International Journal of Advanced Chemistry, 10 (2) (2022) 138-168

International Journal of Advanced Chemistry

Website: www.sciencepubco.com/index.php/IJAC

Research paper

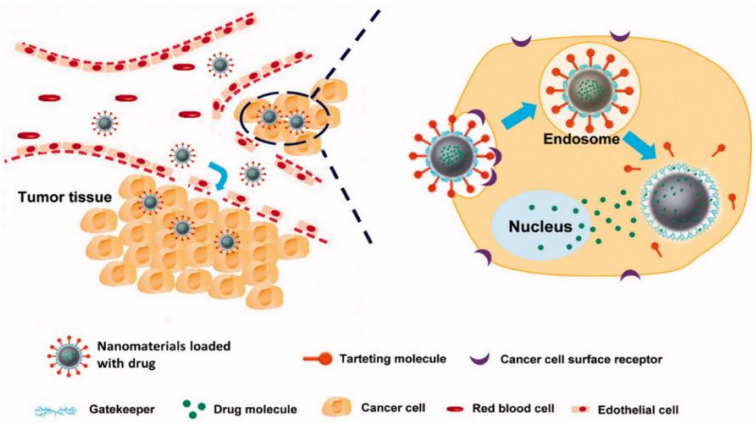
Investigation of the inverse piezoelectric effect of synchrotron light source imaging of electrical stimulation on the fate of nano stem cells and its role and application in regenerative medicine and cancer treatment

Alireza Heidari [1, 2, 3, 4] *, Zahra Torfeh [5], Sophia Iorgulescu [1, 2, 3], Olivia Robinson [1, 2, 3], Lin Hu [1, 2, 3], Charlotte Vauclin [1, 2, 3], Ntalie Schiltz [1, 2, 3], Scarlett Sondermann [1, 2, 3], Lucy MacLennan [1, 2, 3], Julia Smith [1, 2, 3], Lydia Williamson [1, 2, 3]

[1] *Faculty of Chemistry, California South University, 14731 Comet St. Irvine, CA 92604, USA*
[2] *Bio Spectroscopy Core Research Laboratory (BCRL), California South University, 14731 Comet St. Irvine, CA 92604, USA*
[3] *Cancer Research Institute (CRI), California South University, 14731 Comet St. Irvine, CA 92604, USA*
[4] *American International Standards Institute (AISI), Irvine, CA 3800, USA*
[5] *An Independent, Volunteer and Unaffiliated Researcher*
**Corresponding author E-mail: Alireza.Heidari@calsu.us*

Abstract

The presence of electrical activity in body organs such as the nervous system, heart and bones has caused one of the most widely used treatment methods called electrotherapy to be widely used, especially in the relief of underlying pain. On the other hand, the progress of medical science in the field of nano stem cells and regenerative medicine has created many promises in treatment. Also, recently, treatments based on electric field have been widely used in cancer treatment. The main issues in regenerative medicine are the proliferation of nano stem cells to the required extent and directing them towards the differentiation of the target tissue. Electric field (EF) stimulation can play an important role in creating appropriate nano stem cell responses and directing nano stem cell differentiation towards osteogenesis/neuronogenesis/cardiomyogenesis. The electric field with nanosecond pulse as well as the electric field for tumor therapy have attracted a lot of attention for the treatment of cancer. Major signaling pathways and cellular responses elicited by electrical stimulation include reactive oxygen species and heat shock proteins, fluctuations in intracellular calcium ion concentration, ATP production, clustering or reaggregation of cell surface receptors., reconstruction of the cytoskeleton that affect the fate of the nano stem cell. Also, the lack of pain, ease and reasonable price have made cancer treatment with electric field more and more popular. In this research, an attempt has been made to briefly review the effects of electrical signals on the behavior of nano stem cells, as well as examples of their therapeutic effects in the treatment of tissue lesions and cancer.



Schematic of the inverse piezoelectric effect of synchrotron light source imaging of electrical stimulation on the fate of nano stem cells and its role and application in regenerative medicine and cancer treatment.

Keywords: *Use about five key words or phrases in alphabetical order, Separated by Semicolon*

Copyright © Alireza Heidari et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. Introduction

Electricity is a basic need in our daily life. Electrotherapy, the use of electrical energy to treat medical disorders, dates back to 46 AD when Scribonius Largus, physician to Roman Emperor Claudius, discovered that standing on electric eels on the beach could relieve pain by inducing anesthesia [1–11]. For example, the early methods of medical electrical therapy to treat neurological and mental disorders, or paralysis, were more than administering electric shocks to patients [12–22]. In today's medicine, the use of low–level electrical energy is now accepted in a wide range of medical specialties, including neurology and psychiatry [23–34]. On the other hand, nano stem cells have a high potential in the application of tissue engineering and regenerative medicine due to their self–regeneration ability and high differentiation ability [35–46]. The two main goals pursued in the cultivation of these types of cells are their proliferation in the culture medium while maintaining their pluripotency and their differentiation into the required cell line [47–58]. With the growth and expansion of the science of biology and the greater understanding of cell biology, it became clear that biochemical factors are not the only factors involved in cell fate [59–70]. With the extensive research done in this field, they concluded that in order to imitate the cell membrane to achieve a specific goal, in addition to biochemical factors, it is also necessary to control biophysical factors such as mechanical, geometric and electrical factors [71–81]. The electrical properties of the field are a fundamental issue in cell–biomaterial interaction. Heidari et al. reported electric field generation during cellular activities such as cell division, proliferation, and migration [82–93]. After that, the idea was raised that it is possible to control cellular activities using electrical signals [94–105]. For example, due to the fact that nerve, muscle, fibroblast and osteoblast cells in the body are mostly under electrical stimulation, it is possible to use these electrical signals to direct the cells towards cardiac and vascular cells and differentiated nervously. On the other hand, the treatment of cancer as one of the main causes of death is highly regarded by scientists, and the use of electric field in its treatment is also expanding due to its advantages such as ease of use, reasonable price, and non–painfulness [106–114].

2. Results and discussion

2.1. Effects of electric field on the fate of nano stem cells

Applying electrical stimulation to nano stem cells has several methods such as applying direct current, inductive coupling, capacitive coupling, quasi–capacitive coupling and concentration cell with agar salt bridge. Meanwhile, capacitive coupling is the most common method of applying an electric field to the cell culture medium and the cells in it. On the other hand, depending on the type of cell, the method of stimulation and its intensity, there is the possibility of major and very different changes in the fate of the nano stem cell. Especially, by choosing the right culture medium and the right intensity of the applied electric field and the right application method, even different cell lines can be obtained from the same cell source [115–157].

In general, the active electrical function of cells depends on the existence of ion channels in the cell membrane as well as polar molecules in the cell structure such as proteins and amino acids. In addition, the components of the cell skeleton, which are mainly made of protein, are affected by the electric field and electric current [158–202]. Meanwhile, the effect of electric current and electric field of calcium and potassium ion channels on cell proliferation is well known. Figure (1) shows the effect of the electrical signal on the arrangement of the cell division spindle and its effects on the cell membrane. Also, the results show that the electric field caused cell polarization and migration due to the presence of ions in the cell environment. Figure (2) shows the effect of electric field on cell polarization and, accordingly, the migration of nano stem cells.

It should also be noted that the change in ion content and cell polarization can cause a cascade of intracellular signaling pathways and cause cell differentiation. Figure (3) shows the effect of the pulsed electrical signal on the differentiation of mesenchymal nano stem cells into cardiac muscle cells. In addition, the results of some investigations have shown that the electrical signal has caused dedifferentiation and morphological changes in the cell, which is related to the calcium channel mechanisms, and it can become a new point of hope for the production of inducible cells in a simpler way. In addition, it should be noted that the use of conductive scaffolds is very effective in order to improve the effect of the electrical signal, and today several studies have focused on the use of this type of scaffolds in various fields, and the promising effects in the regeneration of biological tissues with electrical activity such as orthopedics, nervous and cardiac have been observed (Figures 1–3).

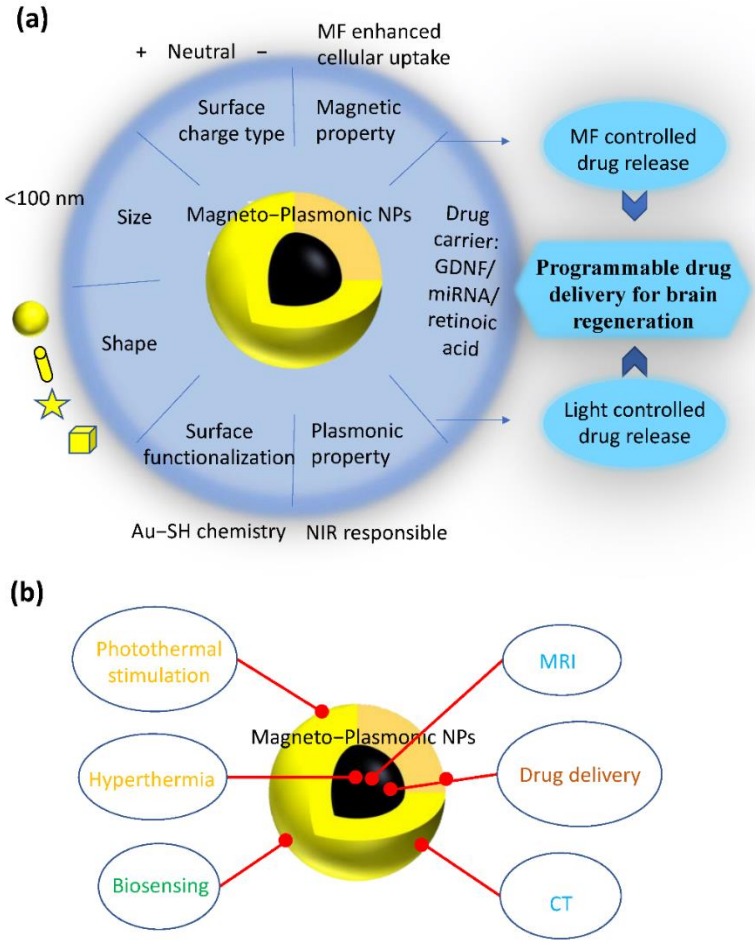


Fig. 1: Inverse Piezoelectric Effect of Synchrotron Light Source Imaging of Electrical Stimulation on the Fate of Nano Stem Cells and Its Role and Application in Regenerative Medicine and Cancer Treatment.

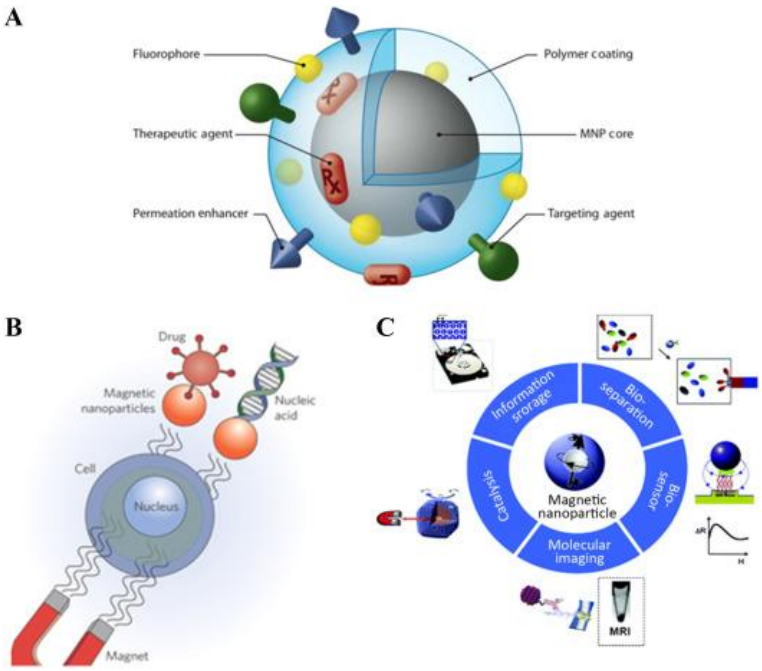


Fig. 2: Effects of Electric Field on the Fate of Nano Stem Cells.

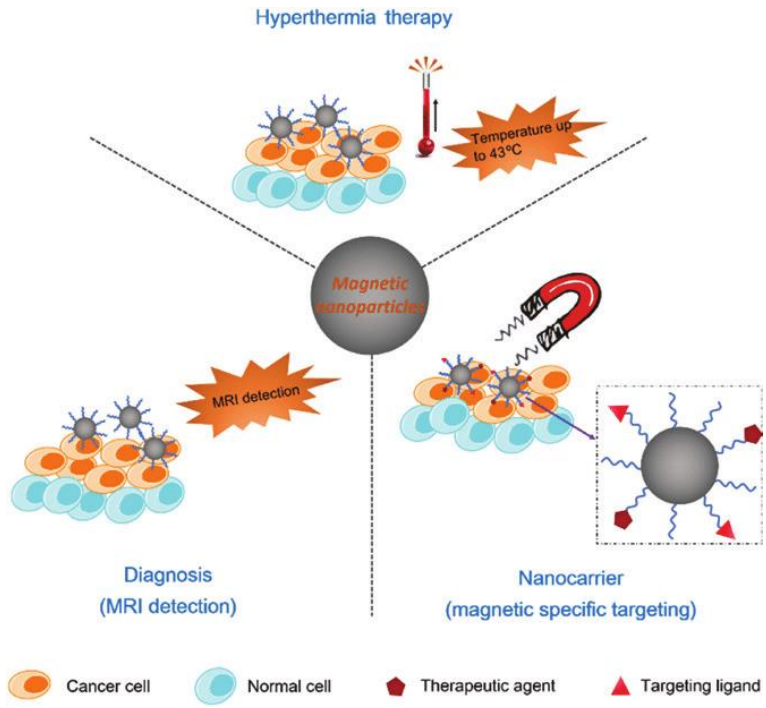


Fig. 3: Therapeutic Effects of Electric Signal on Tissue Repair.

2.2. Therapeutic effects of electric signal on tissue repair

The first field of interest in regenerative medicine is wound healing, especially chronic wounds such as diabetic wounds. In general, the wound healing process includes inflammatory stages, cell proliferation and extracellular matrix rearrangement [203–265]. If the healing process does not progress properly and the wound continues for more than a month, it may be described as a chronic wound. Electrical stimulation in wound healing mainly involves the application of electric current through electrodes that are placed directly on the skin [266–307]. The use of this special type of electrode dressing has had a significant effect on the treatment of chronic wounds such as bedsores in patients. Figures (4–7) show the image of this type of dressings. It has been shown in human studies that electrical stimulation accelerates wound healing and increases skin repair and is an adjunctive treatment method in plastic surgery and can improve the survival of vascularized implants (flap) and grafts (implants without vascularization). and accelerate postoperative recovery as well as reduce necrosis after reconstruction. Also, previous studies have shown that electrical stimulation (ES) causes angiogenesis in all types of tissues and cells [308–363]. Therefore, it can reduce the problems caused by the death of fat tissues used in autologous fat transfer (a cosmetic surgery technique) and increase tissue survival, which is a result of stimulating fat nano stem cells in the tissue. Many years have passed since the successful use of external electrical stimulation at the bedside to improve bone healing. Research has shown that this success has a significant effect, especially in irreparable bone defects, and in recent years, it has been suggested as an aid to bone tissue engineering treatments to optimize their therapeutic potential [364–385]. This idea is due to the positive effects of electrical stimulation on the migration of nano stem cells, their proliferation, differentiation and adhesion to the scaffold, that all the aforementioned cell behaviors are beneficial for bone tissue engineering (BTE). The voltage used in these studies was in the range of 100 mV/mm. Another important tissue in the movement system is cartilage, whose repair is very significant today. A review of animal and clinical data has shown that electrical stimulation may increase cell proliferation and stimulate the synthesis of molecules related to the extracellular matrix of articular cartilage, such as type II collagen, aggrecan, and glycosaminoglycan [386–414]. Nerve tissue is the most known tissue with electrical activity. Usually, in peripheral nerve damage, recovery is incomplete. Brunton's studies have shown that electrical stimulation directs axon growth and causes directional cell migration. A clinical study by applying a pulsed field with a frequency of 20 Hz for 100 milliseconds at a field of 200 mV/mm to human neural nano stem cells showed that the repair observed in the defect filled with nano stem cells and the use of stimulation electrical has been comparable with the autologous transplant group. The presence of a conductive substrate has had a significant effect on improving the differentiation of nano stem cells into nerves. One of the most interesting materials in this field is graphene, whose findings have shown that its presence in the scaffold improves the synaptic activity of nerve cells. Also, a review of studies has shown that the use of hair cells and spiral ganglion neurons (SGN) along with electrical stimulation can create new hopes in the treatment of deafness [415–472]. In addition, investigating the electrical stimulation of MSCs on polycaprolactone/carbon nanotube conductive scaffolds has shown that the expression levels of rhodopsin (RHO) and pyriferin genes as markers of differentiation into eye photoreceptor cells were significantly higher in electrically stimulated cells. Skeletal muscle tissues as well as cardiac muscle constitute another group of tissues with electrical function, and the use of electrical stimulation can be an effective step in compensating for their damage [483–515]. Skeletal muscle is an electrochemical tissue that relies heavily on interaction with its extracellular matrix for internal organization and mechanical function. The combination of coating with laminin and electrical stimulation caused thicker myotubes compared to non–stimulated and non–coated samples. Therefore, through a combination of biochemical and electrical stimuli, it has created a new way to develop mature muscle tissue in 3D soft scaffolds [516–599]. It has also been observed that the combination of electrical and mechanical stimulation has improved muscle contraction force through the rearrangement of extracellular matrix fibers. Also, the investigation of the effect of electrical stimulation on the differentiation of human induced pluripotent cells has shown that electrical stimulation in combination with mechanical stimulation has increased the differentiation efficiency of nano stem cells into cardiomyocytes, which can be a suitable method for the clinical treatment of heart attack in the future. Diabetes is one of the common non–communicable diseases that have very harmful effects on health [600–668]. Pancreatic β cells play an important role in glucose homeostasis by secreting insulin (the only hormone capable of reducing blood glucose concentration). Disturbance in insulin secretion causes a chronic increase in blood sugar, which is characteristic of type 2 diabetes (T2DM). In recent years, research has shown that although the origin of these cells is endodermal, β cells share many characteristics with nerve cells, including electrical excitability. A group of researchers have shown that the combined treatment of thermal

shock and mild electrical stimulation may preserve pancreatic cell volume and improve glucose homeostasis in diabetes. Also, animal studies have shown that intestinal electrical stimulation (IES) causes weight loss. However, it is not yet clear whether this method is a cure for diabetes. Although it reduced the apoptosis of pancreatic β cells, it had no effect on their proliferation (Figures 4–7).

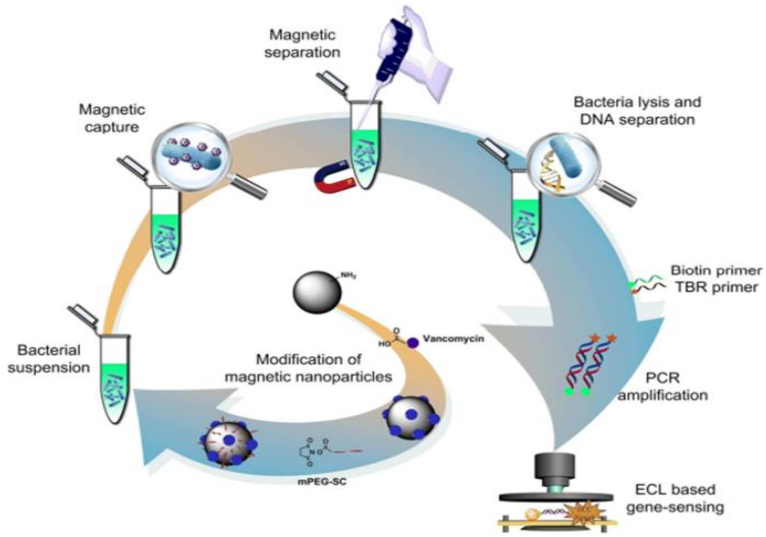


Fig. 4: Combined Treatment of Thermal Shock and Mild Electrical Stimulation May Preserve Pancreatic Cell Volume and Improve Glucose Homeostasis in Diabetes.

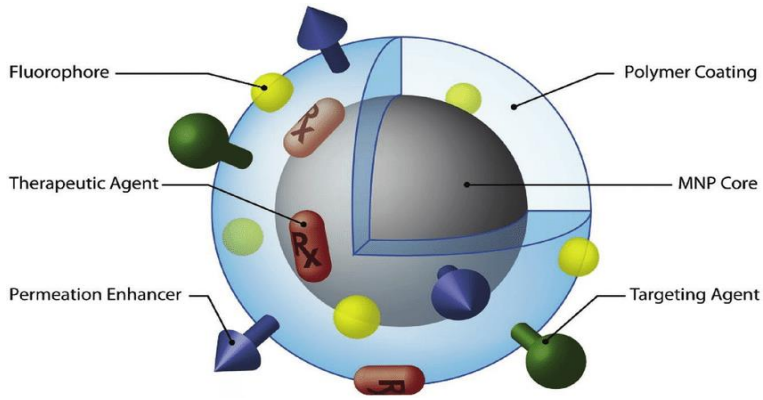


Fig. 5: Effect of the Electrical Signal on the Arrangement of the Cell Division Spindle and Its Effects on the Cell Membrane.

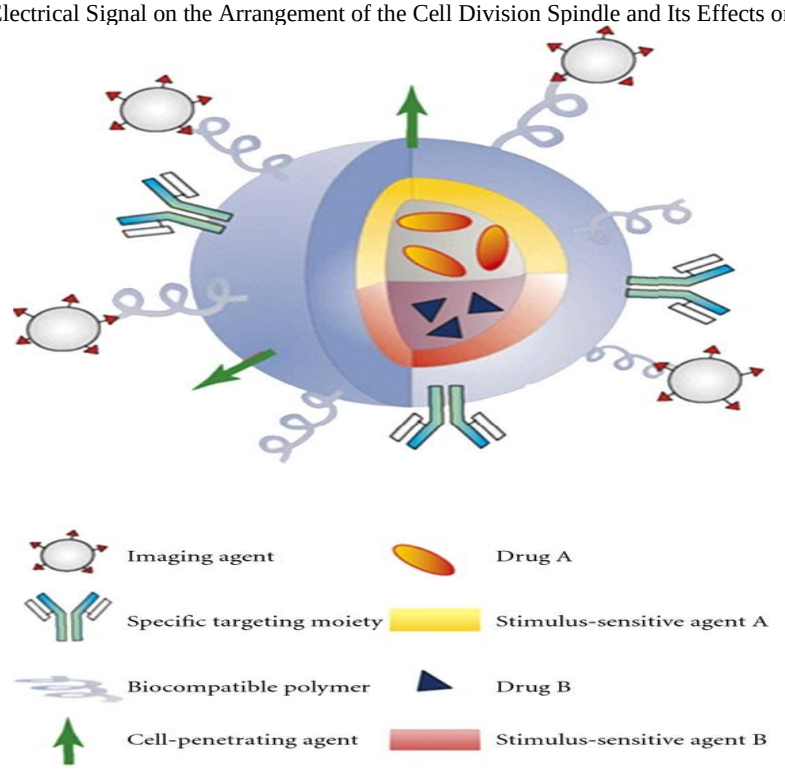


Fig. 6: Effect of the Pulsed Electrical Signal on the Differentiation of Mesenchymal Nano Stem Cells Into Cardiac Muscle Cells.

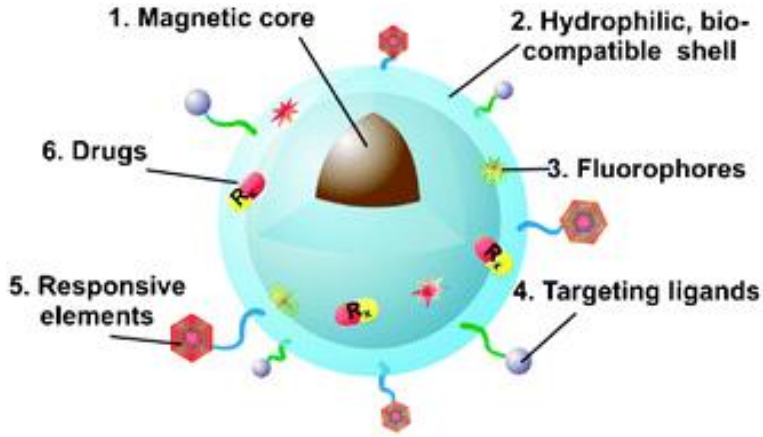


Fig. 7: Therapeutic Use of Electric Signal in Cancer Treatment.

2.3. Therapeutic use of electric signal in cancer treatment

The use of electrotherapy in oncology is less clear and is mainly based on animal studies. In 1959, Swiss researchers hypothesized that the application of electric current would inhibit or reduce the growth of growing cells. Low intensity electric current can inhibit ribonucleotide reductase involved in DNA synthesis. Austrian physician and electrical engineer Rudolf Pekar investigated the effect of galvanic current on cancer cells in the 1970s and developed electrical therapy to combat solid tumors. Cancer treatment based on low–intensity electric current is highly developed in China due to its advantages such as cheap price and effectiveness. Although limitations such as limitations in applied current intensity, penetration depth and damage to nearby tissues will limit its use in the bedside, nowadays the tendency is towards using electric field instead of electric current due to higher penetration depth and also Its better selective performance was observed. Unlike the direct and continuous electric field which has the effects of cell proliferation, the Nanosecond Pulsed Electric Field (nsPEF) and the electric field resulting from the alternating current, which is better known as the tumor therapeutic field (TTF), have the effects of apoptosis and as a result, are used in cancer treatment (Figure 8–10).

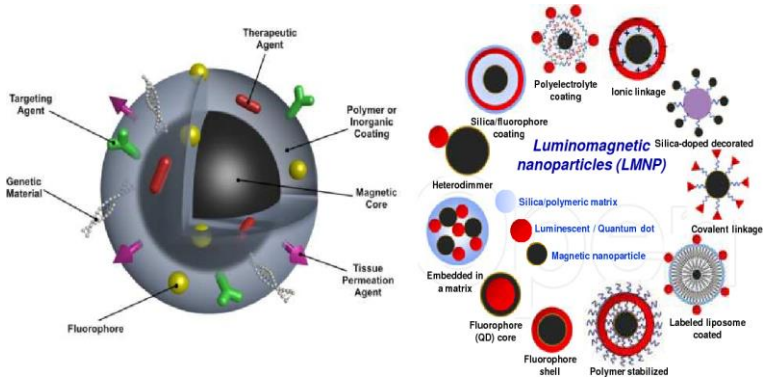


Fig. 8: Effects of Cell Proliferation, Nanosecond Pulsed Electric Field (Nspef) and Electric Field As the Tumor Therapeutic Field (TTF).

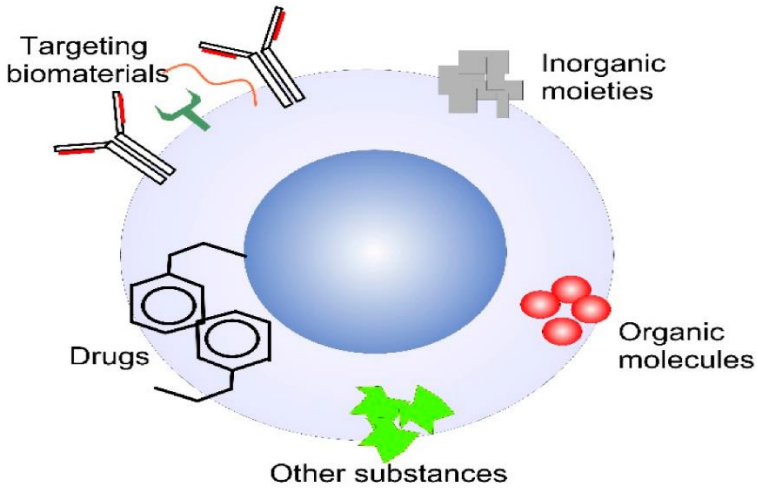


Fig. 9: Effects of Apoptosis in Cancer Treatment.

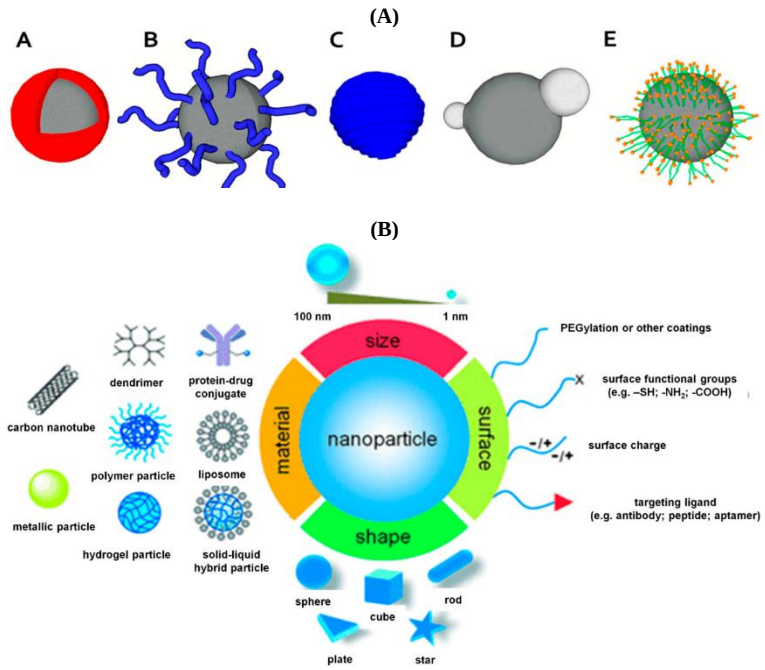


Fig. 10: Pulsed Electric Field in Cancer Treatment.

2.4. Pulsed electric field in cancer treatment

Based on the pulse length, this technology is classified into millisecond, microsecond, nanosecond and picosecond pulses. The predominant use of pulsed electric fields is to modify the permeability of cell membranes, which is sometimes called electroporation and has been used in various ways to treat cancer. In this method, by applying an electric field to the cells, the permeability of the cell membrane increases. This allows the transfer of chemicals, drugs or DNA to the cell (also called electrotransfer). These include introducing genes to tumor cells to activate the immune response, introducing compounds with cytotoxicity to tumor cells, initiating necrosis using irreversible electroporation, and initiating immunological death and apoptosis of cancer cells with nanosecond nanopulse stimulation. In the meantime, nanosecond electric pulse as a developed technology of electroporation has been increasingly used in cancer treatment. This technology has been used first for military applications and also for use in the food industry and water purification. There are two main properties that distinguish it from microsecond pulses: intracellular penetration and large electric field amplitude. Pulses with nanosecond range due to their very short range and intracellular penetration can show unique effects inside the cell, also since the total energy provided is proportional to the product of pulse duration, current and voltage, duration Shorter pulse increases the voltage applied by this factor 0001 (relative to electroporation), so the voltage and current applied to cells and tissue can be much higher, while much less heat is generated. Possible mechanisms for the death of cancer and tumor cells include Nanosecond Pulsed Electric Field (nsPEF)–induced permeability of the plasma membrane and consequent influx of calcium ions, loss of mitochondrial membrane potential, which is probably due to events beyond the permeability of the inner mitochondrial membrane such as the release of cytochrome C or even Caspase activation. Figures (11–13) show the mechanisms of cell death caused by Nanosecond Pulsed Electric Field (nsPEF) in cells in the acute lymphoblastic leukemia cell line. One of the important advantages of nanosecond electric pulse is its ability to be used in combined treatment with various conventional treatments such as surgery, chemotherapy, photothermal and gene therapy. It has also been shown that the nanosecond electrical pulse has improved the function of the immune system and increased the sensitivity of neutrophil immune cells to cancer cells. So far, this technology has been used in the treatment of colon, liver and breast cancers and acceptable results have been obtained. The electric pulse with picosecond range is also a kind of development of the electric pulse with nanosecond scale, which has a pulse duration 1000 times shorter. The therapeutic effect of this technology has also been observed by preventing angiogenesis and removing cancer cells in cervical cancer (Figures 11–13).

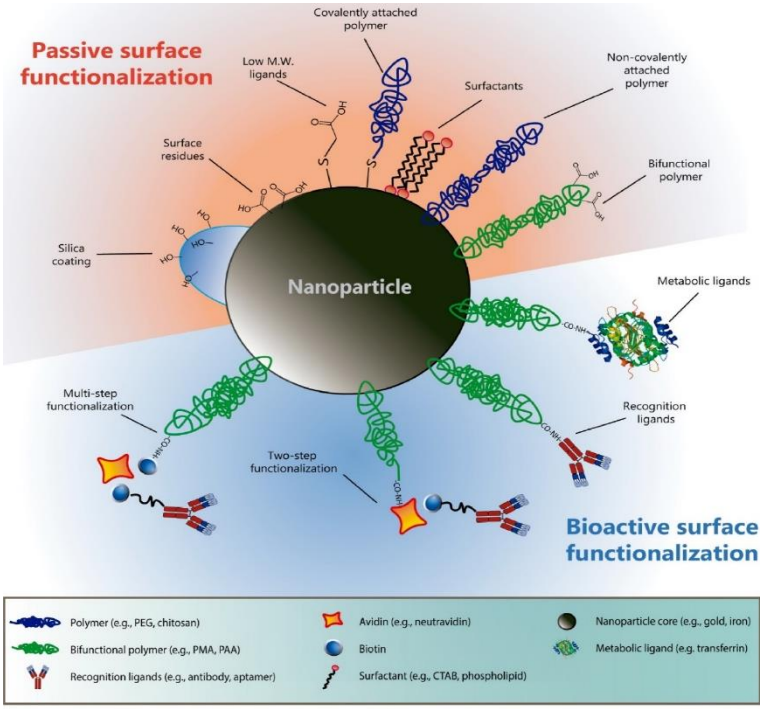


Fig. 11: Therapeutic Effect of Preventing Angiogenesis and Removing Cancer Cells in Cervical Cancer.

Fig. 12: Electric Pulse with Picosecond Range as A Kind of Development of the Electric Pulse with Nanosecond Scale.

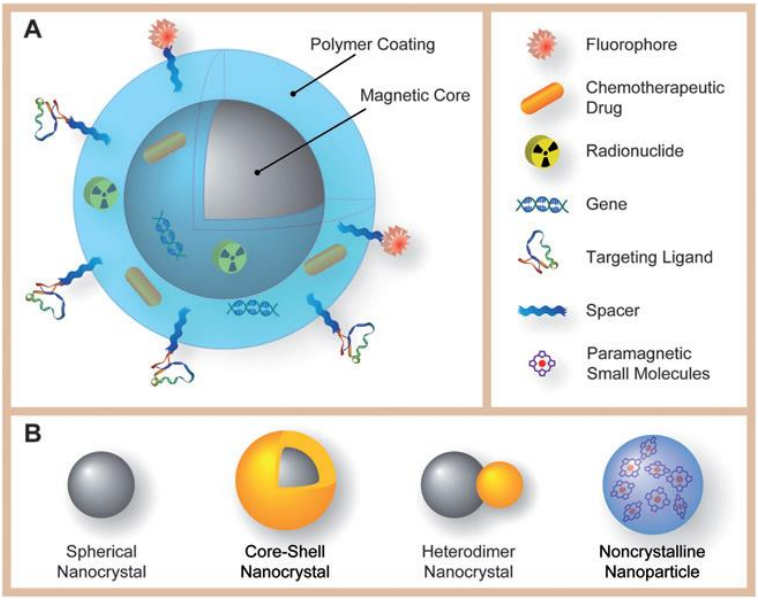


Fig. 13: Application of Tumor Therapy Field in Cancer Treatment.

2.5. Application of tumor therapy field in cancer treatment

Tumor field therapy technology is a non–invasive therapy technology based on the alternating electric field and the biophysical phenomenon of dielectrophoresis (DEP) and is involved in the treatment of solid tumors. Also, its therapeutic basis is to prevent cell division by disrupting the replication of hereditary material by creating Disturbance in its polymerization, as well as disruption of the division spindle, and on the other hand, creating a heterogeneous electric field in the cell, and as a result, causing its dysfunction in the case of cancer cells. In addition, this heterogeneous electric field can disrupt the enzymatic function of the cell, which is inherited in the synthesis phase, and even induce apoptosis in the abnormal cell. Figure (14) shows the cellular mechanism of this technology and Figure (15) shows a sample of its equipment on the patient's body. Another positive point of this treatment is that it can work in a completely specific way and only target abnormal cells in terms of metabolism and transcription and does not harm healthy cells, and therefore it has been approved by the FDA. In addition to the mentioned cases, the tumor treatment field improves the function of the immune system and induces immunogenesis in such a way that it leads to the improvement of the function of the dendritic cells that express antigens (dendritic cells) and also increases the sensitivity and action. Therefore, T cells become cytotoxic (cytotoxic T cells) and both of these cells play an important role in facing cancer. Another important point is that this technology can be used as monotherapy or combined treatment with other treatments. Until now, the mentioned technology has been mostly used in glioblastoma cancer and has been able to play a very important role in improving the survival of patients. Figure (16) shows the effect of the simultaneous use of this technology together with the anticancer drug temozolomide (TMZ) in the survival of patients with glioblastoma cancer has been shown. Also, apart from glioblastoma cancer, this technology has also been used in the treatment of lung cancer (Figures 14–16).

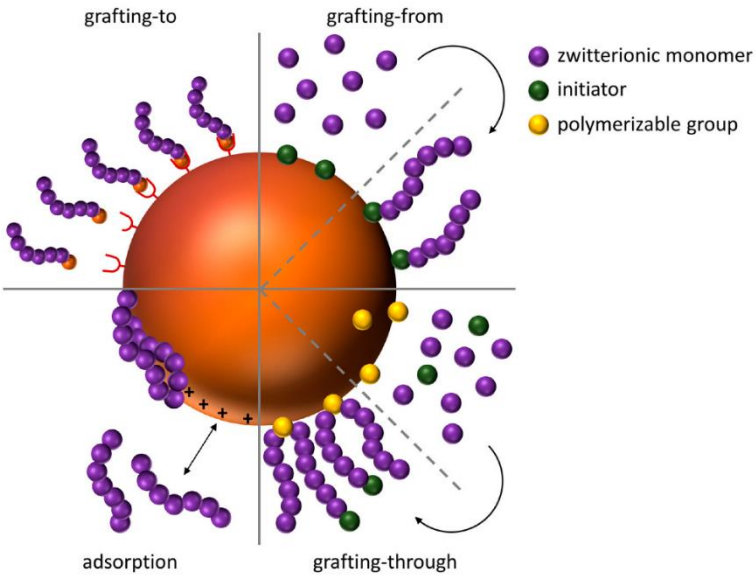


Fig. 14: Effect of the Simultaneous Use of This Technology Together with the Anticancer Drug Temozolomide (TMZ) in the Survival of Patients with Glioblastoma Cancer.

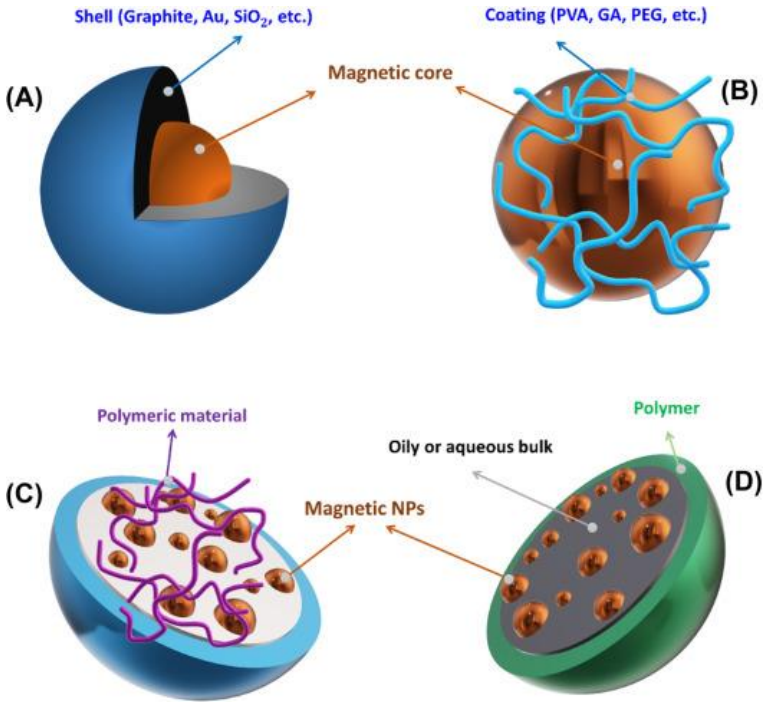


Fig. 15: Application of Tumor Therapy Field in Cancer Treatment.

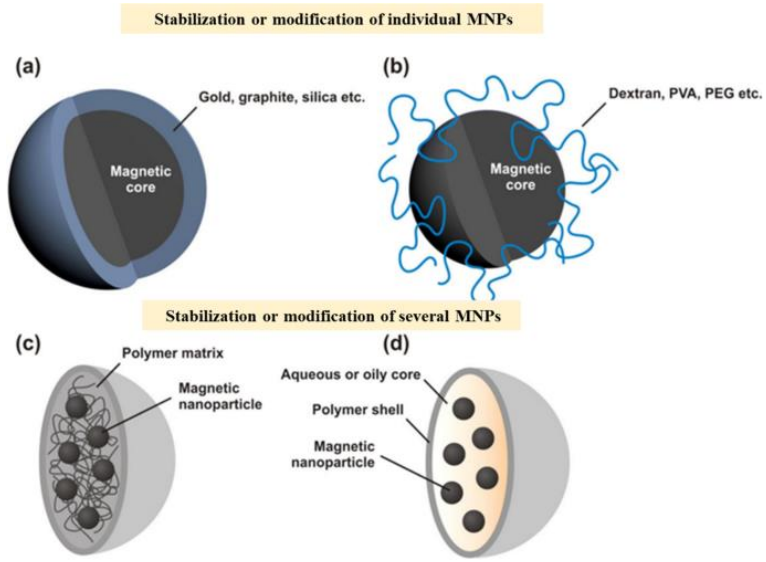


Fig. 16: Electrical Stimulation and Helping to Reduce the Side Effects of Cancer.

2.6. Electrical stimulation and helping to reduce the side effects of cancer

One of the difficulties of cancer treatment, which has caused a severe decrease in the quality of cancer patients, is the side effects caused by its drugs, as well as the disabilities caused by the disease itself or its treatment strategies such as surgery. Studies have shown that electrical stimulation is an effective method not only in the treatment of cancer, but also in reducing the complications caused by the drugs used or the disabilities caused by its treatment (Figures 17 and 18).

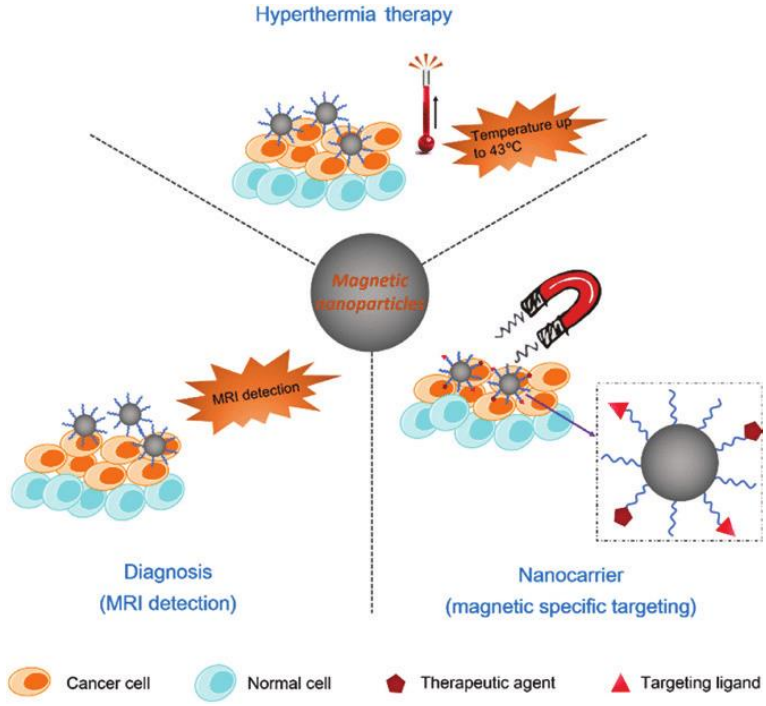


Fig. 17: Electrical Stimulation Is an Effective Method Not Only in the Treatment of Cancer.

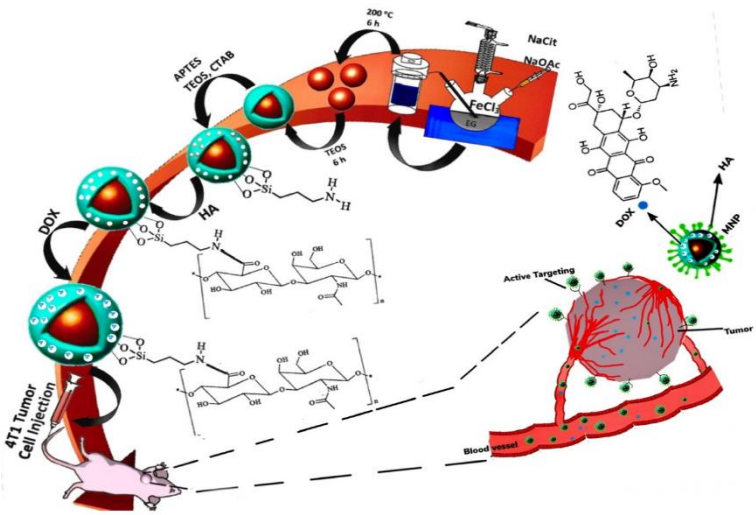


Fig. 18: Reducing the Complications Caused by the Drugs Used or the Disabilities Caused by Its Treatment.

3. Conclusions, summary, recommendations, perspectives, useful suggestions, and future studies

Electrical stimulation can induce growth, differentiation or even migration in nano stem cells, which are of particular importance in regenerative medicine for tissue regeneration. Also, electrical stimulation caused angiogenesis and improved adhesion of cells to the scaffold. The most important issue in improving the efficiency of electrical stimulation is the use of conductive scaffolds. The use of electrical stimulation alone or together with other chemical and physical signals has created many hopes for the reconstruction of many organs. On the other hand, the pulsed electric field, especially the nanopulse electric field, effectively induces apoptosis and death of cancer cells through the activation of intracellular mechanisms. Also, the electric field resulting from the alternating current effectively interfered with the proliferation of cancer cells and induced apoptosis in them. The common benefits of the mentioned treatments are improving the functioning of the immune system, the possibility of using them in combination with other treatments, ease of use, non–invasiveness, and their reasonable price. Also, studies show that electrical treatments not only help to treat cancer, but also reduce the side effects caused by the treatment and significantly improve the quality of life of patients. As a result, it can be said that the use of electrical stimulation and the application of bioelectrical principles could cause huge progress in regenerative medicine, cancer treatment, and as a result, improve the life span and quality of life of patients.

Acknowledgement

This study was supported by the Cancer Research Institute (CRI) Project of Scientific Instrument and Equipment Development, the National Natural Science Foundation of the United Sates, the International Joint BioSpectroscopy Core Research Laboratory (BCRL) Program supported by the California South University (CSU), and the Key project supported by the American International Standards Institute (AISI), Irvine, California, USA.

References

[1]. A. Heidari, C. Brown, *"Study of Composition and Morphology of Cadmium Oxide (CdO) Nanoparticles for Eliminating Cancer Cells"*, J Nanomed Res., Volume 2, Issue 5, 20 Pages, 2015.

[2]. A. Heidari, C. Brown, *"Study of Surface Morphological, Phytochemical and Structural Characteristics of Rhodium (III) Oxide (Rh_2O_3) Nanoparticles"*, International Journal of Pharmacology, Phytochemistry and Ethnomedicine, Volume 1, Issue 1, Pages 15–19, 2015.

[3]. A. Heidari, *"An Experimental Biospectroscopic Study on Seminal Plasma in Determination of Semen Quality for Evaluation of Male Infertility"*, Int J Adv Technol 7: e007, 2016.

[4]. A. Heidari, *"Extraction and Preconcentration of N–Tolyl–Sulfonyl–Phosphoramid–Saeure–Dichlorid as an Anti–Cancer Drug from Plants: A Pharmacognosy Study"*, J Pharmacogn Nat Prod 2: e103, 2016.

[5]. A. Heidari, *"A Thermodynamic Study on Hydration and Dehydration of DNA and RNA−Amphiphile Complexes"*, J Bioeng Biomed Sci S: 006, 2016.

[6]. A. Heidari, *"Computational Studies on Molecular Structures and Carbonyl and Ketene Groups' Effects of Singlet and Triplet Energies of Azidoketene O=C=CH–NNN and Isocyanatoketene O=C=CH–N=C=O"*, J Appl Computat Math 5: e142, 2016.

[7]. A. Heidari, *"Study of Irradiations to Enhance the Induces the Dissociation of Hydrogen Bonds between Peptide Chains and Transition from Helix Structure to Random Coil Structure Using ATR–FTIR, Raman and ^{1}HNMR Spectroscopies"*, J Biomol Res Ther 5: e146, 2016.

[8]. A. Heidari, *"Future Prospects of Point Fluorescence Spectroscopy, Fluorescence Imaging and Fluorescence Endoscopy in Photodynamic Therapy (PDT) for Cancer Cells"*, J Bioanal Biomed 8: e135, 2016.

[9]. A. Heidari, *"A Bio–Spectroscopic Study of DNA Density and Color Role as Determining Factor for Absorbed Irradiation in Cancer Cells"*, Adv Cancer Prev 1: e102, 2016.

[10]. A. Heidari, *"Manufacturing Process of Solar Cells Using Cadmium Oxide (CdO) and Rhodium (III) Oxide (Rh_2O_3) Nanoparticles"*, J Biotechnol Biomater 6: e125, 2016.

[11]. A. Heidari, *"A Novel Experimental and Computational Approach to Photobiosimulation of Telomeric DNA/RNA: A Biospectroscopic and Photobiological Study"*, J Res Development 4: 144, 2016.

[12]. A. Heidari, *"Biochemical and Pharmacodynamical Study of Microporous Molecularly Imprinted Polymer Selective for Vancomycin, Teicoplanin, Oritavancin, Telavancin and Dalbavancin Binding"*, Biochem Physiol 5: e146, 2016.

[13]. A. Heidari, *"Anti–Cancer Effect of UV Irradiation at Presence of Cadmium Oxide (CdO) Nanoparticles on DNA of Cancer Cells: A Photodynamic Therapy Study"*, Arch Cancer Res. 4: 1, 2016.

[14]. A. Heidari, *"Biospectroscopic Study on Multi–Component Reactions (MCRs) in Two A–Type and B–Type Conformations of Nucleic Acids to Determine Ligand Binding Modes, Binding Constant and Stability of Nucleic Acids in Cadmium Oxide (CdO) Nanoparticles–Nucleic Acids Complexes as Anti–Cancer Drugs"*, Arch Cancer Res. 4: 2, 2016.

[15]. A. Heidari, *"Simulation of Temperature Distribution of DNA/RNA of Human Cancer Cells Using Time–Dependent Bio–Heat Equation and Nd: YAG Lasers"*, Arch Cancer Res. 4: 2, 2016.

[16]. A. Heidari, *"Quantitative Structure–Activity Relationship (QSAR) Approximation for Cadmium Oxide (CdO) and Rhodium (III) Oxide (Rh_2O_3) Nanoparticles as Anti–Cancer Drugs for the Catalytic Formation of Proviral DNA from Viral RNA Using Multiple Linear and Non–Linear Correlation Approach"*, Ann Clin Lab Res. 4: 1, 2016.

[17]. A. Heidari, *"Biomedical Study of Cancer Cells DNA Therapy Using Laser Irradiations at Presence of Intelligent Nanoparticles"*, J Biomedical Sci. 5: 2, 2016.

[18]. A. Heidari, *"Measurement the Amount of Vitamin D2 (Ergocalciferol), Vitamin D3 (Cholecalciferol) and Absorbable Calcium (Ca^{2+}), Iron (II) (Fe^{2+}), Magnesium (Mg^{2+}), Phosphate (PO^{4-}) and Zinc (Zn^{2+}) in Apricot Using High–Performance Liquid Chromatography (HPLC) and Spectroscopic Techniques"*, J Biom Biostat 7: 292, 2016.

[19]. A. Heidari, *"Spectroscopy and Quantum Mechanics of the Helium Dimer (He^{2+}), Neon Dimer (Ne^{2+}), Argon Dimer (Ar^{2+}), Krypton Dimer (Kr^{2+}), Xenon Dimer (Xe^{2+}), Radon Dimer (Rn^{2+}) and Ununoctium Dimer (Uuo^{2+}) Molecular Cations"*, Chem Sci J 7: e112, 2016.

[20]. A. Heidari, *"Human Toxicity Photodynamic Therapy Studies on DNA/RNA Complexes as a Promising New Sensitizer for the Treatment of Malignant Tumors Using Bio–Spectroscopic Techniques"*, J Drug Metab Toxicol 7: e129, 2016.

[21]. A. Heidari, *"Novel and Stable Modifications of Intelligent Cadmium Oxide (CdO) Nanoparticles as Anti–Cancer Drug in Formation of Nucleic Acids Complexes for Human Cancer Cells' Treatment"*, Biochem Pharmacol (Los Angel) 5: 207, 2016.

[22]. A. Heidari, *"A Combined Computational and QM/MM Molecular Dynamics Study on Boron Nitride Nanotubes (BNNTs), Amorphous Boron Nitride Nanotubes (a–BNNTs) and Hexagonal Boron Nitride Nanotubes (h–BNNTs) as Hydrogen Storage"*, Struct Chem Crystallogr Commun 2: 1, 2016.

[23]. A. Heidari, *"Pharmaceutical and Analytical Chemistry Study of Cadmium Oxide (CdO) Nanoparticles Synthesis Methods and Properties as Anti–Cancer Drug and its Effect on Human Cancer Cells"*, Pharm Anal Chem Open Access 2: 113, 2016.

[24]. A. Heidari, *"A Chemotherapeutic and Biospectroscopic Investigation of the Interaction of Double–Standard DNA/RNA–Binding Molecules with Cadmium Oxide (CdO) and Rhodium (III) Oxide (Rh_2O_3) Nanoparticles as Anti–Cancer Drugs for Cancer Cells' Treatment"*, Chemo Open Access 5: e129, 2016.

[25]. A. Heidari, *"Pharmacokinetics and Experimental Therapeutic Study of DNA and Other Biomolecules Using Lasers: Advantages and Applications"*, J Pharmacokinet Exp Ther 1: e005, 2016.

[26]. A. Heidari, *"Determination of Ratio and Stability Constant of DNA/RNA in Human Cancer Cells and Cadmium Oxide (CdO) Nanoparticles Complexes Using Analytical Electrochemical and Spectroscopic Techniques"*, Insights Anal Electrochem 2: 1, 2016.

[27]. A. Heidari, *"Discriminate between Antibacterial and Non–Antibacterial Drugs Artificial Neutral Networks of a Multilayer Perceptron (MLP) Type Using a Set of Topological Descriptors"*, J Heavy Met Toxicity Dis. 1: 2, 2016.

[28]. A. Heidari, *"Combined Theoretical and Computational Study of the Belousov–Zhabotinsky Chaotic Reaction and Curtius Rearrangement for Synthesis of Mechlorethamine, Cisplatin, Streptozotocin, Cyclophosphamide, Melphalan, Busulphan and BCNU as Anti–Cancer Drugs"*, Insights Med Phys. 1: 2, 2016.

[29]. A. Heidari, *"A Translational Biomedical Approach to Structural Arrangement of Amino Acids' Complexes: A Combined Theoretical and Computational Study"*, Transl Biomed. 7: 2, 2016.

[30]. A. Heidari, *"Ab Initio and Density Functional Theory (DFT) Studies of Dynamic NMR Shielding Tensors and Vibrational Frequencies of DNA/RNA and Cadmium Oxide (CdO) Nanoparticles Complexes in Human Cancer Cells"*, J Nanomedine Biotherapeutic Discov 6: e144, 2016.

[31]. A. Heidari, *"Molecular Dynamics and Monte–Carlo Simulations for Replacement Sugars in Insulin Resistance, Obesity, LDL Cholesterol, Triglycerides, Metabolic Syndrome, Type 2 Diabetes and Cardiovascular Disease: A Glycobiological Study"*, J Glycobiol 5: e111, 2016.

[32]. A. Heidari, *"Synthesis and Study of 5–[(Phenylsulfonyl)Amino]–1,3,4–Thiadiazole–2–Sulfonamide as Potential Anti–Pertussis Drug Using Chromatography and Spectroscopy Techniques"*, Transl Med (Sunnyvale) 6: e138, 2016.

[33]. A. Heidari, *"Nitrogen, Oxygen, Phosphorus and Sulphur Heterocyclic Anti–Cancer Nano Drugs Separation in the Supercritical Fluid of Ozone (O_3) Using Soave–Redlich–Kwong (SRK) and Pang–Robinson (PR) Equations"*, Electronic J Biol 12: 4, 2016.

[34]. A. Heidari, *"An Analytical and Computational Infrared Spectroscopic Review of Vibrational Modes in Nucleic Acids"*, Austin J Anal Pharm Chem. 3 (1): 1058, 2016.

[35]. A. Heidari, C. Brown, *"Phase, Composition and Morphology Study and Analysis of Os–Pd/HfC Nanocomposites"*, Nano Res Appl. 2: 1, 2016.

[36]. A. Heidari, C. Brown, *"Vibrational Spectroscopic Study of Intensities and Shifts of Symmetric Vibration Modes of Ozone Diluted by Cumene"*, International Journal of Advanced Chemistry, 4 (1) 5–9, 2016.

[37]. A. Heidari, *"Study of the Role of Anti–Cancer Molecules with Different Sizes for Decreasing Corresponding Bulk Tumor Multiple Organs or Tissues"*, Arch Can Res. 4: 2, 2016.

[38]. A. Heidari, *"Genomics and Proteomics Studies of Zolpidem, Necopidem, Alpidem, Saripidem, Miroprofen, Zolimidine, Olprinone and Abafungin as Anti–Tumor, Peptide Antibiotics, Antiviral and Central Nervous System (CNS) Drugs"*, J Data Mining Genomics & Proteomics 7: e125, 2016.

[39]. A. Heidari, *"Pharmacogenomics and Pharmacoproteomics Studies of Phosphodiesterase–5 (PDE5) Inhibitors and Paclitaxel Albumin–Stabilized Nanoparticles as Sandwiched Anti–Cancer Nano Drugs between Two DNA/RNA Molecules of Human Cancer Cells"*, J Pharmacogenomics Pharmacoproteomics 7: e153, 2016.

[40]. A. Heidari, *"Biotranslational Medical and Biospectroscopic Studies of Cadmium Oxide (CdO) Nanoparticles–DNA/RNA Straight and Cycle Chain Complexes as Potent Anti–Viral, Anti–Tumor and Anti–Microbial Drugs: A Clinical Approach"*, Transl Biomed. 7: 2, 2016.

[41]. A. Heidari, *"A Comparative Study on Simultaneous Determination and Separation of Adsorbed Cadmium Oxide (CdO) Nanoparticles on DNA/RNA of Human Cancer Cells Using Biospectroscopic Techniques and Dielectrophoresis (DEP) Method"*, Arch Can Res. 4: 2, 2016.

[42]. A. Heidari, *"Cheminformatics and System Chemistry of Cisplatin, Carboplatin, Nedaplatin, Oxaliplatin, Heptaplatin and Lobaplatin as Anti–Cancer Nano Drugs: A Combined Computational and Experimental Study"*, J Inform Data Min 1: 3, 2016.

[43]. A. Heidari, *"Linear and Non–Linear Quantitative Structure–Anti–Cancer–Activity Relationship (QSACAR) Study of Hydrous Ruthenium (IV) Oxide (RuO_2) Nanoparticles as Non–Nucleoside Reverse Transcriptase Inhibitors (NNRTIs) and Anti–Cancer Nano Drugs*", J Integr Oncol 5: e110, 2016.

[44]. A. Heidari, *"Synthesis, Characterization and Biospectroscopic Studies of Cadmium Oxide (CdO) Nanoparticles–Nucleic Acids Complexes Absence of Soluble Polymer as a Protective Agent Using Nucleic Acids Condensation and Solution Reduction Method"*, J Nanosci Curr Res 1: e101, 2016.

[45]. A. Heidari, *"Coplanarity and Collinearity of 4'–Dinonyl–2,2'–Bithiazole in One Domain of Bleomycin and Pingyangmycin to be Responsible for Binding of Cadmium Oxide (CdO) Nanoparticles to DNA/RNA Bidentate Ligands as Anti–Tumor Nano Drug"*, Int J Drug Dev & Res 8: 007–008, 2016.

[46]. A. Heidari, *"A Pharmacovigilance Study on Linear and Non–Linear Quantitative Structure (Chromatographic) Retention Relationships (QSRR) Models for the Prediction of Retention Time of Anti–Cancer Nano Drugs under Synchrotron Radiations"*, J Pharmacovigil 4: e161, 2016.

[47]. A. Heidari, *"Nanotechnology in Preparation of Semipermeable Polymers"*, J Adv Chem Eng 6: 157, 2016.

[48]. A. Heidari, *"A Gastrointestinal Study on Linear and Non–Linear Quantitative Structure (Chromatographic) Retention Relationships (QSRR) Models for Analysis 5–Aminosalicylates Nano Particles as Digestive System Nano Drugs under Synchrotron Radiations"*, J Gastrointest Dig Syst 6: e119, 2016.

[49]. A. Heidari, *"DNA/RNA Fragmentation and Cytolysis in Human Cancer Cells Treated with Diphthamide Nano Particles Derivatives"*, Biomedical Data Mining 5: e102, 2016.

[50]. A. Heidari, *"A Successful Strategy for the Prediction of Solubility in the Construction of Quantitative Structure–Activity Relationship (QSAR) and Quantitative Structure–Property Relationship (QSPR) under Synchrotron Radiations Using Genetic Function Approximation (GFA) Algorithm"*, J Mol Biol Biotechnol 1: 1, 2016.

[51]. A. Heidari, *"Computational Study on Molecular Structures of C_{20}, C_{60}, C_{240}, C_{540}, C_{960}, C_{2160} and C_{3840} Fullerene Nano Molecules under Synchrotron Radiations Using Fuzzy Logic"*, J Material Sci Eng 5: 282, 2016.

[52]. A. Heidari, *"Graph Theoretical Analysis of Zigzag Polyhexamethylene Biguanide, Polyhexamethylene Adipamide, Polyhexamethylene Biguanide Gauze and Polyhexamethylene Biguanide Hydrochloride (PHMB) Boron Nitride Nanotubes (BNNTs), Amorphous Boron Nitride Nanotubes (a–BNNTs) and Hexagonal Boron Nitride Nanotubes (h–BNNTs)"*, J Appl Computat Math 5: e143, 2016.

[53]. A. Heidari, *"The Impact of High–Resolution Imaging on Diagnosis"*, Int J Clin Med Imaging 3: 1000e101, 2016.

[54]. A. Heidari, *"A Comparative Study of Conformational Behavior of Isotretinoin (13–Cis Retinoic Acid) and Tretinoin (All–Trans Retinoic Acid (ATRA)) Nano Particles as Anti–Cancer Nano Drugs under Synchrotron Radiations Using Hartree–Fock (HF) and Density Functional Theory (DFT) Methods"*, Insights in Biomed 1: 2, 2016.

[55]. A. Heidari, *"Advances in Logic, Operations and Computational Mathematics"*, J Appl Computat Math 5: 5, 2016.

[56]. A. Heidari, *"Mathematical Equations in Predicting Physical Behavior"*, J Appl Computat Math 5: 5, 2016.

[57]. A. Heidari, *"Chemotherapy a Last Resort for Cancer Treatment"*, Chemo Open Access 5: 4, 2016.

[58]. A. Heidari, *"Separation and Pre–Concentration of Metal Cations–DNA/RNA Chelates Using Molecular Beam Mass Spectrometry with Tunable Vacuum Ultraviolet (VUV) Synchrotron Radiation and Various Analytical Methods"*, Mass Spectrom Purif Tech 2: e101, 2016.

[59]. A. Heidari, *"Yoctosecond Quantitative Structure–Activity Relationship (QSAR) and Quantitative Structure–Property Relationship (QSPR) under Synchrotron Radiations Studies for Prediction of Solubility of Anti–Cancer Nano Drugs in Aqueous Solutions Using Genetic Function Approximation (GFA) Algorithm"*, Insight Pharm Res. 1: 1, 2016.

[60]. A. Heidari, *"Cancer Risk Prediction and Assessment in Human Cells under Synchrotron Radiations Using Quantitative Structure Activity Relationship (QSAR) and Quantitative Structure Properties Relationship (QSPR) Studies"*, Int J Clin Med Imaging 3: 516, 2016.

[61]. A. Heidari, *"A Novel Approach to Biology"*, Electronic J Biol 12: 4, 2016.

[62]. A. Heidari, *"Innovative Biomedical Equipment's for Diagnosis and Treatment"*, J Bioengineer & Biomedical Sci 6: 2, 2016.

[63]. A. Heidari, *"Integrating Precision Cancer Medicine into Healthcare, Medicare Reimbursement Changes and the Practice of Oncology: Trends in Oncology Medicine and Practices"*, J Oncol Med & Pract 1: 2, 2016.

[64]. A. Heidari, *"Promoting Convergence in Biomedical and Biomaterials Sciences and Silk Proteins for Biomedical and Biomaterials Applications: An Introduction to Materials in Medicine and Bioengineering Perspectives"*, J Bioengineer & Biomedical Sci 6: 3, 2016.

[65]. A. Heidari, *"X–Ray Fluorescence and X–Ray Diffraction Analysis on Discrete Element Modeling of Nano Powder Metallurgy Processes in Optimal Container Design"*, J Powder Metall Min 6: 1, 2017.

[66]. A. Heidari, *"Biomolecular Spectroscopy and Dynamics of Nano–Sized Molecules and Clusters as Cross–Linking–Induced Anti–Cancer and Immune–Oncology Nano Drugs Delivery in DNA/RNA of Human Cancer Cells' Membranes under Synchrotron Radiations: A Payload–Based Perspective"*, Arch Chem Res. 1: 2, 2017.

[67]. A. Heidari, *"Deficiencies in Repair of Double–Standard DNA/RNA–Binding Molecules Identified in Many Types of Solid and Liquid Tumors Oncology in Human Body for Advancing Cancer Immunotherapy Using Computer Simulations and Data Analysis: Number of Mutations in a Synchronous Tumor Varies by Age and Type of Synchronous Cancer"*, J Appl Bioinforma Comput Biol, 6: 1, 2017.

[68]. A. Heidari, *"Electronic Coupling among the Five Nanomolecules Shuts Down Quantum Tunneling in the Presence and Absence of an Applied Magnetic Field for Indication of the Dimer or other Provide Different Influences on the Magnetic Behavior of Single Molecular Magnets (SMMs) as Qubits for Quantum Computing"*, Glob J Res Rev. 4: 2, 2017.

[69]. A. Heidari, *"Polymorphism in Nano–Sized Graphene Ligand–Induced Transformation of Au_{38}–$xAg_x/xCu_x(SPh–tBu)_{24}$ to Au_{36}–$xAg_x/xCu_x(SPh–tBu)_{24}$ (x = 1–12) Nanomolecules for Synthesis of Au_{144}–$xAg_x/xCu_x[(SR)_{60}$, $(SC_4)_{60}$, $(SC_6)_{60}$, $(SC_{12})_{60}$, $(PET)_{60}$, $(p–MBA)_{60}$, $(F)_{60}$, $(Cl)_{60}$, $(Br)_{60}$, $(I)_{60}$, $(At)_{60}$, $(Uus)_{60}$ and $(SC_6H_{13})_{60}]$. Nano Clusters as Anti–Cancer Nano Drugs"*, J Nanomater Mol Nanotechnol, 6: 3, 2017.

[70]. A. Heidari, *"Biomedical Resource Oncology and Data Mining to Enable Resource Discovery in Medical, Medicinal, Clinical, Pharmaceutical, Chemical and Translational Research and Their Applications in Cancer Research"*, Int J Biomed Data Min 6: e103, 2017.

[71]. A. Heidari, *"Study of Synthesis, Pharmacokinetics, Pharmacodynamics, Dosing, Stability, Safety and Efficacy of Olympiadane Nanomolecules as Agent for Cancer Enzymotherapy, Immunotherapy, Chemotherapy, Radiotherapy, Hormone Therapy and Targeted Therapy under Synchrotorn Radiation"*, J Dev Drugs 6: e154, 2017.

[72]. A. Heidari, *"A Novel Approach to Future Horizon of Top Seven Biomedical Research Topics to Watch in 2017: Alzheimer's, Ebola, Hypersomnia, Human Immunodeficiency Virus (HIV), Tuberculosis (TB), Microbiome/Antibiotic Resistance and Endovascular Stroke"*, J Bioengineer & Biomedical Sci 7: e127, 2017.

[73]. A. Heidari, *"Opinion on Computational Fluid Dynamics (CFD) Technique"*, Fluid Mech Open Acc 4: 157, 2017.

[74]. A. Heidari, *"Concurrent Diagnosis of Oncology Influence Outcomes in Emergency General Surgery for Colorectal Cancer and Multiple Sclerosis (MS) Treatment Using Magnetic Resonance Imaging (MRI) and $Au_{329}(SR)_{84}$, $Au_{329-x}Ag_x(SR)_{84}$, $Au_{144}(SR)_{60}$, $Au_{68}(SR)_{36}$, $Au_{30}(SR)_{18}$, $Au_{102}(SPh)_{44}$, $Au_{38}(SPh)_{24}$, $Au_{38}(SC_2H_4Ph)_{24}$, $Au_{21}S(SAdm)_{15}$, $Au_{36}(pMBA)_{24}$ and $Au_{25}(pMBA)_{18}$ Nano Clusters"*, J Surgery Emerg Med 1: 21, 2017.

[75]. A. Heidari, *"Developmental Cell Biology in Adult Stem Cells Death and Autophagy to Trigger a Preventive Allergic Reaction to Common Airborne Allergens under Synchrotron Radiation Using Nanotechnology for Therapeutic Goals in Particular Allergy Shots (Immunotherapy)"*, Cell Biol (Henderson, NV) 6: 1, 2017.

[76]. A. Heidari, *"Changing Metal Powder Characteristics for Elimination of the Heavy Metals Toxicity and Diseases in Disruption of Extracellular Matrix (ECM) Proteins Adjustment in Cancer Metastases Induced by Osteosarcoma, Chondrosarcoma, Carcinoid, Carcinoma, Ewing's Sarcoma, Fibrosarcoma and Secondary Hematopoietic Solid or Soft Tissue Tumors"*, J Powder Metall Min 6: 170, 2017.

[77]. A. Heidari, *"Nanomedicine–Based Combination Anti–Cancer Therapy between Nucleic Acids and Anti–Cancer Nano Drugs in Covalent Nano Drugs Delivery Systems for Selective Imaging and Treatment of Human Brain Tumors Using Hyaluronic Acid, Alguronic Acid and Sodium Hyaluronate as Anti–Cancer Nano Drugs and Nucleic Acids Delivery under Synchrotron Radiation"*, Am J Drug Deliv 5: 2, 2017.

[78]. A. Heidari, *"Clinical Trials of Dendritic Cell Therapies for Cancer Exposing Vulnerabilities in Human Cancer Cells' Metabolism and Metabolomics: New Discoveries, Unique Features Inform New Therapeutic Opportunities, Biotech's Bumpy Road to the Market and Elucidating the Biochemical Programs that Support Cancer Initiation and Progression"*, J Biol Med Science 1: e103, 2017.

[79]. A. Heidari, *"The Design Graphene–Based Nanosheets as a New Nanomaterial in Anti–Cancer Therapy and Delivery of Chemotherapeutics and Biological Nano Drugs for Liposomal Anti–Cancer Nano Drugs and Gene Delivery"*, Br Biomed Bull 5: 305, 2017.

[80]. A. Heidari, "*Integrative Approach to Biological Networks for Emerging Roles of Proteomics, Genomics and Transcriptomics in the Discovery and Validation of Human Colorectal Cancer Biomarkers from DNA/RNA Sequencing Data under Synchrotron Radiation"*, Transcriptomics 5: e117, 2017.

[81]. A. Heidari, *"Elimination of the Heavy Metals Toxicity and Diseases in Disruption of Extracellular Matrix (ECM) Proteins and Cell Adhesion Intelligent Nanomolecules Adjustment in Cancer Metastases Using Metalloenzymes and under Synchrotron Radiation"*, Lett Health Biol Sci 2 (2): 1–4, 2017.

[82]. A. Heidari, *"Treatment of Breast Cancer Brain Metastases through a Targeted Nanomolecule Drug Delivery System Based on Dopamine Functionalized Multi–Wall Carbon Nanotubes (MWCNTs) Coated with Nano Graphene Oxide (GO) and Protonated Polyaniline (PANI) in Situ During the Polymerization of Aniline Autogenic Nanoparticles for the Delivery of Anti–Cancer Nano Drugs under Synchrotron Radiation"*, Br J Res, 4 (3): 16, 2017.

[83]. A. Heidari, *"Sedative, Analgesic and Ultrasound–Mediated Gastrointestinal Nano Drugs Delivery for Gastrointestinal Endoscopic Procedure, Nano Drug–Induced Gastrointestinal Disorders and Nano Drug Treatment of Gastric Acidity"*, Res Rep Gastroenterol, 1: 1, 2017.

[84]. A. Heidari, *"Synthesis, Pharmacokinetics, Pharmacodynamics, Dosing, Stability, Safety and Efficacy of Orphan Nano Drugs to Treat High Cholesterol and Related Conditions and to Prevent Cardiovascular Disease under Synchrotron Radiation"*, J Pharm Sci Emerg Drugs 5: 1, 2017.

[85]. A. Heidari, *"Non–Linear Compact Proton Synchrotrons to Improve Human Cancer Cells and Tissues Treatments and Diagnostics through Particle Therapy Accelerators with Monochromatic Microbeams"*, J Cell Biol Mol Sci 2 (1): 1–5, 2017.

[86]. A. Heidari, *"Design of Targeted Metal Chelation Therapeutics Nanocapsules as Colloidal Carriers and Blood–Brain Barrier (BBB) Translocation to Targeted Deliver Anti–Cancer Nano Drugs into the Human Brain to Treat Alzheimer's Disease under Synchrotron Radiation"*, J Nanotechnol Material Sci 4 (2): 1–5, 2017.

[87]. R. Gobato, A. Heidari, *"Calculations Using Quantum Chemistry for Inorganic Molecule Simulation $BeLi_2SeSi$"*, Science Journal of Analytical Chemistry, Vol. 5, No. 6, Pages 76–85, 2017.

[88]. A. Heidari, *"Different High–Resolution Simulations of Medical, Medicinal, Clinical, Pharmaceutical and Therapeutics Oncology of Human Lung Cancer Translational Anti–Cancer Nano Drugs Delivery Treatment Process under Synchrotron and X–Ray Radiations"*, J Med Oncol. Vol. 1 No. 1: 1, 2017.

[89]. A. Heidari, *"A Modern Ethnomedicinal Technique for Transformation, Prevention and Treatment of Human Malignant Gliomas Tumors into Human Benign Gliomas Tumors under Synchrotron Radiation"*, Am J Ethnomed, Vol. 4 No. 1: 10, 2017.

[90]. A. Heidari, *"Active Targeted Nanoparticles for Anti–Cancer Nano Drugs Delivery across the Blood–Brain Barrier for Human Brain Cancer Treatment, Multiple Sclerosis (MS) and Alzheimer's Diseases Using Chemical Modifications of Anti–Cancer Nano Drugs or Drug–Nanoparticles through Zika Virus (ZIKV) Nanocarriers under Synchrotron Radiation"*, J Med Chem Toxicol, 2 (3): 1–5, 2017.

[91]. A. Heidari, *"Investigation of Medical, Medicinal, Clinical and Pharmaceutical Applications of Estradiol, Mestranol (Norlutin), Norethindrone (NET), Norethisterone Acetate (NETA), Norethisterone Enanthate (NETE) and Testosterone Nanoparticles as Biological Imaging, Cell Labeling, Anti–Microbial Agents and Anti–Cancer Nano Drugs in Nanomedicines Based Drug Delivery Systems for Anti–Cancer Targeting and Treatment"*, Parana Journal of Science and Education (PJSE)–v.3, n.4, (10–19) October 12, 2017.

[92]. A. Heidari, *"A Comparative Computational and Experimental Study on Different Vibrational Biospectroscopy Methods, Techniques and Applications for Human Cancer Cells in Tumor Tissues Simulation, Modeling, Research, Diagnosis and Treatment"*, Open J Anal Bioanal Chem 1 (1): 014–020, 2017.

[93]. A. Heidari, *"Combination of DNA/RNA Ligands and Linear/Non–Linear Visible–Synchrotron Radiation–Driven N–Doped Ordered Mesoporous Cadmium Oxide (CdO) Nanoparticles Photocatalysts Channels Resulted in an Interesting Synergistic Effect Enhancing Catalytic Anti–Cancer Activity"*, Enz Eng 6: 1, 2017.

[94]. A. Heidari, *"Modern Approaches in Designing Ferritin, Ferritin Light Chain, Transferrin, Beta–2 Transferrin and Bacterioferritin–Based Anti–Cancer Nano Drugs Encapsulating Nanosphere as DNA–Binding Proteins from Starved Cells (DPS)"*, Mod Appro Drug Des. 1 (1). MADD.000504. 2017.

[95]. A. Heidari, *"Potency of Human Interferon β–1a and Human Interferon β–1b in Enzymotherapy, Immunotherapy, Chemotherapy, Radiotherapy, Hormone Therapy and Targeted Therapy of Encephalomyelitis Disseminate/Multiple Sclerosis (MS) and Hepatitis A, B, C, D, E, F and G Virus Enter and Targets Liver Cells"*, J Proteomics Enzymol 6: 1, 2017.

[96]. A. Heidari, *"Transport Therapeutic Active Targeting of Human Brain Tumors Enable Anti–Cancer Nanodrugs Delivery across the Blood–Brain Barrier (BBB) to Treat Brain Diseases Using Nanoparticles and Nanocarriers under Synchrotron Radiation"*, J Pharm Pharmaceutics 4 (2): 1–5, 2017.

[97]. A. Heidari, C. Brown, *"Combinatorial Therapeutic Approaches to DNA/RNA and Benzylpenicillin (Penicillin G), Fluoxetine Hydrochloride (Prozac and Sarafem), Propofol (Diprivan), Acetylsalicylic Acid (ASA) (Aspirin), Naproxen Sodium (Aleve and Naprosyn) and Dextromethamphetamine Nanocapsules with Surface Conjugated DNA/RNA to Targeted Nano Drugs for Enhanced Anti–Cancer Efficacy and Targeted Cancer Therapy Using Nano Drugs Delivery Systems"*, Ann Adv Chem. 1 (2): 061–069, 2017.

[98]. A. Heidari, *"High–Resolution Simulations of Human Brain Cancer Translational Nano Drugs Delivery Treatment Process under Synchrotron Radiation"*, J Transl Res. 1 (1): 1–3, 2017.

[99]. A. Heidari, *"Investigation of Anti–Cancer Nano Drugs' Effects' Trend on Human Pancreas Cancer Cells and Tissues Prevention, Diagnosis and Treatment Process under Synchrotron and X–Ray Radiations with the Passage of Time Using Mathematica"*, Current Trends Anal Bioanal Chem, 1 (1): 36–41, 2017.

[100]. A. Heidari, *"Pros and Cons Controversy on Molecular Imaging and Dynamics of Double–Standard DNA/RNA of Human Preserving Stem Cells–Binding Nano Molecules with Androgens/Anabolic Steroids (AAS) or Testosterone Derivatives through Tracking of Helium–4 Nucleus (Alpha Particle) Using Synchrotron Radiation"*, Arch Biotechnol Biomed. 1 (1): 067–0100, 2017.

[101]. A. Heidari, *"Visualizing Metabolic Changes in Probing Human Cancer Cells and Tissues Metabolism Using Vivo ^{1}H or Proton NMR, ^{13}C NMR, ^{15}N NMR and ^{31}P NMR Spectroscopy and Self–Organizing Maps under Synchrotron Radiation"*, SOJ Mater Sci Eng 5 (2): 1–6, 2017.

[102]. A. Heidari, *"Cavity Ring–Down Spectroscopy (CRDS), Circular Dichroism Spectroscopy, Cold Vapour Atomic Fluorescence Spectroscopy and Correlation Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Enliven: Challenges Cancer Detect Ther 4 (2): e001, 2017.

[103]. A. Heidari, *"Laser Spectroscopy, Laser–Induced Breakdown Spectroscopy and Laser–Induced Plasma Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Int J Hepatol Gastroenterol, 3 (4): 079–084, 2017.

[104]. A. Heidari, *"Time–Resolved Spectroscopy and Time–Stretch Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Enliven: Pharmacovigilance and Drug Safety 4 (2): e001, 2017.

[105]. A. Heidari, *"Overview of the Role of Vitamins in Reducing Negative Effect of Decapeptyl (Triptorelin Acetate or Pamoate Salts) on Prostate Cancer Cells and Tissues in Prostate Cancer Treatment Process through Transformation of Malignant Prostate Tumors into Benign Prostate Tumors under Synchrotron Radiation"*, Open J Anal Bioanal Chem 1 (1): 021–026, 2017.

[106]. A. Heidari, *"Electron Phenomenological Spectroscopy, Electron Paramagnetic Resonance (EPR) Spectroscopy and Electron Spin Resonance (ESR) Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Austin J Anal Pharm Chem. 4 (3): 1091, 2017.

[107]. A. Heidari, *"Therapeutic Nanomedicine Different High–Resolution Experimental Images and Computational Simulations for Human Brain Cancer Cells and Tissues Using Nanocarriers Deliver DNA/RNA to Brain Tumors under Synchrotron Radiation with the Passage of Time Using Mathematica and MATLAB"*, Madridge J Nano Tech. Sci. 2 (2): 77–83, 2017.

[108]. A. Heidari, *"A Consensus and Prospective Study on Restoring Cadmium Oxide (CdO) Nanoparticles Sensitivity in Recurrent Ovarian Cancer by Extending the Cadmium Oxide (CdO) Nanoparticles–Free Interval Using Synchrotron Radiation Therapy as Antibody–Drug Conjugate for the Treatment of Limited–Stage Small Cell Diverse Epithelial Cancers"*, Cancer Clin Res Rep, 1: 2, e001, 2017.

[109]. A. Heidari, *"A Novel and Modern Experimental Imaging and Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under White Synchrotron Radiation"*, Cancer Sci Res Open Access 4 (2): 1–8, 2017.

[110]. A. Heidari, *"Different High–Resolution Simulations of Medical, Medicinal, Clinical, Pharmaceutical and Therapeutics Oncology of Human Breast Cancer Translational Nano Drugs Delivery Treatment Process under Synchrotron and X–Ray Radiations"*, J Oral Cancer Res 1 (1): 12–17, 2017.

[111]. A. Heidari, *"Vibrational Decihertz (dHz), Centihertz (cHz), Millihertz (mHz), Microhertz (μHz), Nanohertz (nHz), Picohertz (pHz), Femtohertz (fHz), Attohertz (aHz), Zeptohertz (zHz) and Yoctohertz (yHz) Imaging and Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, International Journal of Biomedicine, 7 (4), 335–340, 2017.

[112]. A. Heidari, *"Force Spectroscopy and Fluorescence Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, EC Cancer, 2 (5), 239–246, 2017.

[113]. A. Heidari, *"Photoacoustic Spectroscopy, Photoemission Spectroscopy and Photothermal Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, BAOJ Cancer Res Ther, 3: 3, 045–052, 2017.

[114]. A. Heidari, *"J–Spectroscopy, Exchange Spectroscopy (EXSY), Nuclear Overhauser Effect Spectroscopy (NOESY) and Total Correlation Spectroscopy (TOCSY) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, EMS Eng Sci J, 1 (2): 006–013, 2017.

[115]. A. Heidari, *"Neutron Spin Echo Spectroscopy and Spin Noise Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Int J Biopharm Sci, 1: 103–107, 2017.

[116]. A. Heidari, *"Vibrational Decahertz (daHz), Hectohertz (hHz), Kilohertz (kHz), Megahertz (MHz), Gigahertz (GHz), Terahertz (THz), Petahertz (PHz), Exahertz (EHz), Zettahertz (ZHz) and Yottahertz (YHz) Imaging and Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Madridge J Anal Sci Instrum, 2 (1): 41–46, 2017.

[117]. A. Heidari, *"Two–Dimensional Infrared Correlation Spectroscopy, Linear Two–Dimensional Infrared Spectroscopy and Non–Linear Two–Dimensional Infrared Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, J Mater Sci Nanotechnol 6 (1): 101, 2018.

[118]. A. Heidari, *"Fourier Transform Infrared (FTIR) Spectroscopy, Near–Infrared Spectroscopy (NIRS) and Mid–Infrared Spectroscopy (MIRS) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, Int J Nanotechnol Nanomed, Volume 3, Issue 1, Pages 1–6, 2018.

[119]. A. Heidari, *"Infrared Photo Dissociation Spectroscopy and Infrared Correlation Table Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, Austin Pharmacol Pharm, 3 (1): 1011, 2018.

[120]. A. Heidari, *"Novel and Transcendental Prevention, Diagnosis and Treatment Strategies for Investigation of Interaction among Human Blood Cancer Cells, Tissues, Tumors and Metastases with Synchrotron Radiation under Anti–Cancer Nano Drugs Delivery Efficacy Using MATLAB Modeling and Simulation"*, Madridge J Nov Drug Res, 1 (1): 18–24, 2017.

[121]. A. Heidari, *"Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Open Access J Trans Med Res, 2 (1): 00026–00032, 2018.

[122]. M. R. R. Gobato, R. Gobato, A. Heidari, *"Planting of Jaboticaba Trees for Landscape Repair of Degraded Area"*, Landscape Architecture and Regional Planning, Vol. 3, No. 1, Pages 1–9, 2018.

[123]. A. Heidari, *"Fluorescence Spectroscopy, Phosphorescence Spectroscopy and Luminescence Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, SM J Clin. Med. Imaging, 4 (1): 1018, 2018.

[124]. A. Heidari, *"Nuclear Inelastic Scattering Spectroscopy (NISS) and Nuclear Inelastic Absorption Spectroscopy (NIAS) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Int J Pharm Sci, 2 (1): 1–14, 2018.

[125]. A. Heidari, *"X–Ray Diffraction (XRD), Powder X–Ray Diffraction (PXRD) and Energy–Dispersive X–Ray Diffraction (EDXRD) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, J Oncol Res; 2 (1): 1–14, 2018.

[126]. A. Heidari, *"Correlation Two–Dimensional Nuclear Magnetic Resonance (NMR) (2D–NMR) (COSY) Imaging and Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, EMS Can Sci, 1–1–001, 2018.

[127]. A. Heidari, *"Thermal Spectroscopy, Photothermal Spectroscopy, Thermal Microspectroscopy, Photothermal Microspectroscopy, Thermal Macrospectroscopy and Photothermal Macrospectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, SM J Biometrics Biostat, 3 (1): 1024, 2018.

[128]. A. Heidari, *"A Modern and Comprehensive Experimental Biospectroscopic Comparative Study on Human Common Cancers' Cells, Tissues and Tumors before and after Synchrotron Radiation Therapy"*, Open Acc J Oncol Med. 1 (1), 2018.

[129]. A. Heidari, *"Heteronuclear Correlation Experiments such as Heteronuclear Single–Quantum Correlation Spectroscopy (HSQC), Heteronuclear Multiple–Quantum Correlation Spectroscopy (HMQC) and Heteronuclear Multiple–Bond Correlation Spectroscopy (HMBC) Comparative Study on Malignant and Benign Human Endocrinology and Thyroid Cancer Cells and Tissues under Synchrotron Radiation"*, J Endocrinol Thyroid Res, 3 (1): 555603, 2018.

[130]. A. Heidari, *"Nuclear Resonance Vibrational Spectroscopy (NRVS), Nuclear Inelastic Scattering Spectroscopy (NISS), Nuclear Inelastic Absorption Spectroscopy (NIAS) and Nuclear Resonant Inelastic X–Ray Scattering Spectroscopy (NRIXSS) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Int J Bioorg Chem Mol Biol. 6 (1e): 1–5, 2018.

[131]. A. Heidari, *"A Novel and Modern Experimental Approach to Vibrational Circular Dichroism Spectroscopy and Video Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under White and Monochromatic Synchrotron Radiation"*, Glob J Endocrinol Metab. 1 (3). GJEM. 000514–000519, 2018.

[132]. A. Heidari, *"Pros and Cons Controversy on Heteronuclear Correlation Experiments such as Heteronuclear Single–Quantum Correlation Spectroscopy (HSQC), Heteronuclear Multiple–Quantum Correlation Spectroscopy (HMQC) and Heteronuclear Multiple–Bond Correlation Spectroscopy (HMBC) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, EMS Pharma J. 1 (1): 002–008, 2018.

[133]. A. Heidari, *"A Modern Comparative and Comprehensive Experimental Biospectroscopic Study on Different Types of Infrared Spectroscopy of Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, J Analyt Molecul Tech. 3 (1): 8, 2018.

[134]. A. Heidari, *"Investigation of Cancer Types Using Synchrotron Technology for Proton Beam Therapy: An Experimental Biospectroscopic Comparative Study"*, European Modern Studies Journal, Vol. 2, No. 1, 13–29, 2018.

[135]. A. Heidari, *"Saturated Spectroscopy and Unsaturated Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Imaging J Clin Medical Sci. 5 (1): 001–007, 2018.

[136]. A. Heidari, *"Small–Angle Neutron Scattering (SANS) and Wide–Angle X–Ray Diffraction (WAXD) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Int J Bioorg Chem Mol Biol. 6 (2e): 1–6, 2018.

[137]. A. Heidari, *"Investigation of Bladder Cancer, Breast Cancer, Colorectal Cancer, Endometrial Cancer, Kidney Cancer, Leukemia, Liver, Lung Cancer, Melanoma, Non–Hodgkin Lymphoma, Pancreatic Cancer, Prostate Cancer, Thyroid Cancer and Non–Melanoma Skin Cancer Using Synchrotron Technology for Proton Beam Therapy: An Experimental Biospectroscopic Comparative Study"*, Ther Res Skin Dis 1 (1), 2018.

[138]. A. Heidari, *"Attenuated Total Reflectance Fourier Transform Infrared (ATR–FTIR) Spectroscopy, Micro–Attenuated Total Reflectance Fourier Transform Infrared (Micro–ATR–FTIR) Spectroscopy and Macro–Attenuated Total Reflectance Fourier Transform Infrared (Macro–ATR–FTIR) Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, International Journal of Chemistry Papers, 2 (1): 1–12, 2018.

[139]. A. Heidari, *"Mössbauer Spectroscopy, Mössbauer Emission Spectroscopy and ^{57}Fe Mössbauer Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Acta Scientific Cancer Biology 2.3: 17–20, 2018.

[140]. A. Heidari, *"Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, Organic & Medicinal Chem IJ. 6 (1): 555676, 2018.

[141]. A. Heidari, *"Correlation Spectroscopy, Exclusive Correlation Spectroscopy and Total Correlation Spectroscopy Comparative Study on Malignant and Benign Human AIDS–Related Cancers Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Int J Bioanal Biomed. 2 (1): 001–007, 2018.

[142]. A. Heidari, *"Biomedical Instrumentation and Applications of Biospectroscopic Methods and Techniques in Malignant and Benign Human Cancer Cells and Tissues Studies under Synchrotron Radiation and Anti–Cancer Nano Drugs Delivery"*, Am J Nanotechnol Nanomed. 1 (1): 001–009, 2018.

[143]. A. Heidari, *"Vivo ^{1}H or Proton NMR, ^{13}C NMR, ^{15}N NMR and ^{31}P NMR Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Ann Biomet Biostat. 1 (1): 1001, 2018.

[144]. A. Heidari, *"Grazing–Incidence Small–Angle Neutron Scattering (GISANS) and Grazing–Incidence X–Ray Diffraction (GIXD) Comparative Study on Malignant and Benign Human Cancer Cells, Tissues and Tumors under Synchrotron Radiation"*, Ann Cardiovasc Surg. 1 (2): 1006, 2018.

[145]. A. Heidari, *"Adsorption Isotherms and Kinetics of Multi–Walled Carbon Nanotubes (MWCNTs), Boron Nitride Nanotubes (BNNTs), Amorphous Boron Nitride Nanotubes (a–BNNTs) and Hexagonal Boron Nitride Nanotubes (h–BNNTs) for Eliminating Carcinoma, Sarcoma, Lymphoma, Leukemia, Germ Cell Tumor and Blastoma Cancer Cells and Tissues"*, Clin Med Rev Case Rep 5: 201, 2018.

[146]. A. Heidari, *"Correlation Spectroscopy (COSY), Exclusive Correlation Spectroscopy (ECOSY), Total Correlation Spectroscopy (TOCSY), Incredible Natural–Abundance Double–Quantum Transfer Experiment (INADEQUATE), Heteronuclear Single–Quantum Correlation Spectroscopy (HSQC), Heteronuclear Multiple–Bond Correlation Spectroscopy (HMBC), Nuclear Overhauser Effect Spectroscopy (NOESY) and Rotating Frame Nuclear Overhauser Effect Spectroscopy (ROESY) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Acta Scientific Pharmaceutical Sciences 2.5: 30–35, 2018.

[147]. A. Heidari, *"Small–Angle X–Ray Scattering (SAXS), Ultra–Small Angle X–Ray Scattering (USAXS), Fluctuation X–Ray Scattering (FXS), Wide–Angle X–Ray Scattering (WAXS), Grazing–Incidence Small–Angle X–Ray Scattering (GISAXS), Grazing–Incidence Wide–Angle X–Ray Scattering (GIWAXS), Small–Angle Neutron Scattering (SANS), Grazing–Incidence Small–Angle Neutron Scattering (GISANS), X–Ray Diffraction (XRD), Powder X–Ray Diffraction (PXRD), Wide–Angle X–Ray Diffraction (WAXD), Grazing–Incidence X–Ray Diffraction (GIXD) and Energy–Dispersive X–Ray Diffraction (EDXRD) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Oncol Res Rev, Volume 1 (1): 1–10, 2018.

[148]. A. Heidari, *"Pump–Probe Spectroscopy and Transient Grating Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Adv Material Sci Engg, Volume 2, Issue 1, Pages 1–7, 2018.

[149]. A. Heidari, *"Grazing–Incidence Small–Angle X–Ray Scattering (GISAXS) and Grazing–Incidence Wide–Angle X–Ray Scattering (GIWAXS) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Insights Pharmacol Pharm Sci 1 (1): 1–8, 2018.

[150]. A. Heidari, *"Acoustic Spectroscopy, Acoustic Resonance Spectroscopy and Auger Spectroscopy Comparative Study on Anti–Cancer Nano Drugs Delivery in Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Nanosci Technol 5 (1): 1–9, 2018.

[151]. A. Heidari, *"Niobium, Technetium, Ruthenium, Rhodium, Hafnium, Rhenium, Osmium and Iridium Ions Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron and Synchrocyclotron Radiations"*, Nanomed Nanotechnol, 3 (2): 000138, 2018.

[152]. A. Heidari, *"Homonuclear Correlation Experiments such as Homonuclear Single–Quantum Correlation Spectroscopy (HSQC), Homonuclear Multiple–Quantum Correlation Spectroscopy (HMQC) and Homonuclear Multiple–Bond Correlation Spectroscopy (HMBC) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Austin J Proteomics Bioinform & Genomics. 5 (1): 1024, 2018.

[153]. A. Heidari, *"Atomic Force Microscopy Based Infrared (AFM–IR) Spectroscopy and Nuclear Resonance Vibrational Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, J Appl Biotechnol Bioeng. 5 (3): 142–148, 2018.

[154]. A. Heidari, *"Time–Dependent Vibrational Spectral Analysis of Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, J Cancer Oncol, 2 (2): 000124, 2018.

[155]. A. Heidari, *"Palauamine and Olympiadane Nano Molecules Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron and Synchrocyclotron Radiations"*, Arc Org Inorg Chem Sci 3 (1), 2018.

[156]. R. Gobato, A. Heidari, *"Infrared Spectrum and Sites of Action of Sanguinarine by Molecular Mechanics and ab initio Methods"*, International Journal of Atmospheric and Oceanic Sciences. Vol. 2, No. 1, pp. 1–9, 2018.

[157]. A. Heidari, *"Angelic Acid, Diabolic Acids, Draculin and Miraculin Nano Molecules Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment Under Synchrotron and Synchrocyclotron Radiations"*, Med & Analy Chem Int J, 2 (1): 000111, 2018.

[158]. A. Heidari, *"Gamma Linolenic Methyl Ester, 5–Heptadeca–5,8,11–Trienyl 1,3,4–Oxadiazole–2–Thiol, Sulphoquinovosyl Diacyl Glycerol, Ruscogenin, Nocturnoside B, Protodioscine B, Parquisoside–B, Leiocarposide, Narangenin, 7–Methoxy Hespertin, Lupeol, Rosemariquinone, Rosmanol and Rosemadiol Nano Molecules Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron and Synchrocyclotron Radiations"*, Int J Pharma Anal Acta, 2 (1): 007–014, 2018.

[159]. A. Heidari, *"Fourier Transform Infrared (FTIR) Spectroscopy, Attenuated Total Reflectance Fourier Transform Infrared (ATR–FTIR) Spectroscopy, Micro–Attenuated Total Reflectance Fourier Transform Infrared (Micro–ATR–FTIR) Spectroscopy, Macro–Attenuated Total Reflectance Fourier Transform Infrared (Macro–ATR–FTIR) Spectroscopy, Two–Dimensional Infrared Correlation Spectroscopy, Linear Two–Dimensional Infrared Spectroscopy, Non–Linear Two–Dimensional Infrared Spectroscopy, Atomic Force Microscopy Based Infrared (AFM–IR) Spectroscopy, Infrared Photodissociation Spectroscopy, Infrared Correlation Table Spectroscopy, Near–Infrared Spectroscopy (NIRS), Mid–Infrared Spectroscopy (MIRS), Nuclear Resonance Vibrational Spectroscopy, Thermal Infrared Spectroscopy and Photothermal Infrared Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, Glob Imaging Insights, Volume 3 (2): 1–14, 2018.

[160]. A. Heidari, *"Heteronuclear Single–Quantum Correlation Spectroscopy (HSQC) and Heteronuclear Multiple–Bond Correlation Spectroscopy (HMBC) Comparative Study on Malignant and Benign Human Cancer Cells, Tissues and Tumors under Synchrotron and Synchrocyclotron Radiations"*, Chronicle of Medicine and Surgery 2.3: 144–156, 2018.

[161]. A. Heidari, *"Tetrakis [3, 5–bis (Trifluoromethyl) Phenyl]. Borate (BARF)–Enhanced Precatalyst Preparation Stabilization and Initiation (EPPSI) Nano Molecules"*, Medical Research and Clinical Case Reports 2.1: 113–126, 2018.

[162]. A. Heidari, *"Sydnone, Münchnone, Montréalone, Mogone, Montelukast, Quebecol and Palau'amine–Enhanced Precatalyst Preparation Stabilization and Initiation (EPPSI) Nano Molecules"*, Sur Cas Stud Op Acc J. 1 (3), 2018.

[163]. A. Heidari, *"Fornacite, Orotic Acid, Rhamnetin, Sodium Ethyl Xanthate (SEX) and Spermine (Spermidine or Polyamine) Nanomolecules Incorporation into the Nanopolymeric Matrix (NPM)"*, International Journal of Biochemistry and Biomolecules, Vol. 4: Issue 1, Pages 1–19, 2018.

[164]. A. Heidari, R. Gobato, *"Putrescine, Cadaverine, Spermine and Spermidine–Enhanced Precatalyst Preparation Stabilization and Initiation (EPPSI) Nano Molecules"*, Parana Journal of Science and Education (PJSE)–v.4, n.5, (1–14) July 1, 2018.

[165]. A. Heidari, *"Cadaverine (1,5–Pentanediamine or Pentamethylenediamine), Diethyl Azodicarboxylate (DEAD or DEADCAT) and Putrescine (Tetramethylenediamine) Nano Molecules Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron and Synchrocyclotron Radiations"*, Hiv and Sexual Health Open Access Open Journal. 1 (1): 4–11, 2018.

[166]. A. Heidari, *"Improving the Performance of Nano–Endofullerenes in Polyaniline Nanostructure–Based Biosensors by Covering Californium Colloidal Nanoparticles with Multi–Walled Carbon Nanotubes"*, Journal of Advances in Nanomaterials, Vol. 3, No. 1, Pages 1–28, 2018.

[167]. R. Gobato, A. Heidari, *"Molecular Mechanics and Quantum Chemical Study on Sites of Action of Sanguinarine Using Vibrational Spectroscopy Based on Molecular Mechanics and Quantum Chemical Calculations"*, Malaysian Journal of Chemistry, Vol. 20 (1), 1–23, 2018.

[168]. A. Heidari, *"Vibrational Biospectroscopic Studies on Anti–cancer Nanopharmaceuticals (Part I)"*, Malaysian Journal of Chemistry, Vol. 20 (1), 33–73, 2018.

[169]. A. Heidari, *"Vibrational Biospectroscopic Studies on Anti–cancer Nanopharmaceuticals (Part II)"*, Malaysian Journal of Chemistry, Vol. 20 (1), 74–117, 2018.

[170]. A. Heidari, "*Uranocene ($U(C_8H_8)_2$) and Bis (Cyclooctatetraene)Iron ($Fe(C_8H_8)_2$ or $Fe\ (COT)_2$)–Enhanced Precatalyst Preparation Stabilization and Initiation (EPPSI) Nano Molecules"*, Chemistry Reports, Vol. 1, Iss. 2, Pages 1–16, 2018.

[171]. A. Heidari, *"Biomedical Systematic and Emerging Technological Study on Human Malignant and Benign Cancer Cells and Tissues Biospectroscopic Analysis under Synchrotron Radiation"*, Glob Imaging Insights, Volume 3 (3): 1–7, 2018.

[172]. A. Heidari, *"Deep–Level Transient Spectroscopy and X–Ray Photoelectron Spectroscopy (XPS) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Res Dev Material Sci. 7(2). RDMS.000659, 2018.

[173]. A. Heidari, *"C70–Carboxyfullerenes Nano Molecules Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron and Synchrocyclotron Radiations"*, Glob Imaging Insights, Volume 3 (3): 1–7, 2018.

[174]. A. Heidari, *"The Effect of Temperature on Cadmium Oxide (CdO) Nanoparticles Produced by Synchrotron Radiation in the Human Cancer Cells, Tissues and Tumors"*, International Journal of Advanced Chemistry, 6 (2) 140–156, 2018.

[175]. A. Heidari, *"A Clinical and Molecular Pathology Investigation of Correlation Spectroscopy (COSY), Exclusive Correlation Spectroscopy (ECOSY), Total Correlation Spectroscopy (TOCSY), Heteronuclear Single–Quantum Correlation Spectroscopy (HSQC) and Heteronuclear Multiple–Bond Correlation Spectroscopy (HMBC) Comparative Study on Malignant and Benign Human Cancer Cells, Tissues and Tumors under Synchrotron and Synchrocyclotron Radiations Using Cyclotron versus Synchrotron, Synchrocyclotron and the Large Hadron Collider (LHC) for Delivery of Proton and Helium Ion (Charged Particle) Beams for Oncology Radiotherapy"*, European Journal of Advances in Engineering and Technology, 5 (7): 414–426, 2018.

[176]. A. Heidari, *"Nano Molecules Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron and Synchrocyclotron Radiations"*, J Oncol Res; 1 (1): 1–20, 2018.

[177]. A. Heidari, *"Use of Molecular Enzymes in the Treatment of Chronic Disorders"*, Canc Oncol Open Access J. 1 (1): 12–15, 2018.

[178]. A. Heidari, *"Vibrational Biospectroscopic Study and Chemical Structure Analysis of Unsaturated Polyamides Nanoparticles as Anti–Cancer Polymeric Nanomedicines Using Synchrotron Radiation"*, International Journal of Advanced Chemistry, 6 (2) 167–189, 2018.

[179]. A. Heidari, *"Adamantane, Irene, Naftazone and Pyridine–Enhanced Precatalyst Preparation Stabilization and Initiation (PEPPSI) Nano Molecules"*, Madridge J Nov Drug Res. 2 (1): 61–67, 2018.

[180]. A. Heidari, *"Heteronuclear Single–Quantum Correlation Spectroscopy (HSQC) and Heteronuclear Multiple–Bond Correlation Spectroscopy (HMBC) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Madridge J Nov Drug Res, 2 (1): 68–74, 2018.

[181]. A. Heidari, R. Gobato, *"A Novel Approach to Reduce Toxicities and to Improve Bioavailabilities of DNA/RNA of Human Cancer Cells–Containing Cocaine (Coke), Lysergide (Lysergic Acid Diethyl Amide or LSD), Δ⁹–Tetrahydrocannabinol (THC) [(–)–trans–Δ⁹–Tetrahydrocannabinol], Theobromine (Xantheose), Caffeine, Aspartame (APM) (NutraSweet) and Zidovudine (ZDV) [Azidothymidine (AZT)]. as Anti–Cancer Nano Drugs by Coassembly of Dual Anti–Cancer Nano Drugs to Inhibit DNA/RNA of Human Cancer Cells Drug Resistance"*, Parana Journal of Science and Education, v. 4, n. 6, pp. 1–17, 2018.

[182]. A. Heidari, R. Gobato, *"Ultraviolet Photoelectron Spectroscopy (UPS) and Ultraviolet–Visible (UV–Vis) Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Parana Journal of Science and Education, v. 4, n. 6, pp. 18–33, 2018.

[183]. R. Gobato, A. Heidari, A. Mitra, *"The Creation of $C_{13}H_{20}BeLi_2SeSi$. The Proposal of a Bio–Inorganic Molecule, Using Ab Initio Methods for the Genesis of a Nano Membrane"*, Arc Org Inorg Chem Sci 3 (4). AOICS.MS.ID.000167, 2018.

[184]. R. Gobato, A. Heidari, *"Using the Quantum Chemistry for Genesis of a Nano Biomembrane with a Combination of the Elements Be, Li, Se, Si, C and H"*, J Nanomed Res.7 (4): 241–252, 2018.

[185]. A. Heidari, *"Bastadins and Bastaranes–Enhanced Precatalyst Preparation Stabilization and Initiation (EPPSI) Nano Molecules"*, Glob Imaging Insights, Volume 3 (4): 1–7, 2018.

[186]. A. Heidari, *"Fucitol, Pterodactyladiene, DEAD or DEADCAT (DiEthyl AzoDiCArboxylaTe), Skatole, the NanoPutians, Thebacon, Pikachurin, Tie Fighter, Spermidine and Mirasorvone Nano Molecules Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron and Synchrocyclotron Radiations"*, Glob Imaging Insights, Volume 3 (4): 1–8, 2018.

[187]. E. Dadvar, A. Heidari, *"A Review on Separation Techniques of Graphene Oxide (GO)/Base on Hybrid Polymer Membranes for Eradication of Dyes and Oil Compounds: Recent Progress in Graphene Oxide (GO)/Base on Polymer Membranes–Related Nanotechnologies"*, Clin Med Rev Case Rep 5: 228, 2018.

[188]. A. Heidari, R. Gobato, *"First–Time Simulation of Deoxyuridine Monophosphate (dUMP) (Deoxyuridylic Acid or Deoxyuridylate) and Vomitoxin (Deoxynivalenol (DON)) ((3α,7α)–3,7,15–Trihydroxy–12,13–Epoxytrichothec–9–En–8–One)–Enhanced Precatalyst Preparation Stabilization and Initiation (EPPSI) Nano Molecules Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron and Synchrocyclotron Radiations"*, Parana Journal of Science and Education, Vol. 4, No. 6, pp. 46–67, 2018.

[189]. A. Heidari, *"Buckminsterfullerene (Fullerene), Bullvalene, Dickite and Josiphos Ligands Nano Molecules Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Hematology and Thromboembolic Diseases Prevention, Diagnosis and Treatment under Synchrotron and Synchrocyclotron Radiations"*, Glob Imaging Insights, Volume 3 (4): 1–7, 2018.

[190]. A. Heidari, *"Fluctuation X–Ray Scattering (FXS) and Wide–Angle X–Ray Scattering (WAXS) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Glob Imaging Insights, Volume 3 (4): 1–7, 2018.

[191]. A. Heidari, *"A Novel Approach to Correlation Spectroscopy (COSY), Exclusive Correlation Spectroscopy (ECOSY), Total Correlation Spectroscopy (TOCSY), Incredible Natural–Abundance Double–Quantum Transfer Experiment (INADEQUATE), Heteronuclear Single–Quantum Correlation Spectroscopy (HSQC), Heteronuclear Multiple–Bond Correlation Spectroscopy (HMBC), Nuclear Overhauser Effect Spectroscopy (NOESY) and Rotating Frame Nuclear Overhauser Effect Spectroscopy (ROESY) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Glob Imaging Insights, Volume 3 (5): 1–9, 2018.

[192]. A. Heidari, *"Terphenyl–Based Reversible Receptor with Rhodamine, Rhodamine–Based Molecular Probe, Rhodamine–Based Using the Spirolactam Ring Opening, Rhodamine B with Ferrocene Substituent, Calix[4]Arene–Based Receptor, Thioether + Aniline–Derived Ligand Framework Linked to a Fluorescein Platform, Mercuryfluor–1 (Flourescent Probe), N,N'–Dibenzyl–1,4,10,13–Tetraraoxa–7,16–Diazacyclooctadecane and Terphenyl–Based Reversible Receptor with Pyrene and Quinoline as the Fluorophores–Enhanced Precatalyst Preparation Stabilization and Initiation (EPPSI) Nano Molecules"*, Glob Imaging Insights, Volume 3 (5): 1–9, 2018.

[193]. A. Heidari, *"Small–Angle X–Ray Scattering (SAXS), Ultra–Small Angle X–Ray Scattering (USAXS), Fluctuation X–Ray Scattering (FXS), Wide–Angle X–Ray Scattering (WAXS), Grazing–Incidence Small–Angle X–Ray Scattering (GISAXS), Grazing–Incidence Wide–Angle X–Ray Scattering (GIWAXS), Small–Angle Neutron Scattering (SANS), Grazing–Incidence Small–Angle Neutron Scattering (GISANS), X–Ray Diffraction (XRD), Powder X–Ray Diffraction (PXRD), Wide–Angle X–Ray Diffraction (WAXD), Grazing– Incidence X–Ray Diffraction (GIXD) and Energy–Dispersive X–Ray Diffraction (EDXRD) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Glob Imaging Insights, Volume 3 (5): 1–10, 2018.

[194]. A. Heidari, *"Nuclear Resonant Inelastic X–Ray Scattering Spectroscopy (NRIXSS) and Nuclear Resonance Vibrational Spectroscopy (NRVS) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Glob Imaging Insights, Volume 3 (5): 1–7, 2018.

[195]. A. Heidari, *"Small–Angle X–Ray Scattering (SAXS) and Ultra–Small Angle X–Ray Scattering (USAXS) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Glob Imaging Insights, Volume 3 (5): 1–7, 2018.

[196]. A. Heidari, *"Curious Chloride ($CmCl_3$) and Titanic Chloride ($TiCl_4$)–Enhanced Precatalyst Preparation Stabilization and Initiation (EPPSI) Nano Molecules for Cancer Treatment and Cellular Therapeutics"*, J. Cancer Research and Therapeutic Interventions, Volume 1, Issue 1, Pages 01–10, 2018.

[197]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, *"Spectroscopy and Dipole Moment of the Molecule $C_{13}H_{20}BeLi_2SeSi$ via Quantum Chemistry Using Ab Initio, Hartree–Fock Method in the Base Set CC–pVTZ and 6–311G**(3df, 3pd)"*, Arc Org Inorg Chem Sci 3 (5), Pages 402–409, 2018.

[198]. A. Heidari, *"C_{60} and C_{70}–Encapsulating Carbon Nanotubes Incorporation into the Nano Polymeric Matrix (NPM) by Immersion of the Nano Polymeric Modified Electrode (NPME) as Molecular Enzymes and Drug Targets for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron and Synchrocyclotron Radiations"*, Integr Mol Med, Volume 5 (3): 1–8, 2018.

[199]. A. Heidari, *"Two–Dimensional (2D) ^{1}H or Proton NMR, ^{13}C NMR, ^{15}N NMR and ^{31}P NMR Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, Glob Imaging Insights, Volume 3 (6): 1–8, 2018.

[200]. A. Heidari, *"FT–Raman Spectroscopy, Coherent Anti–Stokes Raman Spectroscopy (CARS) and Raman Optical Activity Spectroscopy (ROAS) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues with the Passage of Time under Synchrotron Radiation"*, Glob Imaging Insights, Volume 3 (6): 1–8, 2018.

[201]. A. Heidari, *"A Modern and Comprehensive Investigation of Inelastic Electron Tunneling Spectroscopy (IETS) and Scanning Tunneling Spectroscopy on Malignant and Benign Human Cancer Cells, Tissues and Tumors through Optimizing Synchrotron Microbeam Radiotherapy for Human Cancer Treatments and Diagnostics: An Experimental Biospectroscopic Comparative Study"*, Glob Imaging Insights, Volume 3 (6): 1–8, 2018.

[202]. A. Heidari, *"A Hypertension Approach to Thermal Infrared Spectroscopy and Photothermal Infrared Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation with the Passage of Time"*, Glob Imaging Insights, Volume 3 (6): 1–8, 2018.

[203]. A. Heidari, *"Incredible Natural–Abundance Double–Quantum Transfer Experiment (INADEQUATE), Nuclear Overhauser Effect Spectroscopy (NOESY) and Rotating Frame Nuclear Overhauser Effect Spectroscopy (ROESY) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Glob Imaging Insights, Volume 3 (6): 1–8, 2018.

[204]. A. Heidari, *"2–Amino–9–((1S, 3R, 4R)–4–Hydroxy–3–(Hydroxymethyl)–2–Methylenecyclopentyl)–1H–Purin–6(9H)–One, 2–Amino–9–((1R, 3R, 4R)–4–Hydroxy–3–(Hydroxymethyl)–2–Methylenecyclopentyl)–1H–Purin–6(9H)–One, 2–Amino–9–((1R, 3R, 4S)–4–Hydroxy–3–(Hydroxymethyl)–2–Methylenecyclopentyl)–1H–Purin–6(9H)–One and 2–Amino–9–((1S, 3R, 4S)–4–Hydroxy–3–(Hydroxymethyl)–2–Methylenecyclopentyl)–1H–Purin–6(9H)–One–Enhanced Precatalyst Preparation Stabilization and Initiation Nano Molecules"*, Glob Imaging Insights, Volume 3 (6): 1–9, 2018.

[205]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, *"Spectroscopy and Dipole Moment of the Molecule $C_{13}H_{20}BeLi_2SeSi$ via Quantum Chemistry Using Ab Initio, Hartree–Fock Method in the Base Set CC–pVTZ and 6–311G**(3df, 3pd)"*, American Journal of Quantum Chemistry and Molecular Spectroscopy, Vol. 2, No. 1, pp. 9–17, 2018.

[206]. A. Heidari, *"Production of Electrochemiluminescence (ECL) Biosensor Using Os–Pd/HfC Nanocomposites for Detecting and Tracking of Human Gastroenterological Cancer Cells, Tissues and Tumors"*, Int J Med Nano Res 5: 1, 022–034, 2018.

[207]. A. Heidari, *"Enhancing the Raman Scattering for Diagnosis and Treatment of Human Cancer Cells, Tissues and Tumors Using Cadmium Oxide (CdO) Nanoparticles"*, J Toxicol Risk Assess 4: 1, 012–025, 2018.

[208]. A. Heidari, *"Human Malignant and Benign Human Cancer Cells and Tissues Biospectroscopic Analysis under Synchrotron Radiation Using Anti–Cancer Nano Drugs Delivery"*, Integr Mol Med, Volume 5 (5): 1–13, 2018.

[209]. A. Heidari, *"Analogous Nano Compounds of the Form $M(C_8H_8)_2$ Exist for M = (Nd, Tb, Pu, Pa, Np, Th, and Yb)–Enhanced Precatalyst Preparation Stabilization and Initiation (EPPSI) Nano Molecules"*, Integr Mol Med, Volume 5 (5): 1–8, 2018.

[210]. A. Heidari, *"Hadron Spectroscopy, Baryon Spectroscopy and Meson Spectroscopy Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation"*, Integr Mol Med, Volume 5 (5): 1–8, 2018.

[211]. R. Gobato, M. R. R. Gobato, A. Heidari, *"Raman Spectroscopy Study of the Nano Molecule $C_{13}H_{20}BeLi_2SeSi$ Using ab initio and Hartree–Fock Methods in the Basis Set CC–pVTZ and 6–311G** (3df, 3pd)"*, International Journal of Advanced Engineering and Science, Volume 7, Number 1, Pages 14–35, 2019.

[212]. A. Heidari, R. Gobato, *"Evaluating the Effect of Anti–Cancer Nano Drugs Dosage and Reduced Leukemia and Polycythemia Vera Levels on Trend of the Human Blood and Bone Marrow Cancers under Synchrotron Radiation"*, Trends in Res, Volume 2 (1): 1–8, 2019.

[213]. A. Heidari, R. Gobato, *"Assessing the Variety of Synchrotron, Synchrocyclotron and LASER Radiations and Their Roles and Applications in Human Cancer Cells, Tissues and Tumors Diagnosis and Treatment"*, Trends in Res, Volume 2 (1): 1–8, 2019.

[214]. A. Heidari, R. Gobato, *"Pros and Cons Controversy on Malignant Human Cancer Cells, Tissues and Tumors Transformation Process to Benign Human Cancer Cells, Tissues and Tumors"*, Trends in Res, Volume 2 (1): 1–8, 2019.

[215]. A. Heidari, R. Gobato, *"Three–Dimensional (3D) Simulations of Human Cancer Cells, Tissues and Tumors for Using in Human Cancer Cells, Tissues and Tumors Diagnosis and Treatment as a Powerful Tool in Human Cancer Cells, Tissues and Tumors Research and Anti–Cancer Nano Drugs Sensitivity and Delivery Area Discovery and Evaluation"*, Trends in Res, Volume 2 (1): 1–8, 2019.

[216]. A. Heidari, R. Gobato, *"Investigation of Energy Production by Synchrotron, Synchrocyclotron and LASER Radiations in Human Cancer Cells, Tissues and Tumors and Evaluation of Their Effective on Human Cancer Cells, Tissues and Tumors Treatment Trend"*, Trends in Res, Volume 2 (1): 1–8, 2019.

[217]. A. Heidari, R. Gobato, *"High–Resolution Mapping of DNA/RNA Hypermethylation and Hypomethylation Process in Human Cancer Cells, Tissues and Tumors under Synchrotron Radiation"*, Trends in Res, Volume 2 (2): 1–9, 2019.

[218]. A. Heidari, *"A Novel and Comprehensive Study on Manufacturing and Fabrication Nanoparticles Methods and Techniques for Processing Cadmium Oxide (CdO) Nanoparticles Colloidal Solution"*, Glob Imaging Insights, Volume 4 (1): 1–8, 2019.

[219]. A. Heidari, *"A Combined Experimental and Computational Study on the Catalytic Effect of Aluminum Nitride Nanocrystal (AlN) on the Polymerization of Benzene, Naphthalene, Anthracene, Phenanthrene, Chrysene and Tetracene"*, Glob Imaging Insights, Volume 4 (1): 1–8, 2019.

[220]. A. Heidari, *"Novel Experimental and Three–Dimensional (3D) Multiphysics Computational Framework of Michaelis–Menten Kinetics for Catalyst Processes Innovation, Characterization and Carrier Applications"*, Glob Imaging Insights, Volume 4 (1): 1–8, 2019.

[221]. A. Heidari, *"The Hydrolysis Constants of Copper (I) (Cu^{+}) and Copper (II) (Cu^{2+}) in Aqueous Solution as a Function of pH Using a Combination of pH Measurement and Biospectroscopic Methods and Techniques"*, Glob Imaging Insights, Volume 4 (1): 1–8, 2019.

[222]. A. Heidari, *"Vibrational Biospectroscopic Study of Ginormous Virus–Sized Macromolecule and Polypeptide Macromolecule as Mega Macromolecules Using Attenuated Total Reflectance–Fourier Transform Infrared (ATR–FTIR) Spectroscopy and Mathematica 11.3"*, Glob Imaging Insights, Volume 4 (1): 1–8, 2019.

[223]. A. Heidari, *"Three–Dimensional (3D) Imaging Spectroscopy of Carcinoma, Sarcoma, Leukemia, Lymphoma, Multiple Myeloma, Melanoma, Brain and Spinal Cord Tumors, Germ Cell Tumors, Neuroendocrine Tumors and Carcinoid Tumors under Synchrotron Radiation"*, Glob Imaging Insights, Volume 4 (1): 1–9, 2019.

[224]. R. Gobato, M. R. R. Gobato, A. Heidari, *"Storm Vortex in the Center of Paraná State on June 6, 2017: A Case Study"*, Sumerianz Journal of Scientific Research, Vol. 2, No. 2, Pages 24–31, 2019.

[225]. R. Gobato, M. R. R. Gobato, A. Heidari, *"Attenuated Total Reflection–Fourier Transform Infrared (ATR–FTIR) Spectroscopy Study of the Nano Molecule $C_{13}H_{20}BeLi_2SeSi$ Using ab initio and Hartree–Fock Methods in the Basis Set RHF/CC–pVTZ and RHF/6–311G** (3df, 3pd): An Experimental Challenge to Chemists"*, Chemistry Reports, Vol. 2, No. 1, Pages 1–26, 2019.

[226]. A. Heidari, *"Three–Dimensional (3D) Imaging Spectroscopy of Carcinoma, Sarcoma, Leukemia, Lymphoma, Multiple Myeloma, Melanoma, Brain and Spinal Cord Tumors, Germ Cell Tumors, Neuroendocrine Tumors and Carcinoid Tumors under Synchrocyclotron Radiation"*, Res Adv Biomed Sci Technol 1 (1): 01–17, 2019.

[227]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, *"New Nano–Molecule Kurumi–$C_{13}H_{20}BeLi_2SeSi$/$C_{13}H_{19}BeLi_2SeSi$, and Raman Spectroscopy Using ab initio, Hartree–Fock Method in the Base Set CC–pVTZ and 6–311G** (3df, 3pd)"*, J Anal Pharm Res. 8 (1): 1–6, 2019.

[228]. A. Heidari, J. Esposito, A. Caissutti, *"The Importance of Attenuated Total Reflectance Fourier Transform Infrared (ATR–FTIR) and Raman Biospectroscopy of Single–Walled Carbon Nanotubes (SWCNT) and Multi–Walled Carbon Nanotubes (MWCNT) in Interpreting Infrared and Raman Spectra of Human Cancer Cells, Tissues and Tumors"*, Oncogen 2 (2): 1–21, 2019.

[229]. A. Heidari, *"Mechanism of Action and Their Side Effects at a Glance Prevention, Treatment and Management of Immune System and Human Cancer Nano Chemotherapy"*, Nanosci Technol 6 (1): 1–4, 2019.

[230]. A. Heidari, J. Esposito, A. Caissutti, *"The Quantum Entanglement Dynamics Induced by Non–Linear Interaction between a Moving Nano Molecule and a Two–Mode Field with Two–Photon Transitions Using Reduced Von Neumann Entropy and Jaynes–Cummings Model for Human Cancer Cells, Tissues and Tumors Diagnosis"*, Int J Crit Care Emerg Med 5 (2): 071–084, 2019.

[231]. A. Heidari, J. Esposito, A. Caissutti, *"Palytoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, J Pharm Drug Res, 3 (1): 150–170, 2019.

[232]. A. Heidari, J. Esposito, A. Caissutti, *"Aplysiatoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, J Chem Sci Eng, 2 (2): 70–89, 2019.

[233]. A. Heidari, J. Esposito, A. Caissutti, *"Cyanotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Br J Med Health Res. 6 (04): 21–60, 2019.

[234]. A. Heidari, *"Potential and Theranostics Applications of Novel Anti–Cancer Nano Drugs Delivery Systems in Preparing for Clinical Trials of Synchrotron Microbeam Radiation Therapy (SMRT) and Synchrotron Stereotactic Radiotherapy (SSRT) for Treatment of Human Cancer Cells, Tissues and Tumors Using Image Guided Synchrotron Radiotherapy (IGSR)"*, Ann Nanosci Nanotechnol. 3 (1): 1006–1019, 2019.

[235]. A. Heidari, J. Esposito, A. Caissutti, *"Study of Anti–Cancer Properties of Thin Layers of Cadmium Oxide (CdO) Nanostructure"*, Int J Analyt Bioanalyt Methods 1 (1): 003–022, 2019.

[236]. A. Heidari, J. Esposito, A. Caissutti, *"Alpha–Conotoxin, Omega–Conotoxin and Mu–Conotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, International Journal of Advanced Chemistry, 7 (1) 52–66, 2019.

[237]. A. Heidari, *"Clinical and Medical Pros and Cons of Human Cancer Cells' Enzymotherapy, Immunotherapy, Chemotherapy, Radiotherapy, Hormone Therapy and Targeted Therapy Process under Synchrotron Radiation: A Case Study on Mechanism of Action and Their Side Effects"*, Parana Journal of Science and Education (PJSE)–v. 5, n. 3, (1–23) May 2, 2019.

[238]. A. Heidari, *"The Importance of the Power in CMOS Inverter Circuit of Synchrotron and Synchrocyclotron Radiations Using 50 (nm) and 100 (nm) Technologies and Reducing the Voltage of Power Supply"*, Radiother Oncol Int. 1 (1): 1002–1015, 2019.

[239]. A. Heidari, J. Esposito, A. Caissutti, *"The Importance of Quantum Hydrodynamics (QHD) Approach to Single–Walled Carbon Nanotubes (SWCNT) and Multi–Walled Carbon Nanotubes (MWCNT) in Genetic Science"*, SCIOL Genet Sci. 2 (1): 113–129, 2019.

[240]. A. Heidari, J. Esposito, A. Caissutti, *"Anatoxin–a and Anatoxin–a(s) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Saudi J Biomed Res, 4 (4): 174–194, 2019.

[241]. R. Gobato, M. R. R. Gobato, A. Heidari, *"Evidence of Tornado Storm Hit the Counties of Rio Branco do Ivaí and Rosario de Ivaí, Southern Brazil"*, Sci Lett. 7 (1): 32–40, 2019.

[242]. M. Jeyaraj, V. Mahalingam, A. Indhuleka, P. Sennu, M. S. Ho, A. Heidari, *"Chemical Analysis of Surface Water Quality of River Noyyal Connected Tank in Tirupur District, Tamil Nadu, India"*, Water and Energy International, Volume 62r, Issue 1, pp. 63–68, 2019.

[243]. A. Heidari, J. Esposito, A. Caissutti, *"6–Methoxy–8–[[6–Methoxy–8–[[6–Methoxy–2–Methyl–1–(2–Methylpropyl)–3,4– Dihydro–1H–Isoquinolin–7–yl]Oxy]–2–Methyl–1–(2–Methylpropyl)–3,4–Dihydro–1H–Isoquinolin–7–yl]Oxy]–2–Methyl–1–(2–Methylpropyl)–3,4–Dihydro–1H–Isoquinolin–7–ol Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, J. Adv. Phys. Chem., Volume 1, Issue 1, pp. 1–6, 2019.

[244]. A. Heidari, J. Esposito, A. Caissutti, *"Shiga Toxin and Shiga–Like Toxin (SLT) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Annal Biostat & Biomed Appli. 2 (3): 1–4, 2019.

[245]. A. Heidari, J. Esposito, A. Caissutti, *"Alpha–Bungarotoxin, Beta–Bungarotoxin and Kappa–Bungarotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Archives of Pharmacology and Pharmaceutical Sciences, ReDelve, Volume 2019, Issue 01, pp. 1–24, 2019.

[246]. A. Heidari, J. Esposito, A. Caissutti, *"Okadaic Acid Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Int J Analyt Bioanalyt Methods 1 (1): 1–19, 2019.

[247]. A. Heidari, *"Investigation of the Processes of Absorption, Distribution, Metabolism and Elimination (ADME) as Vital and Important Factors for Modulating Drug Action and Toxicity"*, Open Access J Oncol, 2 (1): 180010–180012, 2019.

[248]. A. Heidari, J. Esposito, A. Caissutti, *"Pertussis Toxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Chemistry Reports, Vol. 1 Iss. 2, Pages 1–5, 2019.

[249]. R. Gobato, M. R. R. Gobato, A. Heidari, *"Rhodochrosite as Crystal Oscillator"*, Am J Biomed Sci & Res. 3 (2), 187, 2019.

[250]. A. Heidari, J. Esposito, A. Caissutti, *"Tetrodotoxin (TTX) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Journal of New Developments in Chemistry, Volume No: 2, Issue No: 3, Page Numbers 26–48, 2019.

[251]. A. Heidari, J. Esposito, A. Caissutti, *"The Importance of Analysis of Vibronic–Mode Coupling Structure in Vibrational Spectra of Supramolecular Aggregates of (CA*M) Cyanuric Acid (CA) and Melamine (M) beyond the Franck–Condon Approximation"*, Journal of Clinical and Medical Images, 2 (2): 1–20, 2019.

[252]. A. Heidari, J. Esposito, A. Caissutti, *"Microcystin–LR Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Malaysian Journal of Chemistry, Vol. 21 (1), 70–95, 2019.

[253]. A. Heidari, J. Esposito, A. Caissutti, *"Botulinum Toxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Journal of Mechanical Design and Vibration, vol. 7, no. 1: 1–15, 2019.

[254]. A. Heidari, J. Esposito, A. Caissutti, *"Domoic Acid (DA) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Clinical Oncology Journal 1. 2: 03–07, 2019.

[255]. A. Heidari, J. Esposito, A. Caissutti, *"Surugatoxin (SGTX) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Clinical Oncology Journal 1. 2: 14–18, 2019.

[256]. A. Heidari, J. Esposito, A. Caissutti, *"Decarbamoylsaxitoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Clinical Oncology Journal 1. 2: 19–23, 2019.

[257]. A. Heidari, J. Esposito, A. Caissutti, *"Gonyautoxin (GTX) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Clinical Oncology Journal 1. 2: 24–28, 2019.

[258]. A. Heidari, J. Esposito, A. Caissutti, *"Hislrionicotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Drug Delivery Research 1. 1: 01–06, 2019.

[259]. A. Heidari, J. Esposito, A. Caissutti, *"Dihydrokainic Acid Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Drug Delivery Research 1. 1: 07–12, 2019.

[260]. A. Heidari, J. Esposito, A. Caissutti, *"Aflatoxin B1 (AFB1), B2 (AFB2), G1 (AFG1), G2 (AFG2), M1 (AFM1), M2 (AFM2), Q1 (AFQ1) and P1 (AFP1) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Drug Delivery Research 1. 1: 25–32, 2019.

[261]. A. Heidari, J. Esposito, A. Caissutti, *"Mycotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Drug Delivery Research 1. 1: 13–18, 2019.

[262]. A. Heidari, J. Esposito, A. Caissutti, *"Bufotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Drug Delivery Research 1. 1: 19–24, 2019.

[263]. A. Heidari, J. Esposito, A. Caissutti, *"Kainic Acid (Kainite) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Journal of Neurology 1. 2: 02–07, 2019.

[264]. A. Heidari, J. Esposito, A. Caissutti, *"Nereistoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Journal of Neurology 1. 2: 19–24, 2019.

[265]. A. Heidari, J. Esposito, A. Caissutti, *"Spider Toxin and Raventoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Parana Journal of Science and Education. Vol. 5, No. 4, pp. 1–28, 2019.

[266]. A. Heidari, J. Esposito, A. Caissutti, *"Ochratoxin A, Ochratoxin B, Ochratoxin C, Ochratoxin α and Ochratoxin TA Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Drug Delivery Research 1. 2: 03–10, 2019.

[267]. A. Heidari, J. Esposito, A. Caissutti, *"Brevetoxin A and B Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Drug Delivery Research 1. 2: 11–16, 2019.

[268]. A. Heidari, J. Esposito, A. Caissutti, *"Lyngbyatoxin–a Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Drug Delivery Research 1. 2: 23–28, 2019.

[269]. A. Heidari, J. Esposito, A. Caissutti, *"Balraechotoxin (BTX) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Cientific Journal of Neurology 1. 3: 01–05, 2019.

[270]. A. Heidari, J. Esposito, A. Caissutti, *"Hanatoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Int. J. Pharm. Sci. Rev. Res., 57 (1), Pages: 21–32, 2019.

[271]. A. Heidari, J. Esposito, A. Caissutti, *"Neurotoxin and Alpha–Neurotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, J Biomed Sci & Res. 3 (6), 550–563, 2019.

[272]. A. Heidari, J. Esposito, A. Caissutti, *"Antillatoxin (ATX) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure"*, American Journal of Optics and Photonics. Vol. 7, No. 1, pp. 18–27, 2019.

[273]. R. Gobato, M. R. R. Gobato, A. Heidari, *"Calculation by UFF Method of Frequencies and Vibrational Temperatures of the Unit Cell of the Rhodochrosite Crystal"*, International Journal of Advanced Chemistry, 7 (2) 77–81, 2019.

[274]. A. Heidari, J. Esposito, A. Caissutti, *"Analysis of Vibronic–Mode Coupling Structure in Vibrational Spectra of Fuzeon as a 36 Amino Acid Peptide for HIV Therapy beyond the Multi–Dimensional Franck–Condon Integrals Approximation"*, International Journal of Advanced Chemistry, 7 (2) 82–96, 2019.

[275]. A. Heidari, J. Esposito, A. Caissutti, *"Debromoaplysiatoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Applied Chemistry, 2 (1) 17–54, 2019.

[276]. A. Heidari, J. Esposito, A. Caissutti, *"Enterotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, JRL J Sci Technol. vol1–iss2: jst1001, 1–16, 2019.

[277]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, *"Rhodochrosite Optical Indicatrix"*, Peer Res Nest. 1 (3) 1–2, 2019.

[278]. A. Heidari, J. Esposito, A. Caissutti, *"Anthrax Toxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Research & Reviews: Journal of Computational Biology. 8 (2): 23–51, 2019.

[279]. A. Heidari, J. Esposito, A. Caissutti, *"Kalkitoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Can J Biomed Res & Tech. 2 (1): 1–21, 2019.

[280]. A. Heidari, J. Esposito, A. Caissutti, *"Neosaxitoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Clin Case Studie Rep, Volume 2 (3): 1–14, 2019.

[281]. A. Heidari, J. Esposito, A. Caissutti, *"6–Methoxy–8–[[6–Methoxy–8–[[6–Methoxy–2–Methyl–1–(2–Methylpropyl)–3,4–Dihydro–1H–Isoquinolin–7–yl]Oxy]–2–Methyl–1–(2–Methylpropyl)–3,4–Dihydro–1H–Isoquinolin–7–yl]Oxy]–2–Methyl–1–(2–Methylpropyl)–3,4–Dihydro–1H–Isoquinolin–7–ol Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Clin Case Studie Rep, Volume 2 (3): 1–14, 2019.

[282]. A. Heidari, *"Comparison of Synchrotron Radiation and Synchrocyclotron Radiation Performance in Monitoring of Human Cancer Cells, Tissues and Tumors"*, Clin Case Studie Rep, Volume 2 (3): 1–12, 2019.

[283]. A. Heidari, J. Esposito, A. Caissutti, *"Kalkitoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Clin Case Studie Rep, Volume 2 (3): 1–14, 2019.

[284]. A. Heidari, J. Esposito, A. Caissutti, *"Diphtheria Toxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis: A Spectroscopic Study on an Anti–Cancer Drug"*, Clin Case Studie Rep, Volume 2 (3): 1–14, 2019.

[285]. A. Heidari, J. Esposito, A. Caissutti, *"Symbiodinolide Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Clin Case Studie Rep, Volume 2 (3): 1–14, 2019.

[286]. A. Heidari, J. Esposito, A. Caissutti, *"Saxitoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Am J Exp Clin Res. 6 (4): 364–377, 2019.

[287]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, *"Hartree–Fock Methods Analysis Protonated Rhodochrosite Crystal and Potential in the Elimination of Cancer Cells through Synchrotron Radiation"*, Radiation Science and Technology, Vol. 5, No. 3, pp. 27–36, 2019.
[288]. R. Gobato, I. K. K. Dosh, A. Heidari, A. Mitra, M. R. R. Gobato, *"Perspectives on the Elimination of Cancer Cells Using Rhodochrosite Crystal Through Synchrotron Radiation, and Absorption the Tumoral and Non–Tumoral Tissues"*, Arch Biomed Eng & Biotechnol. 3 (2): 1–2, 2019.
[289]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, *"Unrestricted Hartree–Fock Computational Simulation in a Protonated Rhodochrosite Crystal"*, Phys Astron Int J. 3 (6):220–228, 2019.
[290]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Perspectives on Sub–Nanometer Level of Electronic Structure of the Synchrotron with Mendelevium Nanoparticles for Elimination of Human Cancer Cells, Tissues and Tumors Treatment Using Mathematica 12.0"*, Journal of Energy Conservation, Volume 1, Issue 2, Pages 46–73, 2019.
[291]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Simulation of Interaction of Synchrotron Radiation Emission as a Function of the Beam Energy and Bohrium Nanoparticles Using 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment"*, Current Research in Biochemistry and Molecular Biology, 1 (1), 17–44, 2019.
[292]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Investigation of Interaction between Synchrotron Radiation and Thulium Nanoparticles for Human Cancer Cells, Tissues and Tumors Treatment"*, European Journal of Scientific Exploration, Volume 2, Issue 3, Pages 1–8, 2019.
[293]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"The Effectiveness of the Treatment Human Cancer Cells, Tissues and Tumors Using Darmstadtium Nanoparticles and Synchrotron Radiation"*, International Journal of Advanced Engineering and Science, Volume 9, Number 1, Pages 9–39, 2020.
[294]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Using 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment in Simulation of Interaction of Synchrotron Radiation Emission as a Function of the Beam Energy and Uranium Nanoparticles"*, Nano Prog., 1 (2), 1–6, 2019.
[295]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"A New Approach to Interaction between Beam Energy and Erbium Nanoparticles"*, Saudi J Biomed Res, 4 (11): 372–396, 2019.
[296]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Consideration of Energy Functions and Wave Functions of the Synchrotron Radiation and Samarium Nanoparticles Interaction During Human Cancer Cells, Tissues and Tumors Treatment Process"*, Sci. Int. (Lahore), 31 (6), 885–908, 2019.
[297]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"An Outlook on Optothermal Human Cancer Cells, Tissues and Tumors Treatment Using Lanthanum Nanoparticles under Synchrotron Radiation"*, Journal of Materials Physics and Chemistry, Vol. 7, No. 1, 29–45, 2019.
[298]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Effectiveness of Einsteinium Nanoparticles in Optothermal Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Journal of Analytical Oncology, 8, 1, 43–62, 2019.
[299]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Study of Relation between Synchrotron Radiation and Dubnium Nanoparticles in Human Cancer Cells, Tissues and Tumors Treatment Process"*, Int. Res. J. Applied Sci., Volume 1, Number 4, Pages 1–20, 2019.
[300]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"A Novel Prospect on Interaction of Synchrotron Radiation Emission and Europium Nanoparticles for Human Cancer Cells, Tissues and Tumors Treatment"*, European Modern Studies Journal, 3 (5), 11–24, 2019.
[301]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Advantages, Effectiveness and Efficiency of Using Neodymium Nanoparticles by 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, International Journal of Advanced Chemistry, 7 (2) 119–135, 2019.
[302]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Role and Applications of Promethium Nanoparticles in Human Cancer Cells, Tissues and Tumors Treatment"*, Scientific Modelling and Research, 4 (1): 8–14, 2019.
[303]. A. Heidari, J. Esposito, A. Caissutti, *"Maitotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis: A Spectroscopic Study on an Anti–Cancer Drug"*, Glob Imaging Insights 4 (2), 1–13, 2019.
[304]. A. Heidari, J. Esposito, A. Caissutti, *"Biotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Glob Imaging Insights 4 (2), 1–14, 2019.
[305]. A. Heidari, J. Esposito, A. Caissutti, *"Time–Resolved Resonance FT–IR and Raman Spectroscopy and Density Functional Theory Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra of Nanopolypeptide Macromolecule beyond the Multi–Dimensional Franck–Condon Integrals Approximation and Density Matrix Method"*, Glob Imaging Insights 4 (2), 1–14, 2019.
[306]. A. Heidari, J. Esposito, A. Caissutti, *"Cholera Toxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Glob Imaging Insights 4 (2), 1–14, 2019.
[307]. A. Heidari, J. Esposito, A. Caissutti, *"Nodularin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Glob Imaging Insights 4 (2), 1–14, 2019.
[308]. A. Heidari, J. Esposito, A. Caissutti, *"Cangitoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Glob Imaging Insights 4 (2), 1–13, 2019.
[309]. A. Heidari, J. Esposito, A. Caissutti, *"Ciguatoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Glob Imaging Insights 4 (2), 1–14, 2019.
[310]. A. Heidari, J. Esposito, A. Caissutti, *"Brevetoxin (a) and (b) Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis: A Spectroscopic Study on an Anti–HIV Drug"*, Cientific Drug Delivery Research 1 (2), 11–16, 2019.
[311]. A. Heidari, J. Esposito, A. Caissutti, *"Cobrotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Trends in Res 3 (1), 1–13, 2019.
[312]. A. Heidari, J. Esposito, A. Caissutti, *"Cylindrospermopsin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Trends in Res 3 (1), 1–14, 2019.
[313]. A. Heidari, J. Esposito, A. Caissutti, *"Anthrax Toxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis"*, Trends in Res 3 (1), 1–14, 2019.
[314]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Investigation of Moscovium Nanoparticles as Anti–Cancer Nano Drugs for Human Cancer Cells, Tissues and Tumors Treatment"*, Elixir Appl. Chem. 137A, 53943–53963, 2019.
[315]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Study of Function of the Beam Energy and Holmium Nanoparticles Using 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment"*, European Journal of Advances in Engineering and Technology, 6 (12): 34–62, 2019.
[316]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Human Cancer Cells, Tissues and Tumors Treatment Using Dysprosium Nanoparticles"*, Asian J. Mat. Chem. 4 (3–4), pp. 47–51, 2019.
[317]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Simulation of Interaction of Synchrotron Radiation Emission as a Function of the Beam Energy and Plutonium Nanoparticles Using 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment"*, J. Cancer Research and Cellular Therapeutics, Volume 2 (4), Pages 1–19, 2019.
[318]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Study of Gadolinium Nanoparticles Delivery Effect on Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Applied Chemistry, 2 (2) 55–97, 2019.

[319]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, R. Gobato, *"Pros and Cons of Livermorium Nanoparticles for Human Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation Using Mathematica 12.0"*, Parana Journal of Science and Education (PJSE)–v. 6, n. 1, (1–31) January 11, 2020.

[320]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, *"Challenging Giants. Hartree–Fock Methods Analysis Protonated Rhodochrosite Crystal and Potential in the Elimination of Cancer Cells Through Synchrotron Radiation"*, Biomed J Sci & Tech Res 25 (1), pp. 18843–18848, 2020.

[321]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Simulation of Interaction between Ytterbium Nanoparticles and Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 5, Pages 1–18, 2019.

[322]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Modelling of Interaction between Curium Nanoparticles and Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 5, Pages 1–18, 2019.

[323]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Study of Berkelium Nanoparticles Delivery Effectiveness and Efficiency on Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 5, Pages 1–18, 2019.

[324]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Fermium Nanoparticles Delivery Mechanism in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 5, Pages 1–17, 2019.

[325]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Advantages of Lawrencium Nanoparticles for Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 5, Pages 1–18, 2019.

[326]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Pros and Cons of the Roentgenium Nanoparticles for Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 5, Pages 1–17, 2019.

[327]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Imagery of Flerovium Nanoparticles Delivery Process in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 5, Pages 1–18, 2019.

[328]. A. Heidari, J. Esposito, A. Caissutti, *"Maitotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis: A Spectroscopic Study on an Anti–Gum Cancer Drug"*, Dent Oral Maxillofac Res, Volume 5, Issue 5, Pages 1–16, 2019.

[329]. A. Heidari, J. Esposito, A. Caissutti, *"Batrachotoxin Time–Resolved Absorption and Resonance FT–IR and Raman Biospectroscopy and Density Functional Theory (DFT) Investigation of Vibronic–Mode Coupling Structure in Vibrational Spectra Analysis: A Spectroscopic Study on an Anti–Gum Cancer Drug"*, Dent Oral Maxillofac Res, Volume 5, Issue 6, Pages 1–16, 2019.

[330]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Hafnium Nanoparticles and Their Roles and Applications in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 6, Pages 1–17, 2019.

[331]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Dramaturgy of Technetium Nanoparticles Delivery Process in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 6, Pages 1–19, 2019.

[332]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Computational Approach to Interaction between Synchrotron Radiation Emission as a Function of the Beam Energy and Ruthenium Nanoparticles in Human Gum Cancer Cells, Tissues and Tumors Treatment"*, Dent Oral Maxillofac Res, Volume 5, Issue 6, Pages 1–18, 2019.

[333]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Appearance Check of Rhodium Nanoparticles Delivery Trend in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 6, Pages 1–19, 2019.

[334]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Orientation Rhenium Nanoparticles Delivery Target on Human Gum Cancer Cells, Tissues and Tumors under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 6, Pages 1–18, 2019.

[335]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Drug Delivery Systems (DDSs) of Osmium Nanoparticles on Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 6, Pages 1–18, 2019.

[336]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Development of Successful Formulations for Oral Drug Delivery Concepts of Iridium Nanoparticles in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 5, Issue 6, Pages 1–19, 2019.

[337]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Classification of Drug Delivery System of Niobium Nanoparticles in Human Gum Cancer Gum Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 1, Pages 1–17, 2020.

[338]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Types of Drug Delivery System Slideshare of Protactinium Nanoparticles in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 1, Pages 1–17, 2020.

[339]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"New Drug Delivery System in Pharmaceutics of Neptunium Nanoparticles in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 1, Pages 1–18, 2020.

[340]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Drug Delivery Describes the Method and Approach to Delivering Drugs or Pharmaceuticals and Other Xenobiotics to Their Site of Action within Radon Nanoparticles Effects on Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 1, Pages 1–18, 2020.

[341]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Applications of Oganesson Nanoparticles in Increasing Rapidly with the Promise of Targeted and Efficient Drug Delivery in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 1, Pages 1–19, 2020.

[342]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Wheeler–Feynman Time– Symmetric Study of Effectiveness and Efficiency of Terbium Nanoparticles Delivery Mechanism in Human Cancer Cells, Tissues and Tumors under Synchrotron Radiation"*, Frontiers Drug Chemistry Clinical Res, Volume 3, Issue 1, Pages 1–13, 2020.

[343]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Simulation of Interaction of Synchrotron Radiation Emission as a Function of the Beam Energy and Californium Nanoparticles Using 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment"*, Oncol Res: Open Acce. 1 (1): 1–17, 2019.

[344]. A. Heidari, *"Market Analysis of Glycobiology and Glycochemistry 2020"*, J Genet Disor Genet Rep. 8: 1, 2019.

[345]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Synchrotron Radiation Emission as a Function of the Beam Energy and Thorium Nanoparticles"*, International Medicine; 2 (1): 67–73, 2020.

[346]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Stochastic Study of Relativistic Lutetium Nanoparticles Moving in a Quantum Field of Synchrotron Radiation Emission When Charged Lutetium Nanoparticles Are Accelerated Radially in Human Cancer Cells, Tissues and Tumors Treatment"*, Frontiers Drug Chemistry Clinical Res, Volume 3, Issue 1, Pages 1–15, 2020.

[347]. A. Heidari, A. Caissutti, M. Henderson, K. Schmitt, E. Besana, J. Esposito, V. Peterson, *"Recent New Results and Achievements of California South University (CSU) BioSpectroscopy Core Research Laboratory for COVID–19 or 2019–nCoV Treatment: Diagnosis and Treatment Methodologies of "Coronavirus"*, Journal of Current Viruses and Treatment Methodologies, Vol–1, Issue 1, Pg. no. 3–41, 2020.

[348]. A. Heidari, *"Awards 2020 on Glycobiology"*, J Mol Biol Methods. 2: 2, 2019.

[349]. A. Heidari, *"Young Research Forum–Young Scientist Awards at Glycobiology 2020"*, J Genet Disor Genet Rep. 8: 2, 2019.

[350]. A. Heidari, *"2020 Awards on 2nd World Congress on Neurology"*, J Neurol Neurophysiol. 10: 6, 2019.

[351]. A. Heidari, *"2020 Conference Announcement on 2nd World Congress on Neurology"*, J Neurol Neurophysiol. 10: 6, 2019.

[352]. A. Heidari, *"Awards for Best Research: Gastroenterology and Digestive Disorders"*, J. Med. Med. Sci. Vol. 10, No. 2, 2019.

[353]. A. Heidari, *"Market Analysis: Gastroenterology and Digestive Disorders"*, J. Med. Med. Sci. Vol. 10, No. 2, 2019.

[354]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Study of Human Cancer Cells, Tissues and Tumors Treatment Through Interaction Between Synchrotron Radiation and Cerium Nanoparticles"*, Sci Lett. 8 (1): 7–17, 2020.

[355]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Study of Characteristic Polarization and the Frequencies Generated in Interaction of Synchrotron Radiation Emission and Actinium Nanoparticles in Human Cancer Cells, Tissues and Tumors Treatment Process"*, Parana Journal of Science and Education (PJSE)–v. 6, n.3, (13–47) April 15, 2020.

[356]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Californium Nanoparticles and Human Cancer Treatment: Commemorating the 100th (1920–2020) Anniversary of the California South University (CSU)"*, Parana Journal of Science and Education (PJSE)–v. 6, n. 3, (48–83) April 15, 2020.
[357]. A. Heidari, *"2020 Conference Announcement on Materials Chemistry"*, J Polym Sci Appl. 3: 1, 2019.
[358]. A. Heidari, *"Announcement–Materials Chemistry–2020"*, J Polym Sci Appl. 3: 1, 2019.
[359]. A. Heidari, *"Awards 2020 of 19th World Congress on Materials Chemistry"*, J Polym Sci Appl. 3: 1, 2019.
[360]. A. Heidari, *"Awards at Materials Chemistry & Science Conference 2020"*, J Polym Sci Appl. 3: 1, 2019.
[361]. A. Heidari, *"Market Analysis of 19th World Congress on Materials Chemistry"*, J Polym Sci Appl. 3: 1, 2019.
[362]. A. Heidari, *"Past Conference Report on Materials Chemistry"*, J Polym Sci Appl. 3: 1, 2019.
[363]. A. Heidari, *"Market Analysis"*, J Polym Sci Appl. 3: 4, 2019.
[364]. A. Heidari, *"17th International Conference Materials Science and Engineering"*, J Electr Eng Electron Technol. 8: 3, 2019.
[365]. A. Heidari, *"16th International Conference on Advance Material & Nanotechnology"*, J Electr Eng Electron Technol. 8: 4, 2019.
[366]. A. Heidari, *"Young Research Forum on Laser Advanced Materials Processing"*, J Electr Eng Electron Technol. 8: 4, 2019.
[367]. A. Heidari, *"Market Analysis of Materials Science and Engineering"*, Biomater Med Appl. 3: 1, 2019.
[368]. A. Heidari, *"Nanotechnology 2020 Conference Announcement: Nanotechnology and Nano Engineering"*, Biomater Med Appl. 3: 1, 2019.
[369]. A. Heidari, *"17th International Conference on Material Science and Engineering"*, Biomater Med Appl. 3: 2, 2019.
[370]. A. Heidari, *"Young Scientist Awards of Pharmacovigilance 2020"*, J Pharm Drug Deliv Res. 8: 1, 2019.
[371]. A. Heidari, *"Awards 2020 on Pharmacovigilence & Drug Safety"*, J Pharm Drug Deliv Res. 8: 2, 2019.
[372]. A. Heidari, *"2020 Conference Announcement of World Congress on Glycobiology & Glycochemistry"*, J Cell Biol Res Ther. 8: 3, 2019.
[373]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"A Chemical Review on Cancer Immunology and Immunodeficiency"*, International Journal of Advanced Chemistry, 8 (1): 27–43, 2020.
[374]. A. Heidari, V. Peterson, *"A Comprehensive Review on Functional Roles of Cancerous Immunoglobulins and Potential Applications in Cancer Immunodiagnostics and Immunotherapy"*, International Journal of Advanced Chemistry, 8 (1): 44–58, 2020.
[375]. A. Heidari, V. Peterson, *"An Encyclopedic Review on Stereotactic Hypofractionated Radiotherapy, Re–Irradiation, and Cancer Genome Research"*, International Journal of Advanced Chemistry, 8 (1): 59–74, 2020.
[376]. A. Heidari, V. Peterson, *"A Pervasive Review on Biomarker in Cervical Intraepithelial Lesions and Carcinoma"*, International Journal of Advanced Chemistry, 8 (1): 75–88, 2020.
[377]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Hereditary Immunity in Cancer"*, International Journal of Advanced Chemistry, 8 (1): 94–110, 2020.
[378]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, I. K. K. Dosh, *"Secret Messages in Enigmatic Playful Texts"*, ABEB, 4 (2): 1–10, 2020.
[379]. A. Heidari, R. Gobato, M. R. R. Gobato, A. Mitra, *"Hartree–Fock Methods Analysis Protonated Rhodochrosite Crystal and Potential in the Elimination of Cancer Cells through Synchrotron Radiation Using Small–Angle X–Ray Scattering (SAXS), Ultra–Small Angle X–Ray Scattering (USAXS), Fluctuation X–Ray Scattering (FXS), Wide–Angle X–Ray Scattering (WAXS), Grazing–Incidence Small–Angle X–Ray Scattering (GISAXS), Grazing–Incidence Wide–Angle X–Ray Scattering (GIWAXS) and Small–Angle Neutron Scattering (SANS)"*, AJAN, 1 (1): 1–8, 2020.
[380]. A. Heidari, R. Gobato, I. K. K. Dosh, A. Mitra, M. R. R. Gobato, *"Single Layer Bioinorganic Membrane Using the Kurumi Molecule"*, AJAN, 1 (1): 16–20, 2020.
[381]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Study of Pulsed Time Structure of Nobelium Nanoparticles in Human Cancer Cells, Tissues and Tumors Treatment Process Which Covers from Microwaves to Hard X–Rays"*, Dent Oral Maxillofac Res, Volume 6, Issue 2, Pages 1–17, 2020.
[382]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Abraham–Lorentz–Dirac Force Approach to Interaction of Synchrotron Radiation Emission as a Function of the Beam Energy and Rutherfordium Nanoparticles Using 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment"*, Dent Oral Maxillofac Res, Volume 6, Issue 2, Pages 1–17, 2020.
[383]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Liénard–Wiechert Field Study of Interaction of Synchrotron Radiation Emission as a Function of the Beam Energy and Seaborgium Nanoparticles Using 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment"*, Dent Oral Maxillofac Res, Volume 6, Issue 2, Pages 1–17, 2020.
[384]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Lorenz Gauge, Electric and Magnetic Fields Study of Interaction of Gravitationally Accelerating Ions through the Super Contorted 'Tubular' Polar Areas of Magnetic Fields and Hassium Nanoparticles"*, Dent Oral Maxillofac Res, Volume 6, Issue 2, Pages 1–18, 2020.
[385]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Scalar Abraham–Lorentz–Dirac–Langevin Equation, Radiation Reaction and Vacuum Fluctuations Simulation of Interaction of Synchrotron Radiation Emission as a Function of the Beam Energy and Tennessine Nanoparticles Using 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment"*, Dent Oral Maxillofac Res, Volume 6, Issue 2, Pages 1–17, 2020.
[386]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"The Dynamics and Quantum Mechanics of an Interaction of Synchrotron Radiation Emission as a Function of the Beam Energy and Meitnerium Nanoparticles Using 3D Finite Element Method (FEM) as an Optothermal Human Cancer Cells, Tissues and Tumors Treatment"*, Dent Oral Maxillofac Res, Volume 6, Issue 2, Pages 1–17, 2020.
[387]. A. Heidari, *"Future Advanced Study of Thin Layers of DNA/RNA Hybrid Molecule Nanostructure"*, J Mol Nanot Nanom 2 (1): 110–116, 2020.
[388]. A. Heidari, *"Market Analysis–Artificial Intelligence 2020"*, J Comput Eng Inf Technol. 8: 4, 2019.
[389]. A. Heidari, *"Conference Announcement on Artificial Intelligence"*, J Appl Bioinformat Computat Biol. 8: 2, 2019.
[390]. A. Heidari, *"Awards on Artificial Intelligence and Cognitive Healthcare"*, J Appl Bioinformat Computat Biol. 8: 2, 2019.
[391]. A. Heidari, *"Study of Thin Layers of Cadmium Oxide (CdO) Nanostructure"*, Nano Prog., 2 (3), 1–10, 2020.
[392]. A. Heidari, *"Young Researchers Awards: Young Scientist Awards & Best Poster Awards at Environmental Chemistry and Engineering Conference"*, J Civil Environ Eng. 9: 3, 2019.
[393]. A. Heidari, *"2020 Market Analysis of Environmental Chemistry and Engineering Conference August 19–20, 2020 | Paris, France"*, J Civil Environ Eng. 9: 4, 2019.
[394]. A. Heidari, *"2020 Awards for Environmental Chemistry and Engineering Conference August 19–20, 2020 | Paris, France"*, J Civil Environ Eng. 9: 4, 2019.
[395]. A. Heidari, *"Past Conference Report of Environmental Chemistry and Engineering Conference"*, J Civil Environ Eng. 9: 4, 2019.
[396]. A. Heidari, *"Awards Announcement on World Congress on Glycobiology & Glycochemistry"*, J Appl Microbiol Biochem. Vol. 3 No. 3, 2019.
[397]. A. Heidari, *"Market Analysis of Glycobiology and Glycochemistry 2020"*, J Appl Microbiol Biochem. Vol. 3 No. 3, 2019.
[398]. A. Heidari, *"Young Research Forum–Young Scientist Awards: Geriatric–Health–2020"*, J Aging Geriatr Med. 3: 3, 2019.
[399]. A. Heidari, *"Young Scientist Awards at Tissue Engineering 2020 for the Best Researches in Tissue Engineering & Regenerative Medicine"*, J Aging Geriatr Med. 3: 3, 2019.
[400]. A. Heidari, *"Effect of Solvent on Non–Linear Synchrotron Absorption of Multi–Walled Carbon Nanotubes (MWCNTs) with DNA/RNA Function"*, Sci. Int. (Lahore), 32 (3), 291–315, 2020.
[401]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Study of Copernicium Nanoparticles Delivery Process in Human Cancer Cells, Tissues and Tumors Under Gravitationally Accelerating Ions Through the Super Contorted 'Tubular' Polar Areas of Magnetic Fields"*, Adv. Sci. Eng. Med. 12 (5), 571–575, 2020.
[402]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Specific and Selective Targeting Human Cancer Cells, Tissues and Tumors with Seaborgium Nanoparticles as Carriers and Nano–Enhanced Drug Delivery and Therapeutic in Cancer Treatment and Beyond under Synchrotron Radiation"*, Parana Journal of Science and Education. Vol. 6, No. 4, pp. 8–50, 2020.
[403]. A. Heidari, *"Enhancement of Visible Synchrotron Absorption in Cadmium Oxide (CdO) Nanoparticles Thin Layer Using Plasmonic Nanostructures: A Two–Dimensional (2D) Simulation"*, Sci. Int. (Lahore), 32 (3), 329–354, 2020.

[404]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Nanomedicines Based Americium Nanoparticles Drug Delivery Systems for Anti–Cancer Targeting and Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 3, Pages 1–18, 2020.

[405]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Study of Exclusively Focused on Translational Aspects of Praseodymium Nanoparticles Drug Delivery under Super Contorted Tubular Polar Areas of Magnetic Fields as Optothermal Human Gum Cancer Cells, Tissues and Tumors Treatment Technique under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 3, Pages 1–17, 2020.

[406]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Research Activities on Novel Drug Delivery Systems of Astatine Nanoparticles in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 3, Pages 1–17, 2020.

[407]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Unprecedented Progresses of Biomedical Nanotechnology during Conventional Smart Drug Delivery Systems (SDDSs) of Francium Nanoparticles in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 3, Pages 1–20, 2020.

[408]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Non–Invasive Image–Guided Targeted Drug Delivery of Radium Nanoparticles in Human Gum Cancer Cells, Tissues and Tumors Treatment under Synchrotron Radiation"*, Dent Oral Maxillofac Res, Volume 6, Issue 3, Pages 1–20, 2020.

[409]. A. Heidari, *"A Novel Approach to Reduce Toxicities and to Improve Bioavailabilities of DNA/RNA of Human Cancer Cells–Containing Cocaine (Coke), Lysergide (Lysergic Acid Diethyl Amide or LSD), Δ9–Tetrahydrocannabinol (THC) [(–)–trans–Δ⁹–Tetrahydrocannabinol], Theobromine (Xantheose), Caffeine, Aspartame (APM) (NutraSweet) and Zidovudine (ZDV) [Azidothymidine (AZT)]. as Anti–Cancer Nano Drugs by Coassembly of Dual Anti–Cancer Nano Drugs to Inhibit DNA/RNA of Human Cancer Cells Drug Resistance"*, Ely J Mat Sci Tech 1 (1): 1–2, 2018.

[410]. A. Heidari, *"Investigation of Prevention, Protection and Treatment of Lopinavir Effectiveness on Coronavirus Disease–2019 (COVID–19) Infection Using Fourier Transform Raman (FT–Raman) Biospectroscopy"*, AJAN, 1 (3): 36–60, 2020.

[411]. A. Heidari, *"Stimulated FT–IR Biospectroscopic Study of Lopinavir Protective and Therapeutic Effect as a Potent Drug on Coronavirus Disease–2019 (COVID–19) Infection"*, AJAN, 1 (3): 61–85, 2020.

[412]. A. Heidari, R. Gobato, *"The Comparison of Active Cooperative and Traditional Teaching Methods in Nanochemistry Students' Satisfaction and Learning of Clinical Nanochemistry"*, AJAN, 1 (3): 86–112, 2020.

[413]. A. Heidari, R. Gobato, *"Study of Nanochemistry Students' Satisfaction and Learning with Blended Education: An Action Research Study"*, AJAN, 1 (3): 113–138, 2020.

[414]. A. Heidari, *"Study of Stimulated Raman Biospectroscopy in Lopinavir as a Potent Drug against Coronavirus Disease–2019 (COVID–19) Infection"*, AJAN, 1 (3): 139–163, 2020.

[415]. A. Heidari, *"In Situ Monitoring of Ritonavir Protective and Therapeutic Influence as a Potent Drug on Coronavirus Disease–2019 (COVID–19) Infection by Attenuated Total Reflectance–Fourier Transform Infrared (ATR–FTIR Fingerprint) Biospectroscopy"*, Saudi J Biomed Res, 5 (6): 128–151, 2020.

[416]. A. Heidari, *"A Stimulated FT–IR Biospectroscopic Study of Ritonavir Protective and Therapeutic Effect as a Potent Drug on Coronavirus Disease–2019 (COVID–19) Infection"*, Saudi J Biomed Res, 5 (6): 152–174, 2020.

[417]. A. Heidari, *"Application of Single–Walled Carbon Nanotubes (SWCNT) in the Production of Glucose Biosensors and Improving Their Performance Using Gold Colloidal Nanoparticles and Usage of Polyaniline Nanostructure–Based Biosensors for Detecting Glucose and Cholesterol"*, Malaysian Journal of Chemistry, Vol. 22 (2), 121–162, 2020.

[418]. A. Heidari, *"In Situ Monitoring of Lopinavir Protective and Therapeutic Influence as a Potent Drug on Coronavirus Disease–2019 (COVID–19) Infection by Attenuated Total Reflectance–Fourier Transform Infrared (ATR–FTIR Fingerprint) Biospectroscopy"*, Parana Journal of Science and Education (PJSE), Vol. 6, No. 5, pp. 29–60, 2020.

[419]. A. Heidari, K. Schmitt, M. Henderson, E. Besana, *"Modelling and Simulation of Interaction of Magnetobremsstrahlung Radiation and Nihonium Nanoparticles Using Bending Magnets, Undulators and/or Wigglers in Storage Rings for Human Cancer Cells, Tissues and Tumors Treatment"*, Sci. Int. (Lahore), 32 (4), 361–385, 2020.

[420]. A. Heidari, *"Oncological Study of Thin Layers of Imatinib Molecule Nanostructure for Chronic Myelogenous Leukemia (CML), Acute Lymphocytic Leukemia (ALL), Philadelphia Chromosome–Positive (Ph+), Gastrointestinal Stromal Tumors (GIST), Hypereosinophilic Syndrome (HES), Chronic Eosinophilic Leukemia (CEL), Systemic Mastocytosis and Myelodysplastic Syndrome Treatment"*, Adv. Sci. Eng. Med. 12 (6), 753–760, 2020.

[421]. A. Heidari, *"Infrastructure of Synchrotronic Biosensor Based on Semiconductor Device Fabrication for Tracking, Monitoring, Imaging, Measuring, Diagnosing and Detecting Cancer Cells"*, Semiconductor Science and Information Devices, Volume 01, Issue 02, Pages 29–57, 2019.

[422]. A. Heidari, *"In Situ Characterization of Lopinavir by ATR–FTIR Biospectroscopy"*, Computational Chemistry, 8 (3), 27–42, 2020.

[423]. A. Heidari, *"Study of Stimulated Raman Biospectroscopy in Ritonavir as a Potent Drug against Coronavirus Disease–2019 (COVID–19) Infection"*, Saudi J Biomed Res, 5 (7): 188–211, 2020.

[424]. A. Heidari, *"Investigation of Prevention, Protection and Treatment of Ritonavir Effectiveness on Coronavirus Disease–2019 (COVID–19) Infection Using Fourier Transform Raman (FT–Raman) Biospectroscopy"*, Saudi J Biomed Res, 5 (7): 212–235, 2020.

[425]. R. Gobato, A. Heidari, *"Cyclone Bomb Hits Southern Brazil in Mid–Winter 2020"*, Journal of Atmospheric Science Research, Volume 03, Issue 03, Pages 8–12, 2020.

[426]. A. Heidari, *"A Biospectroscopic and Bioimaging Analysis of Imatinib Nanoparticles Aggregation Linked to DNA/RNA by Bcr–Abl Tyrosine–Kinase Inhibitors (TKI) with Various Chain Length"*, Sci. Int. (Lahore), 32 (4), 459–482, 2020.

[427]. A. Heidari, *"Future Perspectives and Shaping Trends in Gastroenterology and Digestive Disorders"*, J Health Med Res 1 (1): 47–48, 2019.

[428]. A. Heidari, *"Latest Research Works and Innovations in the Field of Oncology"*, J Carcinog Mutagen, Vol. 11, Iss. 4, No: e126, 2020.

[429]. A. Heidari, *"Investigating the Effect of Synchrotron Removal from Raman Spectra for Quantitative Analysis of Cancer Tissues"*, Current Research in Cytology and Histology, 1 (1): 29–35, 2020.

[430]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, *"Potential in the Elimination of Cancer Cells through Synchrotron Radiation: A Hartree–Fock Methods Analysis Protonated Rhodochrosite Crystal"*, Dent Oral Maxillofac Res, Volume 6, Issue 4, Pages 1–8, 2020.

[431]. R. Gobato, M. R. R. Gobato, A. Heidari, A. Mitra, *"Infrared Spectrum, Apt Charges and Mulliken of Hartreefock Methods Protonated Rhodochrosite Crystal"*, Dent Oral Maxillofac Res, Volume 6, Issue 4, Pages 1–8, 2020.

[432]. R. Gobato, I. K. K. Dosh, A. Heidari, A. Mitra, M. R. R. Gobato, *"A Novel and Exquisite Approach to Single Layer Bioinorganic Membranes"*, Dent Oral Maxillofac Res, Volume 6, Issue 4, Pages 1–4, 2020.

[433]. A. Heidari, *"Manufacture of Synchrotronic Biosensor Using Os–Pd/HfC Nanocomposite for Tracking, Monitoring, Imaging, Measuring, Diagnosing and Detecting Cancer Cells"*, Journal of Clinical and Translational Oncology, 1 (1): 20–26, 2020.

[434]. A. Heidari, *"Role and Applications of Synchrotron Removal from Raman Spectra for Quantitative Analysis of Cancer Tissues"*, Aswan University Journal of Environmental Studies (AUJES), Vol. 1, No. 1, pp. 57–96, 2020.

[435]. A. Heidari, *"Investigation of Role and Applications of Polymeric Stimuli–Responsive Nanocomposite Materials as Biomolecules for Cancer Targeted in Anti–Cancer Nano Drugs Delivery Agents and Systems"*, Parana Journal of Science and Education (PJSE), Vol. 6, No. 9, pp. 39–74, 2020.

[436]. R. Gobato, A. Heidari, A. Mitra, M. R. R. Gobato, *"Vortex Cotes's Spiral in an Extratropical Cyclone in the Southern Coast of Brazil"*, Archives in Biomedical Engineering & Biotechnology, Volume 4, Issue 5, Pages 1–4, 2020.

[437]. R. Gobato, A. Heidari, *"Vortex Hits Southern Brazil in 2020"*, J Cur Tre Phy Res App, Volume 1, Issue 2, Pages 109–112, 2020.

[438]. A. Heidari, *"Synthesis of Fructose Biosensors and Progressing Their Efficiency Using Californium Colloidal Nanoparticles for Detecting Fructose and Triglycerides"*, Adv. Sci. Eng. Med. 12 (8), 1002–1017, 2020.

[439]. R. Gobato, A. Heidari, A. Mitra, M. R. R. Gobato, *"Cotes's Spiral Vortex in Extratropical Cyclone Bomb South Atlantic Oceans"*, Aswan University Journal of Environmental Studies (AUJES), Vol. 1, No. 2, pp. 147–156, 2020.

[440]. A. Heidari, *"Young Researcher Forum for 2nd World Congress on Neurology"*, J Neurol Neurophysiol, 10: 4, 2019.

[441]. A. Heidari, *"World Congress on Health and Medical Science"*, Journal of Emerging Diseases and Preventive Medicine, Volume 3, Issue 4, Page 01, 2020.

[442]. A. Heidari, *"Scientific Challenges and Recent Advancements of Dermatology and Cosmetology"*, J Clin Exp Pathol, Volume 3, Issue 9, 2019.
[443]. R. Gobato, A. Heidari, A. Mitra, *"Bioinorganic Membrane Using Kurumi, A New Liquid Crystal"*, Sumerianz Journal of Biotechnology, Vol. 4, No. 1, pp. 4–7, 2021.
[444]. A. Heidari, *"A Stimulated FT–IR Biospectroscopic Study of Lopinavir Protective and Therapeutic Effect as a Potent Drug on Coronavirus Disease–2019 (COVID–19) Infection"*, Parana Journal of Science and Education (PJSE)–v. 7, n. 2, (1–33) March 1, 2021.
[445]. A. Heidari, *"Simulation of the Variations of Surface Synchrotron Resonance Spectrum of Arranged Cadmium Oxide (CdO) Nanoparticles over Cancer Tissues Matrix with Size and Distance"*, Parana Journal of Science and Education (PJSE)–v. 7, n. 2, (34–67) March 1, 2021.
[446]. A. Heidari, R. Gobato, *"Spherical Paramagnetic Contribution to Shielding Tensor Analysis of Nuclear Magnetic Resonance Signals in Gum Cancer Cells, Tissues and Tumors"*, Dent Oral Maxillofac Res, Volume 6, Issue 5, Pages 1–2, 2020.
[447]. A. Heidari, R. Gobato, *"Exact NMR Simulation of Anti–Cancer Nano Drug–DNA/RNA Complexes in Gum Cancer Cells Spin Systems Using Tensor Train Formalism"*, Dent Oral Maxillofac Res, Volume 6, Issue 5, Pages 1–2, 2020.
[448]. A. Heidari, R. Gobato, *"The Anti–Cancer Nano Drug Delivery 13C–Edited/13C–Filtered Transferred Dynamic 15N{1H} NOE Measurements for Studying DNA/RNA Interactions with Short Non–Linear Motifs: A Modern Tool for Studying DNA/RNA Dynamics in Gum Cancer Cells"*, Dent Oral Maxillofac Res, Volume 6, Issue 5, Pages 1–2, 2020.
[449]. A. Heidari, R. Gobato, *"DNA/RNA of Gum Cancer Cells—Anti–Cancer Nano Drugs Ligands Structure Determination with the Two–Dimensional NMR Molecular Line Shape Analysis of Single, Multiple, Zero and Double Quantum Correlation Experiments"*, Dent Oral Maxillofac Res, Volume 6, Issue 5, Pages 1–3, 2020.
[450]. A. Heidari, R. Gobato, *"Investigation of the Internal Structure and Dynamics of Gum Cancer Cells, Tissues and Tumors by 13C–NMR Spectra of DNA/RNA of Gum Cancer Cells as an Essential Structural Tool for Integrative Studies of Gum Cancer Cells Development"*, Dent Oral Maxillofac Res, Volume 6, Issue 6, Pages 1–3, 2020.
[451]. A. Heidari, R. Gobato, *"NMR and Molecular Dynamics Studies Combined to Anti–Cancer Nano Drugs and DNA/RNA Interactions in Gum Cancer Cells and Their Modulations with Resistance Mutations"*, Dent Oral Maxillofac Res, Volume 6, Issue 6, Pages 1–2, 2020.
[452]. A. Heidari, R. Gobato, *"Advanced Isotopic Labeling for the NMR Investigation of Challenging DNA/RNA of Gum Cancer Cells and Anti–Cancer Nano Drugs for Production of Isotope–Labeled DNA/RNA in Gum Cancer Cells for NMR Spectroscopy"*, Dent Oral Maxillofac Res, Volume 6, Issue 6, Pages 1–3, 2020.
[453]. A. Heidari, R. Gobato, *"Simultaneous Detection of Intra– and Inter–Molecular Paramagnetic Relaxation Enhancements in DNA/RNA of Gum Cancer Cells–Anti–Cancer Nano Drugs Complexes"*, Dent Oral Maxillofac Res, Volume 6, Issue 6, Pages 1–2, 2020.
[454]. A. Heidari, R. Gobato, *"Impact of DNA/RNA Self–Alignment in a Strong Magnetic Field on the Interpretation of Indirect Spin–Spin Interactions Using NMR Line Shape Analysis of a Multi–State DNA/RNA Ligand Binding Mechanism in Gum Cancer Cells"*, Dent Oral Maxillofac Res, Volume 6, Issue 6, Pages 1–2, 2020.
[455]. A. Heidari, R. Gobato, *"Application of Anti–Cancer Nano Drugs Particles (ACNDP) to NMR Characterization of Viral Gum Cancer Cell Membrane DNA/RNA Interactions for Extracting DNA/RNA Dynamics Information from Overlapped NMR Signals Using Relaxation Dispersion Difference NMR Spectroscopy"*, Dent Oral Maxillofac Res, Volume 6, Issue 6, Pages 1–2, 2020.
[456]. A. Heidari, R. Gobato, *"Diagnosis of Gum Cancer Cells from DNA/RNA Using Database Mining and Support Vector Regression through High Resolution 4D HPCH Experiment for Sequential Assignment of 13C–Labeled DNAs/RNAs in Gum Cancer Cells"*, Dent Oral Maxillofac Res, Volume 6, Issue 6, Pages 1–2, 2020.
[457]. A. Heidari, R. Gobato, *"New Opportunities for Tensor–Free Calculations of Residual Dipolar Couplings for the Study of Dynamic Nuclear Polarization of Nucleic Acids with Endogenously Bound Manganese in Gum Cancer Cells"*, Dent Oral Maxillofac Res, Volume 6, Issue 6, Pages 1–2, 2020.
[458]. A. Heidari, *"Pros and Cons Controversy on Synchrotronic Biosensor Using Os–Pd/HfC Nanocomposite for Tracking, Monitoring, Imaging, Measuring, Diagnosing and Detecting Cancer Cells, Tissues and Tumors"*, Indones. J. Cancer Chemoprevent., Volume 12, Number 1, Pages 1–10, 2021.
[459]. R. Gobato, A. Heidari, L. F. Valverde, *"ACTG Based on Silicon Getting News Structures Asi, Csi, Tsi and Gsi"*, Arch Biomed Eng & Biotechnol. 5 (3): 1–2, 2021.
[460]. A. Heidari, R. Gobato, *"A Biospectroscopic Assignment Technique for Gum Cancer Cell Membrane DNA/RNA Reconstituted in Magnetically Aligned Gum Cancer Cells for Solid–State NMR Analysis of Gum Cancer Cell Membrane DNA/RNA and Nucleic Acids Aggregates by Proton Detected Spectroscopy"*, Glob Imaging Insights, Volume 6 (1): 1–2, 2021.
[461]. A. Heidari, R. Gobato, *"Integrated Analysis of the Conformation of a DNA/RNA–Linked Spin Label by Combining NMR Ensembles and Molecular Dynamics Simulations Provides More Realistic Models of DNA/RNA Structures in Gum Cancer Cells Using Optimization of NMR Spectroscopy of Encapsulated DNA/RNA Dissolved in Gum Cancer Cells"*, Glob Imaging Insights, Volume 6 (1): 1–3, 2021.
[462]. A. Heidari, R. Gobato, L. F. Valverde, *"Modelling and Simulation of ^{13}C, ^{15}N, ^{17}O NMR Chemical Shifts, ^{17}O and ^{14}N Electric Field Gradients and Measurement of ^{13}C and ^{15}N Chemical Shifts in DNA/RNA of Human Gum Cancer Cells, Tissues and Tumors Using NMR Biospectroscopic Profiling for Novel Systems Diagnostics"*, Glob Imaging Insights, Volume 6 (1): 1–2, 2021.
[463]. A. Heidari, R. Gobato, L. F. Valverde, *"Theoretical ^{13}C Chemical Shift, ^{14}N, and ^{2}H Quadrupole Coupling–Constant Studies of Hydrogen Bonding for Measurement and Calculation of ^{13}C and ^{15}N NMR Chemical–Shift Tensors in DNA/RNA of Gum Cancer Cells Identification: A Powerful Alternative"*, Glob Imaging Insights, Volume 6 (1): 1–2, 2021.
[464]. A. Heidari, R. Gobato, L. F. Valverde, *"Conformational Study of a Strained DNA/RNA by Dynamic ^{1}H NMR Biospectroscopy and Computational Methods for Molecular Modelling, Simulation and Biopectroscopic Studies of DNA/RNA of Gum Cancer Cells"*, Dent Oral Maxillofac Res, Volume 7, Issue 1, Pages 1–2, 2021.
[465]. A. Heidari, R. Gobato, L. F. Valverde, *"Current Advances in the Application of Dynamic NMR Studies of DNA/RNA Intra–and Inter Molecular Effect on Ring Inversion Rate Constants for Molecular Diagnosis of Gum Cancer"*, Dent Oral Maxillofac Res, Volume 7, Issue 1, Pages 1–2, 2021.
[466]. A. Heidari, R. Gobato, L. F. Valverde, *"NMR–Based Metabolomics Approach to Target Biomarkers Such as DNA/RNA for New Frontiers of Diagnostic Strategies for Prevention, Prognosis, Diagnosis and Treatment of Gum Caner Tumor Metabolism"*, Dent Oral Maxillofac Res, Volume 7, Issue 2, Pages 1–2, 2021.
[467]. A. Heidari, R. Gobato, L. F. Valverde, *"Spherical Tensor Analysis of Nuclear Magnetic Resonance Signals for Understanding Chemical Shielding Tensors of DNA/RNA in Gum Cancer Cells Using Group Theory, MO Analysis, and Modern Density–Functional Theory"*, Dent Oral Maxillofac Res, Volume 7, Issue 2, Pages 1–2, 2021.
[468]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Introducing Cadmium Oxide (CdO) Smart Nanoparticles as Detector for Diagnosis of Signals from Cancer Cells, Tissues and Tumors under Synchrotron and Synchrocyclotron Radiations"*, International Journal of Advanced Engineering and Science, Volume 10, Number 2, Pages 20–64, 2021.
[469]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Iridium (IV) Oxide (IrO_2) Nanoparticles Shut Down Cancer Growth Using Iridium (IV) Oxide (IrO_2) Nanoparticles to Deliver a Nucleic Acid (DNA/RNA) into Tumor Cells under Synchrotron and Synchrocyclotron Radiations"*, Parana Journal of Science and Education (PJSE). Vol. 7, No. 6, pp. 200–235, 2021.
[470]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Emerging Use of Osmium Dioxide (OsO_2) and Osmium Tetroxide (OsO_4) Nanoparticles in Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management of Cancer under Synchrotron and Synchrocyclotron Radiations"*, Parana Journal of Science and Education (PJSE). Vol. 7, No. 6, pp. 163–199, 2021.
[471]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Biopolymer Rhenium (IV) Oxide (ReO_2), Rhenium Trioxide (ReO_3) and Rhenium (VII) Oxide (Re_2O_7) Nanoparticles for Targeted Cancer*

Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management under Synchrotron and Synchrocyclotron Radiations", Parana Journal of Science and Education (PJSE). Vol. 7, No. 6, pp. 126–162, 2021.

[472]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Biocompatible Core–Shell Advanced Magnetic Rhodium (III) Oxide or Rhodium Sesquioxide (Rh_2O_3) and Rhodium (IV) Oxide (RhO_2) Nanoparticles for Cancer Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management under Synchrotron and Synchrocyclotron Radiations"*, Parana Journal of Science and Education (PJSE). Vol. 7, No. 6, pp. 89–125, 2021.

[473]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Targeted Biopolymeric Ruthenium (IV) Oxide (RuO_2) and Ruthenium (VIII) Oxide (RuO_4) Nanoparticles Loaded with Cetuximab and Decorated with Somatostatin Analogue to Colon Cancer under Synchrotron and Synchrocyclotron Radiations"*, Parana Journal of Science and Education (PJSE). Vol. 7, No. 6, pp. 52–88, 2021.

[474]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Future Studies of Cancer Immunotherapy Using Cadmium Oxide (CdO) Nanoparticles as Anti–Cancer Nano Drug Delivery Could Be the Future of Targeted Cancer Therapies under Synchrotron and Synchrocyclotron Radiations"*, Parana Journal of Science and Education (PJSE). Vol. 7, No. 6, pp. 15–51, 2021.

[475]. A. Heidari, *"Removal of Cancer Cells Using Thin Layers of Cadmium Oxide (CdO)–DNA/RNA Sandwiched Complex Composite Plasmonic Nanostructure under Synchrotron Radiation"*, Journal of Metallic Material Research, Volume 04, Issue 01, Pages 1–15, 2021.

[476]. R. Gobato, A. Heidari, L. F. Valverde, A. Mitra, "*Infrared Spectrum for the New Exobiological Nanomolecules Asi, Csi, Tsi and Gsi"*, Sumerianz Journal of Scientific Research, Vol. 4, No. 1, pp. 25–31, 2021.

[477]. A. Heidari, *"Study of Physical Properties of Cadmium Oxide (CdO) and CdO/DNA/RNA Nanostructures Thin Layers Produced by Spray Pyrolysis Technique for Manufacturing Cadmium Oxide (CdO) Nanoparticles and Evaluation of the Effect of DNA/RNA Doping on Their Optical Characteristics"*, Adv. Sci. Eng. Med. 12 (10), 1224–1230, 2020.

[478]. A. Heidari, *"Vibrational Biospectroscopic Study on Biomedical and Clinical Engineering of Cancer Cells Fingerprints"*, Adv. Sci. Eng. Med. 12 (10), 1272–1284, 2020.

[479]. A. Heidari, *"Effect of Temperature on DNA/RNA–Cadmium Oxide (CdO) Complex Nanoparticles Produced by Synchrotronic Laser Ablation Method in the Cancer Cells"*, Adv. Sci. Eng. Med. 12 (10), 1315–1322, 2020.

[480]. A. Heidari, *"Cadmium Oxide (CdO)–DNA/RNA Sandwiched Complex Composite Plasmonic Nanostructure in Cancer Cells under Synchrotron Radiation"*, Nano Prog., 3 (6), 35–47, 2021.

[481]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"The Effect of Solution Molarity on the Structural, Morphological, Optical and Electrical Properties of Nanostructured Cadmium Oxide (CdO) Nano Thin Films as Anti–Cancer Nano Drug in Cancer Cells, Tissues and Tumors under Synchrotron and Synchrocyclotron Radiations"*, Int J Hematol Oncol. 4: 1: 16–60, 2021.

[482]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Annealing Effects on the Interband Transition and Optical Constants of Ruthenium (IV) Oxide (RuO_2) and Ruthenium (VIII) Oxide (RuO_4) Nano Thin Films in Cancer Cells, Tissues and Tumors under Synchrotron and Synchrocyclotron Radiations"*, Int J Hematol Oncol. 4: 1: 61–105, 2021.

[483]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Rhodium (III) Oxide or Rhodium Sesquioxide (Rh_2O_3) and Rhodium (IV) Oxide (RhO_2) Effect on the Stop Growth of Cancer Cells, Tissues and Tumors under Synchrotron and Synchrocyclotron Radiations"*, Int J Hematol Oncol. 4: 1: 106–149, 2021.

[484]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Removal Role, Application and Effect of Nanocluster Rhenium (IV) Oxide (ReO_2), Rhenium Trioxide (ReO_3) and Rhenium (VII) Oxide (Re_2O_7) Thin Films Delivery in DNA/RNA of Cancer Cells under Synchrotron and Synchrocyclotron Radiations"*, Int J Hematol Oncol. 4: 1: 150–194, 2021.

[485]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Catalytic Effectiveness of Synchrotron and Synchrocyclotron Radiations on Osmium Dioxide (OsO_2) and Osmium Tetroxide (OsO_4) Nano Capsules Delivery in DNA/RNA of Cancer Cells"*, Int J Hematol Oncol. 4: 1: 195–238, 2021.

[486]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Advanced Studies on the Effect of Transition Metal Doped Iridium (IV) Oxide (IrO_2) Nano Thin Films in Cancer Cells, Tissues and Tumors under Synchrotron and Synchrocyclotron Radiations"*, Int J Hematol Oncol. 4: 1: 239–282, 2021.

[487]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Cadmium Oxide (CdO) Nanoparticles–Based Drug Delivery in Cancer Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management and Its Role and Application in Overcoming Drug Resistance under Synchrotron and Synchrocyclotron Radiations"*, International Journal of Advanced Chemistry, 9 (2) 80–98, 2021.

[488]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Active Targeting of Rhenium (IV) Oxide (ReO_2), Rhenium Trioxide (ReO_3) and Rhenium (VII) Oxide (Re_2O_7) Nanoparticles as Cancer Therapeutics Swell–up to Kill Cancer Cells under Synchrotron and Synchrocyclotron Radiations"*, International Journal of Advanced Chemistry, 9 (2) 103–121, 2021.

[489]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Ruthenium (IV) Oxide (RuO_2) and Ruthenium (VIII) Oxide (RuO_4) Smart Nano Particles, Nano Capsules and Nanoclusters Influence, Impression and Efficacy in Cancer Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management under Synchrotron and Synchrocyclotron Radiations"*, American Journal of Materials Engineering and Technology, Vol. 9, No. 1, 1–20, 2021.

[490]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Cadmium Oxide (CdO) Smart Nano Particles, Nano Capsules and Nanoclusters Influence, Impression and Efficacy in Cancer Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management under Synchrotron and Synchrocyclotron Radiations"*, Journal of Materials Physics and Chemistry, Vol. 9, No. 2, 26–46, 2021.

[491]. A. Heidari, E. Locci, S. Raymond, *"Emerging Concepts for Immune Checkpoint Blockade–Based Combination Therapies"*, J. Res. Chem., 1 (2): 05–16, 2020.

[492]. A. Heidari, E. Locci, S. Raymond, *"Accelerating the Diagnosis and Treatment of Cancer Using Digital Pathology"*, J. Res. Chem., 2 (1): 23–34, 2021.

[493]. A. Heidari, E. Locci, S. Raymond, *"Adoption of Artificial Intelligence (AI) in Breast Imaging and Breast Cancer Detection in Mammography and Digital Breast Tomosynthesis"*, J. Res. Chem., 2 (1): 11–22, 2021.

[494]. A. Heidari, E. Locci, S. Raymond, *"Tumor Diagnosis and Treatment Monitoring Using DNA/RNA in Blood to Detect, Track and Treat Cancer"*, J. Res. Chem., 2 (2): 16–26, 2021.

[495]. A. Heidari, E. Locci, S. Raymond, *"Innovative Approaches for Cancer Treatment, Current Perspectives and New Challenges in Bio–Spectroscopy Core Research Laboratory of Cancer Research Institute (CRI), California South University (CSU)"*, J. Res. Chem., 1 (1): 01–07, 2020.

[496]. A. Heidari, E. Locci, S. Raymond, *"T Cell Reprogramming against Cancer"*, J. Res. Chem., 1 (2): 17–28, 2020.

[497]. A. Heidari, E. Locci, S. Raymond, *"Physiology and Pathology of Innate Immune Response against Pathogens"*, J. Res. Chem., 1 (2): 36–47, 2020.

[498]. A. Heidari, E. Locci, S. Raymond, *"Role and Applications of Artificial Intelligence (AI) and Biomedical Vibrational Spectroscopy in Cancer Diagnostics"*, J. Res. Chem., 1 (2): 53–64, 2020.

[499]. A. Heidari, E. Locci, S. Raymond, *"Assessing the Role and Applications of Circulating, Genetic and Imaging Biomarkers in Cardiovascular Risk Prediction"*, J. Res. Chem., 2 (2): 32–43, 2021.

[500]. A. Heidari, E. Locci, S. Raymond, *"Circulating Nucleic Acids as Biomarkers in Breast Cancer"*, J. Res. Chem., 2 (1): 39–50, 2021.
[501]. A. Heidari, E. Locci, S. Raymond, *"What Are Answer Strategies Being Researched to Cure or Treat Cancer?"*, Int J Hematol Oncol. 4: 1: 283–326, 2021.
[502]. A. Heidari, E. Locci, S. Raymond, *"Mammo Screen Artificial Intelligence (AI) Tool Improves Diagnostic Performance of Radiologists in Detecting Breast Cancer"*, Int J Hematol Oncol. 4: 1: 327–370, 2021.
[503]. A. Heidari, E. Locci, S. Raymond, *"Next Generation Diagnostic Pathology Using Digital Pathology and Artificial Intelligence (AI) Tools to Augment a Pathological Diagnosis"*, Int J Hematol Oncol. 4: 1: 371–413, 2021.
[504]. A. Heidari, E. Locci, S. Raymond, *"Mechanistic Basis and Therapeutic Strategies in Immune Evasion in Cancer"*, Int J Hematol Oncol. 4: 1: 414–457, 2021.
[505]. A. Heidari, E. Locci, S. Raymond, *"Tumor Circulome in the Liquid Biopsies for Cancer Diagnosis and Prognosis"*, Int J Hematol Oncol. 4: 1: 458–500, 2021.
[506]. A. Heidari, E. Locci, S. Raymond, *"Combinatorial Approaches with Checkpoint Inhibitors to Enhance Anti–Tumor Immunity as Advantages of Targeting the Tumor Immune Microenvironment over Blocking Immune Checkpoint in Cancer Immunotherapy"*, Int J Hematol Oncol. 4: 1: 501–547, 2021.
[507]. A. Heidari, E. Locci, S. Raymond, *"Prediction of the Survival Outcomes of Patients with Non–Small Cell Cancer Using 18F–Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography and Clinicopathological Factors"*, Int J Hematol Oncol. 4: 1: 548–593, 2021.
[508]. A. Heidari, E. Locci, S. Raymond, *"Nucleic Acids Aptamer Application in Diagnosis and Therapy of Cancer Based on Cell–SELEX Technology"*, Int J Hematol Oncol. 4: 1: 594–636, 2021.
[509]. A. Heidari, E. Locci, S. Raymond, *"The Immune System of the Human Body in Defense against Cancer"*, Int J Hematol Oncol. 4: 1: 637–679, 2021.
[510]. A. Heidari, E. Locci, S. Raymond, *"Advancing Cancer Diagnostics with Artificial Intelligence (AI) and Biomedical Vibrational Spectroscopy for Identifying Chemical Changes Associated with Breast Cancer"*, Int J Hematol Oncol. 4: 1: 680–725, 2021.
[511]. R. Gobato, A. Heidari, L. F. Valverde, A. Mitra, M. R. Nexticapa, M. L. Ramos, M. V. del Socorro Mateu Armad, M. A. Ramirez, F. D. Cedillo, *"^{1}H NMR Spectroscopy of the New Xalapa Molecule"*, Arch Biomed Eng & Biotechnol. 6 (1): 2021.
[512]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"A New Strategy to Destroy Cancer Cells Using Osmium Dioxide (OsO_2) and Osmium Tetroxide (OsO_4) Nanoparticles and Magnetic Fields under Synchrotron and Synchrocyclotron Radiations"*, International Journal of Advanced Chemistry, 9 (2) 122–140, 2021.
[513]. A. Heidari, E. Locci, S. Raymond, *"Effective Cancer Treatment Technique in BioSpectroscopy Core Research Laboratory of Cancer Research Institute (CRI) at California South University (CSU)"*, Parana Journal of Science and Education (PJSE) – v.7, n.8, (8–45) October 22, 2021.
[514]. A. Heidari, E. Locci, S. Raymond, *"Artificial Intelligence Program to Support Breast Cancer Screening Using a Set of CT Scans"*, Parana Journal of Science and Education (PJSE) – v.7, n.8, (46–83) October 22, 2021.
[515]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Iridium (IV) Oxide (IrO_2) Nanoparticles and Cancers"*, American Journal of Physical Chemistry. Vol. 10, No. 4, pp. 61–65, 2021.
[516]. A. Heidari, E. Locci, S. Raymond, *"A Smart Approach of Modern Therapeutics to Dysregulating Lysosome Functions in Cancer Cells by Specific Drugs and Its Nanoformulations"*, J Chem Appl. 3: 1: 80–120, 2021.
[517]. A. Heidari, E. Locci, S. Raymond, *"Implications for Treatment Strategies in Cancer and Infectious Diseases"*, J Chem Appl. 3: 1: 121–159, 2021.
[518]. A. Heidari, E. Locci, S. Raymond, *"Unlocking the Potential of Vaccines Built on Messenger RNA"*, J Chem Appl. 3: 1: 160–197, 2021.
[519]. A. Heidari, E. Locci, S. Raymond, *"Targeting the Prion–Like Aggregation of Mutant p53 to Combat Cancer"*, J Chem Appl. 3: 1: 198–236, 2021.
[520]. A. Heidari, E. Locci, S. Raymond, *"Epigenetic Regulation of Hematopoiesis and Acute Leukemia"*, J Chem Appl. 3: 1: 237–275, 2021.
[521]. A. Heidari, E. Locci, S. Raymond, *"Visualizing Metabolic Processes at the Single–Cell Level–Using Genetically Encoded Biosensor and Biomarker"*, J Chem Appl. 3: 1: 276–314, 2021.
[522]. A. Heidari, E. Locci, S. Raymond, *"Pediatric Brain Tumors Diagnosis and Treatment"*, J Chem Appl. 3: 1: 315–352, 2021.
[523]. A. Heidari, E. Locci, S. Raymond, *"Investigation of DNA Damage Induced by Alkylating Agents and Repair Pathways by Cooperating Mechanisms Driving the Formation of Colorectal Adenomas and Adenocarcinomas Using DNA Alkylation and DNA Methylation"*, J Chem Appl. 3: 1: 353–394, 2021.
[524]. A. Heidari, E. Locci, S. Raymond, *"Progress and Challenges of Nanoparticle–Based Drug Delivery for Therapy of Lung Cancer"*, J Chem Appl. 3: 1: 395–433, 2021.
[525]. A. Heidari, E. Locci, S. Raymond, *"A Modernized Screening Technology for Cancer Non–Invasive Biodiversified Biosensors"*, J Chem Appl. 3: 1: 434–472, 2021.
[526]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L.-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Interdisciplinary Approach to Iridium (IV) Oxide (IrO_2) Nanoparticles as Weapons against Cancer under Synchrotron and Synchrocyclotron Radiations"*, International Journal of Advanced Chemistry, 9 (2) 168–187, 2021.
[527]. R. Gobato, A. Mitra, A. Heidari, *"Strong Storms in the Guatambu, West of Santa Catarina"*, J Earth Sci Clim Change, 12: 11: 588–593, 2021.
[528]. R. Gobato, A. Haidari, L. F. Valverde, A. Mitra, *"Applying Ab Initio Hartree–Fock Methods to Exobiology Nano–Molecules"*, J Current Eng Technol 3 (2): 134–142, 2021.
[529]. A. Heidari, *"Oncology of Cancer Cells Using Thin Layers of Cadmium Oxide (CdO)–DNA/RNA Sandwiched Complex Composite Plasmonic Nanostructure under Synchrotron Radiation"*, SCIOL Biomed; 4: 2: 238–259, 2021.
[530]. A. Heidari, E. Locci, S. Raymond, *"Diagnosis and Treatment of Cancer Using Pathology Slide Scanner"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (18–54) November 12, 2021.
[531]. A. Heidari, E. Locci, S. Raymond, *"Increasing the Level of Anti–Tumor T Cells to Allow Them to Kill Cancer Cells"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (55–92) November 12, 2021.
[532]. A. Heidari, E. Locci, S. Raymond, *"Diagnosing and Monitoring Different Types of Tumors Using Fluid Biopsy to Identify and Track Tumor Growth"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (93–129) November 12, 2021.
[533]. A. Heidari, E. Locci, S. Raymond, *"A New Approach to Blocking an Immune Checkpoint (ICB) Treatments for Releasing the Brakes on the Immune System as an Effective Technique for Some Types of Cancer"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (130–167) November 12, 2021.
[534]. A. Heidari, E. Locci, S. Raymond, *"Analysis of Clinical Risk Factors and Biological Markers of Proteins by Computed Tomography Imaging"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (168–205) November 12, 2021.
[535]. A. Heidari, E. Locci, S. Raymond, *"Labeling of Nucleic Acids Such as DNA or RNA for Monitoring Cancer Cells, Tissues and Tumors"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (206–243) November 12, 2021.
[536]. A. Heidari, E. Locci, S. Raymond, *"Discover an Effective Mechanism for Faster Response of Immune Cells"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (244–281) November 12, 2021.
[537]. A. Heidari, E. Locci, S. Raymond, *"Detection of Cancerous Tissues without Previous Staining or Other Symptoms Using Artificial Intelligence (AI) and Vibrational Biospectroscopic Methods and Techniques"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (282–309) November 12, 2021.
[538]. A. Heidari, E. Locci, S. Raymond, *"An in–Depth Oncological and Mechanical Study of Lysosomes as Membrane–Bound Organs in Cancer Cells"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (310–348) November 12, 2021.
[539]. A. Heidari, E. Locci, S. Raymond, *"Overcoming Immune Depletion as the Main Goal of Developing New Therapies for Cancer or Severe Viral Infections"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (349–387) November 12, 2021.
[540]. A. Heidari, E. Locci, S. Raymond, *"Difference between an Optimal Immune Response as Aims to Kill Cancer and an Unwanted Response as Affect Healthy Tissue"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (388–425) November 12, 2021.

[541]. A. Heidari, E. Locci, S. Raymond, *"Amyloid Mimetic Protein Potentially Eliminates Cancer–Associated p53 Mutant Accumulation and Restores Tumor Suppressor Function"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (426–463) November 12, 2021.
[542]. A. Heidari, E. Locci, S. Raymond, *"The Strong, Highly Amplifying Binding of NUP98–HOXA9 Proteins to DNA Leads to Greater Activity of This Agent Which Predisposes to the Formation of Invasive Leukemias"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (464–501) November 12, 2021.
[543]. A. Heidari, E. Locci, S. Raymond, *"Understanding Cellular Metabolism (How Cells Use Energy) in Treating a Wide Range of Diseases Including Vascular Disease and Cancer"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (502–539) November 12, 2021.
[544]. A. Heidari, E. Locci, S. Raymond, *"Discover an Effective Way to Treat a Rare Brain Cancer in Children"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (540–577) November 12, 2021.
[545]. A. Heidari, E. Locci, S. Raymond, *"Study of a Type of DNA Damage Called "Alkylation" in Cancer Cells"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (578–615) November 12, 2021.
[546]. A. Heidari, E. Locci, S. Raymond, *"Synthesis of a New Nano Drug for Treatment of Lung Cancer Caused by Genetic Mutations"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (616–653) November 12, 2021.
[547]. A. Heidari, E. Locci, S. Raymond, *"Diagnosis and Detection of Skin Cancer Using Miniature Biosensors and Biomarkers"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (654–691) November 12, 2021.
[548]. A. Heidari, E. Locci, S. Raymond, *"New Drug Reduces Tumor Size and Promises to Improve and Increase Survival in Patients with Lung Tumors Caused by Specific DNA Mutations"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (692–729) November 12, 2021.
[549]. A. Heidari, E. Locci, S. Raymond, *"Performing Breast Surgery to Treat Cancer Using Differential Diagnoses, Such as Magnetic Resonance Imaging (MRI)"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (730–767) November 12, 2021.
[550]. A. Heidari, E. Locci, S. Raymond, *"Engineering T Cells and Creating Engineering Design Criteria to Mechanically Optimize Cells"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (768–805) November 12, 2021.
[551]. A. Heidari, E. Locci, S. Raymond, *"Introducing Cryoablation as a Solution for Elimination of Breast Tumors under Synchrotron and Synchrocyclotron Radiations without Surgery"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (806–844) November 12, 2021.
[552]. A. Heidari, E. Locci, S. Raymond, *"Effect of Coronavirus on Exacerbation of Lung Cancer"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (845–883) November 12, 2021.
[553]. A. Heidari, E. Locci, S. Raymond, *"Diagnosing Leukemia Using Peripheral Blood Morphology, Biopsy or Bone Marrow Sampling, Flow Cytometry and Genetic Testing"*, Parana Journal of Science and Education (PJSE)–v.7, n.9, (884–921) November 12, 2021.
[554]. A. Heidari, E. Locci, S. Raymond, *"Mechanism and Clinical Role and Application of DNA Methyltransferase Inhibitors Combination Therapy for the Treatment of Solid Tumor"*, J Chem Appl. 3: 1: 473–513, 2021.
[555]. A. Heidari, E. Locci, S. Raymond, *"Differential Diagnosis of Benign and Malignant Breast Masses Using Diffusion–Weighted Magnetic Resonance Imaging (MRI)"*, J Chem Appl. 3: 1: 514–552, 2021.
[556]. A. Heidari, E. Locci, S. Raymond, *"Engineering T–Cell Activation for Immunotherapy by Mechanical Forces"*, J Chem Appl. 3: 1: 553–591, 2021.
[557]. A. Heidari, E. Locci, S. Raymond, *"Cryoablation and Cryolocalization in the Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management of Breast Cancer"*, J Chem Appl. 3: 1: 592–633, 2021.
[558]. A. Heidari, E. Locci, S. Raymond, *"Impact of COVID–19 Pandemic on Lung Cancer Treatment Scheduling"*, J Chem Appl. 3: 1: 634–673, 2021.
[559]. A. Heidari, E. Locci, S. Raymond, *"A Comparison of Flow Cytometry, Bone Marrow Biopsy and Bone Marrow Aspirates in the Detection of Lymphoid Infiltration in T Cell Disorders"*, J Chem Appl. 3: 1: 674–714, 2021.
[560]. A. Heidari, E. Locci, S. Raymond, *"T Cell Engineering as Therapy for Cancer and HIV"*, J Chem Appl. 3: 1: 715–752, 2021.
[561]. A. Heidari, E. Locci, S. Raymond, *"A Proposition for a Cancer Treatment Study Using Radioactive Metal co–Factor Enzymes and Inhibitors of Lipogenic Enzymes as a Potential Therapy against Cancer"*, J Chem Appl. 3: 1: 753–793, 2021.
[562]. A. Heidari, E. Locci, S. Raymond, *"Screening for Lung Cancer with Low Dose Computed Tomography (LDCT)"*, J Chem Appl. 3: 1: 794–832, 2021.
[563]. A. Heidari, E. Locci, S. Raymond, *"Therapeutic Potential of Pharmacological Targeting NLRP3 Inflammasome Complex in Cancer Using Inhibition of NLRP3 Inflammasome in Tumor Microenvironment Leads to Suppression of Metastatic Potential of Cancer Cells"*, J Chem Appl. 3: 1: 833–873, 2021.
[564]. A. Heidari, E. Locci, S. Raymond, *"Treatment of Various Cancers with T Cells Engineering"*, Parana Journal of Science and Education (PJSE)–v.7, n.10, (1–38) December 1, 2021.
[565]. A. Heidari, E. Locci, S. Raymond, *"Enzymatic Study Prevents the Growth of Cancer Cells"*, Parana Journal of Science and Education (PJSE)–v.7, n.10, (39–76) December 1, 2021.
[566]. A. Heidari, E. Locci, S. Raymond, R. Gobato, *"Study and Propose Novel Methods and Techniques for Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management of Lung Cancer"*, Parana Journal of Science and Education (PJSE)–v.7, n.10, (77–115) December 1, 2021.
[567]. A. Heidari, E. Locci, S. Raymond, *"Introducing an Intracellular Complex to Treat Melanoma and Other Cancers by Inhibiting NLRP3"*, Parana Journal of Science and Education (PJSE)–v.7, n.10, (116–153) December 1, 2021.
[568]. R. Gobato, A. Heidari, A. Mitra, *"Mathematics of the Extra–Tropical Cyclone Vortex in the Southern Atlantic Ocean"*, J Climatol Weather Forecasting, Vol. 9 Iss.1 pp: 268–272, 2021.
[569]. A. Heidari, R. Gobato, A. Mitra, *"A Malignant Liaison in Lysosomes and Cancer Progression"*, O J Radio Med Img. 4: 1: 60–99, 2021.
[570]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Ruthenium (IV) Oxide (RuO_2) and Ruthenium (VIII) Oxide (RuO_4) Nanoparticles as Carriers for Anti–Cancer Nano Drug Delivery on DNA/RNA in Cancer Cells under Synchrotron and Synchrocyclotron"*, International Journal of Advanced Engineering and Science, Vol. 11, No.1, Pages 1–57, 2022.
[571]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"In Situ Cancer Vaccination Using Rhodium (III) Oxide or Rhodium Sesquioxide (Rh_2O_3) and Rhodium (IV) Oxide (RhO_2) Nanoparticles under Synchrotron and Synchrocyclotron Radiations"*, International Journal of Advanced Engineering and Science, Vol. 11, No.1, Pages 58–115, 2022.
[572]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Nonsurgical Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management of Cancers with Local Delivery of Bioadhesive Rhenium (IV) Oxide (ReO_2), Rhenium Trioxide (ReO_3) and Rhenium (VII) Oxide (Re_2O_7) Nanoparticles under Synchrotron and Synchrocyclotron Radiations"*, International Journal of Advanced Engineering and Science, Vol. 11, No.1, Pages 116–173, 2022.
[573]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Laser–Charged Osmium Dioxide (OsO_2) and Osmium Tetroxide (OsO_4) Nanoparticles Destroy Cancer Cells, Tissues and Tumors in First–in–Human Study under Synchrotron and Synchrocyclotron Radiations"*, International Journal of Advanced Engineering and Science, Vol. 11, No.1, Pages 174–231, 2022.
[574]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Roles and Applications of Iridium (IV) Oxide (IrO_2) Nanoparticles in Cancer Nanobiotechnology Using Synchrotron and Synchrocyclotron Radiations"*, International Journal of Advanced Engineering and Science, Vol. 11, No.1, Pages 232–289, 2022.
[575]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Iridium (IV) Oxide (IrO_2) Smart Nano Particles, Nano Capsules and Nanoclusters Influence, Impression and Efficacy in Cancer Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management under Synchrotron and Synchrocyclotron Radiations"*, Applied Mathematics and Physics, Vol. 10, No. 1, 1–23, 2022.

[576]. A. Heidari, *"Effect of Photoconductivity Precursor Volume on Structural, Physical, Electrical and Optical Properties of Thin Layers of Cadmium Oxide (CdO) Nanostructures Produced Using Spray Pyrolysis Technique"*, International Journal of Membrane Science and Technology, Vol. 8, No. 2, 40–53, 2021.
[577]. A. Heidari, *"Detection of Galactose and Glycerophospholipids by Galactose Biosensors and Advancement Their Proficiency Using Berkelium Colloidal Nanoparticles and Poly(3,4–Ethylenedioxythiophene)–Poly(Styrenesulfonate)–Based Biosensors"*, International Journal of Membrane Science and Technology, Vol. 8, No. 2, 54–75, 2021.
[578]. A. Heidari, *"Investigation of Cancer Cells Using Thin Layers of Cadmium Oxide (CdO)–DNA/RNA Sandwiched Complex Composite Plasmonic Nanostructure under Synchrotron Radiation"*, Int J Chem Res, Vol 6, Issue 1, 1–14, 2022.
[579]. M. López-Ramos, L. Figueroa-Valverde, F. Díaz-Cedillo, R. Gobato, A. Heidari, M. Rosas-Nexticapa, M. V. Mateu-Armad, M. Alvarez-Ramirez, *"Synthesis of Two (2,3,4,5–Tetrahydrooxepin–7–Ylamino) Benzoate Derivatives as Antibacterial Agents against Escherichia Coli and Staphylococcus Aureus"*, Vietnam J. Chem., 59 (6), 923–934, 2021.
[580]. A. Heidari, *"Artificial Intelligence, Automation and Robotics Webinar 2020"*, The Open Access Journal of Science and Technology, Volume 5, Issue 2, Page 1, 2020.
[581]. A. Heidari, *"Announcement on Artificial Intelligence and Robotics–2021"*, The Open Access Journal of Science and Technology, Volume 5, Issue 2, Page 1, 2020.
[582]. A. Heidari, *"Market Analysis–Artificial Intelligence and Robotics 2021"*, The Open Access Journal of Science and Technology, Volume 5, Issue 2, Page 1, 2020.
[583]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, *"Osmium Dioxide (OsO_2) and Osmium Tetroxide (OsO_4) Smart Nano Particles, Nano Capsules and Nanoclusters Influence, Impression and Efficacy in Cancer Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management under Synchrotron and Synchrocyclotron Radiations"*, International Journal of Physics, vol. 10, no. 1: 1–22, 2022.
[584]. A. Heidari, R. Gobato, A. Mitra, *"Overcoming Immune Depletion is the Main Goal of Developing New Therapies for Cancer or Severe Viral Infections"*, O J Radio Med Img. 4: 1: 100–140, 2021.
[585]. A. Heidari, R. Gobato, A. Mitra, *"Development of New, More Effective and Less Toxic Therapeutic Approaches to Difference between an Optimal Immune Response and Unwanted Response to Kill Cancer Cells"*, O J Radio Med Img. 4: 1: 141–181, 2021.
[586]. A. Heidari, R. Gobato, A. Mitra, *"Identification of a Mimicry of the Protein that Potentially Isolates the Mutated p53 Material and Prevents Further Protein Accumulation"*, O J Radio Med Img. 4: 1: 182–222, 2021.
[587]. A. Heidari, R. Gobato, A. Mitra, *"Study of Tumor Cells in the G0 or G1 Nerve Growth State"*, O J Radio Med Img. 4: 1: 223–260, 2021.
[588]. A. Heidari, R. Gobato, A. Mitra, *"Process of Converting Glucose to Energy, Single Endothelial Cells and Blood Vessel Cells"*, O J Radio Med Img. 4: 1: 261–300, 2021.
[589]. A. Heidari, R. Gobato, A. Mitra, *"Radiation Therapy to the Whole Brain and Spine, Followed by an Extra Dose of Radiation to the Back of the Brain"*, O J Radio Med Img. 4: 1: 301–341, 2021.
[590]. A. Heidari, R. Gobato, A. Mitra, *"Indication of a Type of DNA Damage Called "Alkylation" as High Levels of Tumor Alkylation Damage"*, O J Radio Med Img. 4: 1: 342–382, 2021.
[591]. A. Heidari, R. Gobato, A. Mitra, *"Significant Role of Nanoparticles as a Drug Delivery System for Cancer Treatment"*, O J Radio Med Img. 4: 1: 383–423, 2021.
[592]. A. Heidari, R. Gobato, A. Mitra, *"Designing a Simple Electromechanical Device for Using to Automatically and Non–Invasively Diagnose Deep Tissue Pathology Such as Psoriasis"*, O J Radio Med Img. 4: 1: 424–461, 2021.
[593]. A. Heidari, R. Gobato, A. Mitra, *"New Drug Sotorasib Reduces Tumor Size and Promises to Improve and Increase Survival in Patients with Lung Tumors Caused by Specific DNA Mutations"*, O J Radio Med Img. 4: 1: 462–502, 2021.
[594]. A. Heidari, R. Gobato, A. Mitra, *"Understanding the Relationship between Microbiome, Diet and Cancer Risk"*, O J Radio Med Img. 4: 1: 503–543, 2021.
[595]. A. Heidari, R. Gobato, A. Mitra, *"Searching Cytotoxic T Cells for Destroying Target Invading Cells"*, O J Radio Med Img. 4: 1: 544–583, 2021.
[596]. A. Heidari, R. Gobato, A. Mitra, *"Removing the Breast from the Body, Cryoectomy or Cryopreservation of Tumors Preserve Breast Size, Reduce the Risk of Infection and Prevent Scarring"*, O J Radio Med Img. 4: 1: 584–625, 2021.
[597]. A. Heidari, R. Gobato, A. Mitra, *"Delivering Lung Cancer Care during the COVID–19 Pandemic"*, O J Radio Med Img. 4: 1: 626–664, 2021.
[598]. A. Heidari, R. Gobato, A. Mitra, *"Diagnosis, Response Assessment and Treatment Outcomes in Acute Myeloid Leukemia (AML)"*, O J Radio Med Img. 4: 1: 665–705, 2021.
[599]. A. Heidari, R. Gobato, A. Mitra, *"T–Cell Engineering for Chimeric Antigen Receptor T–Cell Therapy in Cancer"*, O J Radio Med Img. 4: 1: 706–741, 2021.
[600]. A. Heidari, R. Gobato, A. Mitra, *"Discovering and Engineering an Enzyme as Inhibitor for the Growth of Cancer Cells by Stimulating Proteins"*, O J Radio Med Img. 4: 1: 742–781, 2021.
[601]. A. Heidari, R. Gobato, A. Mitra, *"Investigation of the Impact of Low–Dose Computed Tomography (LDCT) Screening for Primary Lung Cancer (PLC) on the Risk of Developing Brain Metastasis (BM) after Primary Lung Cancer (PLC) Diagnosis"*, O J Radio Med Img. 4: 1: 782–824, 2021.
[602]. A. Heidari, R. Gobato, A. Mitra, *"Role and Importance of Inflammasomes and Immune Pathways in Myeloid Malignancies, Particularly Myelodysplastic Syndromes (MDS)/Acute Myeloid Leukemia (AML) to Better Understand the Disease Pathophysiology and Decipher the Scope of Therapeutic Interventions"*, O J Radio Med Img. 4: 1: 825–867, 2021.
[603]. A. Heidari, E. Locci, S. Raymond, R. Gobato, *"Challenger and Propose Novel Methods and Techniques for Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management of Lung Cancer"*, Journal of Lung Cancer Epidemiology, Volume 1, Issue 1, pp. 1–42, 2022.
[604]. A. Heidari, *"A New Viewpoint and Outlook on Aryl Mercaptans as Strong Nucleophiles with Various Chain Length Linked to DNA/RNA and Cadmium Oxide (CdO) Nanoparticles Sandwiched Complex"*, Asian Journal of Engineering and Applied Technology, Vol. 10, No. 2, pp.34–38, 2021.
[605]. A. Heidari, *"2019 Annual Meeting Program Awards"*, Oxid Antioxid Med Sci.; 10 (3): 1–1, 2021.
[606]. A. Heidari, *"Study of DNA/RNA Aggregation Linked to Cadmium Oxide (CdO) Nanoparticles by Aryl Mercaptanes with Various Chain Length"*, Earthline Journal of Chemical Sciences, 8 (1), 13–34, 2022.
[607]. A. Heidari, *"Effect and Influence of Aryl Mercaptanes with Various Chain Lengths on DNA/RNA and Cadmium Oxide (CdO) Nanoparticles Sandwiched Complex"*, Journal of Materials Science and Engineering A 11 (10–12) 129–142, 2021.
[608]. R. Gobato, A. Mitra, A. Heidari, *"Vortex Storms in the West of Santa Catarina"*, Biomedicine and Chemical Sciences, 1 (2), 41–46, 2022.
[609]. L. Figueroa-Valverde, F. Díaz-Cedillo, R. Gobato, A. Heidari, M. Rosas-Nexticapa, M. López-Ramos, M. V. Mateu-Armad, M. Alvarez-Ramirez, T. Lopez-Gutierrez, *"Design and Synthesis of Two Strychnidin–Oxiran–Naphthalenol Derivatives and Their Theoretical Evaluation as Noradrenaline and Serotonin Reuptake Inhibitors"*, Vietnam J. Chem., 60 (2), 245–256, 2022.
[610]. A. Heidari, *"Reduction of Tumor Vascularity and Aid Excision Using Endovascular Embolization"*, Archives in Cancer Research, Vol. 9 No. 1: e001–e002, 2021.
[611]. A. Heidari, *"Interaction between Cadmium Oxide (CdO) Nanoparticles Aggregation Linked to DNA/RNA and Aryl Mercaptanes with Various Chain Length"*, Academic Journal of Chemistry, Vol. 7, Issue. 2, pp: 23–29, 2022.
[612]. R. Gobato, A. Mitra, A. Heidari, M. R. R. Gobato, *"Extratropical Cyclone in the Falklands Islands and the Spiral Galaxies"*, Sumerianz Journal of Scientific Research, Vol. 5, No. 2, pp. 32–43, 2022.
[613]. R. Gobato, A. Heidari, A. Mitra, L. F. Valverde, *"The Possibility of Silicon–Based Life"*, Bulletin of Pure and Applied Sciences Section–C–Chemistry, Vol. 41 C, No. 1, pp. 52–58, 2022.

[614]. R. Gobato, A. Heidari, L. F. Valverde, A. Mitra, *"Distribution of Leptons by Van der Waals Radius in Exobiological Nanomolecules"*, Nanomedicine and Nanoscience Technology: Open Access, Volume 2, Issue 1, Pages 1–5, 2022.
[615]. A. Heidari, *"Overview of Nanotechnology and Biospectroscopy Based Approaches for Detection and Delivery of Cadmium Oxide (CdO) Nanoparticles Aggregation Linked to DNA/RNA by Aryl Mercaptanes with Various Chain Length"*, Nano Prog., 4 (7), 1–7, 2022.
[616]. R. Gobato, A. Heidari, L. F. Valverde, A. Mitra, *"Distribution of Leptons by Van der Waals Radius in Exobiological Nanomolecules"*, J Current Eng Technol 4 (2): 155–157, 2022.
[617]. A. Heidari, *"Young Scientist Awards at Stem Cell 2020 for the Best Researches in Stem Cell and Regenerative Medicine"*, Journal of Stem Cell Biology and Transplantation, Vol. 4, No. 1, Pages 1–2, 2020.
[618]. R. Gobato, A. Mitra, A. Heidari, M. R. R. Gobato, *"Spiral Galaxies and Powerful Extratropical Cyclone in the Falklands Islands"*, Phys Astron Int J. 6 (2): 48–51, 2022.
[619]. A. Heidari, *"Advanced Clinical Approaches to Human Cancer Cells' DNA"*, Medp Psychiatry Behav Sci. 1 (1): 1–2, 2022.
[620]. A. Heidari, *"The Possibility of the Toroidal Examining the Highlights of Bar Transport in a Toroidal Field"*, Nanomed Nanosci Technol: Open Access 2 (1): 1–3, 2022.
[621]. A. Heidari, *"Survey of the Beginning and the Current Status of Cancers Hadron Treatment"*, Nanomed Nanosci Technol: Open Access 2 (1): 1–3, 2022.
[622]. A. Heidari, *"Utilization of Proton and Carbon Particles Radiates in Cancer Treatment Using Vaporous Indicator in View of the Gas Electron Multiplier (GEM) Innovation for Estimating the Pillar Spot Aspects and the Equity of the Filtered Openness to Radiation Field"*, Nanomed Nanosci Technol: Open Access 2 (1): 1–3, 2022.
[623]. A. Heidari, *"A Combined Positron Emission Tomography (PET)/Computed Tomography (CT) Scanner for Cancer Cells, Tissues and Tumors Treatment Using Oncological Hadrontherapy"*, Nanomed Nanosci Technol: Open Access 2 (1): 1–3, 2022.
[624]. A. Heidari, *"Radiosensitizing High–Z DNA Nanoparticles for Enhanced Hadrontherapy of Glioblastoma Multiforme towards Cancer Hadron Treatment Planning with High–Z DNA Nanoparticles Radiosensitisation Agents"*, Nanomed Nanosci Technol: Open Access 2 (1): 1–3, 2022.
[625]. A. Heidari, *"A Preliminary Study on the Timepix–Based Detectors in Mixed–Field Charged–Particle Radiation Dosimetry Oncological Applications"*, Nanomed Nanosci Technol: Open Access 2 (2): 1–3, 2022.
[626]. A. Heidari, *"Benefits and Challenges of Particle Therapy for Cancer Treatment"*, Nanomed Nanosci Technol: Open Access 2 (2): 1–3, 2022.
[627]. A. Heidari, *"Crucial Role and Applications of Dose Calculation Algorithms Based on Monte Carlo (MC) Simulations in Cancer Hadrontherapy"*, Nanomed Nanosci Technol: Open Access 2 (2): 1–3, 2022.
[628]. A. Heidari, *"Development of Particle (Lines of Light) from the Collaboration of a Laser Beat with a Nanometric Twofold Layer Target"*, Nanomed Nanosci Technol: Open Access 2 (2): 1–3, 2022.
[629]. A. Heidari, *"Focuses on Annihilation of Cancer Cells, Tissues and Tumors Growth by Radiation Treatment with Protons and Heavier Particles Such as Hadrontherapy"*, Nanomed Nanosci Technol: Open Access 2 (2): 1–3, 2022.
[630]. A. Heidari, *"Investigation and Comparison of Synchrotron, Synchrocyclotron and Cyclotron Accelerators for Cancer Diagnosis and Treatment"*, Nanomed Nanosci Technol: Open Access 2 (2): 1–3, 2022.
[631]. A. Heidari, *"Medical Use of Ionizing Radiation for Oncological Hadrontherapy to Treat Cancers"*, Nanomed Nanosci Technol: Open Access 2 (2): 1–3, 2022.
[632]. A. Heidari, *"Role and Applications of X–Rays, γ–Rays, α–Particles, Protons and Heavy Ions for Hadrontherapy before or after the Surgery of a Cancerous Organ"*, Nanomed Nanosci Technol: Open Access 2 (2): 1–3, 2022.
[633]. A. Heidari, *"Utilization of Carbon Nano Particles Radiations in Malignant Cancer Cells Growth Treatment"*, Nanomed Nanosci Technol: Open Access 2 (2): 1–3, 2022.
[634]. A. Heidari, *"Biomedical and Biochemical Approaches and Strategies for Targeting and Delivery of Cadmium Oxide (CdO) Nanoparticles Aggregation Linked to DNA/RNA by Aryl Mercaptanes with Various Chain Length"*, Biomedicine and Chemical Sciences, 1 (4), 215–224, 2022.
[635]. R. Gobato, A. Mitra, A. Heidari, M. R. R. Gobato, *"Cyclone in the "Malvinas Islands" and the Spiral Galaxies"*, Journal of Weather Changes, Volume 1, Issue 1, Pages 6–17, 2022.
[636]. A. Heidari, *"A Magnificent Control of the Particle Shaft Properties Using Particle Speeding up from a Twofold Layer Target and Propose Another Laser–Based Speeding up Enormous Arrangement"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[637]. A. Heidari, *"An Experimental and Theoretical Approach to Relativistic Oncological Effectiveness Studies Using Proton Beam from Ion Accelerator"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[638]. A. Heidari, *"An Improved Monte Carlo (MC) Dose Simulation for Charged Particle Cancer and Denoising Proton Therapy Monte Carlo (MC) Dose Distributions in Multiple Tumor Sites Therapy: A Comparative Neural Networks Architecture Study"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[639]. A. Heidari, *"An Overview of Hadrontherapy Techniques and Interactions in Cancer Cells and Thymic Epithelial Tumors"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[640]. A. Heidari, *"Cancer Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment, Assessment and Management with X–Rays, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET) and Single–Photon Emission Computed Tomography (SPECT)"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–4, 2022.
[641]. A. Heidari, *"Energy Conveyed by a Quick Proton Shift in Anti–Cancer Nano Drugs to Hadron Treatment in Cancer Cells, Tissues and Tumors"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[642]. A. Heidari, *"Normal Tissue Complication Probability (NTCP) Prediction for Modeling Radiotherapy Induced Normal Tissue Complications: An Overview beyond Phenomenological Models"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[643]. A. Heidari, *"Nuclear Magnetic Resonance (NMR) Biospectroscopic Study on Cancer Cells, Tissues and Tumors Perfusion and Vascularity"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[644]. A. Heidari, *"Particle Beam Caused Charge (IBIC) Microscopy Technique with Energies in the MeV Range for Examination of Cancer Cells, Tissues and Tumors Elimination"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[645]. A. Heidari, *"Providing Essential and Up–to–Date Information on Recent Developments in Groundbreaking New Method of Treating Cancer"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[646]. A. Heidari, *"Strategies for Tumor Motion Monitoring and Moving Targets Irradiation as Comprehensive Survey of Proton Beam Therapy Research and Development in Hadrontherapy of Moving Targets"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–3, 2022.
[647]. A. Heidari, *"Study of Light Ion Hardrontherapy for Eliminating Cancer Cells"*, Nanomed Nanosci Technol: Open Access 2 (3): 1–4, 2022.
[648]. R. Gobato, A. Mitra, A. Heidari, M. R. R. Gobato, *"Cote's Double Spiral of Extra Tropical Cyclones"*, Journal of Climatology and Weather Forecasting, Vol. 10, Issue 5, 001–005, 2022.
[649]. A. Heidari, "Interpretation, Creation and Spot–Checking Hadron Curve in Cancer Treatment", Nanomed Nanosci Technol: Open Access 2 (4): 1–4, 2022.
[650]. A. Heidari, "Progress and Evolution in the Applications of Hadrons Technology in Cancer Diagnosis and Treatment", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[651]. A. Heidari, "Utilization of Heavy and Energetic Charged Particles in Cancer Radiation Treatment", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[652]. A. Heidari, "Consideration of Cancer Treatment with Expansion in the Quantity of Nano Particles in Hadrontherpay", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[653]. A. Heidari, "Monte Carlo (MC) Simulation of Hadrontherapy for Cancer Treatment", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.

[654]. A. Heidari, "Advances in Gold Nanoparticles (GNP) and Other Metal Nanoparticles (MNP)–Based Combined as Novel Agents for Cancer Therapy Using X–Ray for Cancer Diagnosis", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[655]. A. Heidari, "Benchmarking and Development of an Improved Monte Carlo (MC) Dose Simulation Engine for Cancer Hadrontherapy", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[656]. A. Heidari, "Extensions and Modifications of the Long–Range Interactions of the Lennard–Jones Truncated and Shifted (LJTS) Potential Models for Cancer Hadrontherpay", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[657]. A. Heidari, "An Overview of Conformal Radiation Therapy with Hadron Beams and the Programs and Recent Charged–Particle Radiation Oncology", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[658]. A. Heidari, "A Facility for Biomedical and Oncological Tumor Therapy Using Accelerators and Storage Rings: Synchrotron–Based Clinical Experiences", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[659]. A. Heidari, "Investigation of Late–Seeming Medication–Based Impacts from Molecule Light Emissions", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[660]. A. Heidari, "Prompt Gamma Ray Monitoring, Diagnostics and Enhanced Hadron–Therapy Using Mössbauer Spectroscopy and Neutron–Free Nuclear Reactions", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[661]. A. Heidari, "Spectrophotometric Study of Aryl Mercaptanes with Various Chain Length Linked to DNA/RNA and Cadmium Oxide (CdO) Nanoparticles Sandwiched Complex", Journal of Kufa for Chemical Sciences, Vol (2). No (9). 475–500, 2022.
[662]. A. Heidari, "A Novel Cancer Therapy Approach to Proton Minibeam Radiation Therapy (pMBRT) for Enhancing Tumor Control Effectiveness as Compared with Conventional Hadrontherapy", Nanomed Nanosci Technol: Open Access 2 (4): 1–3, 2022.
[663]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, "Recent Advances in Combinatorial Cancer Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management via Multi–Functionalized Ruthenium (IV) Oxide (RuO2) and Ruthenium (VIII) Oxide (RuO4) Nanoparticles under Synchrotron and Synchrocyclotron Radiations", International Journal of Advanced Chemistry, 10 (2) 87–110, 2022.
[664]. A. Heidari, M. Hotz, N. MacDonald, V. Peterson, A. Caissutti, E. Besana, J. Esposito, K. Schmitt, L-Y. Chan, F. Sherwood, M. Henderson, J. Kimmel, "Progress in Research on Rhodium (III) Oxide or Rhodium Sesquioxide (Rh2O3) and Rhodium (IV) Oxide (RhO2) Nanoparticles in Cancer Prevention, Prognosis, Diagnosis, Imaging, Screening, Treatment and Management under Synchrotron and Synchrocyclotron Radiations", International Journal of Advanced Chemistry, 10 (2) 111–134, 2022.
[665]. A. Heidari, Z. Torfeh, S. Iorgulescu, O. Robinson, L. Hu, C. Vauclin, N. Schiltz, S. Sondermann, L. MacLennan, J. Smith, L. Williamson, *"Dsign, Synthesis and Oncological Simulation and Evaluation of Cis–2,3,4,5–Tris (Alkoxyaryl) Clonidine and Trans–2,3,4,5–Tris (Hydroxyaryl) Clonidine Derivatives as Immune Checkpoint Inhibitors for Allowing the T Cells to Eliminate Cancer Cells"*, International Journal of Advanced Engineering and Science, Vol.11, No.2, Pages 1–27, 2022.
[666]. A. Heidari, Z. Torfeh, S. Iorgulescu, O. Robinson, L. Hu, C. Vauclin, N. Schiltz, S. Sondermann, L. MacLennan, J. Smith, L. Williamson, *"CERN Large Hadron Collider (LHC) Radiation Source for Magnetic Resonance Biospectroscopy in Metabolic and Molecular Imaging and Diagnosis of Cancer"*, Journal of New Developments in Chemistry, Vol 3, Issue 4, Pgs. No. 29–50, 2022.
[667]. A. Heidari, Z. Torfeh, S. Iorgulescu, O. Robinson, L. Hu, C. Vauclin, N. Schiltz, S. Sondermann, L. MacLennan, J. Smith, L. Williamson, *"Leading–Edge Portable Biosensors and Biomarkers Development for Raman Biospectroscopy and Imaging in Cancer Diagnosis"*, International Journal of Biomedicine. 12 (4): 493–505, 2022.
[668]. A. Heidari, Z. Torfeh, A. Sanders, *"Mechanism, Performance and Effects of Electrical Stimulation as a Novel Nano Tool for Regulating Stem Cells Behavior on Breast Cancer Cells, Tissues and Tumors Engineering"*, International Journal of Advanced Engineering and Science, Vol.12, No.1, Pages 1–34, 2023.