pert coined the phrase "molecules of emotion" in response to her finding that 85 to 95% of the neuropeptide receptors are found in the emotion centers (limbic structures). They include the amygdala, hippocampus, and limbic cortex. Since the 1920s, researchers were able to stimulate strong emotions by electrically stimulating the limbic cortex over the amygdala. Dr. Pert's group of scientists discovered that high concentrations of neuropeptides exist in most locations ("nodal points") where information from the five senses enters the nervous system. Receptors are also found on immune cells for almost every peptide found in the brain. Thus the immune system can send and receive information from the brain via the peptides, and the brain is another nodal point in the network. "Using neuropeptides as the cue, our body-mind retrieves or represses emotions and behaviors," since change at the receptor level is the molecular basis of memory. Memories are stored in the body, as well as the brain, especially in the receptors between nerves and cell bodies called ganglia. We pay attention to some information and ignore the rest, as otherwise we would be overwhelmed. Dr. Pert deduces this means memory processes are emotion-driven and that emotions are peptide ligands. "Peptides are the sheet music containing the notes, phrases, and rhythms that

allow the orchestra—your body—to play as an integrated entity.” Memory and performance are, therefore, influenced by mood.

“Emotional states or moods are produced by the various neuropeptide ligands, and what we experience as an emotion or a feeling is also a mechanism for activating a particular neuronal circuit—simultaneously throughout the brain and body—which generates a behavior.” Dr. Pert believes there is one kind of peptide for each emotion, just as endorphins are the mechanisms for bliss and bonding. We can consciously influence what goes on in the body, as by visualizing increased blood flow into a body part to increase oxygen and nutrients to nourish the cells. Dr. Pert believes “repressed emotions are stored in the body—the unconscious mind—via the release of neuropeptide ligands, and that memories are held in their receptors.” Emotions, then, “are at the nexus between matter and mind, going back and forth between the two and influencing both.” The immune system is composed of the spleen (the brain of the immune system), the bone marrow, the lymph nodes, and various white blood cells. Dr. Pert speculates that meridians may be the pathways followed by immune cells. Some of the immune system cells create antibody molecules to engulf bacteria, virus or tumor cells. Scavenger cells (macrophages which begin in the bone marrow as monocytes) clean up the debris after invaders are killed. Macrophages also repair and heal tissue. Interferons, similar to antibodies, fight invaders, but they’re peptides made by white blood cells called lymphocytes (Some are B cells, others are T cells). Dr. Pert and her team found receptors on immune cells for almost every peptide found in the brain. Immune cells make and secrete neuropeptides, the same brain chemicals that control mood. The immune system can send information to the brain with immunopeptides and receive it through neuropeptides which hook up on receptors, the basis for the new study of psychoneuroimmunology. The brain, glands, and immune system are linked in an intelligent information network of neuropeptides and receptors which create emotions. This means “emotion-affecting peptides, then, actually appear to control routing and migration of monocytes, which are very pivotal to the overall health of the organism.” For example, in cancer, neuropeptides (which affect mood and behavior) signal the cancer cell receptors and cause them to grow and travel. Thus, cancer can be fought with peptides to block receptors, as when taxofilen is used against estrogen-dependent breast cancers. Viruses use the same receptors as neuropeptides to enter a cell. Even if we don’t understand the details of the interaction between emotions and cell receptors, it’s important for healers to know the connection exists and that it can be influenced consciously.

The research done by Dr. Candace Pert concludes that there is a communication between human mind and cells. The neuropeptides and immunopeptides are the messengers of this communication<sup>1</sup>. The emotions experienced by human beings can directly impact the cells of human body either causing disease or keeping the human cells in the state of health. Thus through the research done by Dr. Candace Pert the Mind and Body link is established on the basis of molecular research done in her laboratory.

We homeopaths take all emotional / mental aspects / symptoms into consideration to individualize a patient. Even if a twin comes to us for treatment of simple cold the individuality of each of the twin is equally important to us. Thus when we as a homeopathic physician capture the patient’s minutest Mental / Emotional / Spiritual details we cover the disordered cell / organ / part of the body automatically as the human cells / organs / parts in general the physique is in sync with the mental / emotional / spiritual state of the individual as elaborated by Dr. Pert in her research. Once we arrive at the key details from the patient we select a homeopathic remedy that is indicated for the same behavioral pattern as well as the same pathology that of the patient. A remedy selected on the patient’s individuality cures the patient completely and the cure lasts longer even though the patient is exposed to the same trigger factor or allergen<sup>3</sup>.

However, there are chemists who questioned how the homeopathic medicines can act when the medicines do not include original source molecule based on the Avogadro’s number. The laws of chemistry state that there is a limit to the dilution that can be made without losing the original substance altogether. This limit, which is related to Avogadro’s number, corresponds to homeopathic potencies of 12C or 24X. Dr. Samuel Hahnemann himself realized that there is virtually no chance that even one molecule of original substance would remain after extreme dilutions. But he believed that the vigorous shaking or pulverizing with each step of dilution

leaves behind a "spirit-like" essence "no longer perceptible to the senses" which cures by reviving the body's "vital force." Modern proponents assert that even when the last molecule is gone, a "memory" of the substance is retained. This was the scene till 2010 when Prashant Satish Chikramane, Akkihebbal K Suresh, Jayesh Ramesh Bellare, and Shantaram Govind Kane from Department of Chemical Engineering, Indian Institute of Technology (IIT), Bombay, published their research paper - Extreme homeopathic dilutions retain starting materials: A nano particle perspective which stated that the original source molecules are retained by the homeopathic medicines as nano-particle<sup>4</sup>. Which states that homeopathy is a nanomedicine. Which entrusts the status claimed by Dr. Ashutosh Pradhan in his article – Homeopathy – Science of the Eras to Come, as till recent times we have not heard or consumed any medicine labeled as nanomedicine. However, after the IIT Bombay research paper<sup>4</sup> was published revealing that the homeopathic medicines contain nano particles of the source material, homeopathy became the first nanomedicine globally. It is very surprising to note that Dr. Samuel Hahnemann was the first allopathic physician to have been developed nanomedicines though ignorant of the fact or the label "nano". What lacked was the scientific linkage between the mechanism of action of homeopathic medicines and homeopathic cure. To endorse with the views expressed in the article published by Chikramane P. S. et al many new studies were conducted to prove time and again that homeopathic medicines include nano-particles of the source medicines, endorsing homeopathy's nanomedicine status.

In yet another scientifically structured research study<sup>5</sup> Bell I. R. et al have arrived at a clinical outcome that proved the homeopathic principle Similia Similibus Curenter (similar medicines to cure similar disease by creating a pseudo disease to stimulate vital force to cure the individual) through the clinical outcomes of the study. The study reveals: Homeopathic remedies are remedy source nanoparticles and / or remedy-modified silica nano particles that act as environmental stressors to mobilize hormesis and time-dependent sensitization via non-pharmacological effects on specific biological adaptive mechanisms. Both trituration milling in lactose; and succussion in glass with ethanol / 99% alcohol as a diluents and plant-tincture biosynthesis methods generate the initial nanostructures. The nanoparticle nature of remedies distinguishes them from conventional bulk form drugs in structure, morphology, and functional properties. Furthermore, remedy source nanoparticles, especially in interaction with nanosilica, have the capacity to initiate bottom-up self-assembly of biomimetic nanostructures using crystalline or biological, e.g., DNA, proteins, collagen, and templates.

The clinical outcomes depend upon the ability of the organism to apprise the original high level stressors that caused disease and the subsequent low level remedy nanoparticles as novel and salient foreign stressors. Factors identified as biological threats will signal the need for time-dependent, sensitized compensatory adaptations (hormesis) in components of the allostatic stress response network. Which in simple words means that homeopathic medicines – nanoparticles can create similar sickness as that of sickness created by the stressor to stimulate the vital force to take care of the natural disease as an action by the vital force on the disease force and not directly by the medicines on the disease force, which in homeopathic terms is called as homeopathic cure by secondary action. Primary action in homeopathy is considered action of the medicines on the disease force and secondary action is action of the medicines on vital force and vital force acting on the disease force as it is "trained" to act in the fashion / manner so as to cure the disease. Once the vital force has been "trained" to act against the disease force it stores the "training" in its memory and every time the disease force of similar fashion arises the vital force takes the curative action resulting in permanent cure of the disease for which a precise homeopathic remedy is prescribed.

The cumulative impact of allostatic overload from multiple different stressors led in the past to a pattern of specific dysfunctional adaptations in the stress response network underlying the emergence of disease/s. The cross-adapted / cross-sensitized homeopathic remedy - nanoparticles take advantage of the priming effect of the prior high level stressors that originally caused the disease. The remedy nanoparticles, as a low level stressor, then elicit reversal of direction in the pre-established, disease-related maladaptive patterns. The net outcome is improved resilience to stress, with restoration of normal homeostatic function, resolution of disease, and an emergent sense of global well-being.

Again, “stress” refers to biological, infectious, chemical, physical, electromagnetic, nutritional and / or psychological types of environmental stimuli that the organism recognizes as a novel threat to its survival, immediately or in the future. The high or low intensity of the stressor determines the direction of the adaptations it initiates, but it is the encroachment of the stressor on the organism that mobilizes cell changes. In short, perceived or experienced novel threat is more important than dose level to trigger adaptive responses. Dose comes into play to modulate the direction of the responses via priming from past cellular activity history, and current cell damage in the body’s stress response pathways.

Within the organism as a complex adaptive system or network, causality for these events is indirect rather than direct, distant in time and space to the original administration of the homeopathic dose as a small but salient stimulus or stressor. The organism carries forward the work of healing as a nonlinear, amplified dynamical adaptive response. It is because of the nature of classical homeopathic prescribing, i.e., selection of a single remedy administered intermittently, at widely-spaced intervals of time in pulsed acute dosing regimens that the treatment system is safe and beneficial.

Thus we learnt from the above study by Bell I. R. et al<sup>5</sup> how the homeopathic cure takes place by the principle of similia similibus curenter using a single remedy administered in a controlled way - intermittently at widely-spaced intervals of time.

We homoeopathic physicians ask the patient to keep the medicated homoeopathic globules (nanoparticles<sup>4, 5</sup>) in the mouth or below the tongue (sub-lingual) as it acts best. The nanoparticles have capability to cross the blood brain barrier<sup>6</sup>. The medicines are absorbed from the mouth as well cross the neuronal barrier to enter into the peripheral nervous system of the patient. Once the nanoparticle / nanomedicine enters the peripheral nervous system of the patient through neuropeptides and immunopeptides / neuroimmunopeptides it reaches the central nervous system primarily amygdala, hippocampus, and limbic cortex to relieve the peculiar imbalance on the emotional / mental state that has given rise to the disease the patient is suffering from. The central nervous system (CNS) centers in communication with the cells of the body through neuropeptides / neuroimmunopeptides / electromagnetic resonance sends stimulus to restore the sick to the healthy state of being. Such a communication along with healthy state of being creates an electromagnetic resonance around the individual as well as the cells. The CNS communication along with the electromagnetic resonance in homeopathy collectively is labeled as the vital force. Since the process of entry into the organism through nanoparticles which are non-pharmacologic in nature the patient does not experience a sense of being sick and the first thing what is experienced by the patient is the sense of well being followed by complete cure of chief complaints pertaining to the local cells / organs / parts of the body.

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