



Reflection of elements of periodic table in pharmaceutical science through correlation approach of far-sight of pharmacy which is the vision of pharmacy (phar-sight) in globalization in past and current millennium



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Creativity of Almighty God is reflected towards the chemical science which is really a wonderful chapter under which new molecules are being generated and destructed in regular basis. There is no such a substance in the world, which is free from chemistry. Any substance either solid or liquid or gas all are made up of some specific element of chemistry arranged in an organized chemical bonding in three dimensional matrix to shape the creation. English alphabet has twenty-six letters, which on specific organization produces numbers of words, which on definite synchronization produce sentence, which on perfect sequencing produce a chapter and arrangement of chapters produce a book! Similar way there are twenty three amino acids found in nature which on definite sequencing produce gene and arrangement of genes produce chromosomes which reflect towards the creativity of animals as well as human as well as plants. Mystery of this creation is

only based on amino acid the building block of specific entity and fragmentation of these amino acids give carbon, hydrogen, nitrogen, oxygen and sometimes sulfur. All these elements are family member of periodic table arranged according to the atomic radius created by Mendeleev's rule; the great scientist created by God. Similarly all the other non-living beings are also made up of either single element or the complex compound of these elemental atoms only.

I am happy to pen down for **Editorial Column** by compilation of again twenty-six alphabets in a synchronized way to form a column for the viewers of pharmacy professionals worldwide. Medicinal Chemistry is a branch of Pharmaceutical Chemistry, which describes about the chemistry of medicines under the umbrella of chemical science. There are so many chemicals present in the world in plenty but all chemicals are not

placed in the category of drug. The drug is a chemical substance obtained either from animal source, plant source or mineral source having definite three dimensional structural framework can fit on the bioreceptor platform having controlling capacity to check the malfunction in biochemical system is categorized as a drug. This specific drug when supplied in the chemist shop in a definite formulation is known as medicine. The medicine either solid or liquid or semisolid or gaseous dosage form release the appropriate drug *in-vivo* system. Then it follows the pharmacodynamics and pharmacokinetics and leaves the specific amount of active drug, which is plasma, unbound fraction. This unbound drug then binds to the receptor site and shows the drug action. All these phenomena is based on chemical nature of drug and biomolecular system in the cell of living beings. Entire biomolecular system plays a good role with molecular biology by following the chemistry of molecule. This is really a great wonder of the electronic profile of atoms, which make the infrastructure of drug molecule as well as macromolecules in the body system.

This is the wonder of medicinal chemistry, which includes organic chemistry, biochemistry, physical chemistry, analytical chemistry, combinatorial chemistry, nanochemistry, inorganic chemistry, computational chemistry, supramolecular chemistry like so many things. The rocking coinage for **Chemistry** is **Chemist+Try!** So **try & try & try** until you reach to your target to become a real & successful chemist"! The last three letters (TRY) is the mystery in the history of chemistry. The devotion of true chemist towards the field of science, technology, education and industry create an inspiration to the budding fellows. The methodology of a chemist for implementation of basic chemistry into in-

house (domestic) as well as out-house (profession) makes a milestone among the entire pharmacy professionals. **How, When, Where & Why** are four basic concepts of pharmaceutical science which is the inner eye of chemistry because chemistry is a playground of functional groups. There is not a single subject in pharmaceutical science which is free from chemistry. Pharmacology is full of *in-vivo* drug receptor interaction between active pharmaceutical ingredients (API) with biomolecules through high throughput screening (HTS). Pharmaceutics is full of physical chemistry of API where kinetic study is being performed *in-vitro*. Pharmacognosy is entire chemistry of biogenesis & biosynthesis of natural molecules *in-vivo* of flora & fauna with mineral sources. Analytical Chemistry is the structural interpretation as well as separation technique by chromatography and spectroscopy along with identification of purity and quality of API. Beyond of all pharmacy streams the API is being synthesised in pharmaceutical chemistry by *in-situ* and *in-silico* method to get a highest grade of purity for screening.

As an editorial board member of *World Journal of Pharmaceutical Sciences* this is my whole hearted statement regarding the implementation of various fields of pharmaceutical sciences by correlation between each other because **pharmacy** is a subject which runs on its two legs **chemistry** and **biology**. So a successful chemist & biologist work side by side to produce a new entity of drug to get victory over diseases in past & current millennium. This is the *Reflection of elements of periodic table in pharmaceutical science through correlation approach of far-sight of pharmacy which is the vision of pharmacy (phar-sight) in globalization in past & current millennium.*