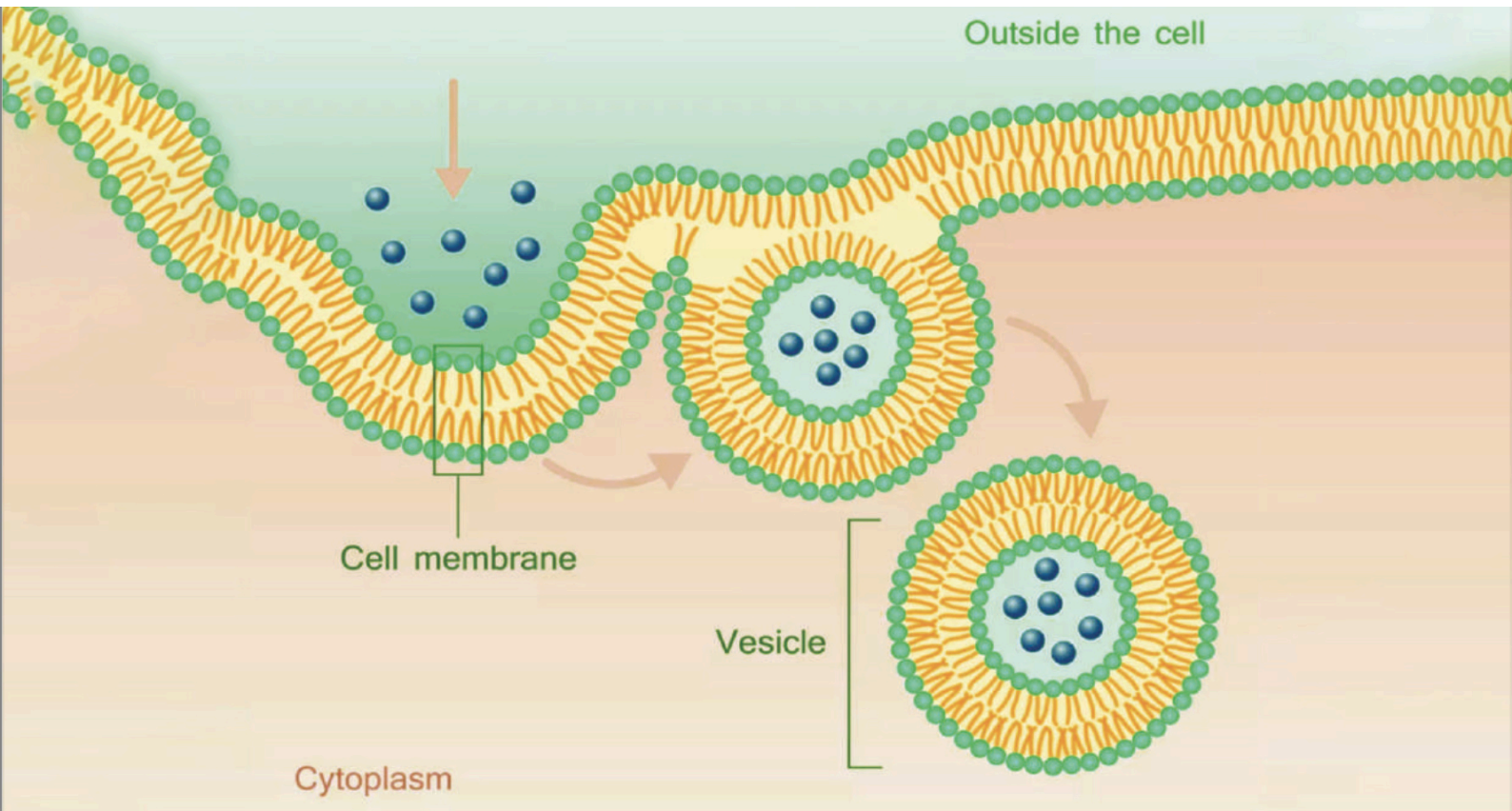


# ACTISOMES

NEW AGE LIPOSOMES

# WHAT ARE LIPOSOMES?



Liposomes are microscopic spherical vesicles composed of one or more lipid bilayers. They are often used in medical and cosmetic applications to deliver drugs or other active ingredients to specific target areas in the body.

Liposomes can encapsulate both hydrophilic (water-soluble) and hydrophobic (water-insoluble) substances, making them versatile carriers for various therapeutic and cosmetic compounds. Their structure allows them to pass through cell membranes and release their payload in a controlled manner, enhancing the efficacy and safety of drug delivery.





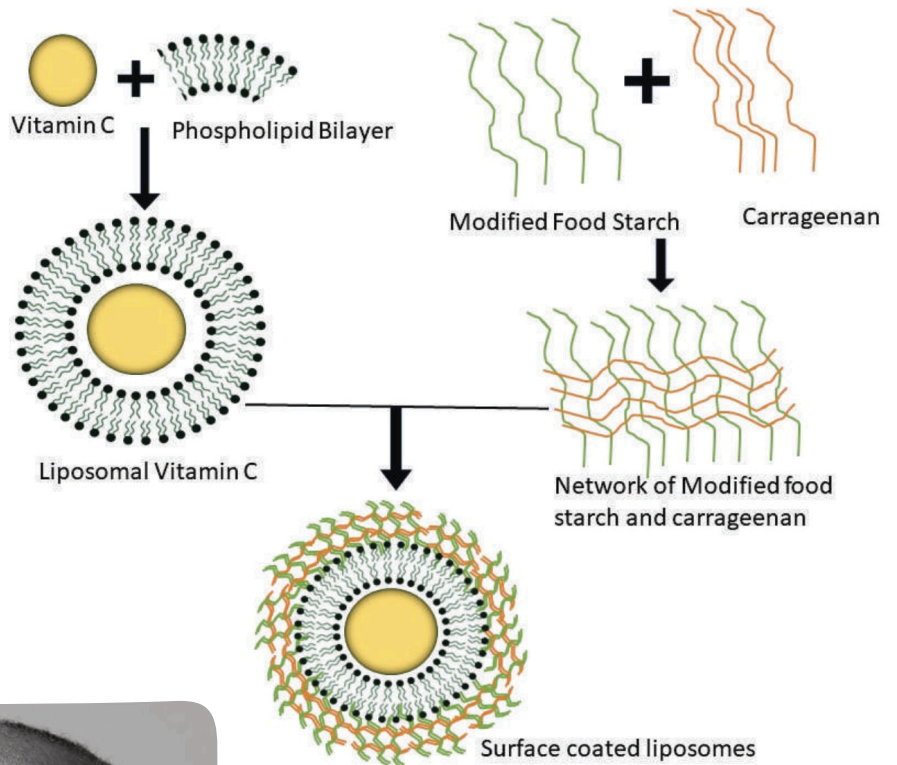
SAY HELLO TO

# ACTISOMES

NEW AGE LIPOSOMES

Actisomes are a unique Liposomal Health Supplements which are developed in powder form.

They are well backed with various studies and patented\* scientific research.



## PRODUCT LIST

- Actisomes Liposomal Vitamins
- Actisomes Liposomal Minerals
- Actisomes Liposomal Herbal Extracts
- Custom Formulations

# NEW AGE FEATURES



NOVEL TECHNOLOGY  
FOR NEW  
AGE LIPOSOMAL  
INGREDIENTS



EXTRA BIOPOLYMER  
LAYER  
FOR EXTRA  
PROTECTION



PATENTED UNIQUE  
PROCESS



MINIMUM LIPOSOMAL  
LEAKAGE

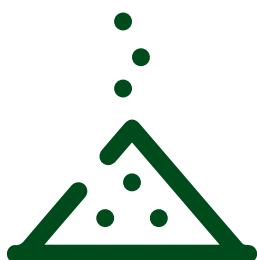
# ADVANTAGES



MORE BIO-AVAILABLE



HIGHER THERMAL  
AND PH STABILITY



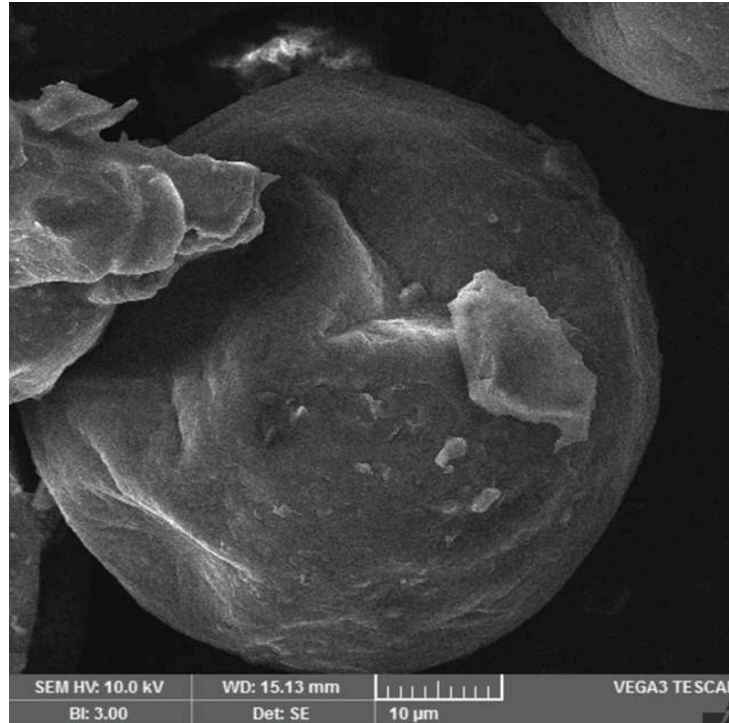
DRY LIPOSOMES IN POWDER  
FORMAT FOR ALL  
ACTIVE INGREDIENTS



MAXIMUM  
POSSIBLE STRENGTH

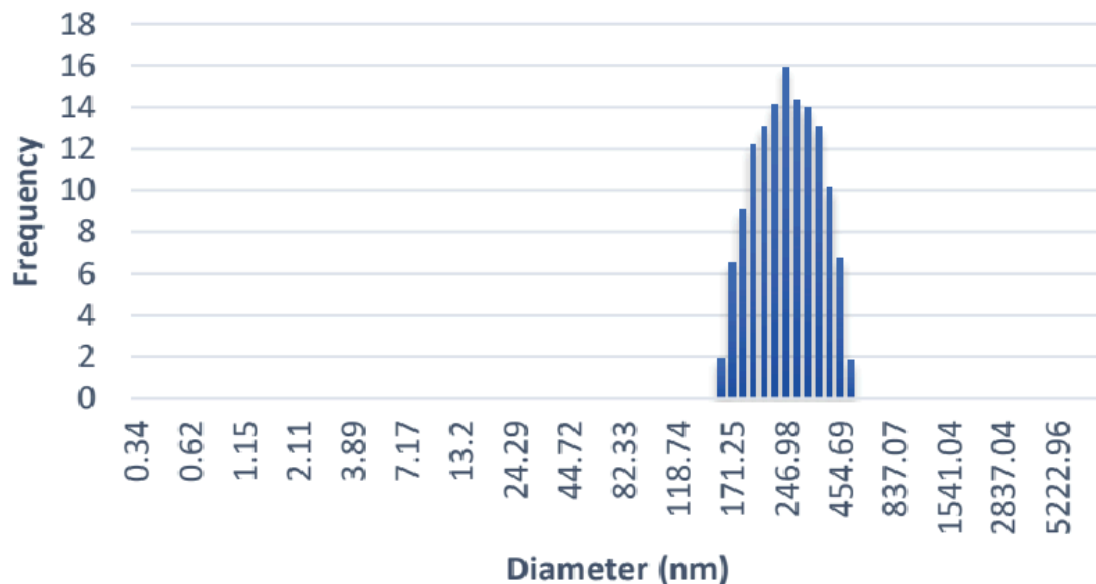
# THE SCIENCE

## TEM OF ACTISOMAL GLUTATHIONE

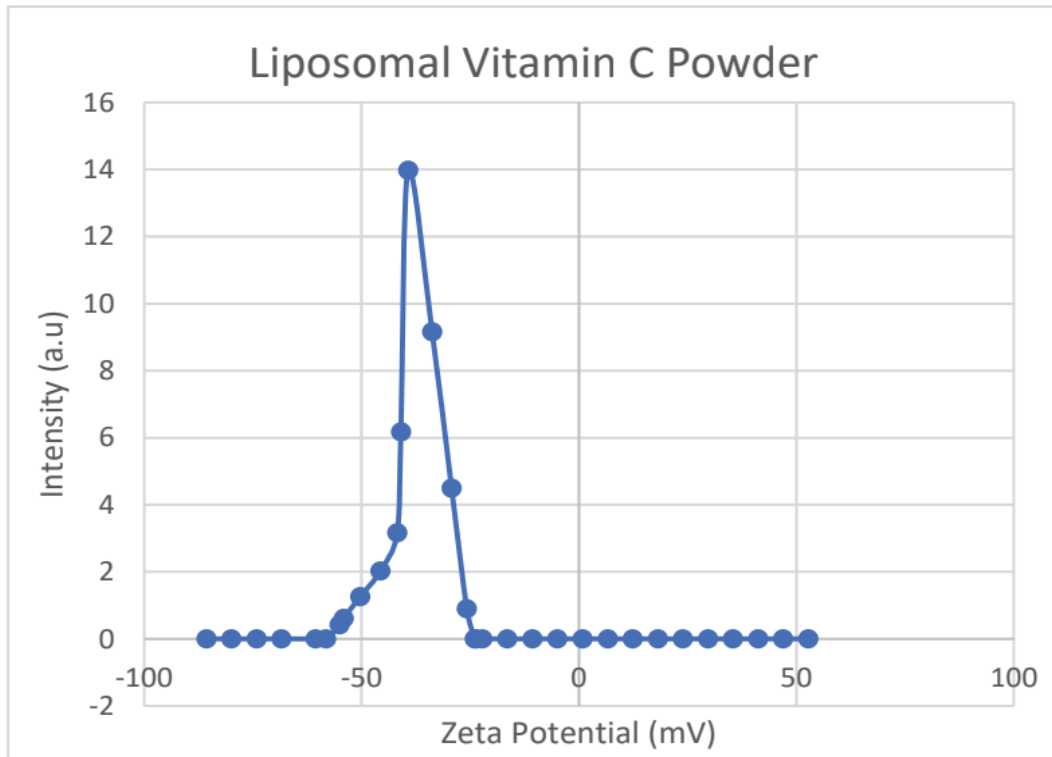


## ANALYTICAL STUDY ON ACTISOMAL LIPOSOMAL VITAMIN C

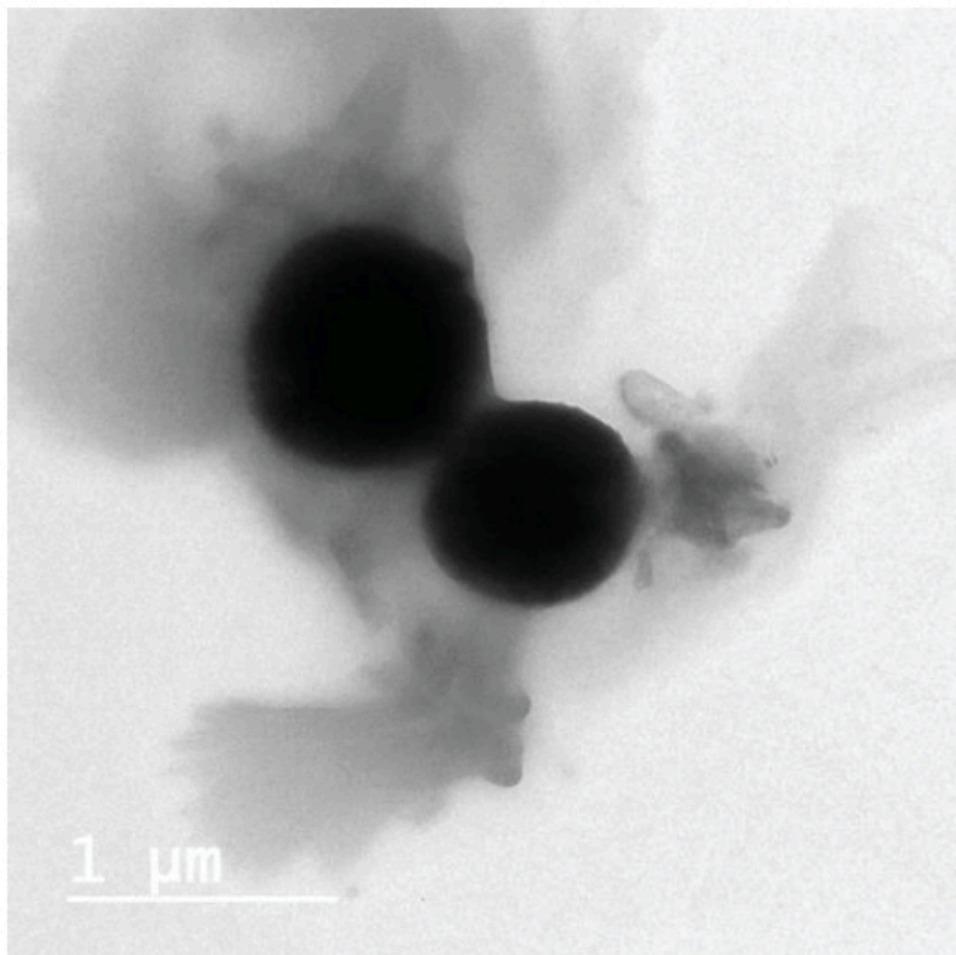
DLS PLOT of Actisomal Liposomal Vitamin C Powder



- Zeta Potential plot of Liposomal Vitamin C Powder



- TEM



# CELL LINE STUDY ON ACTISOMAL VITAMIN C

Table 1. In vitro intestinal permeability data of the marker drugs across Caco-2 cell monolayer

| Test substance                   | $PC_{app}$ ( $10^{-6}$ ; cm/s) Apical to Basolateral |
|----------------------------------|--|
| Actisome Vitamin C               | 4.52   |
| Conventional Liposomal Vitamin C | 3.23   |
| Normal Vitamin C                 | 1.25   |

## CONCLUSION

Actisome Vitamin C exhibited significantly higher permeability than both Conventional Liposomal Vitamin C and Normal Vitamin C, which indicates the higher bioavailability of Actisome Vitamin C formulation.

# ANIMAL STUDY ON ACTISOMAL GLUTATHIONE

Table. 1. The average PK variables from plasma Glutathione of Actisomal Glutathione, Conventional Liposomal Glutathione and Non-Liposomal Glutathione product monolayer

| PK parameters                      | Actisomal Glutathione | Conventional Liposomal Glutathione | Non-Liposomal Glutathione product |
|------------------------------------|-----------------------|------------------------------------|-----------------------------------|
| $C_{max}$ ( $\mu\text{g/mL}$ )     | 87.35 $\pm$ 4.37      | 221.65 $\pm$ 11.08                 | 276.89 $\pm$ 13.84                |
| Folds based on $C_{max}$           |                       | <b>2.53</b>                        | <b>3.17</b>                       |
| $T_{max}$ (h)                      | 2.00                  | 4.00                               | 4.00                              |
| $AUC_{0-t}$ ( $\mu\text{g.h/mL}$ ) | 678.35                | 1856.33                            | 2310.55                           |
| Folds based on $AUC_{0-t}$         |                       | <b>2.74</b>                        | <b>3.41</b>                       |

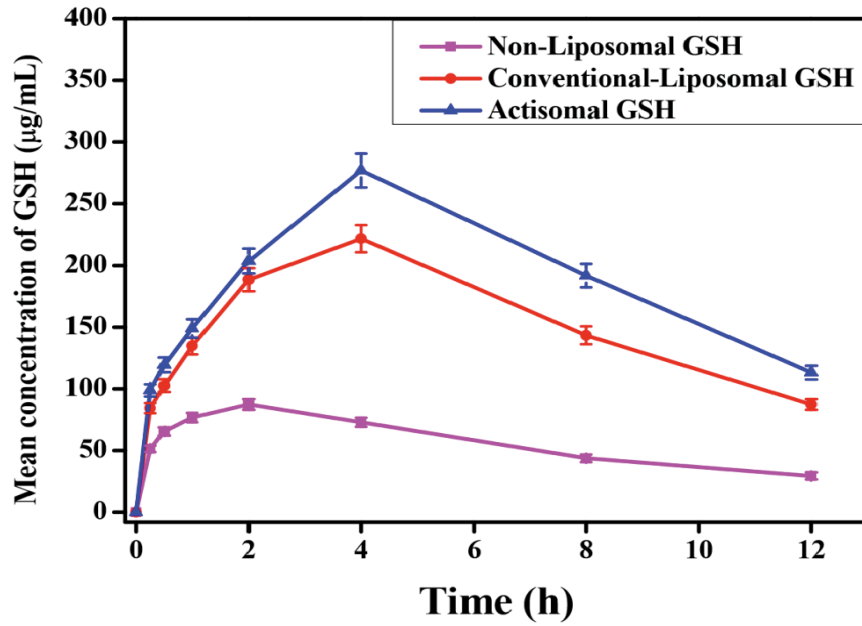


Fig. 1. Mean plasma concentrations ( $\mu\text{g/mL}$ ) of Actisomal Glutathione, Conventional Liposomal Glutathione and Non-Liposomal Glutathione product. Values stated are mean  $\pm$  SD.

## CONCLUSION

The data indicate that the Actisomal Glutathione exhibits greater absorption as compared with both Conventional Liposomal Glutathione and Non-Liposomal Glutathione product.





# SHANKAR INDIA

SHANKAR is a Global Lecithin and Phospholipids company headquartered in India, founded in 1984.

PRO NATURE, PRO FUTURE is the mission the company chose in its new generation and avatar in the 21st century. The Company and its people have committed themselves to develop and gain expertise in natural ingredients for Food, Feed, Health and Industrial Applications.

All products we work on have a clear goal of SUSTAINABILITY and HEALTH. Thus, it supports our goal of commitment to Nature and Future.

All our products are derived from by-product/waste of the edible oil refining industry.

# SHANKAR EUROPE

SHANKAR Europe is a SHANKAR India Initiative to provide end to end Lecithin solutions with full commercial and technical support in Europe with a base in Italy.

Shankar has the most wide range of Lecithins and Phospholipid products and with this initiative it will bring the best in supply chain for applications of Food, Feed, Health and Personal Care under brand names of ACTISOME, ACTISERINE, NULEC, INNO-PC, INNO-PS, INNO-PHY and A-POLLO.





 Indore, India | Bergamo, Italy

SCAN FOR MORE DETAILS



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