



CONFIDENTIAL

Business Plan

The Company

Palma Biotech main area is business development in the field of liposomes and liposomal encapsulation technologies (LETs).

Palma Biotech supports the research, development and manufacturing of liposomes, from the very beginning up to the commercialization phase.

Liposomes are extremely small vesicles mainly composed by phospholipids organized in a bilayer. These vesicles contain an internal watery phase and are suspended in an external watery phase.

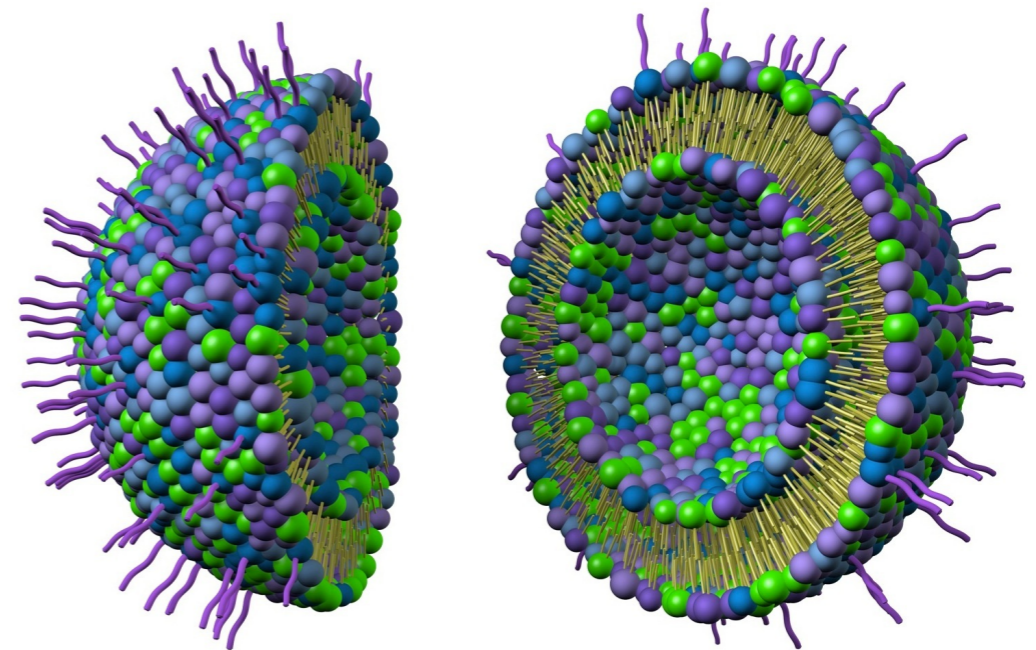
Liposomes are basically used to transport the active principles in a very selective manner. Depending on its nature, the active may be incorporated inside the liposome (hydrophilic) or in the liposomal bilayer (lipophilic) .

Benefits

- Booster of active ingredients.
- Increased efficiency and decreased toxicity.
- Long-lasting activity.
- Better absorption, penetration and diffusion.
- Possibility of alternative routes of administration.
- Stabilization of the active principle.
- Marketing-wise renewal of traditional products.

Palma Biotech is involved in basic lines of research such as the analysis of the interaction of the liposomes with cells, tissues, bacteria or virus, calorimetric tests, studies of stability in forced conditions, special membrane interactions.

Palma Biotech monitors the efficiency and best value of the best liposomal formulations in the market worldwide and currently we are working on new developments within: Cosmetics, Cosmeceutical, Nutraceutical and Life Science.



The Market Opportunity

As a carrier technology, liposomal encapsulation (LETs) are techniques that boost and enhance the effect of most active ingredients used in very different industries.

Palma Biotech unique approach is to establish three different and complementary pipelines within business development based on LETs:

A short-term pipeline:

Cosmetics, Cosmeceutical (avg. time to market TTM: 0.5 years)

A mid-term pipeline:

Nutraceutical (TTM: <1 y)

A long-term pipeline:

Life Science (TTM: >3 y)

Products, Trademarks and Patents

Palma Biotech carries out the design, development, market and patent of a wide range of products based on market opportunities. Our current pipelines status

Pipeline	ID	Product	TTM
Cosmeceutical	C1.14	GELTOX® Anti-aging wrinkle firming lifting face eyes essence serum. Syntetic peptides mixed with phytotechnology formulas for a botox like effect.	Stable formulation. Patent pending. Ready to market. Out License Agreement for Asia Pacific signed in April 2015.
Cosmeceutical	C2.15	GELCYL® Anti Hair Loss. Polysaccharide extracted from medical mushroom, encapsulated in Liposomes	Stable formulation. R&D phase I
Cosmeceutical	C3.14	SPOTLESS® Anti Acne Liposomal Sulphur formulation with concentrated Salicylic Acid and sublimed sulphur	Stable formulation. Patent pending. Ready to market as a finished product or concentrate
Cosmeceuticals	C4.14	Concentrates+(PLUS) Liposomal concentrates for the cosmeceutical market (Gota Kula, Vitamin A-C-D), Ampelopsin , Hyaluronic Acid, Paracress)	Stable formulation. Liposomal ingredients for the Cosmeceutical market. Ready for market. Launched 2014.
Nutraceutical	N1.14	CURCUMIN+LIFE® oral administrated Curcumin and Phosphatidylcholine nutraceutical with unique capability to reduce pain and inflammation and to treat Delayed Onset Muscle Soreness (DOMS) for professional athletes (Football, Tennis and Cycling)	Stable formulation, pharmaceutical quality but registered as a nutraceutical R&D phase II.
Nutraceutical	N2.15	GLUTATHIONE+LIFE® oral administrated Glutathione and Phosphatidylcholine, preventing damage to important cellular components in the human body.	Stable formulation, high encapsulating (96%) Patent Pending. R&D Phase I
Nutraceutical	N3.14	NIACINES® Vitamin B3 (Niacin) Encapsulated with Phosphatidylcholine for Oral administration (liquid). Gives high doses of Niacin into the bloodstream. Naturally boost Human Stem Cell production. Anti Aging and Professional Sport Nutracutical	Stable formulation, high encapsulating (bio structured). Patent Pending. Ready to market
Nutraceutical	N4.14	OTIOX® DHA from mediterranean algae with Hydroxytyrosol (from Olive),mimicking mediterranean diet. The European Foods Safety Authority (EFSA) issued a health claims in relation to dietary consumption of hydroxytyrosol, for cardiovascular health	Stable formulation, high encapsulating (96%), Patent Pending. Ready to market
Life Science	L1.14	LIPHAGEL® Pain Relief Gel Liposomal Pain Relief Gel without drugs, nano optimized hyaluronic acid and pharma quality Phosphatidylcholine	Stable formulation, ready to market, launched in Indonesia, Malaysia and Singapore. (March 2015).
Life Science	L2.14	CAPOSOME® Oral administration of High Molecule actives for pain relief (Osteoporosis) and for restructuring of collagen constructs in cells (Anti Aging)	Stable formulation. R&D phase II
Animal Health	A1.14	LIPOSOMAR® Fish-larvae feeding DHA/omega-3 and Phosphatidylcholine encapsulated in lipid matrix material . For salmon and tuna harvesting market.	R&D phase II. Patent pending

Executive Team

Olav Hellebø, Chairman of the Board & Co-Founder

Olav Hellebø is the CEO of ReNeuron Group plc, in the UK and he is located in London. He is a board member of Pharmalink AB in Sweden and chairman of the board of Palma Biotech in Spain.

From 2010 to 2013 he was the CEO of the biotech company Clavis Pharma in Oslo, Norway. He joined Clavis from UCB where he built the global organization responsible for the successful registration and launch of the anti-TNF Cimzia®. From 2003 to 2004 Mr Hellebø was COO of Novartis UK and prior to that held a series of senior roles at Schering Plough, including US marketing director for Claritin, Managing Director in the UK and head of Schering Plough's Oncology Biotech Division in the USA.

Mr Hellebø graduated Summa Cum Laude in international business studies from Hofstra University, New York and received an MBA from IESE, Barcelona.



Frode Thengs-Vik, Founder

Frode Thengs-Vik is the founder and CEO of Palma Biotech, coming from an background in cosmetics he saw a big opportunity in the the use of nano delivery methods within the field of cosmeceuticals.

His role in Palma Biotech is to open new market opportunities and grow new markets.

Mr Thengs-Vik is a Norwegian serial entrepreneur & innovator principally active in business development with 28 years of experience in building companies and ventures. He is bringing in a lot of experience in business development within the field of cosmetics and cosmeceuticals.

Dr. Axel Bauer, Executive Board Member & advisor

Axel Bauer is an entrepreneur located in Cologne, Germany. He is co-owner in several companies and acts as their advisor.

From 1995 until 2000 Axel Bauer was employed by KPMG and worked as a tax advisor and auditor. In 2001 he founded a Private Equity Fund focused on German SME. After selling this company in 2011 Axel Bauer concentrates on his activities as a consultant and private investor.

Axel Bauer graduated at the European Business School in Frankfurt, studied at the Ecole Supérieure de Commerce de Dijon, France and the University of California in Berkeley. He presented his PhD thesis at the Goethe University in Frankfurt, Germany.

Advisors and Strategic Partners:

ENOC LABORATORIES

ENOC is one of the top liposomes laboratories in the world. With more than 30 years expertise, ENOC has a wide portfolio of liposomal solutions and patents, and has a strong background in R&D in the field of liposomes and other nanotechnologies for leading International pharmaceutical, nutraceutical and cosmeceutical companies



LIPOMIZE LABORATORIES ARGENTINA

Our outsourced lab in Santa Fe, Argentina develops custom liposomal technology and products focused primarily on the needs of cosmetic and food industries. Their main competitive advantage is providing flexibility and customization of products. Our liposomal concentrates is manufactured at this lab in Argentina



THINK COSMETICS LAB

THINKLAB provides laboratory analytical services and cosmetics production facilities for Palma Biotech in Mallorca. This laboratory has Certification ISO 9001 and 22716. and registered in the CPNP Cosmetic Products Notification portal as European Lab.



Laboratory of Molecular Biology, Nutrition and Biotechnology (UIB)

University of the Balearic Islands (UIB), Palma de Mallorca, Spain has an Molecular, Nutrition and Biotechnology lab. Palma Biotech is based in ParcBit (Technology park) which has a cooperation agreement with the university lab for Research and Development project .



Pedro González Enseñat

Pedro González Enseñat has been one of Europe's the leading researcher in the field of nanotechnology since the late 80s and has developed many technologies based on liposomes for leading pharmaceutical and cosmeceutical companies. Mr. González know- how after 29 years of experience is unique and he is considered as the «founder» of commercial cosmeceutical and nutraceutical nano delivery systems in Europe.



GELTOX:

Short Description

GELTOX® Anti-aging wrinkle firming lifting face eyes essence serum. Syntetic peptides mixed with phytotechnology formulas for a botox like effect.

Detailed Description

NO NEEDLES ALTERNATIVE - GELTOX SKIN SCIENCE

If you've been considering dermal fillers, like Botox®, to get rid of wrinkles caused by facial expressions, then you may want to try GELTOX SKIN SCIENCE a topical alternative to cosmetic procedures.

This product is one of the newer items offered by Palma Biotech and the manufacturer claims it can reduce the appearance of wrinkles in the short term, and create long term changes in your skin's appearance for more permanent effects as well.

GELTOX SKIN SCIENCE was designed to produce short term results by providing immediate reduction in facial expression lines and wrinkles, and long term effects by reducing the appearance of these lines over the course of several months.

The idea behind GELTOX SKIN SCIENCE is similar to injections like Botox®; by targeting certain muscle areas and relaxing them, the face will show less wrinkles when an individual smiles, frowns, or makes other facial expressions. However, unlike injections with a syringe, GELTOX SKIN SCIENCE uses a combination of peptides and muscle relaxers that penetrate skin and cause mild paralysis in select areas of the face.

This serum is quite effective and can produce visible results in as little as 30 minutes. GELTOX SKIN SCIENCE uses a combination of neuropeptides and muscle relaxers to reduce appearance of facial expression wrinkles. Peptides together with a natural plan extract do the actual job of relaxing the muscles, while nanopeptides and liposomes are included to carry these chemicals deeper into the facial muscles.

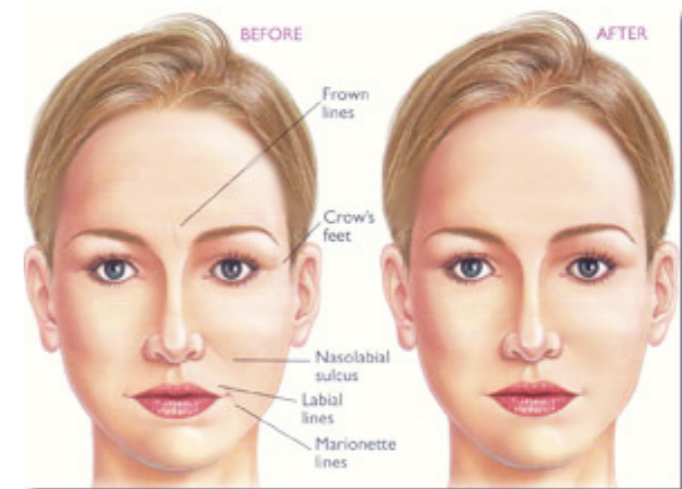
Key Ingredients:

Hibiscus esculentus extract
Liposomal Acetyl hexapeptide
Liposomal octapeptide-3
Liposomal Acemella oleracea

These active ingredients couples to the enkephalin receptor decreasing the neuron excitability and resulting in ACh release modulation. Acetyl Hexapeptide-8 and Acetyl Octapeptide-3 target the same protein complex as botulinum toxin A. These actives are a mimic of the N-terminal end of SNAP-25 (in Botox) which competes with SNAP-25 for a position in the SNARE complex, thereby modulating its formation.

If the SNARE complex is slightly destabilized, the vesicle cannot release neurotransmitters efficiently. Consequently, muscle contraction is attenuated and the muscle is relaxed rather than paralyzed, preventing the formation of lines and wrinkles.

All ingredients s is encapsulated in special formulated liposomes with pharmaceutical grade quality and high content of Phosphatidylcholine. Phosphatidylcholine (PC) in its highest purity ensures superior liposomes with greater stability and delivery to the cells.



WAY TO MARKET:

GELTOX will have three distribution channels, one direct sales through eCommerce and another via an international Spa and Skin Clinic operator and the last is a licensee agreement with a public company (listed at the Australian stock exchange) for the Asia Pacific market).

Professional Spa Market:

The operator will use GELTOX as a treatment but will also sell a serum to the customer so that they can carry out treatments at their own home to prolong the effect. This operator is European based and manages more than 200 Spas and skin clinics. These are distributed through Steiner-operated day spas, resorts and spas-at-sea. They also distributed their own brand (Bliss, Elemis, Jou, La Thérapie, Mandara) to over 1200 third party spas.

Spas and Skin Clinic they operate include: ClubMed Spas, Marriot Hotel Spas (Europe), intercontinental Spas (Europe), Bliss urban spas (19 in Europe), Chavana Spas, Mandara Spas (USA), Remede Spas (all St.Regis Hotels)

eCommerce:

Sold in cooperation with our partner CommercePeople SL who works with a UK based eCommerce affiliate network called Twist360 this company serves the cosmeceutical eCommerce market. Their eCommerce management solutions are tailored to the specific requirements, meaning we can leave the marketing and technical skills to them. By developing our traffic sources and improving our conversion rates by using an affiliate (sales/promoting network of more than 15 000 people), they will grow sales volumes.

License Agreement:

We have done a license agreement for Asia Pacific + Australia with the public company Hollista Coltech (See the presentation on the next pages).

GELTOX will retail in Europe for 80 EUR (10 ML bottle), production cost is 4,50 EUR (including packaging) and we are giving away 50-60% in sales commission which will give a net profit of more than 28EUR per sold item.

The license agreement in Asia Pacific says that we will have an upfront payment (for concentrates) + 20% of the retail value sales of the product in the region



ASX-Listed Holista CollTech Brings Revolutionary Injection-Free “Botox-Like” Geltox Skin Science To Asia Pacific; To Develop Cosmetic Range Based on Proprietary Sheep Collagen

Kuala Lumpur/ Perth April 2015 – Australian-listed Holista CollTech Ltd (“Holista”) said today that it has secured Asia Pacific distribution rights for Geltox Skin Science, a breakthrough solution that produces a “botox-like” effect to reduce or remove skin wrinkles using plant extracts – without the need for injections.

Geltox Skin Science has developed tiny water- and fat-soluble liposomes that can penetrate the skin. The liposomes coat and transport anti-ageing active ingredients that increase efficiency and lower toxicity of the encapsulated ingredients which, after penetration, are absorbed and diffused better in the body – minus the pain and hassle of syringes and needles requiring qualified professionals.

Developed by Spain-based Palma Biotech, the patent-pending Geltox Skin Science uses a combination of plant-based peptides to cause mild paralysis in specific muscles, thereby reducing facial expression lines including frowns. Similar to Botox®, the effects are immediate upon application and, over time, can remove the lines altogether – except injection is no longer required.

Palma Biotech, a specialist in liposomes and liposomal encapsulation technologies, works with different active compounds that can be paired with its Liposome expertise. Holista, which distributes supplements, natural ingredients and wellness products, has developed and patented its own sheep collagen. Along with the distribution rights, Holista intends to collaborate with Geltox Skin Science to develop sheep collagen liposomes for cosmetic applications.

“Geltox Skin Science is a breakthrough technology which has many applications for cosmetics and even medical use. By eradicating the need for injections, it offers a pain-free alternative which will gain wide acceptance across the region, including younger men and women,” said Dr. Rajen Manicka, CEO of Holista which is headquartered in Kuala Lumpur, Malaysia.

“The addition of Geltox Skin Science also strengthens the position of our existing range of cosmetic collagen significantly. Beyond sheep collagen, we now have a new avenue of growth with a unique technology,” he added.

Mr Frode Thengs-Vik, the CEO and Co-Founder of Palma Biotech, said, “This is a state-of-the-art technology. We can create a “botox” effect using both natural and synthetic peptides as requested by the customer. The product is registered, approved and used in Europe. It is manufactured as per standards of the European Union.”

“We are pleased to have found an Australian partner that can take our unique innovation to the Asian Pacific region which is now one of the most dynamic markets in the world,” said Mr Olav Hellebo, Chairman of the Board and Co-Founder of Palma Biotech.

About Holista CollTech Ltd

Holista CollTech Ltd (“Holista”) is a research-driven biotech company and is the result of the merger of Holista Biotech Sdn Bhd and CollTech Australia Ltd. Holista is dedicated to delivering first-class natural ingredients and wellness products and leads in research on herbs and food ingredients from Malaysia’s rainforest - the oldest in the world.

About Palma Biotech

Palma Biotech main area is business development in the field of liposomes and liposomal encapsulation technologies (LETs). Palma Biotech supports the research, development and manufacturing of liposomes, from the very beginning up to the commercialization phase.



GELCYL:

Short Description

GELCYL® Anti Hair Loss. Polysaccharide extracted from medical mushroom, encapsulated in Liposomes

Detailed Description

Anti Hair Loss; did you know there are over 22,000 searches on Google globally every hour about hair loss products and treatments? The industry is estimated by L'Oréal to reach 88 billion EUR globally by 2015

The discovery, now published (December 2014) by a group from the Spanish National Cancer Research Centre (CNIO), reveals a novel angle to spur hair follicle growth. The group has discovered an unexpected connection--a link between the body's defense system and skin regeneration.

After years of investigation, they discovered that when a fraction of macrophages (white blood cells) die, due to a process known as apoptosis. This stimulated the secretion of factors from dying and living macrophages, which in turn activated stem cells, and that is when hairs began to grow again.

The maitake mushroom (*Grifola frondosa*) has been recognized as a source of immune-enhancing compounds that offer significant health benefits. In 1984 Dr. Hiroaki Nanba (Japan) identified a specific extract of maitake that had a significant ability to stimulate the white blood cells known as macrophages .

This extract is called Maitake D-fraction. Maitake mushrooms and the maitake D-fraction prepared from them contain a type of polysaccharide (a large molecule formed by multiple sugar molecules linked together). This molecule is called beta glucan.

Most of the research on maitake D-fraction has been done in Japan using an injectable form of the extract. One of the projects was improving quality of life in cancer patients. By injecting Maitake Extract D-Fraction into the blood stream symptoms such as hair loss and leukopenia (deficiency of white blood cells) were alleviated in 90% of the patients.

D-Fraction, the polysaccharide extracted from maitake mushrooms, has been reported to exhibit to activate immunocompetent cells, including macrophages.

Key Ingredients:

Maitake D-fraction (extracted from *Grifola frondosa*)
Purified Beta Glucan Peptides

All ingredients are encapsulated in special formulated liposomes with pharmaceutical grade quality and high content of Phosphatidylcholine. Phosphatidylcholine (PC) in its highest purity ensures superior liposomes with greater stability and delivery to the cells.

Way to Market:

Not commercially available yet.





SPOTLESS

Short Description

SPOTLESS® Anti Acne Liposomal Sulphur formulation with concentrated Salicylic Acid and sublimed sulphur

Detailed Description

The use of sulphur as a therapeutic agent for various dermatological disorders or diseases has been used for centuries in both traditional, natural medicine and practices

For many years sulphur has been considered, in different dosage forms and solutions, the specific remedy for ACNE problems. Over the years, different sulphur topical preparations have been developed and tested such as precipitated sulphur and sublimed sulphur.

NOW a unique and patent pending solution is available, for the first time we have incorporated pure sulphur in liposomes which makes this an unique innovation. Palma Biotech holds the global rights for the Spotless solution.

Sulphur must be present for the body to produce collagen, which keeps skin soft and supple. You can see why Sulphur is often referred to as the “healing mineral” or the “beauty mineral!”

We like to call it the “miracle worker.”

One of the problem with the use of Sulphur in beauty treatment before was the bad smell of sulphur. This problem has been eliminated by the use of our liposomal technology.

Key Ingredients:

Liposomal Salicylic Acid
Liposomal sublimed sulphur
Phosphatidylcholine (pharmaceutical grade)
Liposomal Ceramide (from sheep skin)

All ingredients s is encapsulated in special formulated liposomes with pharmaceutical grade quality and high content of Phosphatidylcholine. Phosphatidylcholine (PC) in its highest purity ensures superior liposomes with greater stability and delivery to the cells.

Way to Market:

Ready to market, interest in the direct sales market and in eCommerce + TV shopping networks.



CONCENTRATE+

Short Description

Liposomal concentrates for the cosmeceutical market (Gota Kula, Vitamin A-C-D), Ampelopsin , Hyaluronic Acid, Paracress)

Detailed Description

Palma Biotech SL is manufacturing liposomal concentrate in an outsourced laboratory in Santa Fe, Argentina. Our top sellers in the concentrate range in 2014 where:

Liposomal Yeast Extract

Depigmenting Liposomes are used for producing lotions to clarify skin and unwanted stains caused by sun in summer. They are ideal for those who for various reasons such as medicines, too much sun, age, etc. have spots on the skin or they appear during summer. That dark pigmentation is a result of extra melanin in the body, this liposomal solution is clarifying skin and treat effectively pigments spots.

Phlebotonics Liposomes

Phlebotonics Liposomes are intended for the manufacturing of special lotions that reduce the appearance of spider veins and varicose veins resulting from inadequate blood flow through veins in lower extremities. In addition, they reduce inflammation and enhance circulation.

Liposomal HA

Used previously as an injectable treatment for lines and wrinkles. Hyaluronic acid is now available for topical application in a range of gels, serums and moisturisers. The anti age liposomes products allow skin tissue revitalization, giving them firmness and maintaining water retention ability.

Liposomal Coenzyme Q10

This CoQ10 solution energizes your skin – energy is needed to repair damage and make sure the skin cells are healthy. It rejuvenates skin by stimulating skin cell activity. Active skin cells get rid of toxins easily and can make better use of nutrients. Boost your skin cell activity for younger looking skin with liposomal CoQ10.

Key Ingredients:

All ingredients s is encapsulated in special formulated liposomes with pharmaceutical grade quality and high content of Phosphatidylcholine. Phosphatidylcholine (PC) in its highest purity ensures superior liposomes with greater stability and delivery to the cells.

Way to Market:

Already in the market. Sells to small and medium sized cosmetics companies in Germany, Italy, Greece, Malaysia and Indonesia.

One example is the German brand COSMED using only concentrates from Palma Biotech.

www.cosmed.me





NUTRACEUTICALS

Short Description

CURCUMIN+LIFE® oral administrated Curcumin and Phosphatidylcholine nutraceutical with unique capability to reduce pain and inflammation and to treat Delayed Onset Muscle Soreness (DOMS) for professional athletes (Football, Tennis and Cycling)

GLUTATHIONE+LIFE® oral administrated Glutathione and Phosphatidylcholine, preventing damage to important cellular components in the human body.

NIACINES® Vitamin B3 (Niacin) Encapsulated with Phosphatidylcholine for Oral administration (liquid). Gives high doses of Niacin into the bloodstream. Naturally boost Human Stem Cell production. Anti Aging and Professional Sport Nutraceutical

OTIOX® DHA from mediterranean algae with Hydroxytyrosol (from Olive),mimicking mediterranean diet. The European Foods Safety Authority (EFSA) issued a health claims in relation to dietary consumption of hydroxytyrosol, for cardiovascular health

Nutraceuticals are products that are purported to provide extra health benefits. Depending on the jurisdiction, products may claim to prevent chronic diseases, improve health, delay the aging process, increase life expectancy, or support the structure or function of the body.

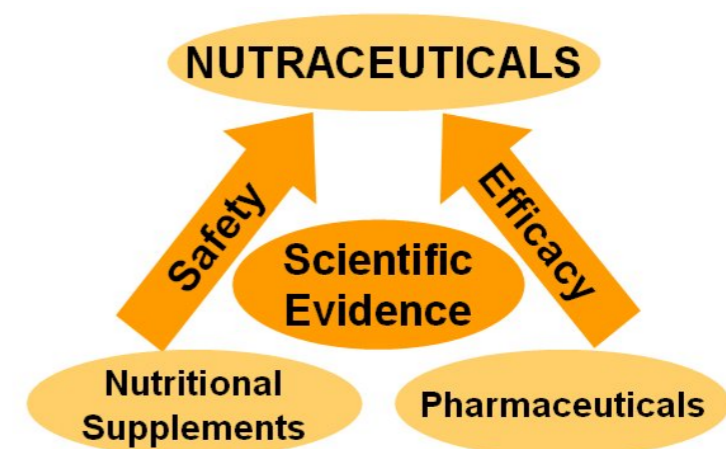
In year 2000 the number of people over 60 years in the world reached 600 million. In the year 2050 the number will approach 2,000 million, these well informed consumers is concerned about feeling and looking well and is in search for well being, longer and healthier life.

Key Ingredients:

All ingredients s is encapsulated in special formulated liposomes with pharmaceutical grade quality and high content of Phosphatidylcholine. Phosphatidylcholine (PC) in its highest purity ensures superior liposomes with greater stability and delivery to the cells.

Liposomes and Nutraceutical

Our liposomes made of the same type of material as our cell membranes, liposomes penetrate mucosal tissues allowing for rapid release into the blood stream. Nutrients that are not in liposomes have to pass through the stomach to reach the liver where they are metabolized and released into the bloodstream. Some nutrients are destroyed or compromised by stomach acids. Our Liposomes avoid the digestive system by penetrating the mucosal tissue.





WAY TO MARKET:

We are developing a very interesting market channel for the LIFE brand in Europe.

Personal Trainers:

The European health & fitness sector serves over 46 million consumers, generates 25.2 billion Euro in revenues, employs 400,000 people, and consists of 46,500 facilities.). We are together with strategic partners building a network of Personal trainers all over Europe that will introduce our pharmaceutical quality Nutraceutical to their clients.

In 2014 EU started an official endorsement program for Private trainers .The European Register of Exercise Professionals operates across the geographic area of Europe and is based on technical criteria and operating standards developed through wide international cooperation

LIFE Nutraceuticals have contact details to 38 000 Personal Trainers (email, telephone and website). See next page as example of the registry.

eCommerce / Direct Sales:

Our concept is to sell directly via the personal trainer, trainers will become member of a testing program where they test out the product. If they like the products and it works for them they will endorse the product to their clients. This is recurring sales (subscriptions) where the client will get the product sent directly to their home every month. The personal trainer gets a «lifetime» revenue of 10 EUR per client per month.

License Agreement:

We are negotiation a license agreement for Asia Pacific + Australia with the public company Hollista Coltech (See the presentation on the next pages).

LIFE Nutraceuticals will retail in Europe from 50-60 EUR per 30 days serving, production cost is 6 EUR (including packaging) and we are giving away 20% in sales commission.



Example of our Personal Trainer Database

	◆ Name	◆ Country:	◆ City:
👤	Allchurch, James	Spain	Ibiza
👤	Aller, Luis	Spain	Santiago de Compostela
👤	Alonso Fernández, Guillermo	Spain	Avila
👤	Álvarez Martínez, Mario	Spain	Valencia
👤	Alves De Mesquita, Rodrigo	Spain	
👤	Amer, Sara	Spain	Mahón /Menorca
👤	Andrades García, Francisco José	Spain	Málaga
👤	Armas Luque, Andrés Yeray	Spain	Almería
👤	Arroyo Perez, Francisco Jose	Spain	Tiana

Member Profile

First Name: Luis

Last Name: Aller

Website: <http://www.luisaller.com> ()

Profile Image:



EREPS Status: **Personal Trainer**

EQF Level: **EQF Level 4**

About me...

Country: **Spain**

Current Employer: **Luis Aller - Personal Trainer**

Languages Spoken: English, Portuguese, Spanish



ABOUT CURCUMIN OPPORTUNITY

The Centre for Olympic and Sports Studies (CEO-UAB), created by the Universitat Autònoma de Barcelona in 1989.

Doctors from Spain's elite national Olympic Training Centre in Barcelona have been trying out a new formulation of the curry spice curcumin to help treat muscle pain and inflammation. It's this same formula that's found in our new CURCUMIN+LIFE Nutraceutical.

WHAT DID THE FC BARCELONA STUDY SHOW?

The Barcelona study focused on a condition called delayed onset muscle soreness (DOMS) which can put key players out of action for days.

During the testing, DOMS was induced in a group of 20 football players by making them run as fast as possible for 45 minutes on a downhill treadmill. Half were given the new curcumin treatment whilst the other 10 received identical dummy pills. Four days later the curcumin group had significantly less pain and muscle damage.

Francek Drobnic, head of research at the The Centre for Olympic and Sports Studies who led the study said: "curcumin does definitely have a benefit. You can measure a reduction in markers of muscle damage in the players' blood which is very interesting."



"Curcumin does definitely have a benefit. You can measure a reduction in markers of muscle damage in the players' blood which is very interesting." -

Francek Drobnic





ABOUT GLUTATHIONE OPPORTUNITY

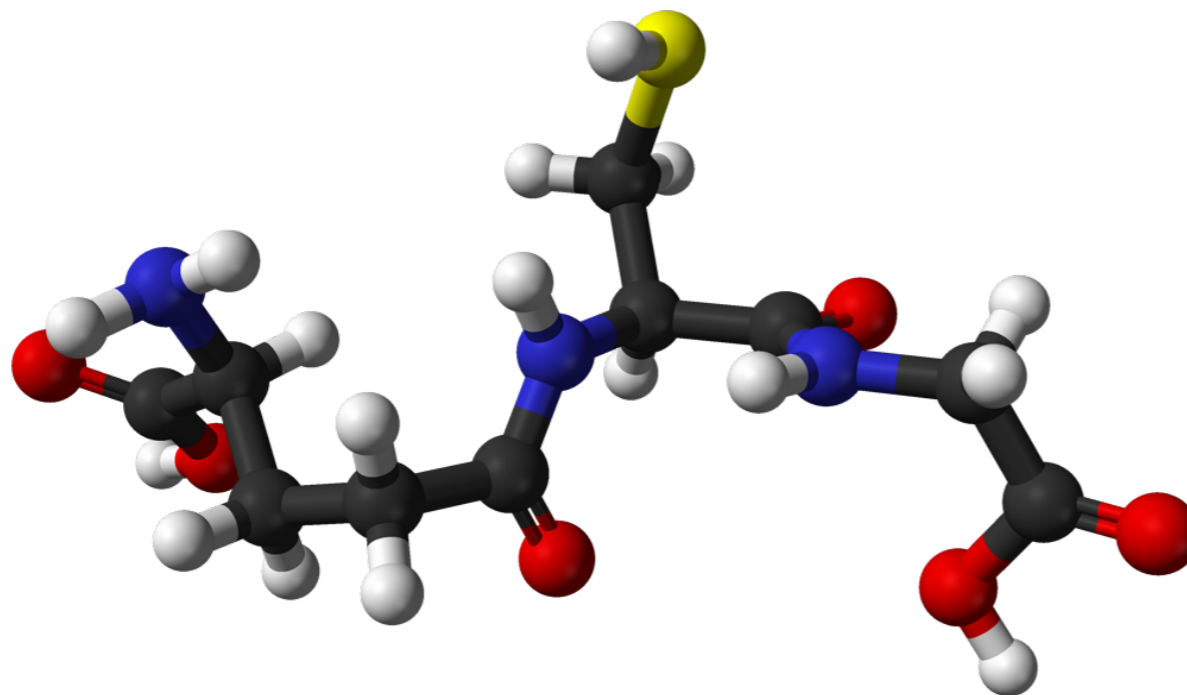
Health researchers have long recognized the biological importance of antioxidants. Due to their ability to inhibit oxidation and peroxidation, these important substances -- which are found in most whole foods -- provide us with numerous health benefits. They guard us from cellular damage and degenerative diseases, minimize wrinkles and preserve skin texture

Why is glutathione important?

Like other antioxidants, glutathione's main role is to protect our cells from oxidative and peroxidative damage, which includes scavenging free radicals (unstable atoms, ions or molecules which, if left unchecked, can cause tremendous harm to our DNA and cellular membranes). When seriously deficient in glutathione, we begin to suffer from cardiovascular and inflammatory issues, cancer, muscle fatigue, cancer, liver dysfunction and age-related diseases such as Parkinson's and Alzheimer's.(2)

Unlike other antioxidants, however, glutathione is intracellular. This means that it exists "inside the cells," lending it the unique ability to maximize the activity of all other antioxidants. In other words, glutathione not only provides us with health benefits of its own, but also optimizes and amplifies the health benefits of other antioxidants as well. This greatly decreases our bodies' susceptibility to unrestrained cell disintegration from infections, cancer, oxidative stress and free radicals. For this reason, glutathione is often nicknamed the "master antioxidant."

The molecule below:



ABOUT NIACIN OPPORTUNITY

The United States Patent Office delayed issuing a patent on the Wright brothers' airplane for five years because it broke accepted scientific principles. This is actually true. And so is this: Vitamin B-3, niacin, is scientifically proven to be effective against so many medical issues, and yet the medical profession has delayed endorsing it. Not for five years, but for fifty.

One of niacin's MANY properties is its ability to reduce harmful cholesterol levels in the bloodstream. "Niacin is the best substance for elevating high density lipoprotein cholesterol (the "good cholesterol) and so decreases the ratio of the total cholesterol over high density cholesterol."

As a cholesterol treatment, niacin has strong evidence. Several studies have shown that it can boost levels of good HDL cholesterol and lower triglycerides as well or better than some prescription drugs. Niacin also modestly lowers bad LDL cholesterol.

Niacin has other benefits. There's good evidence that it helps reduce atherosclerosis, or hardening of the arteries. For people who have already had a heart attack, niacin seems to lower the risk of a second one.

And why do the professional athletes also desperately want our Niacin solution?

Among niacin's other effects, when taken in liposomal doses, gives an acute elevation in growth hormone secretion. This is a delayed effect, frequently occurring 3 to 5 hours after taking niacin. This effect is independent of exercise and will boost your performance level in sports.

Studies shows that growth hormone secretion normally may rise 300 percent with exercise, without niacin. According to this studies, this effect may be "turbocharged" up to a 600 percent rise with niacin..



ABOUT OTIOX OPPORTUNITY

OTIOX™ is a premium, scientifically-validated Nutraceutical, derived from sustainable sources, that contains a proprietary, full-spectrum blend of synergistic nutrients to provide scientifically validated cardio protective and brain health benefits.

An abundance of scientific research substantiates the wide-ranging health benefits of omega-3 fatty acids in fish oil and algae (vegan version) and monounsaturated fatty acid and polyphenols in olive fruit. No other commercially available Nutraceutical or supplement product contains this level of essential fatty acids, and olive polyphenols.

OTIOX™ uses a patented extraction process to make a pure, stable and easy-to-tolerate extract.

To emulate a Mediterranean diet, OTIOX™ provides a standardized olive extract to deliver the polyphenol hydroxytyrosol, a powerful antioxidant that protects normal LDL from oxidation and counters dangerous free radicals. Research shows that a combination of olive extract and DHA works better for cardio protective and brain health benefits than standalone products.

Oral drugs, vitamins and herbs absorption rate is very low, sometimes just only 10% reaches bloodstream. OTIOX™ is made with liposomes that are able to improve the absorption rate with 600% of nutrients in the small intestine.

Liposomes also protect the nutritional components of the gastric degradation in the stomach.

The European Foods Safety Authority (EFSA) issued a health claims in relation to dietary consumption of hydroxytyrosol, for cardiovascular health. OTIOX™ is approved by EFSA



LIPHAGEL:

Short Description

Pain Relief Gel Liposomal Pain Relief Gel without drugs, nano optimized hyaluronic acid and pharma quality Phosphatidylcholine

Detailed Description

Liphagel™ is a topically applied gel. The gel is specially formulated to combat joint pain associated with osteoarthritis. Daily application in the morning and evening is believed to be enough to bring about real improvement in joint pain in matter of days.

The days of joint pain and limited mobility may be numbered for osteoarthritis (OA) patients who go through the daily stress of coping with their condition. This drug-free liposomal based gel, aims to provide OA relief without the side effects associated with painkillers.

Unlike several OA treatments like acetaminophen, nonsteroidal anti-inflammatory drugs (NSAID) and narcotics, Liphagel™ does not contain any active pharmaceutical ingredient, its drug free.

The topical treatment consists of millions of droplets of fat, also known as phospholipids, which travel through the skin and tissue as it penetrates the joint.

We have encapsulated hyaluronic acid in the phospholipids. Hyaluronan occurs naturally in the synovial fluid that surrounds the joints. Hyaluronan is a thick liquid that helps lubricate the joints, making them work more smoothly.

In people with osteoarthritis, the consistency of hyaluronan becomes thinner. Hyaluronic acid is a natural polysaccharide (large sugar molecule).

The liposomal topical gel makes the fat (phospholipids) and the hyaluronic acid to penetrate the skin. Liposomes increase bioavailability, this means that a greater amount of active ingredient fulfills its specific effect. Liposomes exert their influence in the stratum corneum of the skin improving penetration of the active this property turns liposomes particularly effective for pain relief gels.

Key Ingredients:

Liposomal Nanosized Hyaluronic acid
Liposomal Phosphatidylcholine.

Way to Market:

Licensed to iGalen (direct sales company in Malaysia) and its introduced in Malaysia, Singapore and Indonesia May 2015.



the future offerings of iGalen

Ovinex™ – Sheep Collagen

Collagen is the most common protein in the human body. We lose collagen as we age. We can replace this collagen by consuming collagen from other warm blooded mammals - pigs, cows and sheep. Collagen derived from sheep is the only one that is free of cultural and religious issues. It is fully manufactured in Australia - the only country with "disease free sheep" as certified by the United States Department of Agriculture (USDA). It is also 'Halal' certified.

Liphagel™ – Joint Pain Relief

Hyaluronic acid (HA) is a substance that occurs naturally in the joints. It acts like a lubricant and shock absorber for the joints to work properly. HA cannot be taken orally and must be injected into the joint. With new cutting edge technology using liposomes, Liphagel™ makes this unique powerful substance cross the skin and reduce pain and inflammation naturally - usually within the hour without any side effect.

Longvida® – Anti-Inflammation

Powered by patented (EP 1993365 Curcumin Particles) co-developed by Los Angeles (UCLA), Longvida® converts curcumin into target tissues through the requirements of permeability, solubility and levels of free form curcumin to be available in joints and even the brain.

partners of iGalen

**HOLISTA
COLLTECH**

The Australian world leader in ovine (sheep) collagen research, development and manufacture. Holista focuses also on food ingredients. (www.holistaco.com)

一和 ILHWA

A 40 year old South Korean world leader in ginseng science and an Award winner of Engredea – Best Botanical 2012. (www.ilhwakoreanginseng.com)



Global Research & Discovery Group

Global Research & Discovery Group, LLC aims to be the world's leading think tank and trouble shooting research organization that can outperform government and university institution by minimizing bureaucracy and maximizing real "on-the-ground" problem solving capabilities. (www.globalrdg.com)



palmabiotech

Design and develops innovative high quality actives based on profound scientific know how of powerful encapsulation technology that guarantees optimum bioavailability. The Spanish company is a world leader with liposome encapsulation. (www.palmabiotech.com)



VERDURE
SCIENCES

Working with an extensive global network of universities, medical centres and laboratories, the company develops cutting edge products in natural health care. It produces the most advanced form of free curcumin. (www.vs-corp.com)



ATM Met

The company is firmly focused on returning the origins of drug discovery by exploring the metabolic and physiological pathways of plants. The company's breakthrough technology lead to the development of the World's First Carbohydrate Manager – Emulin™ (www.atmmetabolics.com)



CAPOSOME

CAPOSOME:

Short Description

CAPOSOME® Oral administration of High Molecule actives for pain relief (Osteoporosis) and for restructuring of collagen constructs in cells (Anti Aging)

Detailed Description

CAPOSOME - Bio-structured Hyaluronic Acid

Our technology «CAPOSOME» is Hyaluronic Acid in a bio structured form, this has been developed by Palma Biotech together with our strategic partners to solve the problem of absorption of oral high concentrated hyaluronic acid. The technology enables us to encapsulate molecules with high molecular weight, for example hyaluronic acid of 1,4 million Dalton

With the technology we coat the hyaluronic acid molecule with fully biocompatible phospholipidic bilayer structures with high structural strength.

The difference between other encapsulating methods (where the molecule is encapsulated in the liposome cell) and CAPSOME is that with this technology we are coating the phospholipidic bilayer on the Hyaluronic Acid molecule to make the molecule itself liposomal.

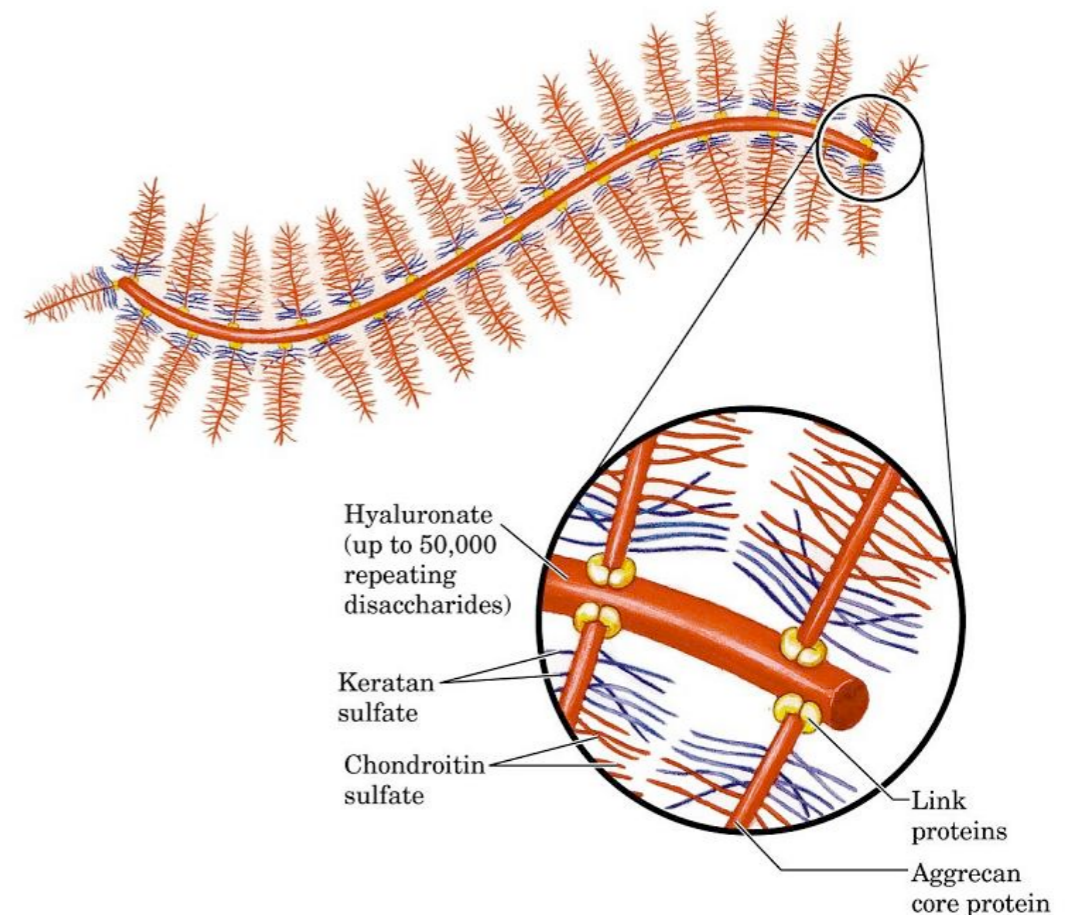
We like to call it a «tailor made suit» for molecules.

CAPOSOME has a completely natural composition and is totally biocompatible

Key Ingredients:

Bio-structured Hyaluronic Acid Composition:

- Hyaluronic acid 1.4 MDa
- Phospholipids
- Other amphiphiles
- Water
- NaCl
- Phenoxietanol



HA molecule

A molecule of HA can contain up to a few tens of thousands of the disaccharide dimers. In human synovial fluid, the average molecular weight of the HA is about 1 million – 4 million daltons (atomic mass units), representing about 7,700–10,300 dimers. (By comparison, the molecular weights of water and glucose molecules are 18 and 180 daltons, respectively.). There has earlier been a lot of research done on encapsulating HA for topical and also oral administration, our lab has succeeded in encapsulating high molecular weight HA. The background for this invention is a earlier project done for the "big pharma" involving ophthalmic drug delivery systems (drug delivery via eye spray) where the project was to encapsulate high molecular weight HA for ophthalmic drug delivery. Hyaluronic acid, is a high molecular mass polysaccharide consisting of repeating N-acetylglucosamine and glucuronate subunits.

Joint disease

Degenerative joint disease and other rheumatic conditions, such as arthritis, are the second most common musculoskeletal diseases among adults, which represent significant public health issues due to hospitalization costs and loss of quality of life. In the past decade alone, the costs of hip and knee replacement procedures have increased by more than 100% and are expected to continue to rise.

Articular cartilage, the hyaline connective tissue lining the surfaces of synovial joints, functions to transmit force across joints and provide a smooth surface for limb movement. However, with age-related wear and tear, the articular cartilage is subject to significant structural, mechanical, and matrix changes consisting of mild fibrillation of the articular surface and a decrease in proteoglycan monomer size and aggregation

While hyaluronic acid was once believed to offer only symptomatic relief from arthritis, in recent years physicians have noted that it may actually treat fundamental aspects of the disease. In addition to improving joint lubrication, supplemental hyaluronic acid appears to stimulate the body's generation of new hyaluronic acid, while alleviating pain and inflammation.

Liposomal HA

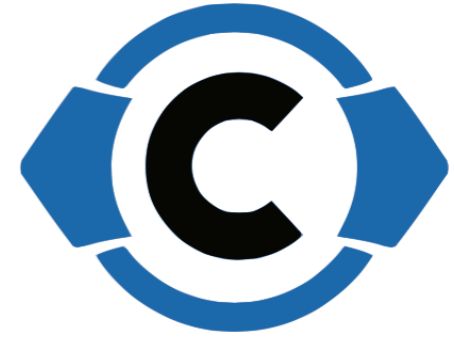
Oral consumption of high-quality HA products has gained interest and has been shown in animal studies to result in absorption into the bloodstream and significant effects on peripheral tissues, such as joints. Specifically, an animal study using radiolabeled high-molecular-weight HA found that small amounts of HA was incorporated into skin, bone, and joint tissue of rats 24h after oral administration. The movement of liposomal high-molecular-weight HA into and out of synovial spaces and tissues through lymphatic transport is well-documented, which provides further support for the integration of orally administered HA into systemic circulation and connective tissues.

Part of the reason hyaluronic acid is so effective is that it has a very large molecular weight, which reflects its ability to hold water, and thus its great moisturizing power. When HA is injected, the absorption of the heavy HA molecules is easily taken care of - which is not necessarily the case when oral HA supplements are taken without liposomes. Many scientists agree that the stomach has a hard time absorbing the heavy HA molecules. "Hyaluronic acid itself is not absorbed when taken orally and therefore liposomal delivery methods is needed"

The paradox is that these oral supplements may be safer than injections, and the HA will have an easier time being absorbed - but - if you lose the molecular weight, you lose much of the efficacy so unique to HA.

Our liposomes are very stable, which allows use in an oral drink or an oral spray (our oral spray liposomes penetrate mucosal tissues allowing for rapid release into the blood stream). Nutrients that are not in liposomes have to pass through the stomach to reach the liver where they are metabolized and released into the bloodstream. Most nutrients are destroyed or compromised by stomach acids.

Our liposomes penetrate mucosal tissues allowing for rapid release into the blood stream and avoid the digestive system.



Osteoarthritis (OA) is estimated to affect 630 million people worldwide – 15% of all the people on the globe. And the need for new and ever more effective osteoarthritis treatments will continue to expand as populations age.

Oral Delivery - Caposome continues...

In an earlier project we have looked into two different Oral delivery methods, one is a oral drink where the liposomes are designed to avoid the stomach acid and instead use "program" the liposome to engage with receptors like CD44. CD44 is a powerful cell-surface receptor, with a high affinity for HA. CD44 attracts the hyaluronic acid and move it into the blood stream where it can do its work

The other alternative is a Oral Spray, as mentioned we originally developed this technology as a spray for the ophthalmic drug delivery system. The administration of active ingredients by way of the oral mucosa is becoming therapeutically more important. Delivery through the oral cavity is easy to administer and has the potential to provide efficient absorption because the oral mucosa is highly vascularized. Additionally, the "active" ingredient can bypass the acidic environment of the stomach, enzymatic activity of the intestine, and move directly into the bloodstream. Thus, the active ingredient can be effective in smaller, more controlled doses.

In this case, hyaluronic acid has a great advantage. The tissues that comprise the mucous membrane of the oral cavity are rich in high molecular weight (HMW) hyaluronic acid. When HMW liquid HA is put into the mouth, the lining can recognize the added HA and readily accept it into the membrane. HA is highly compatible with the oral mucosa.

Hyaluronic acid has already been shown to be a good candidate for oral drug delivery systems because it is highly compatible with the tissues of the oral mucosa, which already contains large amounts of HA.

Development:

Palma Biotech would like to work with you in a JV to finish the development of the oral formulation for joint health. More than 80% of the development is already done, and the cost of the 80% has already been covered.

In light of the recent changes in recommended osteoarthritis management, where injectable HA is no longer recommended, alternative methods for managing chronic joint pain are in high demand.

