
BioZone

2023 BIOZONE INITIATIVE & PROJECT

PROJECT SUMMARY

INTRODUCTION

My name is Dr. Dennis J. Morris, MD and I am a practicing Emergency Medicine Physician with nearly forty years' experience. Concurrent to my medical practice, I retained a strong motivation to innovate novel technologies having a potential to improve upon conventional approach, save patient and Healthcare Industry expenditures, and most importantly save lives. To date, I have amassed a personal Intellectual Property (IP) portfolio of nearly 100 technologies and novel proprietary inventions of which I term my 'Principia Medicus'.

Nearing retirement, and at the time I was planning to introduce my product realization company, the Covid-19 Pandemic fell upon us. I chose to postpone retirement and table my company pursuit and remain a frontline provider combatting the pandemic. In this manner, I would be able to step up to the plate to do my part in addressing the crisis and evaluate whether I might be able to offer solutions to the gamut of unforeseen problems that availed from the crisis onset.

Serendipitously, I was amazed that many of the projects I had previously been developing merged seamlessly into a pandemic project. I had been working to integrate the health and wellbeing of the environment, wildlife, and humans through innovation and the new endeavor seemed crystal clear to me given the Covid-19 pandemic potentially originated as a zoonotic manifestation. Whether it was or was not, I now have a succinctly defined insight to the journey and work that needs to be done.

I decided to name my new venture the **BioZone Initiative and Project** with **'Bio'** meaning life and **'Zone'** being a specific place on the planet, whether spatial or geographical, elemental (land, water, fire, air, and space), and or catalytic wherein our life action(s) bring about specific reaction(s) in a measurable sense to the planet.

I felt the BioZone Initiative and Project should integrate as an **'All-in-One'** construct providing countermeasures and mitigant solutions to not only the Covid-19 Pandemic, but also become a broader scope initiative with the capacity to address a multitude of existing, present, and future problems as well. For the past 3.5 years I have dedicated essentially all of my time away from work to research National Biodefense Strategies Implementation goals and requests, Wildlife, Environmental, and of course urgent Public Healthcare concerns. I put together a small team of kindred professionals to help model the business design as well as help fund the research and development of core essentials needed for the '**BioZone System'** to be realized.

It is with significant pride that I am able to herein introduce my work in a fashion intended for the good of our National Biosafety, Biosecurity, and Biodefense for all life and **'Bio-Zones'**.

MISSION STATEMENT

It is my mission to innovate a rapidly expanding project portfolio of cutting edge, revolutionary, and disruptive intellectual properties. In doing so, I hope to impart significant and relevant advancements toward the future of global healthcare, planetary environmental, public and wildlife safety and well-being, biological and ecological industries and sciences, and overall land, water, and air conservation. Through collaborative and collective intelligence participation, I plan to provide the technology, lifesaving solutions for existing and forthcoming unpredictable problems, innovative countermeasures, and mitigants to accomplish my objectives.

I choose to endeavor in a socially diverse and environmentally responsible way that cherishes nature by inspiring and implementing sustainable solutions to maintain and restore the wildlife habitats and environment. I believe responsible integration of wildlife habitats, environmental remediation, with public health through proactive planning and execution of novel innovations and biotechnologies, safe practices, and relevant education, will provide our future generations with a healthier wellbeing and biocompatible symbiosis with planet earth.

VISION & GOALS

I envision the ability to convert hazardous materials into clean energy, reduce fossil fuel utilization, eliminate harmful waste, provide a reduction means for greenhouse gases, prevent depletion of natural resources, achieve carbon neutrality, reduce pollution detrimental to our environmental ecosystems, and jointly collaborate with kindred sustainable individuals and or institutions.

PROJECT DESCRIPTION

As a practicing physician, I developed the BioZone Project submitted herein to be a '**conceptual construct**' therein providing a complement of novel innovations designed to provide the United States the mechanisms, objectives, and technological means necessary to initiate and develop a cutting-edge Biosafety and Biodefense Initiative and Strategic Implementation Plan.

The components of the proposal discussed herein comprise a Fish and Wildlife Phase of the overall BioZone Project designed for integration with our Human Healthcare Biosafety and Biodefense plan. Both phases merge, through functionally interoperability of technologies and means and methods to provide an overall National Biosafety and Biodefense Strategic Plan.

The complete BioZone Initiative is being developed in accordance with the United States **'One Health'** Program and provides solutions to many of the United States Strategic Biodefense Initiative and Implementation Plan wherein both programs have been comprehensively detailed in reports disseminated latter 2022.

STATEMENT OF SIGNIFICANCE & NEED

The BioZone Project will address important existing and forthcoming problems in the United States by advancing scientific knowledge; combatting pathogenic invasion and clinical manifestations of specific contagions and disease processes known to exist and or be actively spreading throughout the nation; model a robust Biosafety and Biodefense program to defend against a future pandemic; mitigate environmental pollutants; sustain an abundant and healthy population of fish and wildlife; protect public health from zoonotic transmission of disease; provide new jobs; create additional wildlife observatories, refuges, sanctuaries, and or preservatories; and encourage increased public environmental conservation, all serving to enhance and ensure public and wildlife health and wellbeing, tourism, and safe outdoor recreation(s) and the revenues generated thereof. Alternatively, not addressing these issues will have significant negative impacts such as:

- Prion diseases such as Chronic Wasting Disease (CWD) jeopardizing the herd population of Moose, White tail Deer, and Elk,
- PFA chemicals in the land and water supplies jeopardizing the health of fish and wildlife, and public health and wellbeing,
- Without a strategic Biodefense Program, we will be vulnerable to the next Biocontagion epidemic and or pandemic thereby jeopardizing millions of lives,
- Without aggressively seeking to either newly convert or remediate critically jeopardized land and water areas in the United States, there will be continued loss of natural wildlife habitat which is one of the biggest threats to wildlife population, as well as to the hunting and fishing industries and revenues generated by means of.

TWELVE PROJECT PRIMARY OBJECTIVES

1. To impact the United States public and private domains relevant to ecological Homeostasis, Biosafety, and Biodefense Strategies,

2. To Provide research and extension activities to develop and strengthen early detection, rapid response, and science-based management to address wildlife disease outbreaks before they become pandemics,

3. To strengthen capacity for wildlife health monitoring to enhance early detection of diseases that have capacity to jump the species barrier and pose a risk,

4. To establish and enhance fish and wildlife agencies' capabilities to effectively address health issues involving free-ranging terrestrial, avian, and aquatic wildlife and minimize the negative impacts of health issues affecting free-ranging wildlife through surveillance, management, and research to protect the public against zoonotic disease outbreaks,

5. To increase the readiness for wildlife agencies to protect against future pandemics and encourage them to coordinate their efforts across jurisdictions in a seamless manner,

6. To strengthen the foundation of an interjurisdictional landscape-level wildlife health and disease network to protect wildlife, ecosystems, economies, and the public,

7. To enhance public or private working agricultural lands, forests, and grasslands in order to support conservation of soil, water, habitats of fish and wildlife resources,

8. To acquire critical land or water areas for the provision of clean water, wildlife, hunting, fishing, military installations, and or natural resource-based outdoor recreation,

9. To provide means and methods to prevent wildlife infection with potentially fatal diseases that jeopardize the species population, negatively impact the regional revenue derived from hunting and fishing and propose a risk of spillover zoonotic transmission.

10. To provide a means and method to improve the overall health and wellbeing of fish and wildlife in the natural habitat setting.

11. To provide a seamless United States Biodefense Plan that integrates both the strategic wildlife and public health concerns in a 'One Health' cooperative means serving to prevent, detect, forecast, and treat emergence and spread of infectious disease pathogens having the potential to cause significant health, economic, and social burden to society.

12. To provide significant meaningful impacts for the Healthcare Industry to create a safer interaction **Bio-Zone** and for both the patient and healthcare provider, improve the means and methods of detecting, analyzing, and interpreting physiologic parameters, reduce Healthcare costs and medical errors, and save lives through best practice methods and novel innovation.

PROPOSED WORK

The **BioZone Initiative and Project** proposes to develop of novel means to prevent, detect, forecast, and treat the emergence and spread of infectious diseases that have the potential to cause significant health, economic, and social burden.

The component elements of the BioZone Project are integrated to comprise the **BioZone System.** The BioZone System, as a whole, serves to provide its own ecosystem, in a broader sense, of innovative solutions that both individually and collectively address a gamut of Wildlife and Public Healthcare issues and concerns.

A 'Concept Abstract' perception of the BioZone Initiative and Project is to provide a modelling construct that provides foundational elements wherein forthcoming and newly derived associate technologies may be incorporated. In this fashion, a perpetual improvement will impact the overall success of the BioZone System itself. A modular configuration of BioZone technologies is preferably one that is cost saving, compact, completely mobile, lightweight, and deployable anywhere on land, sea, air, or space.

The modular and adaptable designs and configurations of the innovation permitted a seamless and readily amendable platform capable of inducting a diversely expanded scope of the project objectives. For instance, my initial Covid-19 scope of the BioZone System was further expanded to address the environmental, wildlife, and ecological aspects of a National Biodefense Strategy, I developed a Point of Care (POC) integrated Healthcare Facility component and thereafter modified the project component to encompass and deliver solutions to a number of other public concerns, and I have even proposed to NASA a BioZone Space Version to be developed for addressing problems such as spacecraft impacts and high energy cosmic radiation exposure.

In this aspect, the BioZone Project and System must be evaluated in context as a whole, to be a complex matrix of advanced component technologies simultaneously fused serving to provide meaningful high value solutions to diversely disseminated requests from governmental agencies.

For example, the BioZone Project and System is a response to the 2022 National Biodefense Strategy & Implementation Plan calling for "Countering biological threats, enhancing pandemic preparedness, and achieving global health security providing a whole-of-government framework that organizes how the U.S. Government manages its activities to assess, prevent, prepare for, respond to, and recover from biological threats more effectively". Furthermore, it builds from a holistic 'One Health' approach that recognizes the interconnections among people, animals (domestic and wildlife), plants, and the environment. In this aspect, the One Health approach interweaves the efforts needed to address the threats to all of these realms.

The BioZone Project also provides novel solutions to local and regional requests for innovative solutions to address and prevent the spread of specific disease presentations that are currently endangering several wildlife populations, public recreational revenue, and having a potential spillover zoonotic transmission to human beings.

The National Biodefense Plan's strategy also expands the U.S. Government's efforts to address the full range of future biological threats of natural, accidental, and deliberate origin, incorporate both technological and policy needs revealed by the Covid-19 pandemic, and provide an opportunity for our government to build core values of equity and accountability into our efforts to protect the health and security of the American people. The plan's success is stated to therein depend and rely on "A culture of collaboration and experimentation to address novel and persistent threats and to do so in a way that ends rather than exacerbates existing inequities".

The BioZone Innovation & Project recognizes the problem sets and governmental requests to be a complex interplay of problems and the solution(s) cannot be adequate only addressing the component problems individually. It will take a comprehensive and multifaceted approach to solve these problems and we feel the BioZone Project and System has already started to develop the mechanisms imperative for successful intervention. It is my Vertu Team intention to provide a comprehensive set of strategic provisions inclusive of novel technologies, countermeasures, and mitigants necessary to achieve the goals of both project itself and the National Biodefense Strategy & Implementation Plan and the objectives set forth herewithin.

In one general aspect, the proposal work will provide the United States with a '**Paradigm Shifting Approach**' to the integration of environmental, wildlife, ecological, military and public health wellbeing. By means of autonomous **BioZone Field Station Units**, an **Early Warning Biodefense System** is delivered capable of detection and analysis of known and or unknown harmful pathogens, contagions, and other biohazards. A means for decontamination and or sterilization of a specific **Bio-Zone Area** radially peripheral to the BioZone Field Units is provided, a preventative means to isolate and prevent the spread of Biocontagions, and remote transmission of acquired data to autonomous **Central Control Stations** for further dissemination are other provisions of the Field Unit. Additionally, identification and tracking of infection transmitting vectors prior to becoming physically detectable, rendering therapeutic treatment modalities to treat such transmitting vectors, and activation of local, regional, and national early warning action protocols are provisions. The BioZone Field Units provide the autonomous remote **'Environmental and Wildlife Component'** of the entirety of the **BioZone System**.

My **'Point of Care'** (POC) **Healthcare Facility BioZone Unit** provides the BioZone Field Unit a complement component of the BioZone System. The totality of both BioZone Units provide an autonomous, seamless, intercalated network communication means between the environment and human point of care facilities. In this regard, the BioZone Field Units communicate vital data between themselves, with Central Control Stations, with POC Healthcare facility BioZone Units, and with participating agencies. A continuous autonomous Biodefense monitoring system is therefore provided with a multitude of cooperative technologies and components discussed herewithin serving to prevent, detect, forecast, and treat emergence and spread of infectious disease pathogens having the potential to cause significant health, economic, and social burden to society.

In another general aspect, the proposed work provides a POC Healthcare Facility **Early Warning Biodefense Mechanism.** Here, detection of known and or unknown contagious pathogens may be detected, analyzed and compared to pathogen libraries through AI assisted

software provisions. Patients presenting with such Biocontagions may then be rapidly and adequately isolated from the public, staff, and healthcare professionals therein thwarting further transmission of the Biocontagion. Provisions of the POC BioZone Unit decontaminate and or sterilize the '**Bio-Zone Area**' radially peripheral to the unit, provide a proprietary temporary isolation cabinet enclosure permitting healthcare providers to treat the patient presentation **without the need for PPE**, and transport the isolated patient to other areas of the facility for all existing conventional treatment and or necessary interventional care. At this point the BioZone POC Unit temporarily and comfortably houses the patient for as long as the patient remains a contagious threat to the public and staff and or is discharged pursuant to protocol requirements and mandates.

I have designed the remarkable Healthcare BioZone Unit to have an expanded scope and modular construct to further serve to provide a novel **Pulmonary Drug Delivery System.** Here, enhanced therapeutic delivery to pulmonary tissues, facilitated activation of pharmaceutical drug carriers and modulators, regenerative and reparative pulmonary damage may be mitigated, immune system modulators may be deactivated therein preventing cytokine storm development, and a molecular and or cellular capture provision may offer novel treatment modalities to a vast number of inflammatory diseases.

In addition to the mentioned advanced technologies, my BioZone System comprises a novel **Standalone all-in-one Emergency and Critical Care Apparatus** that is readily mobile, lightweight, and compact-able, facilitating confined transport to any area on land, sea, air, and space. The space saving all-in-one unit is provided additional novel technological advancements in the Healthcare Arena inclusive of a significantly improved airway management system, a summation EKG with improved interpretive signal detection and analysis, and an improved vital sign determination means. Additionally, provisions include an ability to provide more accurate oxygen saturation determinations in the compromised patient setting, a means to increase the survival rate and status of patients having undergone cardiac resuscitation, the ability to detect Acute Cardiac Events and developments prior to that of conventional equipment, and the ability to better identify subtle Ischemic Events in patients such as Van Negative Cerebral Hypoxic Events. Software provisions include the means to significantly reduce the time that healthcare providers document thereby enabling more direct patient care time availability, functional interoperability of component technologies with machine learning capabilities, and the adaptability for forthcoming planned advance Vertu Realities technologies to be integrated.

Finally, in developing the BioZone System I have been developing a novel blockchain application means for collective and collaborative joint participation to be introduced, a means for Prion Disease detection prior to an animal showing clinical signs and symptoms of the disease is proposed, a means for intervening in Prion protein absorption across the intestinal mucosal membranes, a means to prevent Prion proteins from crossing the blood brain barrier, and a means to prevent the abnormal folding of Prion proteins and or capability to unfold such abnormal Prion protein is under development. The BioZone Project will also be developing the means to better remove PFAs from land and water thereby attending the environmental requests of local, regional, and National EPA and other governmental agencies.

In this regard and summation, my Vertu Realities BioZone Initiative and Project proposes to provide:

- An **Innovation Blockchain Application** network and participation means,
- Preventative and interventional countermeasures and mitigants to surveil environmental and wildlife issues such as Prion diseases like Chronic Wasting Disease of deer and Elk,
- Removal of chemical pollutants such as PFAs in the land and water which are currently affecting fish, wildlife, and human health and wellbeing,
- An Early Warning Biodefense System providing an integrated environmental, wildlife, and Healthcare facility interconnection, preventing the emergence and spread of infectious disease that have the potential to become the next epidemic and or pandemic,
- A modular and mobile all-in-one Emergency Medicine and Critical Care evaluation and treatment apparatus,
- An improved and safer means for Healthcare providers to evaluate, manage, and treat serious contagious disease patient presentations,
- Novel therapeutic treatment modalities and significant advances in medical device technologies capable of improved signal detection, analysis, and interpretation of collected physiological parameter data,
- A wildlife and environmental conservation program and platform is introduced wherein a novel 'non-lethal' hunting practice of animals provides vital project data, animal tracking provisions, testing of the animal for identifiable diseases, harmless recreational opportunities for the public, and a broad spread means for clearing toxins and pollutants from our land and water systems is provided,
- A contraceptive project is underway wherein animal populations may be managed in a more humane and non-lethal fashion.
- A Project Initiative capable of saving billions of dollars in United States Healthcare expenditures with the technological capacities to save millions of lives.
- Provide an evidence-based Biosafety and Biodefense plan which comprises:

  a. Diagnostic pathology, microbiology, virology, parasitology, toxicology,
  b. Humanely eliminating and discarding said infected host wildlife wherein the jeopardy of further transmission of harmful Biocontagion(s) exists, when deemed appropriate and necessary for the Biosafety of wildlife and or public spread and consequences thereof,
  c. Providing a biosafety outbreak response team with management algorithms and policies,
  d. Provide a humane wildlife population management program,
  e. Develop a comprehensive data management plan,
  f. Develop risk assessment and decision-making support,
  g. Training of participant team members,
  h. Communication plans so that key participants receive and understand information about identified wildlife diseases in a timely manner,

i. Enhancement of public or private working agricultural lands, forests, and grasslands in order to support conservation of soil, water, habitats of fish and wildlife resources,
j. Acquisition of critical land and water areas for the provision of clean water, wildlife, hunting, fishing, military installations, and or natural resource-based outdoor recreation,
k. Providing safe, nontoxic, and biodegradable materials used for hunting and fishing tackle.
l. Connect local, regional, and state managers in an interjurisdictional network of project participants, institutional educators, regulators, practitioners including public health and veterinary services.
m. Acquire state wildlife managers having access to diagnostic services for wildlife disease.
n. Permit state wildlife managers to have the capacity to comanage wildlife health data, data sharing, and communication.
o. Provide the integrated technologies and equipment needed to comprise a National Surveillance, Detection, Monitoring, Interventional Response, and Data Reporting mechanism.

SHORT & LONG-TERM ACTION SUMMARY

- Further develop BioZone project Best Management Practices (BMPs) for fish and wildlife diseases by developing all-inclusive fish and wildlife disease management through feeding wildlife, water quality and quantity management, and integrated pest management plans, relevant to those areas acquired by or participating with the BioZone Project.

- Develop the Biosecurity & Biosafety protocols/educational resources for field staff, management practices, animal handling, captive facilities, and animal disposal.

- Develop internal and external rapid communication structures and relationships for both routine and emergency disease events (local, regional, statewide) and develop a suite of external communication templates for wildlife disease issues (public).

- Develop disease forecasting, risk assessments, horizon scanning to identify current and future needs such as assessments to identify gaps in capacity, climate change, environmental persistence and potential routes of exposure to pathogens, identification of spillover hotspots, identification of highly susceptible species locations, wildlife susceptibility research, research on human health implications and economic impact of wildlife diseases, risk assessment of “reverse zoonotic transmission” from humans or between domestic animals and wildlife.

- Develop contingency disease management plans for regions or organizations for emergency and routine morbidity and mortality events, inclusive of guidance for wildlife disease, disease-specific field responses, carcass disposal protocols and agreements, plans for creating a

sustainable, long-term disease management program, systems approaches to develop such management actions.

- Develop enhanced disease surveillance systems for early detection and monitoring at biologically relevant spatial scales that will provide statistically significant results, and environmental surveillance approaches (e.g., aquatic surveillance for waterborne pathogens).

- Develop Emergency Response (ER) plans by developing inter-jurisdictional response capabilities, clarifying agency responsibilities and funding streams for covering the costs of emergency response, ensure agency contacts are up to date, set up mutual aid agreements, development of an All-Hazards Incident Management Team with fish and wildlife disease skillset, foreign animal disease outbreak plans, After Action analysis (hot wash) of disease response activities and management interventions, structured-decision making/adaptive management/modeling approach to determine how to move forward in a disease response with a large amount of uncertainty, Design long-term monitoring programs to follow-up on response activities and detect recurrence of the disease issue and/or lasting impacts to the population as a result of the disease or the management response to it.

- Hire staff dedicated to fish and wildlife biologists and technicians to increase field response capabilities for detection of disease events, sample collection, sample processing, data entry, and response. Hire fish and wildlife veterinarians, ecologists, social scientists, biologists to address fish and wildlife health and disease.

- Develop human dimensions examining tolerance of management interventions (e.g. timing, locations); risk perceptions and how those can be influenced or utilized to address disease issues, determine what messages and messaging formats are most effective, educational campaigns based on human dimensions research, risk communication, knowledge translation and mobilization, conflict resolution by working with partners to resolve chronic sources of conflict when addressing fish and wildlife health, focus groups, participant meetings, social science evaluations, training in conflict resolution.

- Increase resilience and protecting environmental services to decrease the impact of disease by preventing or decreasing human & domestic animal interactions with wildlife, add a component to wildlife action plan for increasing resilience against disease, safe harbor agreements, collaborations with EPA, addressing invasive and injurious species through prevention, response, control of invasive and injurious species that could serve as reservoirs of disease, water, and environmental quality.

- Develop Information Management Systems with state level data management capability, production of reports, maps, data interpretation and visualization, Conversion of legacy data into electronic formats that can be entered into databases, create data management plan and data sharing strategies between wildlife agencies, or between wildlife/agriculture/public health agencies.

- Develop jurisdictions & authorities inventories of existing statutory and regulatory framework, conduct a gap analysis of statutes and regulations from detection to recovery, develop laws,

regulations, and ordinances ensuring an enabling environment exists for wildlife agencies to enact a wildlife health program (legislative authorities) and that agencies have organizational capacity (plans, people, infrastructure), and technical capacities to enact the program (training, etc.).

- Develop a laboratory network and services to establish new or strengthen existing diagnostic networks, expand diagnostic services available, potentially join a regional diagnostic lab service as a member, or establish agreements with state-level and national labs and acquire the necessary logistics and equipment for sample collection, testing, archiving, and storage.

- Strengthen existing networks and governance structures, formalize partnerships through 'Memoranda of Understanding' or other documents, nurture a wildlife health community of practice to be inclusive of state and federal citizen scientists for disease detection and response.

- Develop policy and regulation development to prevent disease introduction, decrease disease transmission, respond to disease events, increase resilience, measure success and adaptive management, create sustainable fish and wildlife health programs.

- Create guidelines, policies, and outreach programs regarding biosafety and public health for personnel, volunteers, and visitors, create linkages and collaborations with local and state, public health offices for routine and emergency events, and hire public health expertise.

- Develop research to develop disease detection and management tools with projects focused on applied disease prevention, surveillance, management, detection techniques, ways to limit disease transmission, promoting resilience, to support an adaptive management approach.

- Develop tools and management strategies for climate adaptation and mitigation for disease impacts with systematic collection of health data and integration with climatic and environmental data to determine species and populations at risk from health effects of climate change, utilize health promotion and harm reduction approaches in development of adaptation strategies, and provide analysis of wildlife or zoonotic diseases prone to expansion due to climatic changes.

- Develop training didactic and hands-on courses for biologists, veterinarians, law enforcement officers, volunteers, rehabilitators, and partners on fish and wildlife disease, incident management, biosafety/biosecurity/personal protective equipment use, format inter-jurisdictional collaborative training to create consistency in training and establish training programs for wildlife health professionals.

- Develop wildlife rehabilitation instituting and improving biosecurity & biosafety practices of rehabilitators to prevent or minimize disease transmission, developing release protocols to reduce impacts on ecosystems, and increase disease diagnostics for animals submitted to rehabilitators

- Develop nutritional supplementation to prevent the absorption of prion proteins across the intestinal mucosa and membrane, alter the gut microbiota in order to prevent specific diseases and inflammations.

- Develop safe, nontoxic and completely biodegradable materials to use in the fishing lure and tackle industry.

CURRENT PROCEDURE & LIMITATIONS

Currently, no adequate system exists for an autonomous surveillance, monitoring, tracking, and isolation of undomesticated wildlife carrying potentially serious contagious and transmittable diseases while residing in their natural habitats. Instead, epidemiologists and wildlife management personnel must randomly cull and test wildlife specimens in certified laboratories. Many times, this testing for Biocontagions involve postmortem carcass dissection with data accumulation and reporting. Such as is with the case of Chronic Wasting Disease (CWD) which has been continuously spreading through the North American deer and Elk populations.

In the case of CWD, being a good example of a wildlife contagion disease having a substantial chance of spill-over zoonotic transmission, the system currently relies on hunters spotting diseased deer or elk having an appearance of CWD with wasting and abnormal behavior. Hunters are asked to voluntarily shoot these animals and bring at least the head to a testing facility. Positive CWD confirmation is then recorded with map distributions being updated as necessary. The current CWD distribution mapping is illustrated in Fig. (1).

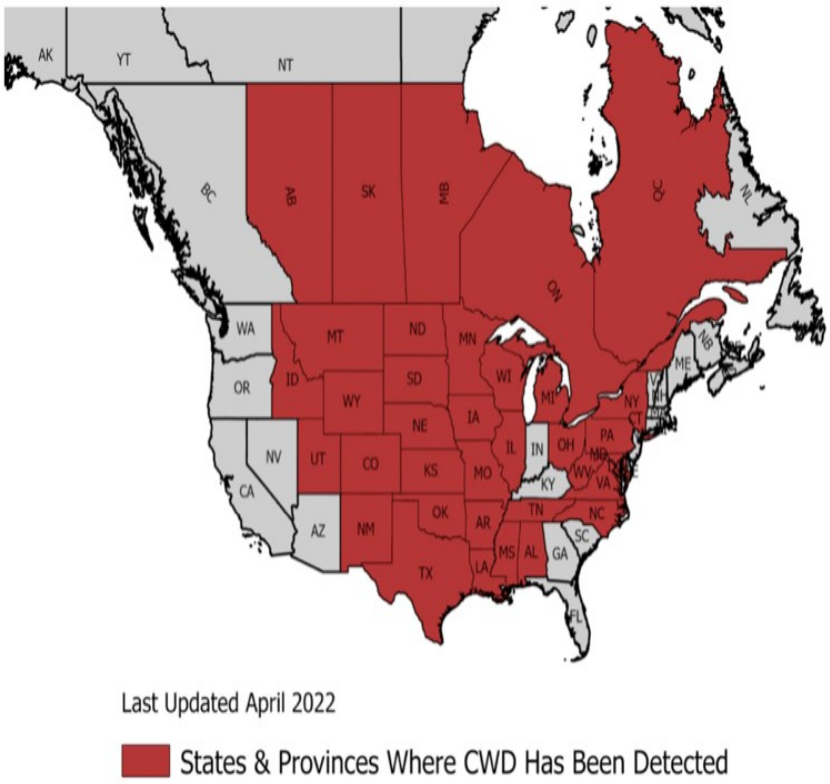

Fig. (1) CWD detection map April 2022

It is readily apparent that CWD has yet to be contained and in the State of Mississippi alone, in this year there has already been 78 cases identified whereas in the past five years there had only been a total of 118 cases identified. So CWD is constantly spreading, has the potential to become the next spill-over zoonotic transmission source in the United States and Canada and the only thing we have been able to do is to document the number of cases and recreate the red maps periodically.

The full discussion of the pathophysiology of CWD as a Prion Disease is beyond the scope of this proposal but what is extremely important and relevant is the fact that to date there are no known curative treatments available anywhere in the world, vaccines have been shown not to work with Prion Diseases, and with CWD, as well as with other Prion Diseases, the neurodegenerative consequences are 100% fatal.

It is also important to recognize that Prion Diseases have, in the case of the Fore Tribe in the Eastern Highlands of New Guinea (Kuru) and in the case of a Variant Creutzfeldt Jakob (Bovine Spongiform Encephalopathy or Mad Cow Disease), the Prion Disease was spread to humans by eating the infected meat of the animal or through funerary cannibalism. Even more alarming is the fact that as of this year the CDC and WHO are unable to determine whether CWD of deer and elk is being spread to humans consuming the meat and the fact that CWD takes up to 18 months subsequent to consuming prions to have a physical characteristic identifiable to the average hunter. Of course, a hunter would be reluctant to bring home the meat of a wasted appearing deer or elk but what about those animals not yet showing the signs and symptoms of the disease. A true dilemma for hunters.

In the case of CWD, hunting revenues in states like Arkansas have been devastated by the spread of CWD throughout their state and in many cases, undomesticated animal meat is a main source of human consumption given financial stressors.

Also relevant to the topic is that certain neurological disorders such as dementias, Alzheimer Disease, and Parkinson Disease have similar misfolded protein accumulations in the brain tissues of the affected individuals. In fact, many experts in the field believe that an animal disease will spillover and become a zoonotic infection that will be equivalent to the next pandemic and that Bird Flu (Avian Influenza) or a prion disease may likely be the next culprit. One thing certain is that the proximity to, and the concentration pool of potential zoonotic transmission plays an intricate role in disease spillover. The higher the exposure rate and the longer the exposure time, the increased likelihood of spill-over transmission.

With such critical importance, it is imperative that technology is developed to detect contagious pathogens in wildlife before showing signs and symptoms of disease, a means for rendering diseases present on land (excretory secretions) or water to a harmless state, a means to identify, monitor, track, and or eliminate diseased animals from a herd, a means to prevent the absorption of prions across the gut membranes and blood brain barrier, and a potential treatment of misfolded proteins in vivo is achieved. It is also imperative to develop the means for such detection and data integration with local, regional, and national agencies to activate procedural intervention, and to merge such detection with point of care healthcare facilities that can alert

healthcare providers to vicinity environmental disease detection and or recent travel exposure to environmental disease.

In regard to the Healthcare Facility current procedure, I know of no autonomous means whereby specific known and or unknown pathogen detection is universally available and no correlative means to integrate identified contagious pathogens with an Early Warning Biodefense System notification and activation system. Other than the application of a face mask, there is also no rapid isolation means of a contagious patient before exposing the public, staff, and healthcare providers to such contagious pathogens, no proper means of evaluating, testing, managing, and treating such a contagious patient presentation without mandated uncomfortable, costly, and time consuming donning and doffing of PPE, which delays critical care intervention, increases provider attrition, and decreases enrollment into healthcare fields ultimately worsening an already short staffed predicament. Additionally, in times of pandemic patient presentation overload, staff shortages and room availability worsen the overall problem and lead to a cycle of increased medical error and adverse patient outcomes.

With the Covid-19 pandemic, and the Healthcare System being caught totally off guard, healthcare facilities scrambled to find ways to combat the multitude of challenges that occurred. Given the fact that retrofitting treatment rooms with negative pressure and a decontamination and or sterilization means would take too long and be too expensive (estimated to cost up to 200k per patient room) hospitals were forced to put up error prone makeshift plastic isolation curtains and mandate the provider staff to don and doff discardable PPE. As treating frontline physicians in the Emergency Departments, we found even sprained ankle presentations might have mild or asymptomatic Covid. It basically became necessary to test nearly every patient presentation for Covid which was a tremendous cost to the Healthcare system, created a considerable delay in patient care, and was fraught with false negative reporting due to duration of infection and or testing problems such as personnel technique and lab analysis.

For the first time in modern history, we observed healthcare providers themselves dying due to workplace exposure. Factors included incomplete protection from even N95 masks, donning and doffing garment and equipment errors, universal sizing of PPE, lack of adequate PPE and masks, and noncompliant patients that were simply too air hungry to tolerate wearing a snug mask and contaminated treatment zones, as examples.

Running on tight profitability ratios of 1% to 2% total revenue, the overwhelming majority of hospitals have to date been unable to retrofit treatment rooms and treatment zones and stand nearly as unprepared for the next epidemic or pandemic armed with the same protocol strategies as with the Covid-19 pandemic. What if Bird Flu, with a nearly 40% mortality rate, is the next pandemic. Will healthcare providers be forced to pick and choose which patients are attended to and which ones are not, will CPR and other invasive interventions be withheld for Avian Flu patients, will age finally play a role in the determination of who gets a chance to live or who is essentially left to fend for their own. These are case scenarios that we simply cannot allow to avail and alternative technologies are essential to prevent and manage the next pandemic, which is just a matter of time.

INNOVATIVE APPROACH – ENVIRONMENT & WILDLIFE

The BioZone Project and System is currently under development and proposes to provide a novel comprehensive innovation means that addresses, combats, and treats the emergence and spread of infectious diseases that have the potential to cause significant health, economic, and social burden. Furthermore, the BioZone Project aims to provide serious contagious infections a disease platform and ecosystem, in the terms of providing a seamless interconnected interaction of environmental, ecological, and public health issues and well-being.

In doing so, the BioZone Project will address each of the relevant components necessary to accomplish the goals and objectives of the project. It is the overall summation of the component provisions that provides a complement of solutions to specific problems that now face the nation and the entire planet. For our purposes, we will categorize the overall project's innovative approach into the prevention of, surveillance, detection, monitoring, forecasting, mitigating technologies, and treatments. The simple fact that we are proposing a project that integrates these individual components that include the merging of environmental issues, ecological issues, and public health issues into a single project system which is in itself an innovative approach. We are aware of no other proposal in the world that have addressed the stated issues at hand with such an all-in-one solution platform.

As it will be shown, the BioZone Project considers the individual aspects that lead to a pandemic to be multifactorial and must be addressed accordingly. For instance, if a card player is given a certain set of individual cards the resulting play can be one of two directions. Either the combination of several cards grants a significant advantage (pair, three of a kind, high card advantage, straight, etc.) or each card stands alone being a disadvantage and the summation of individual cards standing alone leads to having a bad hand. Taking the bad hand one step farther, perhaps the infectivity of specific disease such as CWD in deer is the fact that a deer has been dealt a bad hand of cards and the totality of the individual bad cards are what made the deer susceptible to a certain disease. A stressor situation affected the deer's gut microbiome which in turn affected the deer's immune system which in turn rendered the deer susceptible to disease such as CWD.

The BioZone Project takes a similar approach but reverses the sequence in a positive fashion. If we can alter the deer's gut microbiome then we can alter the deer's immune system and then we might be able to prevent the deer's susceptibility to CWD. Another example is to alter the deer's gut microbiome wherein prion proteins are bound with supplement agents rendering the resulting protein-agent complex unabsorbable or if we bind the prion in the bloodstream of the animal making it unable to cross the blood brain barrier, then we prevent the misfolded protein accumulation and subsequent neurodegenerative disease. One step further, by simply altering the deer population gut microbiome, the deer population will not suffer devastating population losses which in turn will support the deer hunting revenue for involved states. An example of the cause-and-effect relationship that the BioZone Project utilizes strategically. Such an approach by the BioZone team is yet another innovative approach.

Another example of the BioZone Project approach in regard to potential cause and effect is the PFA example previously alluded to. If poly and perfluoroalkyls are now ubiquitous in the environment due to plastics manufacturing then the absorption of the PFAs is inevitable. We now find that the absorption of PFAs through the air, water, and food we consume is detrimental to our health in regard to being a causative agent in certain cancers and neurological disorders, for example. What if PFAs are a bad card in the hand and when combined with other bad cards such as stress effects, smoking, or alcohol consumption, the totality of bad cards affect our gut microbiome. Next our gut microbiome, if consisting of harmful bacteria instead of healthy bacteria, has repercussions such as causing depression, cardiovascular disease, and or other neurological disorders. We certainly aren't going to fix the disorders with pharmaceuticals since the etiology of the problem was the sequence and arrangement of bad cards dealt in life.

What if PFAs are an underlying cause for Autism, ADHD, decreasing testosterone levels in men, or infertility disorders? We are already dumping eight to ten million tons of plastic waste in the oceans each year and even worse, it is estimated that by the year 2040 plastic pollution entering the ocean will increase by about 2.6 times. The amount of present plastic pollution in the oceans is estimated to comprise more than 170 trillion plastic particles which if gathered would weigh approximately 2.3 million tons. Also, microplastics don't need to be ingested to be harmful and are known to seep toxic chemicals into water. Even current climate change address contributes to the problem since a single windfarm is estimated to have more plastics than all of the straws and drinking cups produced in the world for an entire year.

We need to better address the etiologies that cause 'dys-ease' being the precursor to disease instead of always relying on a prescription drug. In this regard, the BioZone Project felt it would be beneficial to include the prevention of and early detection of Prion disease and environmental PFAs as essential components in safeguarding the public against infectious disease(s) and preparing the planet for the next pandemic. Perhaps another innovative approach.

1. Prevention and Detection

In another aspect, in order to prevent the emergence and spread of infectious diseases, the BioZone Project is developing the **BioZone Field Unit**. This multipurpose apparatus can be configured specifically for any **'Bio-Zone'** which is the descriptive term I used to reference all 'Bio' (Life) interactions to various 'Zones' of the planet whether spatial or geographical, elemental (land, water, fire, air, and space), and or catalytic wherein our action(s) bring about specific reaction(s) in a measurable sense.

In the case of CWD and white tail deer or Elk, the BioZone Field Station Unit would necessitate a base unit that attracts the deer population to the specific BioZone vicinity. In this case, the unit serving as a feeder device unit would suffice. Accordingly, a feeder device can be disseminated to deer hunting properties and or leases across the nation with a stipend agreement with the landowners mandating a 'No Hunting Zone' to be established within a predetermined radial periphery to the BioZone Field Unit. Note that the BioZone approach is the exact opposite as to the CWD zones previously not encouraging the gathering of animals in order to dissuade contagion transmission. Referencing Fig. (1) again, the previous strategy simply has not worked.

Next, the BioZone Field Unit is configured to permanently house a Biosensor(s) device that is capable of detecting a predetermined catalog of infectious agents through an animal's saliva, excrements, and or in the air vicinity of a respiring animal. The BioZone Unit would preferably house a redundant complement of Biosensor's given the importance of detection playing an intricate role in disease prevention. The conventional Biosensor devices available now or in the near future will provide the capabilities for all mentioned detection routes. The BioZone Unit's AI facilitated software program is thereby able to compare the detected biological agents with a Central Station library and perhaps more importantly, detect a previously unencountered agent or contagion.

Next, by means of an aerosolization dispenser, a marker substance can be dispersed onto the body of the animal having activated the Biosensor (animals approach feeder in a segregated stall manner thereby temporarily partitioning or isolating the animal). The marker solution, or equivalent, is developed to be visible to a specific spectral light wavelength such as infrared illumination, for example. In this fashion, a nighttime drone deployment would be able to detect the marked animal and track the travel coordinates. Alternatively, an activated Biosensor could cause a mechanized stall to close thereby preventing the 'infected' animal from leaving the premises. Again, Biosensor activation would lead to software notification of participating field agents to apprehend the diseased animal and manage it according to protocols developed by local, regional, and national regulatory agencies.

Digressing, and pertaining to the animal that has contacted CWD but is showing no signs of the wasting disease, a BioZone Biosensor means will be fashioned to detect prion proteins and isolate or track the animal before having the ability to be hunted and potentially eaten as food consumption. The BioZone Project provides novel mechanisms to detect prion proteins. In this case, the BioZone Unit and applications may potentially prevent the accidental transmission of prion proteins to humans through meat consumption; another innovative approach.

The BioZone Field Station Unit, in this case would be outfitted with other aspects to protect the health of the deer population such as a proprietary food supplement intended to alter the gut microbiome in a positive fashion. The BioZone Project is currently working to provide such a food supplement and additionally the food supplement is being developed to cause Prion proteins to be Bio-illuminated for specific light wavelengths therein facilitating Biosensor detection through saliva, excrements, and even respiration. The supplement is also intended to positively affect the immune system of the animals which as previously discussed which may lead to the prevention of certain disease manifestations.

Additionally, the BioZone food supplement under development will be the source to administer binding agents intended to prevent prion protein absorption across the gut mucosal membranes and or prevent prions from crossing the blood brain barrier. Several novel innovative approaches within one nutritional strategy.

2. Surveillance, Monitoring, and Forecasting

The BioZone Field Units will be the mainstay for surveillance of emerging existing or novel contagious agents or elements. The nutritional supplement mentioned in the previous section will

illuminate those prion proteins having been excreted by the animals and therefore provide specificity instead of identification of preexisting prions present in the land, plant, or water supplies in the area. A drone plan implementation will serve the purpose of scanning land zones for excreted prion proteins and facilitate the removal of the already marked animals via the feeder aerosolized marking device. A legalized nighttime hunt with wildlife agents could be proposed to cull and eliminate infected animals.

The AI software will conduct a network surveilling mechanism wherein the BioZone Field Units autonomously communicate with one another constantly scanning the environment for critical Biocontagion agent or element comparisons to the central libraries. Upon detection and activation of the network system to be established, local, regional, and national notification of the Biosensor activation will be processed and managed accordingly. It is well expected to have false positives and false negative activations and through adequate research and development, the occurrences can be minimized.

The provided means and methods integrated with local, regional, and national participating agencies will provide the data accumulation wherein an epidemiological forecasting can be managed.

3. Mitigation & Treatment

Until we are able to find treatments capable of rendering prion diseases harmless and or curative, a prolonged study as to the efficacy of the BioZone Project food supplement(s) and the proposed properties mentioned herein is crucial. This along with the BioZone Project's proposed early detection and culling of infected animals means and methods, will be the mainstay CWD treatment until some alternative breakthrough is realized.

There are conventional methods for removals of PFAs from the land and soil and new methods are being developed such as rendering the micro and nanoplastics magnetic and removing the magnetized particles with magnets. The problem with such environmental treatments is that rainwater is contaminated with PFAs to a degree whereby the EPA recently designated rainwater to be non-potable. Therefore, as soon as PFAs were removed from the land or water systems, the next rain would serve to contaminate the land or water once again creating a vicious cycle scenario. At the present time and foreseeable future, the remediation of PFAs in the environment can only be successful with the cessation of and or better regulation of plastic disposal methods.

Alternatively, the BioZone Project is again approaching the gut microbiota as a key mitigant to PFAs as well by developing proprietary insoluble methylcellulose products that binds micro and nanoplastics therein preventing absorption. In this aspect wildlife feeders will disperse the proprietary blend and humans will be given the option of supplementing their diet as well. Perhaps through excretion processing the conventional methods of removing PFAs can work in concert. What is most important is that the absorption of PFAs in mammals and other edible game is mitigated.

INNOVATIVE APPROACH – HEALTHCARE 'Point of Care' FACILITIES

Just as with the Environmental BioZone Field Unit provisions, my Healthcare point of care BioZone Unit is currently under development (see Attachment A). The **BioZone Healthcare Unit (HCU)** provides a similar Biosensor array that once again continuously and autonomously scans for detectable Biocontagion agents and elements. One unique innovative approach with regard to the HCU is a novel **'Bubble Photonic Sensor'** wherein the patient presenting to a healthcare facility with a given predetermined scoring determination will be asked to submit a bubble specimen that is formulated with a proprietary BioZone solution rendering the respired air better capable of Photonic Biosensor detection of Biocontagion agents and elements.

Subsequently, Biosensor detection and analysis will provide an Early Warning Biodefense capability this time at the point of care healthcare facilities. In this aspect, detected contagion agents and or elements thereof, will be scrutinized with comparison to a catalogued and predetermined libraries of Biocontagions. Additionally, an agent that has been previously undetected and not catalogued will activate the detection – alert notification protocols with local, regional, and national participating agencies. The BioZone HCU is also provided a central CPU with AI assisted software that is capable of autonomously communicating with the BioZone Field Units and other local, regional, and national BioZone Units. In this fashion, a continuous autonomous Biocontagion detection, analysis, determination, activation, and notification means is provided for the National Strategic Biodefense & Implementation Network. Rapid response and early warning protocols are provided and will be integrated with the overall Biodefense System.

The HCU, subsequent to the detection of one or more Biocontagions, provides an immediate negative pressure isolation enclosure cabinet whereby the patient can be immediately isolated. The BioZone Unit then decontaminates and sterilizes the enclosure atmosphere and discharges purified air scrubbed of the Biocontagion(s). The protocol and novel innovation approach is having the patient don a proprietary patent pending **Specialized BioZone System PPE garment** that adequately surrounds a specific portion of the patient's body at least inclusive of isolating the neck and head of the patient. The configuration of the specialized and patent pending patient PPE garment is such that the peripheral aspect of the garment seals to the lower section of the isolation enclosure drape wherein the isolation objective is fully complied with.

With the patient now within the confines of the enclosure cabinet and the respired air being fully decontaminated and sterilized, the personnel attending the patient no longer needs to don and doff PPE on and off all day trying to carry out conventional and interventional care of the patient. In the case that a patient present with a head or neck issue, the HCU provides a safe means of evaluating and or treating the head or neck area without exposing the external enclosure vicinity to the Biocontagion(s).

With the unique configuration of the BioZone HCU, the upper section of the apparatus tilts skyward up to 35 degrees in order to lift the patient PPE garment off the body sections of the patient (patient temporarily residing on a stretcher). In this regard, conventional and interventional patient care can be carried out in a traditional manner. An example might be a

patient needing an extremity fracture reduced and casted, a laceration needing repair, a patient needing to go directly to the Cath Lab with an Acute MI, or even a person needing elective or emergency surgery can be attended to without exposure to the staff, public, and healthcare providers.

In essence, the BioZone System's innovative approach to PPE is providing the patient, having a Biocontagion presentation, a means of adequate and comfortable isolation without mandating the entire staff treating the patient to don and doff PPE. This one aspect of the BioZone approach can conceivably **save billions of dollars in healthcare expenses** with the current Covid mutational sequence and with any forthcoming Biocontagion capable of emerging to be an epidemic and or next pandemic.

Next, the HCU provides a harmless 'Bio-Zone' area decontamination and sterilization designed according to the specific Bio-Zone being treated. In this manner an entire waiting room can be treated versus a hallway or triage anteroom zone, for example. To accomplish this the BioZone HCU provides external and internal excimer lamps capable of rapidly and safely sterilizing and or decontaminating the ambient atmosphere inclusive of equipment and furniture. A provided HEPA filtration means serves as a redundant decontamination and sterilization means for the area and the rapid excimer enclosure treatment provides rapid and safe patient turnover.

The Minimal Viable Product of the BioZone HCU has been developed with a partnered affiliation with the University of Texas at Austin's Engineering Department. An accompanying document provides the details of the project association and deliverables (see Attachment B).

The remarkable BioZone HCU is designed to remediate numerous additional healthcare problems, at this time beyond the scope of the document, and the details of the entirety of the BioZone HCU are provided in the document A attachment. Briefly, the BioZone HCU innovative approach includes designing the HCU to serve as a **'Standalone all-in-one Emergency and Critical Apparatus'** that is modular, easily and rapidly disassembled and reassembled to fit in a relatively small shipping crate, is lightweight, space conserving, and can be rapidly deployed anywhere on land, sea, air, or space.

A complete complement of my advanced technologies have been designed for the BioZone Unit Phase two development. Some of the breakthrough proprietary technologies to be introduced in Phase two include, but are not limited to;

- an improved airway management equipment,
- enhanced physiological parameter signal detection and interpretation,
- remote transmission of signal determinations and real time assessment capabilities,
- enhanced detection means for critical vital sign determinations including a novel means for oxygen saturation detection in patients with cardiovascular compromise,
- an enhanced novel Summation EKG interpretation system and monitoring means,
- a novel means for identifying subtle Ischemic events in patients such as Van negative stoke presentations,
- a means for improving the survivability of patients having undergone CPR resuscitation,

- a novel Pulmonary Drug Delivery System,
- a novel pulmonary repair and cellular regeneration means,
- a novel means for preventing and treating radiation exposure injuries both terrestrial and during prolonged space travel.
- a novel means for treating near zero gravity physiological manifestations.
- a novel means for prevention of and determining muscle mass loss during space travel.

All of the phase two innovations are currently under research and development with the complete BioZone System, as stated, being beyond the scope of this proposal regarding the BioZone System provisions as a Biodefense mechanism against the emergence and spread of infectious agents having the potential to cause significant health, economic, and social burden.

The 'Innovative Approach' presents a multitude of novel approaches and novel technologies yet might well utilize some existing technologies initially. Overall, there is no other system in development, to our knowledge, that approaches Biodefense as we do and provides such a broad spread Prepandemic Preparedness which is innovative in its own right.

KEY TECHNICAL CHALLENGES

a). Given the sheer measure of land area in square miles of natural wildlife habitats and the various terrain incumbrances, we anticipate a key technical challenge to reside in the ability to provide an adequate territorial National Biodefense Surveillance and Monitoring means. As per the National Biodefense Strategy & Implementation Plan document, "Infectious disease threats do not respect borders. Urbanization, climate change, habitat encroachment, economic interdependence, and increased travel, coupled with weak health systems, increase the ability of infectious diseases to spread rapidly across the globe. Novel infectious diseases, the resurgence and spread of once geographically limited infectious diseases, zoonotic diseases, and antimicrobial resistance can overwhelm response capacities and make outbreaks harder to control".

The BioZone Project intends to address this geographical hurdle by initially sectioning the United States into accessible and non-accessible land zones (the BioZone Map). Next, these sectioned zones will be further partitioned in privately owned land versus public and Governmental land. Once established, a decision will be made as to how large an area can be managed per BioZone Field Unit and what size the peripheral 'No Hunting Zone' needs to be. Staffed Central Stations will be centered to accommodate a specific number of BioZone Field Units and the responsibilities thereof delegated to the management personnel.

The management personnel will be recruited through the Wildlife and Fisheries departments and participating agencies and or institutions. These participants will contract land prep and construction of the BioZone Field Stations, manage restocking feeders, maintaining and servicing the BioZone equipment, drone surveillance to protect the no hunting zones, accumulating specific data for reports and pilot studies, tracking and eliminating infected

animals and the appropriate disposal of carcasses, for example. In general, private and public hunting zones will be utilized for the BioZone Project.

The Healthcare Facility BioZone Unit distribution will differ and correlate to predetermined population zones as governed by the American Medical Association (AMA) and CDC.

b). The BioZone Nutritional component(s) is perhaps the greatest technical challenge given the necessary research and development and subsequent regulatory hurdles and certifications. We will address these issues in a cooperative partnering with appropriate government agencies and conduct ongoing research with institutions, such as the Pennington Biomedical Research Facility in Baton Rouge, Louisiana, to establish the efficacy of the supplement objectives as outlined in previous sections. We anticipate continued subcontractor assistance in the development of the BioZone product line.

c). The final prototypes of the BioZone Field Stations and HCUs will require considerable financial input and we are seeking funding assistance accordingly.

d). The phase two advanced technologies planned for the HCU will require considerable research and development to realize the proposed utilities. Again, through research and development with world renown product realization companies subcontractors such as the Plexus Organization in Wisconsin and Pivot International of Kansas City, Missouri, we feel we can achieve these objective technologies given adequate funding. Note many patent applications have been submitted on several of the key BioZone System technologies.

PROJECT IMPACT

If successful, the BioZone Initiative and Project will significantly impact the environment, promote the health and wellbeing of wildlife and game, promote and protect local, regional, and national recreational revenues, promote the health and wellbeing of the public and healthcare personnel and providers in a safer manner, reduce healthcare expenditures by billions of dollars, and provide a comprehensive Strategic Biodefense Plan that may potentially save millions of lives. Additionally, DARPA will gain a mobile, rapidly deployable comprehensive All-in-One Emergency and Critical Apparatus capable of deployment anywhere on land, sea, air, or space inclusive of high-risk areas such as battlefields.

COST AND ESTIMATED TIME

We have calculated the initial cost outlay to be $3,143,000.00 and have scheduled the GANTT Chart (milestones and deliverables) to span over a period of three years for Phase One of the BioZone Project. With appropriate and adequate funding, Phase Two of the BioZone Project could be developed concurrent with Phase One and have an expected market projection of 5 years from the onset of the funded project. Phase One and Phase Two together is estimated to have a cost outlay of $18,143,000.00 scheduled over five years.

PROJECT MILESTONE AND ACHIEVABLE OBJECTIVES

Phase One: Planning & Action Phase 2023, 2024, 2025

- begin the project design, business modelling, legal aspects including contractual and financial obligations, operating agency relationships, permits, certifications, job descriptions, include diversity, equity, and inclusion,
- further acquisition of team members, participants, affiliates and contacts,
- acquisition of land and or water areas to base operations, compliance,
- research and surveillance of planned areas of operation,
- further development of project software with AI integration
- designing and developing the prototype BioZone Field Station
- designing and developing the operational devices such as biosensors, decontamination and or sterilization devices
- constructing the BioZone Field Station(s)
- Implementation of operational activities such as monitoring, collection of data, transmission of data remotely to central headquarters
- Preparation of reporting criteria and proposal criteria for funding reporting
- Instructional operations and teaching of participating personnel
- Nutritional supplements and biodegradable materials
- Initiate acquisition of additional land to repeat processes.

BIOZONE TEAM

Team Members

- Dr. Dennis Morris MD, Vertu CEO and Founder, chief of technologies
- Lisa Morris, Project coordinator, data management
- Dr. Richard Foster MD, technical and medical advisory board
- Dr. Karen Foster, PHD in Aquatic Biology
- Shawna Molliere, Veterinary associate over BREC Parks and Recreation
- Mark Solomon, engineer and technical advisor
- Fluker Farms, nutritional support advisory
- Mason Castello, Wildlife and Fisheries
- Mason Lockhart, project manager
- Garrett Webb, Human Resources and project manager
- Taylor Morris, CFO and project manager

Proposed Subcontractors and Affiliates

- University of Texas at Austin, Texas
- Louisiana State University at Baton Rouge

- Pennington Biomedical Research at Baton Rouge, Louisiana
- Mississippi State University at Starkville, Mississippi
- Alcorn State University at Alcorn, Mississippi
- Pivot International at Kansas City, Missouri
- Plexus Corporation at Appleton, Wisconsin

BRIEF SUMMATION

My Vertu Realities BioZone Project and Global Initiative provides a unique opportunity to ensure the health and welfare of the fish and wildlife and public of the United States, protection of clean water, protection of the public from disease manifestation of wildlife and inversely reverse transmission from humans to wildlife, installation of military installations in order to facilitate the operations of strategic Biodefense Initiatives, remediate environmental contamination such as PFA removal from bodies of water which indirectly protects the public and hunter population from harmful chemical agents, mitigate prion disease.

Through eventual acquisition of specific land, parks and trails can be developed in safe zones, restoration and or enhancement projects may be coordinated with local, regional, and state programs, better access to water can be provided, parks and RV resorts can be developed, reduction and or prevention of PFA contamination can be provided by means of proprietary safe and biodegradable hunting and fishing project, additional forestry and hybrid agricultural projects can be initiated, and mitigation and remediation restoration of wetlands, native forests, grasslands, or other unique habitats important for the region's fish and wildlife can be executed and delivered upon.

With project success, we can lead the way providing a working model for not only the United States but the rest of the world. I have found that funding opportunities that collectively and adequately support such a diverse address of the issues currently confronting the United States simply does not exist. Alternatively, I have fronted all expenses to date yet am at the extent of what I can offer realistically. From this point forward, it is imperative to acquire funding assistance to ensure the success of our vastly important work.

Therefore, we are respectively approaching funding for the various aspects of the BioZone Initiative and Project from the spectrum of Environmental, Fish & Wildlife, Conservation and or Restoration agencies and will accordingly rely on Public Healthcare funding avenues for the public healthcare aspect of the project. In this regard, we humbly request your partnering with my project in the relevant aspect(s) and helping to achieve the grand and noble mission.

Our sincerest appreciation,

Dennis Morris MD

Dr. Dennis J. Morris, MD Founder and CEO of the BioZone Initiative and Project