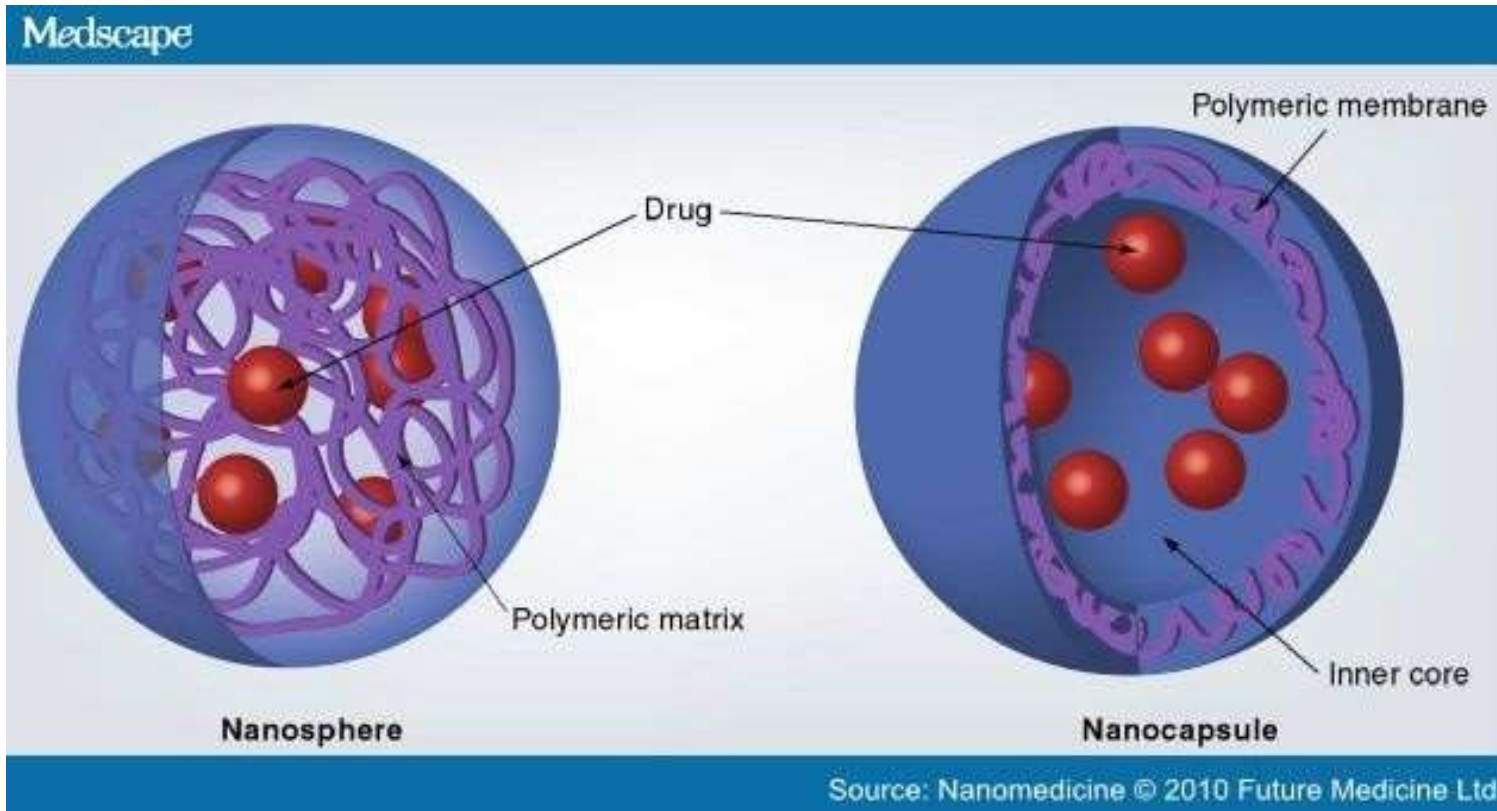


Nanomedicine Technology Platform Based on niosome technology

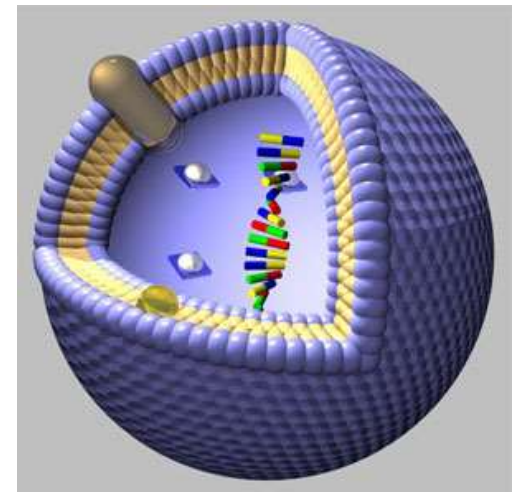
nano-poly-pharmacology

applies to any therapeutic area

Nano-poly-pharmacology with niosome technology



Our technology is soft nanosphere /soft nanocapsule



OUR

Solutions for Drug delivery systems

IV: intra-venous
IP: intra-peritoneal

Oral/enteral

Other routes:
nasal, sublingual, transdermal,
rectal, vaginal, pulmonary...

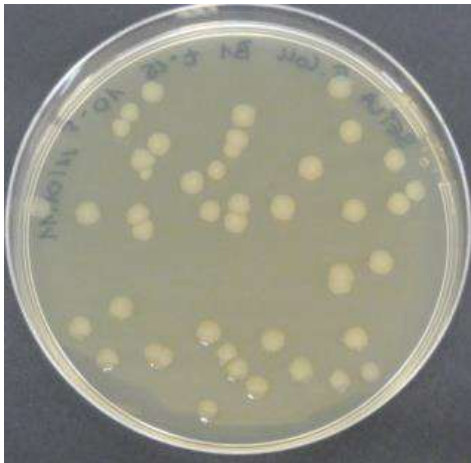


IP, IV, oral routes
validated in
preclinical
murine sepsis
models

NATSOL **ANTIMICROBIAL** platform

Tackling antibiotic resistance

Nosocomial multi-/pan- resistant pathogens:



Acinetobacter Baumannii

Staphylococcus aureus

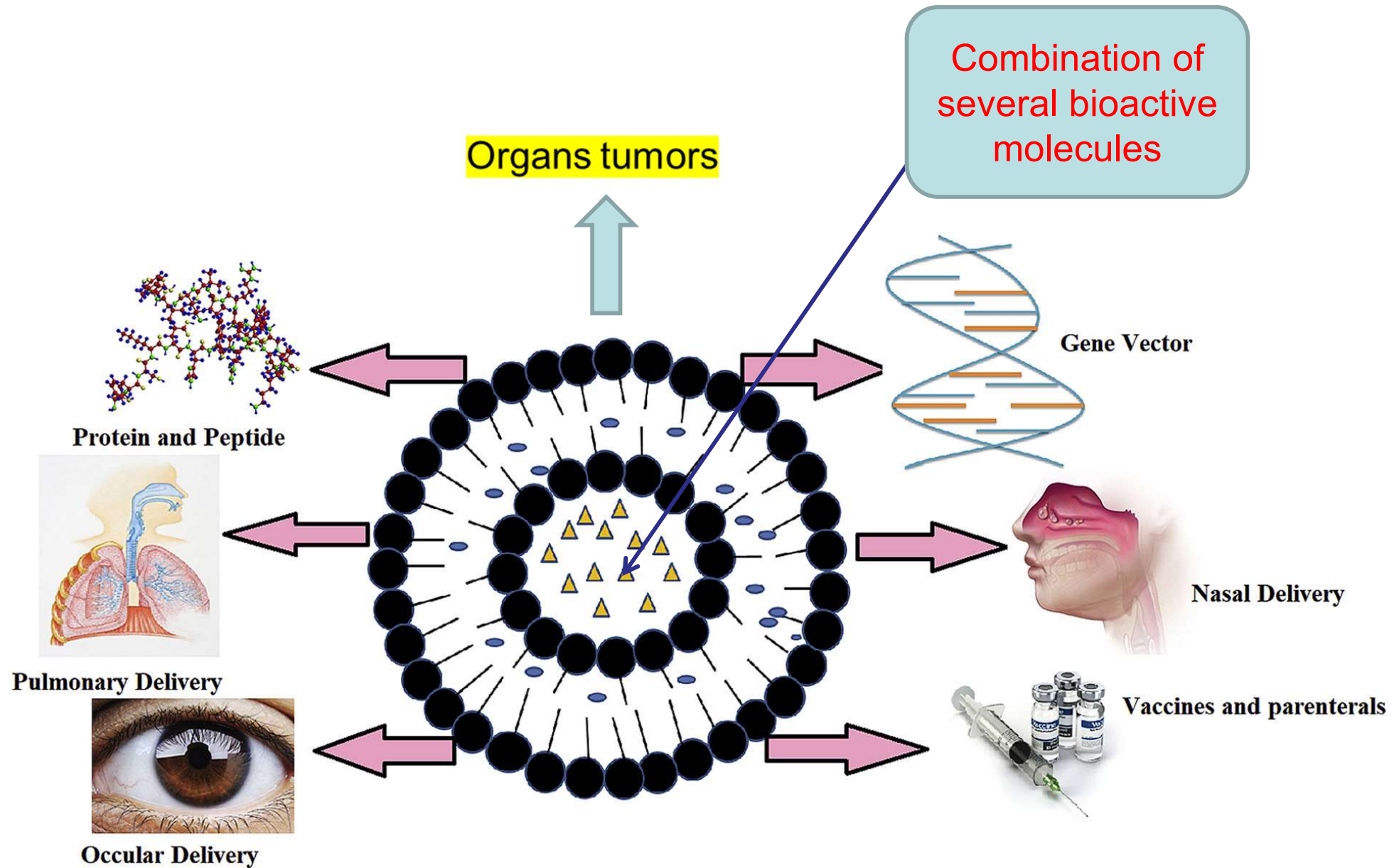
Pseudomonas aeruginosa

IV and IP routes validated under murine sepsis models during preclinical tests

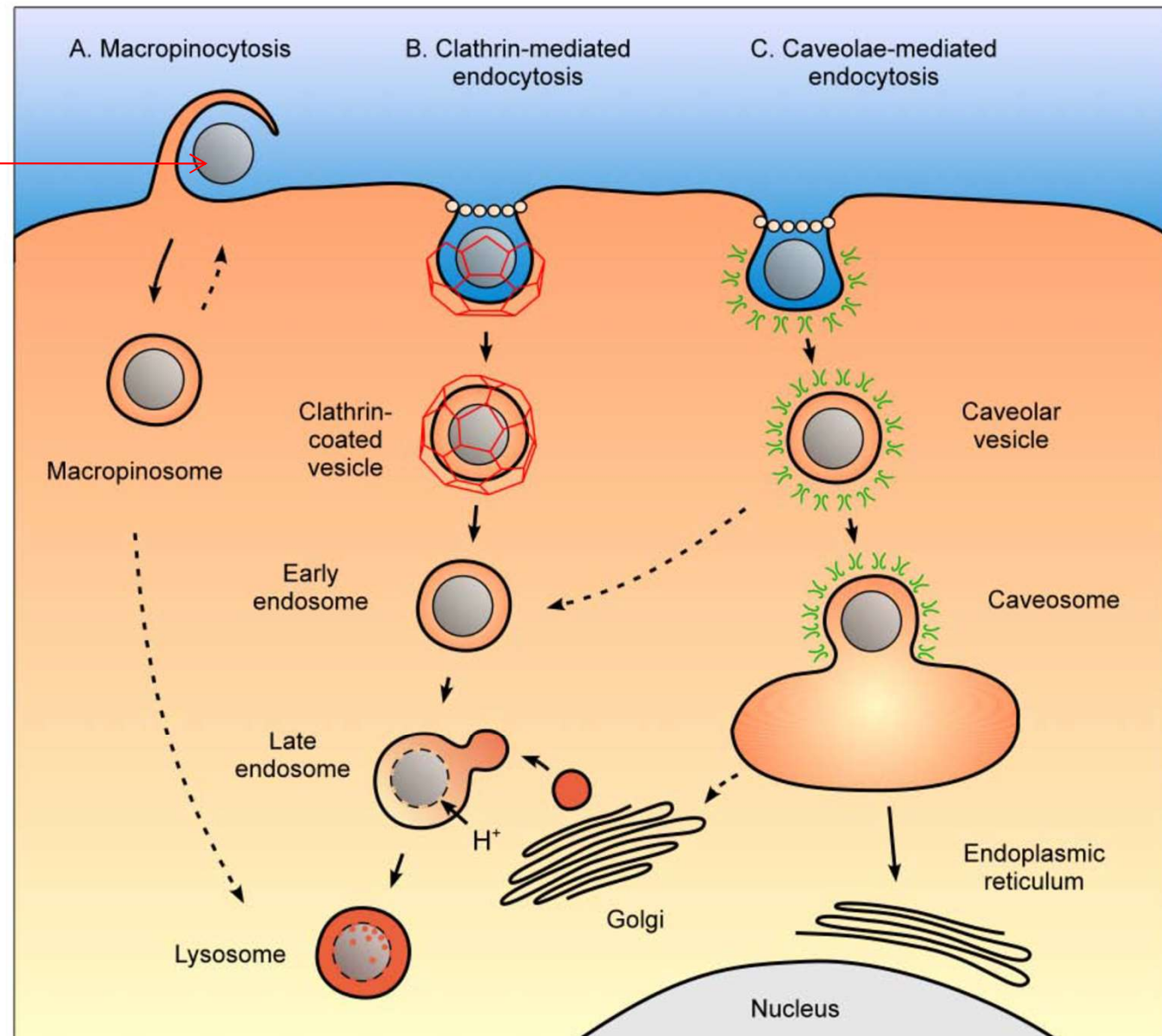
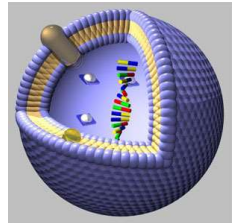
NATSOL antimicrobial platform for killing viruses, fungi & bacteria

Broad antimicrobial activity on > 250 pathogen species

Nano-poly-pharmacology with niosome technology



CONCOMITANT CELL PENETRATION MECHANISMS



Nano-poly-pharmacology with niosome technology

ADVANTAGES OF NIOSOME

- Enhanced efficacy and therapeutic index.
 - Decreased toxicity.
 - Improved pharmacokinetic effects.
- Flexibility to couple with site specific ligands to achieve active targeting.
- Increases the stability of any volatile agents & can be easily and cheaply fabricated in large quantities
- Delivers a higher concentration of pharmaceutical agent.

Niosome technology for cancer

Application of nanotechnology improves the effectiveness of anticancer drugs due to the following reasons:

Overcoming drug resistance of cancerous cells

Anticancer NPs act by multiple mechanisms and cancer cells are not yet immune to their effects. Thus, it would take time to develop resistance against nano-drug delivery systems

Site specific activity

Decreases the lipophilic character and increases the solubility of drug in water

Cost- effective and more patient compliance

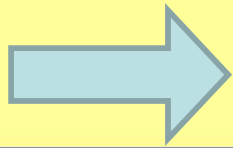
Reduces toxicity

More bioavailability of anticancer drugs at the site of action

Sustained release of drug over a period of time.

Cancer hypoxia

Hypoxia is the hallmark of cancerous tumors

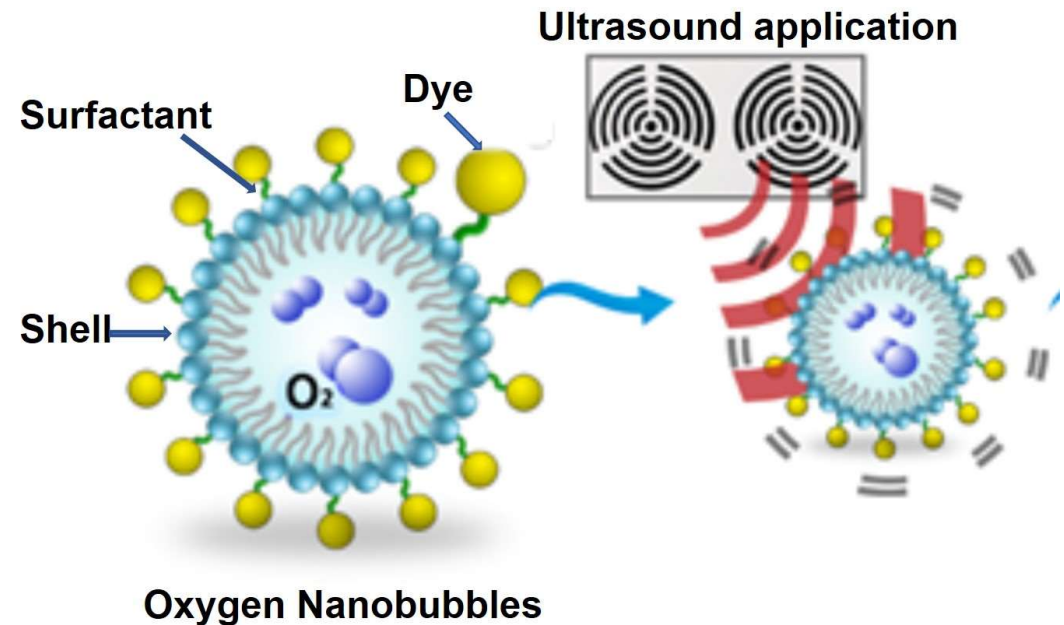


HIF-1alpha increased expression

ONBs oxygen nano-bubbles

decrease HIF-1-alpha

by 50%



ONBs technology eventually combined with US