

RESEARCH CAMPAIGN and TOPICAL

**Volumetric Aerogel based Concentrated fortified Protein, Vitamins, Enzymes Nutrients
Inclusion Aerogel based Deep Space Food with Electromagnetic Artificial Gravity, Yoga,
Meditation and Soft Music for Long Space Journeys.**

References- Wikipedia- Proposal Self Derived with Wikipedia Open Source

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**Mr. Robert Thompson - Thompson, Robert J (US 3320)
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Volumetric Aerogel based Concentrated fortified Protein, Vitamins, Enzymes Nutrients Inclusion Aerogel based Deep Space Food with Electromagnetic Artificial Gravity, Yoga, Meditation and Soft Music for Long Space Journeys, with Essential Nutrients in Fast Digesting Nanoscale Small Molecule Form.

Mental Health depends upon Sumptuous Meal and Physical Health depends on Essential Nutrient Digestion and Exercising, but Load of Food and Waste Recycling are important Factors in Space Journeys.

Hydrocarbon Fuels for Mars Helicopter themselves can be Converted to Food, and Waste Food can be Converted to Hydrocarbon Fuels for Mars Helicopter.

So Volumetric Sumptuousness, taken care by Essential Macro-nutrient based Volumetric Aerogel Foam comprising of Essential Macro-Nutrients in a Fast Digesting Small Molecule Nano Scale Powder or Aerogel matrix.

Small Portions of Concentrated Nano Scale Nutrients, either as Concentrated Liquid or Solid, can be Converted to Large Volumetric Portions of Aerogel, Blown with Liquid Nitrogen or Oxygen or H₂O Steam Water, which can be satiating Full Stomach Meal and High Nutritional Meal created with a very Concentrated Small Portion Nutrient.

Full Stomach helps in Retaining the Fullness Health Shape and Elasticity of Intestine.

Aerogels can be easily Created and must be Created on Space Ship Stations from Concentrated Essential Macro-Nutrients like Essential Proteins Pulses, Carbohydrate Glucose, Essential Fat Oils.

For Long Storage of Concentrated Proteins Synthetic Beta Amino Acid Peptides, which do Not Degrade easily, unlike Normal Alpha Amino Acid based Protein Peptides, and Beta Amino Acid Peptides can be converted to Usable Normal Amino Acid or Nanoscale Powder Dry Mix of Pulses, in Pressurized Nitrogen Atmosphere Sealed Containers, can be used.

Longer Space Journey Deep Space Foods should be partially Recyclable to Recover some essential Molecules. Easy to recover Essential Molecules may be H₂O Water, O₂ Oxygen, N₂ Nitrogen, CO₂ Carbon Di Oxide, to Blow Solid Material to Aerogel and H₂S, SO₂ for Sulphur based Foods

If Nano Scale Powder grinding or Heated Disintegration, from Bulk Solid Food is Feasible on Space Ship, all Space Ship Created Food Ingredients, should be Stored as Solid Bulk Food, before Nano Powdering , Aerogel Inflation with Heat, H₂O Steam, Oxygen CO₂ and then Fortified with Essential Micronutrients and Macronutrients as in Proportioned Micro Nutrient and Macro Nutrient Environment.

Alternatively, Pop-Corn like Heat and Steam Inflatable Prefab Layer Solid All Nutrient Fortified Food like Pre- Volumetric Aerogel Material, may be packed as Dry Processed packed or Layered Nano Powder based Concentrated Food to be Blown to Lightweight Bulk with Combination of Heat, Steam, Oxygen, to Volumetrically satiate the Human Desire for Full Meal, and to Keep the Shape and Elasticity of Intestine Intact.

Volumetric Aerogel based On Space Flight UV Irradiation Heat Steam Cooking Created Foods with - Volumetric Aerogel based Concentrated fortified Protein, Vitamins, Enzymes Nutrients Inclusion Aerogel based Crunchy Hard Crusty Aerogel, Soft layered Aerogel with Aerogel Bubbles, Soft Mushy Jelly Air Entrained Aerogel

Low Molecular Weight Polymer Food created by Heat Steam Cooking from Higher Molecular Weight Food, is easier to digest, as Nano Scale Food Particles with Large Surface Area compared to Bulk, facilitates easy Digestion by easy Penetration of Digestive Juices.

Non-Veg Foods are more Carbon Intensive, Vegetarian based food are Environment Friendly. JackFruit based Cookings have Texture, Feel and Taste of NonVeg Foods and if Dried Mixed with Pulses based Indian Farsan, with Dry Roasted Soybean, Flax-Linseed and Fortified with Essential Nutrients, can last Years in Dry Nitrogen Packings.

Real Time Monitoring of Nutritional Deficiency of Sedentary Astronaut Due to Sedentary Nature off Interplanetary and Deep Space Journey, Actual Digestion of Nutrient is Less than Desired, and Real Time Non-Invasive Micro Blood Sample based Nutritional Deficiency should be Continuously Monitored. Real Time Intravenous Diffusive Injection of Deficient Essential Nutrients with Desired Additional Nutrients may be Achieved as a Part of Deep Space Food Program. Intravenous Vibrational Pressure with Injectable for main Essential Nutrient Deficiency, as Measured in Real Time, during Sedentary Astronaut Journey, may be achieved by Intravenous Vibrational Pressure with Injectable for main Essential Nutrient, and which will vary from Astronaut to Astronaut and may Differ from Day to Day and Time to Time.

Long Space Journey simulated Artificial Gravity Loading Exercises with Electromagnetic Artificial Simulated Gravity and Elastomeric Push and Pull for Long Space Journey - Elastomeric Push and Pull and Electromagnetic exercise Apparatus related Artificial Gravity Loading and Electro-Magnetic Wearable Clothing simulated Artificial Gravity Loadings, may be required because after a Month of Sedentary Journey, as Otherwise the Astronaut may Not be in a Position to walk on Any Visiting Planet, including Low Gravity Planets like Mars, due to Muscular Stiffness, Osteoporosis and Muscle Wasting Weakening, after Long Space Journey, in Sedentary Limited Space Module Journey. Module Environment, require Simulated Artificial Gravity Loading Exercises with Electromagnetic Artificial Simulated Gravity Pull and Elastomeric Push and Pull for Long Space Journey Apparatus related Artificial Gravity Wearable Clothing with Real Time Modifiable Electromagnetic Pull with Real Time Modifiable Electromagnetic Pull Track, to Prevent Osteoporosis, Muscle Wasting and Weakening and Improve Flexibility and Reduce Stffness for Planetary Space Walk. Simulated Gravity Exercises will also Improve Digestion, create Less Undigested Food Waste.

Yoga and Meditation and Very Soft Background Music and Interactions with Relatives on Earth , will add to the Mental and Physical Health of the Astronauts. Yoga and Meditation with Soft Background Classical Music will Put the Astronaut at ease, Help ImproveSleep Pattern and make the Astronaut More Focused for Work.