Talking Points for Graphene Hydrogel Quantum Dot Application and Mechanisms

It is time to drill down into the application and mechanics of hydrogel as we approach the day of mandatory vaccination and sensory implantation. You need to understand these concepts so that you can make educated and informed wise decisions on whether to take the products that will be required and so that you can offset in your mind the consequences of not taking the controllers mandate.

Graphene Temple?

Imagine a people who have built through technology an impressive global edifice that ends with both completely annihilated. If this people were considering a new edifice they would use new state-of-the-art impregnable materials that could withstand anything. These materials are complimentarily as a communication system, and also holds magical properties that allow almost godlike manifestation.

Commercial production of graphene, natures hexagonal shape, makes this the perfect single layered carbon substance for a prefabricated temple whether of stone or human.

First, we must address a confusing topic. Hydrogel and Quantum Dots. Let me explain.

The behavior of quantum dots (QDs) in solution and their interaction with other surfaces is of great importance to biological applications, such as optical displays, animal tagging, anti-counterfeiting dyes and paints (basically the patenting a human who has take the mark of its owner), chemical sensing, and fluorescent tagging. However, unmodified quantum dots tend to be hydrophobic, which precludes their use in stable, water-based colloids such as the human body. Once solubilized by encapsulation in either with hydrophobic interior micelle or a hydrophilic exterior micelle, the QDs can be successfully introduced into an aqueous medium (hence the gelatinous medium), in which they form an extended hydrogel network. In this form, quantum dots can be utilized in several applications that benefit from their unique properties. This is how Quantum Dots work, hand in hand, whether in a vaccine or in a separate sensory application. Both Quantum Dots and Hydrogel can contain graphene. As we move forward most will include this substance.

I will provide my Talking Points for my Patrons, exclusively, as they support my research investigations.

Preparation, Properties, and Applications of Graphene-Based Hydrogels

As a new carbon-based nanomaterial, graphene has exhibited unique advantages in significantly improving the combination properties of traditional polymer hydrogels. The specific properties of graphene, such as high electrical conductivity, high thermal conductivity and excellent mechanical properties, have made graphene not only a gelator to self-assemble into the graphene-based hydrogels (GBH) with extraordinary electromechanical performance, but also a filler to blend with small molecules and macromolecules for the preparation of multifunctional GBH. People allowing

hydrogel into their bodies are hybridizing their body shapeshifting it into a biological robot. The hydrogel filler acts as a glue within your body to network with Artifical Intelligence as a computer interface being reduced to a node in the IOT. Technology fully exploits the practical applications of traditional hydrogels. This review summarizes the preparation methods, properties, and the applications of GBH. Further developments and challenges of GBH are also prospected.

Introduction

Graphene is a new nanomaterial with strict two-dimensional layers structure (Geim, 2009; Shi et al., 2018).

With excellent mechanical, high electrical and thermal properties, graphene is the ideal filler for polymer-based nanocomposites (Li and Kaner, 2008). Your body becomes a living polymer, a substance that has a molecular structure consisting chiefly or entirely of a large number synthetic organic materials used as plastics and resins that will eventually replace your DNA, blood, cells, tissues, and organs as the hydrogel nanoparticles self-assembly. Think of this as an invisible invasion transforming you from a human to a synthetic entity.

Hydrogel is the moderate crosslinked and branched polymer with three dimensional network structures (Yuk et al., 2017). This means that it will fill every crack and crevice of your body. There will be no hidden or safe area that it does not invade.

Hydrogel has ability to absorb large quantities of water, swell quickly, soft, elastine, and biologic compatibility (Smith et al., 2010; Qiu and Park, 2012). Your body will not reject this invasion because it does not see it as the enemy, hostile to your humanity. As it absorbs the water of your body you will wither and become sickly until like a rubber band stretched over the maximum you break, physically, mentally, and spiritually.

Graphene has exhibited unique advantages in significantly improving the combination properties of traditional polymer hydrogels (Xu et al., 2010a; Kostarelos and Novoselov, 2014). Graphene also has magical and conductive qualities making your body or mind a receptor for any message that the controllers want to embed.

Graphene in hydrogels plays two roles: the gelator to self-assemble into the hydrogels, and the filler to blend with small molecules and macromolecules for the preparation of multifunctional hydrogels, which are collectively called graphene-based hydrogels (GBH) (Wang et al., 2016; Zhao et al., 2017). Scientists and researchers are using the self-assembling gelator to create a synthetic scaffold inside your body. While the filler replaces your human parts with artificial ones that are predisposed to a "collective" or global fascist order.

Preparation Methods and Properties

Self-Assembly Method

Self-assembly method means that the basic structure of graphene oxide (GO) is spontaneously translated into a stable 3D graphene structure under the interaction of non-covalent bond. What this means is that this self-assembly process is spontaneous and instantaneous with you becoming bonded to the networked system, your human bonding is replaced.

The electrical conductivity of the GBH is greater several orders than the traditional hydrogels. With each successive generation of hydrogels the electrical conductivity becomes greater meaning that your body and mind will respond to applied electrical currents and you also become a mandatory transmitter that transmits essential information about your body and mind to governmental and spiritual controllers.

The 3D multifunctional GBH, which was self-assembled by combining DNA and GO sheets, possessed good mechanical property, big dye-adsorption capacity, and excellent self-cure capability (Xu et al., 2010b). Think not that thydrogel does not alter your DNA for it does, and someday soon it will replace the DNA for anyone allowing hydrogel to enter their body. As this description highlights your body becomes a mechanical slave, no different than a Synth. Dye absorption is critical as dyes are primarily chemicals and that the controllers desire that should you reproduce to carry the hydrogel to the next generation or your offspring. This absorption also exponentially increases the strength of any chemical such as medications you are given. Lastly, you become a self-healing unit, no longer putting a burden on over-taxed medical system. The spiritual ramifications are you become as a god as you have no need for a Savior for healing.

Mixed Solution Method

The graphene/gelatin hydrogel composite is fabricated by mixing graphene and gelatin solution (Tungkavet et al., 2015).

The sulfonated graphene (SG)/ poly(vinyl alcohol) (PVA) hydrogel, which is made by mixed solution, showed good mechanical property and intelligent adsorption property for cationic dyes compared to ordinary pure hydrogel (Li et al., 2015). You can clearly see that during this process intelligent alien entities enter your body and begin to set up shop.

In-situ Polymerization

As a joint result of mixed GO, monomer-polymer, initiating agent, and other additives under certain conditions, *in-situ* polymerization of monomer-polymer occurs on the surface of GO, which leads to the final GO/polymer composite hydrogels. This reminds me of the image in the Book of Daniel. You become a new image bare resembling your former human self but take on hybrid characteristics.

Such GO/polymer composite hydrogels possesses favorable dispersibility of GO, and uniform performance. Uniformity is the name of the game and this hydrogel disperses throughout your body.

The composite hydrogel is synthesized via cross-linking reaction of PAA at low temperature (Tai et al., 2013). The composite material displayed more excellent swelling characteristics and electrical response than the pure PAA hydrogel. (Liu et al., 2012). **What will be the effect of this low temperature concoction and its swelling capability. As water is not a good electrical conductor this swelling must occur from the synthetic graphene assembling and growing within your body as it channels electrical signals from the controllers with your body transmitting every vital process and thought back to the hive.**

The tensile strength of GO/PAM hydrogel was about 4.5 times higher than the pure PAM hydrogel, and the breaking elongation was 30 times exceeded than the PAM. As a part of the hydrogel transformation process you become as a superhero or god/goddess because you literal become tough as nails, in an artificial way.

The hydrogel has the ability to self-heal when the fracture surfaces have maintained contact at low temperature or even room temperature for short periods. The recovery rate of the hydrogel can reach up to 88% at a prolonged healing time. The only healing that is somewhat thwarted as we shall see momentarily is chronically diseased parts of your body which have a more difficult time self-healing, at this point.

Applications

The excellent performance of GBH is based on the inseparable synergy between hydrophobicity and Phi-conjugated structure in graphene sheets. GBH integrates mechanical strength, electrical conductivity, adsorption, hydroscopicity, water retention, controlled-release and biocompatibility together. You body and mind become one with AI and the IOT with broad application prospect in biomedical, supercapacitor, water treatment, dye absorption, catalyst carrier and *intelligent* response for microfluidic .system. It is important to note that the application of the Phi conjugated structure is discussed in global circles as the novel geometries with magical properties

Figure 1. Applications of GBH.

Biomaterials in Biomedical Field

The water-rich GBH is similar to natural soft tissues, in addition to the high conductivity, good mechanical strength, favorable biocompatibility, and the non-covalent bonds between graphene/GO and some polymer (chitosan (CS), poly, GBH are attracted much attention in tissue engineering. Jing et al. studied the mussel-inspired GO/CS composite hydrogel, which was prepared by incorporating

protein polydopamine (PDA) (Jing et al., 2017). **The strong tissue engineered hydrogel is not benign. It was inspired by the properties of shellfish like muscles. Your body actually develops a hard hell inside and out. This comes from the hydrogel addative chitosan. Chitosan is a type of fiber taken from the exoskeleton of insects and the shells of crustaceans such as:**

- **Shrimp**
- **Clams**
- **Lobster**

In addition, hydrogel messes with your brain by incorporating a polydopamine protein that is a versatile coating that can be used to cover the surface of almost all materials with a conformal layer of adjustable thickness.

GO/CS hydrogel has potential to increase cellular activities and proliferation of human enhancer of filamentation. These are the artificial binds that tether you to the Network. To bind to permit by an indisputable authority into your body and mind.

***Intelligent* GBH prepared by graphene/GO and stimuli-responsive polymer has shown attractive prospects in drug-controlled release system on account of the huge specific area of GO or graphene. In essence, you become the canvass for the pharmaceutical artists to create a synthetic artistic masterpiece subservient to the Alien System and not resembling anything human-like whatever. The aliens are the Masters and you do their bidding.**

As mentioned hydrogels display a significant acceleration of healing with the hydrogel in the treatment of artificial wounds in rats. More importantly, the composite hydrogel was used to facilitate complete reconstruction in 15-day wound-healing. According to the Bible, number 15 is considered to be not only a symbol of rest, but also a symbol of restoration, healing and deliverance. This number is the symbol of redemption and sacrifice. By taking the Hydrogel Sensor what happens is one substitutes the biblical sacrificial system, new or old, with a nefarious deity that is all consuming in wickedness.

Researchers found that 84% vitamin B_{12} molecules can be diffused from the hydrogel into neutral PBS solution (pH = 7.4) after 42 h (less than 2 days). I am not sure of the significance of this currently

GBH could efficiently capture cells, but also could release the cells on the stimulus of NIR light. Near-infrared (NIR) light is similar to red light therapy, except infrared energy is invisible, and it penetrates the body deeper than red — reaching deep into soft tissues, muscles, joints, and bone. (Li et al., 2013). **The take home on this is that a foreign army is capturing your cells for whatever use they may desire. They could also potential release bad cells to invade your body resulting in termination of physiological life.**

Supercapacitor

As the major electrochemical components for energy storage and release, supercapacitor should possess high specific capacitance, big reversible capacity, and long cycle life. GBH can be used as innovative electrode materials for supercapacitor, because of their unique surface structures and excellent conductive properties. The energy that your body produces becomes harvestable for use by the collective to obtain their objectives. One might envision a day where the energy produced by your body will be forbidden from use by yourself for purposes of maintaining life and could potentially be =mandated as a sacrifice for the common good.

Water Treatment

The rapid development of petrochemical industry leads to a large number of industrial waste water, which contains significant amounts of acid, alkali salt, organic solvent, harmful dyes, or heavy metal ions. Hydrogel owns good hydrophilicity, at the same time it will not dissolve in water. The unique 3D crosslinked network structure makes hydrogel can be effective absorption and adsorption to high amounts of chemicals. The adsorptive abilities and adsorptive selectivity of hydrogel can be further improved by the huge specific surface area and electronegativity of graphene. Therefore, hydrogel has shown a perfect foreground applied in sewage treatment and dye absorption. In this day and age of post-human ideology and environmental obsession hydrogel is the perfect application to turn a human body into pollution absorbing machine to cleanse the environment of pollution. A hydrogel body also attracts every toxic substance to humans such as acids, salts, solvents, harmful dyes, organic pollutants, and heavy metals to come flooding into your body.

3D Graphene Scaffolds for Skeletal Muscle Regeneration: Future Perspectives

In the last decade, graphene and its derivates are being explored as novel biomaterials for scaffolds within your body. This review describes

3D graphene-based materials that are currently used to generate complex structures able not only to guide cell alignment and fusion but also to stimulate your body thanks to their electrical conductivity.

Graphene is an allotrope of carbon that has indeed unique mechanical, electrical and surface properties and has been functionalized to interact with a wide range of synthetic and natural polymers resembling native tissues.

Graphene can stimulate stem cell differentiation and has been studied for cardiac, neuronal, bone, skin, adipose, and cartilage tissue regeneration. This hints for future research in multifunctional graphene implants.

Introduction

Methods to:

- **Generate and genetically manipulate stem cells,**
- **Advances in bio-fabrication technologies including 3D bioprinting**
- **Innovations biomimetic biomaterials are the three pillars of modern tissue engineering** (Khademhosseini and Langer, 2016).

The bidimensional flake of carbon, graphene, represents undoubtedly the revolutionary material of the last decade.

Graphene has a hexagonal lattice structure of sp2 hybridized carbon atoms and is extremely thin (<0.5 nm), electrically and thermally conductive, mechanically resistant and light absorptive (Dreyer et al., 2014; Trusovas et al., 2016)**. Its derivative, the graphene oxide (GO) has oxygen functional groups decorating carbon plane.**

Graphene is exploited in medicine due to its water dispersibility.

Pristine graphene is highly hydrophobic and tends to precipitate in biological media (Huang et al., 2020). **Hydrophobic is anti water which is needed for biological carbon lifeforms.**

Graphene-based materials (GBM) have been studied for several applications in biomedicine due to their unique interactions with proteins and molecules… proteins that can mediate interactions with cells, bacteria and therapeutic compounds that can be delivered by graphene nanoflakes. (Palmieri et al., 2018; Di Santo et al., 2019; Papi et al., 2019). **When hydrogel is uptake into the body it not only modifies the human body but also the interaction with other lifeforms such as bacteria, viruses and fungi.**

3D graphene scaffolds have been designed, from hydrogels to electrospun graphene fibers and 3D printed GBM scaffolds. Electrospinning is a fiber production method which uses electric force to draw charged threads of polymer solutions or polymer melts up to fiber diameters in the order of some hundred nanometers. (Zhang et al., 2018; Choe et al., 2019a; Li et al., 2019; Palmieri et al., 2020).

Graphene-based materials have been largely 3D printed or bioprinted (Palmieri et al., 2020).

Researchers foresee that graphene multi-functional scaffolds will represent the future of myo-regeneration based on 3D scaffolds.

Figure 1. (A) Skeletal muscle regeneration.

GBM-scaffolds provide a structural synthetic framework that recreates the tridimensional microenviroment favorable for synthetic cell adhesion and proliferation (Jenkins and Little, 2019).

3D Graphene Scaffolds and Myogenesis

Graphene Composites

Graphene composites for 3D scaffolds production are usually synthesized by combining a GBM and a synthetic or natural polymer.

Synthetic polymers are precisely mechanically and chemically controlled but degradation into byproducts and inflammatory responses might occur in response to this kind of material (Nakayama et al., 2019).

Embedded with a protective protein corona that mitigates *in vivo* foreign response (Ciriza et al., 2018). **Hydrogel creates a protective protein corona. One must wonder if the CV is part of the preliminary process to morph humans into SynBio entities?**

Using citric acid (Vitamin C) Poly (glycol)-graphene (PCEG) composites have been produced and tested *in vivo* in rats as biodegradable and electrically conductive scaffolds. After subcutaneous implantation in rats, there was a lack of immunoreaction and a good capillary formation in the skeletal muscle lesion (Du et al., 2018).

Graphene Foams

Graphene foams 3D architectures consist of an interconnected lightweight continuous network of graphene sheets and has been used as an effective reinforcing agent in composites for biomedical and electronics (Idowu et al., 2018). Krueger et al. (2016) demonstrated that nickel/graphene foams can induce myotube formation if C2C12 cells are seeded on it, especially if the foam is coated with laminin. You are going to hear allot about seeding in the days to come from the medical, extraterrestrial, geopolitical, even social engineers, and other sectors. Compared to C2C12 cells cultured on planar graphene, the foams exhibited higher cell and myotube densities and have also been successfully used for electrical stimulation (±10 V, 50 ms duration, 1 Hz) and induction of contraction of myotubes (Krueger et al., 2016).

Foams have been also produced by adding GO to polyurethane (PU) and a spontaneous myogenic differentiation of myoblasts ascribed to the synergistic effects of GO and to the "community effect" was observed. This effect occurs when cells grown in the interconnected GO-PU foam pores, have an augmented communication among the neighboring cells through cell-cell and cell-scaffold interactions (Shin et al., 2018a). **Understand, that foams have been approved by global governance as a euthanization device.**

GBM Topographies and Electrospun GBM Fibers

Several bioengineering techniques aim to mimic the microenvironment topography features such as ripple and wrinkles that offer contacts for cell adhesion and can enhance stem cell differentiation creating if you will an alien landscape within the body. (Grasman et al., 2015).

Graphene can modify micro and nano-features of 3D scaffolds. For example, the introduction of GO in hydrogel is used to increase the surface roughness (Zhou et al., 2018).

Nanotopographies can be added to surfaces of GBM-containing scaffolds also through laser printing by exploiting light absorption properties of graphene (Papi et al., 2016; Palmieri et al., 2017). Park et al. (2019) used femtosecond laser ablation on hydrogels. I am not sure of the translation of this concept other than the hydrogel scaffolds have unique light proteries tha natural life does not possess.

These hydrogel implants are biocompatible *in vivo*, i.e., didn't cause recruitment of inflammation cells (Park et al., 2019).

Electrospinning is a versatile technique to produce polymer nanofibers forming 3D scaffolds and replicate aligned tissue architecture. Electrospinning is performed when the electric force of the mother liquid surface exceeds the surface tension and initiates an electric spark provoking the solution to be ejected from a syringe, and as jet flows the nanofiber is produced. Graphene gained significant interests for electrospinning researchers, for its high strength, flexibility, optical

transparency, and conductivity. Given we are entering an electrically active environmental from space weather and geologic changes one can only speculate on the synergy of conjoining electrical forces. (Javed et al., 2019; Parlayıcı et al., 2019).

3D Printing in Tissue Research

Despite 3D printing has been successfully employed for the production of skin, adipose, bone and cardiac muscle (Li et al., 2019), limited research on skeletal muscle has been undertaken.

Kang created an integrated tissue-organ, printed and fabricated 3D muscle construct containing mouse myoblasts (Figure 2A). After 2 weeks, the retrieved muscle constructs showed well-organized muscle as well as nerve contacts and vascularization. Similarly, PEG/fibrinogen/alginate constructs generate a fully maturated muscle-like tissue (Costantini et al., 2017).

Figure 2. (A) Bioprinted muscle that clearly discusses the sacrificial nature of hydrogel. (a) Fiber bundle structure for muscle organization with PCL pillars (green) used to maintain the structure and to induce cell alignment. **(b)** Visualized motion program for 3D printing muscle construct. Lines of green, white and blue indicate the dispensing paths of PCL, **cell-laden hydrogel and sacrificial material, respectively. (c) 3D patterning outcome of designed muscle organization before and after removing the sacrificial material.** The PCL pillar structure is essential to stabilize the 3D printed muscle as visible from scaffolds without PCL pillar **(d)** and with PCL pillar **(e)**. The cells with PCL pillar showed unidirectionally organized cellular morphologies **(f)**. The live/dead staining of the encapsulated cells in the fiber structure indicates high cell viability (green: live; red: dead). **(g)** Immunofluorescent staining for myosin heavy chain of the 3D printed muscle organization after 7 days differentiation. **(h)** Schematic diagram of ectopic implantation of bioprinted muscle construct *in vivo*. **(i,j)** The bioprinted muscle construct subcutaneously implanted and the harvested implants after 2 weeks of implantation showed the presence of organized muscle fibers and innervating capability within the implanted construct, as confirmed by desmin muscle marker

Discussion

Researchers focused on 3D structures since these kinds of architectures recapitulate the native tissue inducing the expression of key myogenic modulators, parallel growth of muscle fibers and a correct organization of cytoskeleton and cell junctions increasing the community effect (Shin et al., 2018a; Naik et al., 2019).

Interestingly, 3D printing of GBM has not been exploited for myogenesis, despite graphene inks and filaments are available. GBM can be useful for their electronic properties: GO and rGO have indeed been employed to create multifunctional stretchable and transparent devices implantable *in vivo* for electrostimulation and continuous monitoring (Figure 2Bb; Kim et al., 2016).

Toxicity evaluation is made difficult by the infinite combinations of dose, shape, surface chemistry, exposure route and purity of graphenes used (Shareena et al., 2018).

Future *in vivo* studies should foresee a strict application of guidelines to standardize the quality of toxicity evaluation (Reina et al., 2017).

These are the reasons that you should critically think out uptaking hydrogel into your body. The ramifications of allowing hydrogel are vast and damaging. What we discussed today are only the known applications and processes but as hydrogel is relatively a new system nobody knows the long range toll to the human body hydrogel possesses.