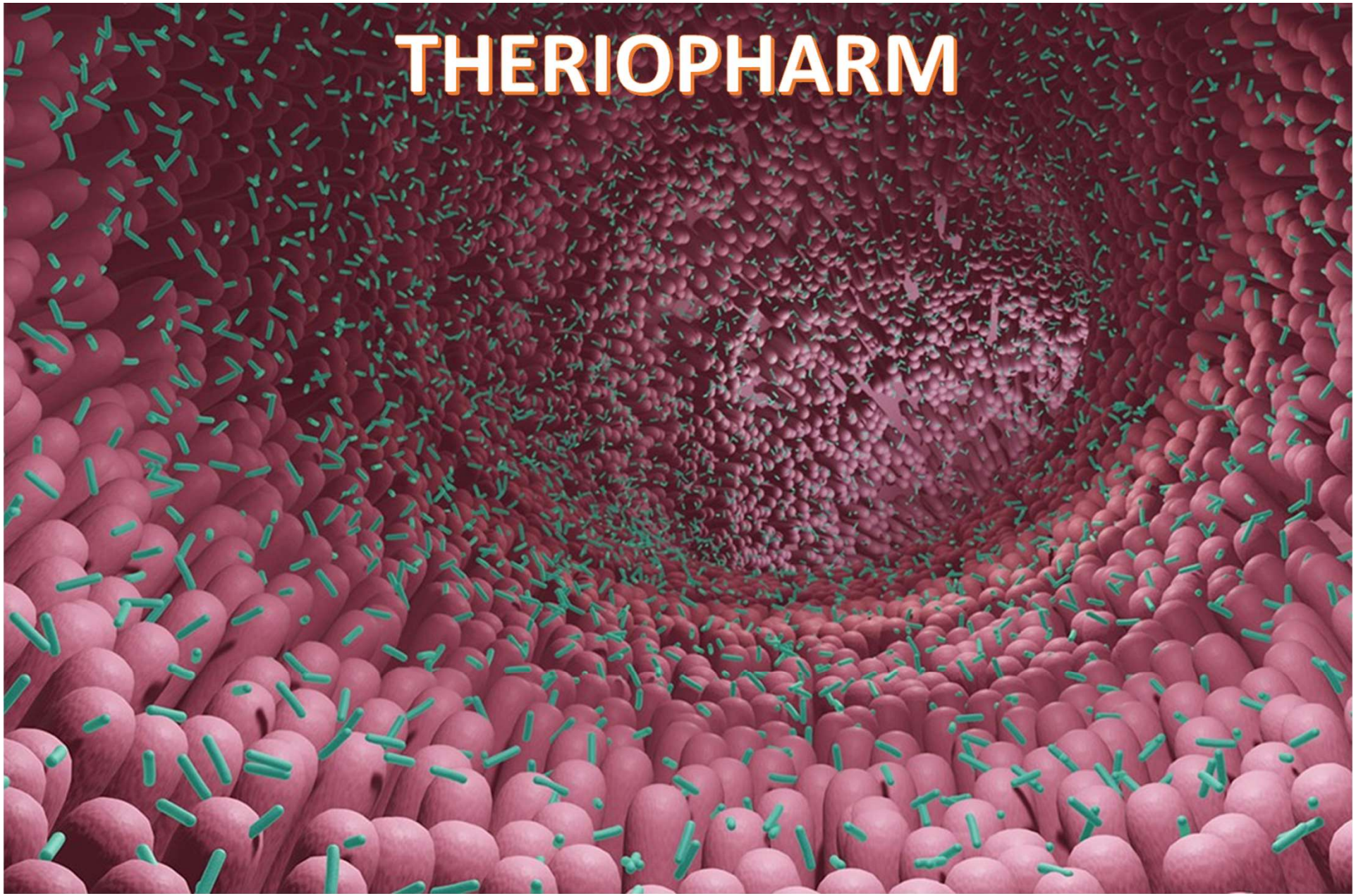
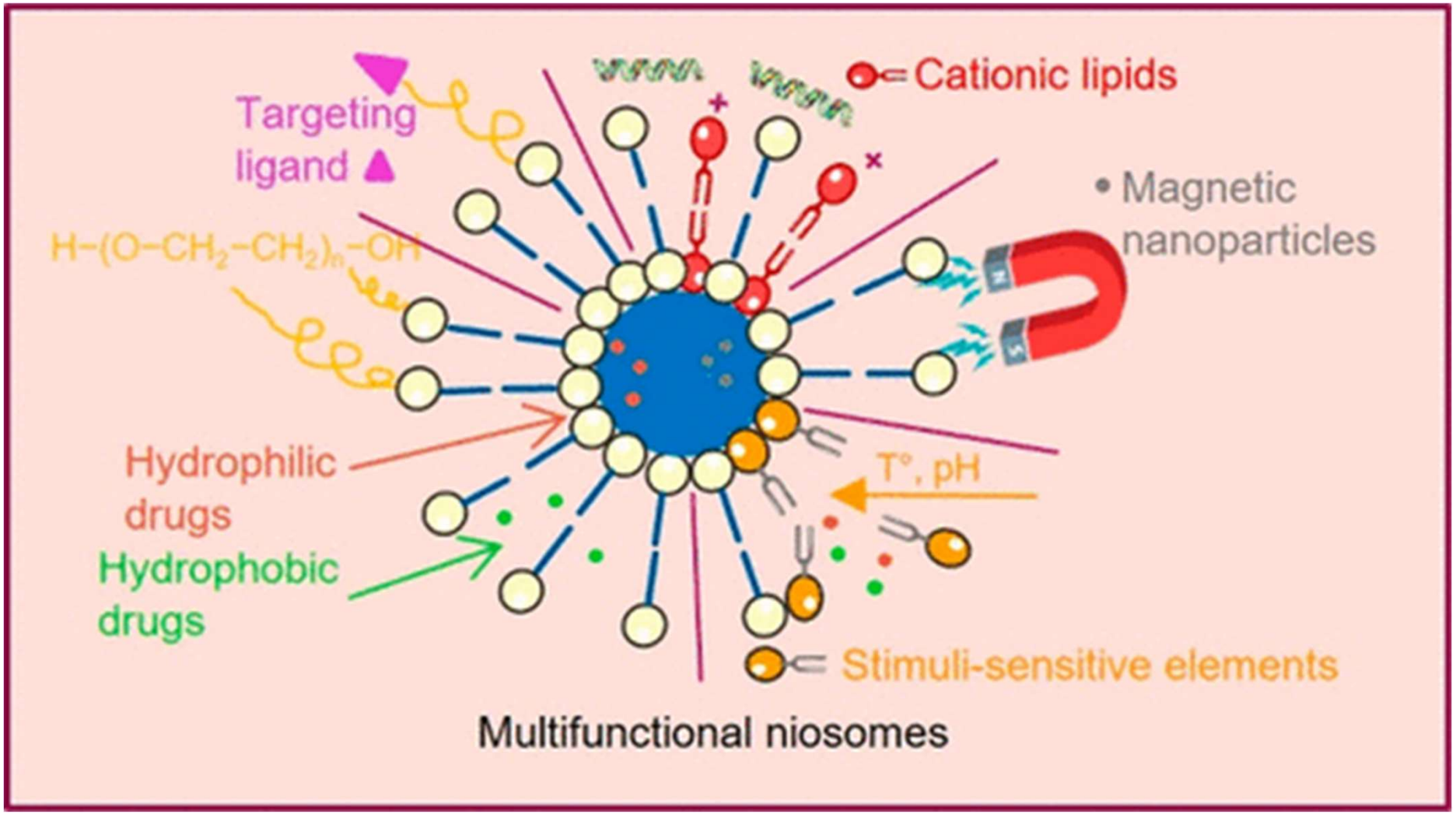

THERIOPHARM

THERIOPHARM

TARGETED DELIVERY

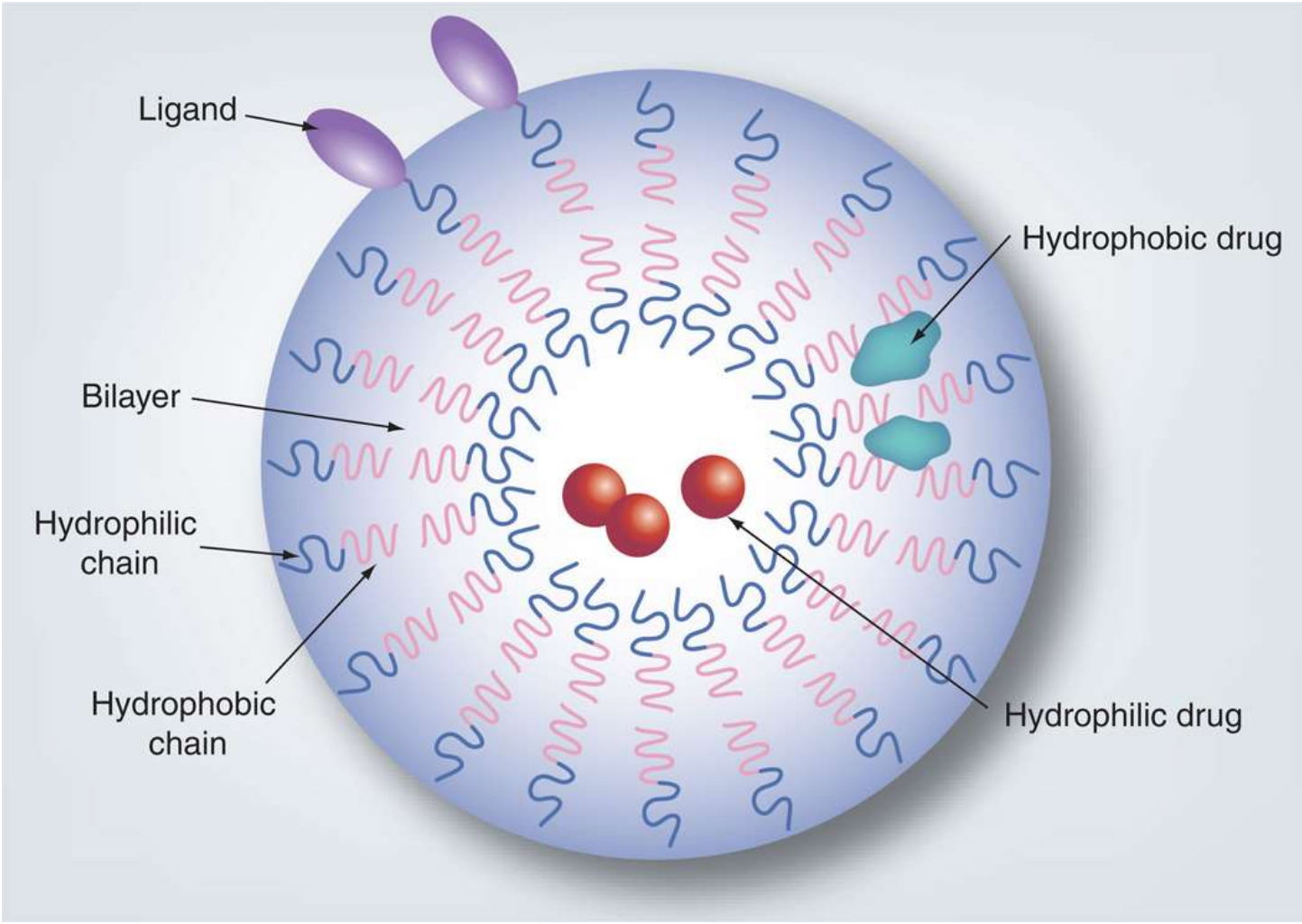


THERIOSOME PLATFORM

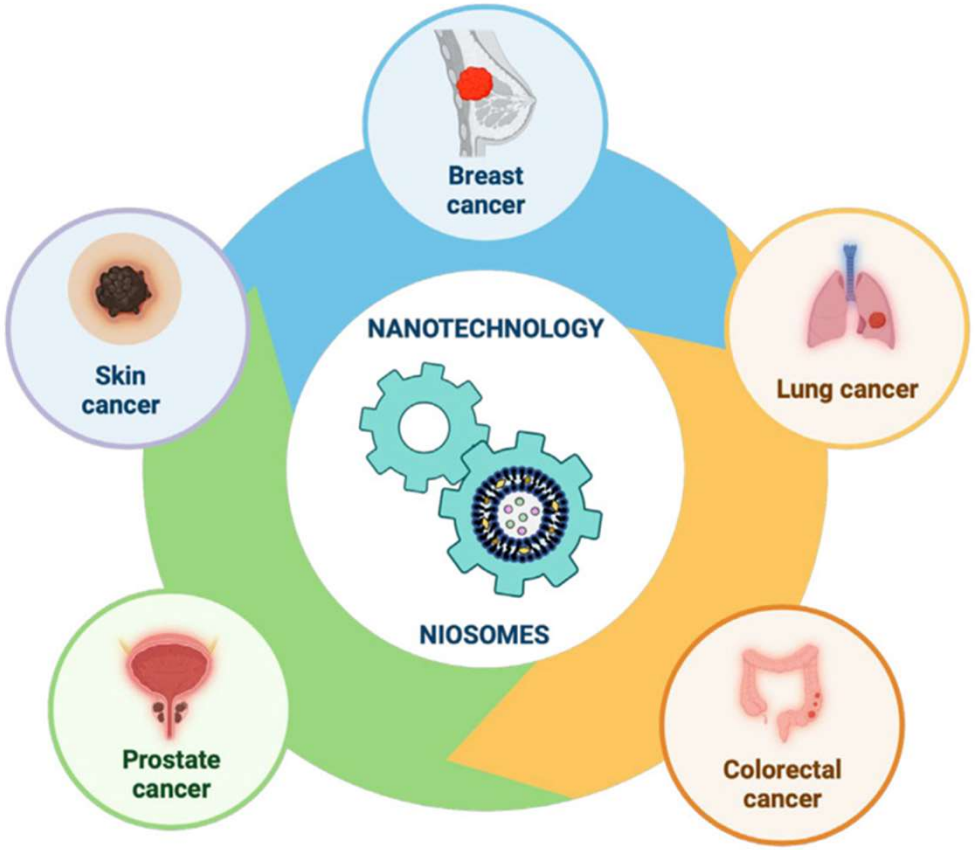
Size 50 to 60 nm

Pharmaceutical grade excipients

+ GRAS components



NANOMEDicine Platform



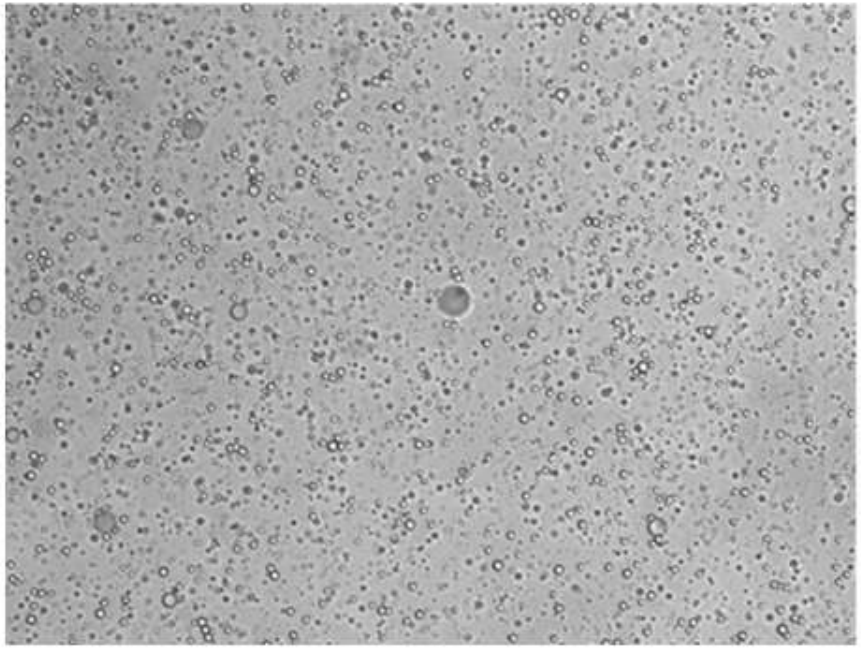
THERIOSOME

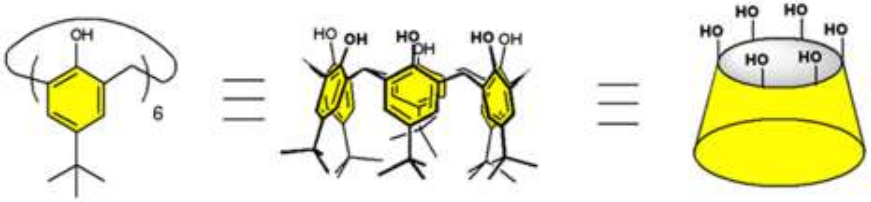
ANY THERAPEUTIC application

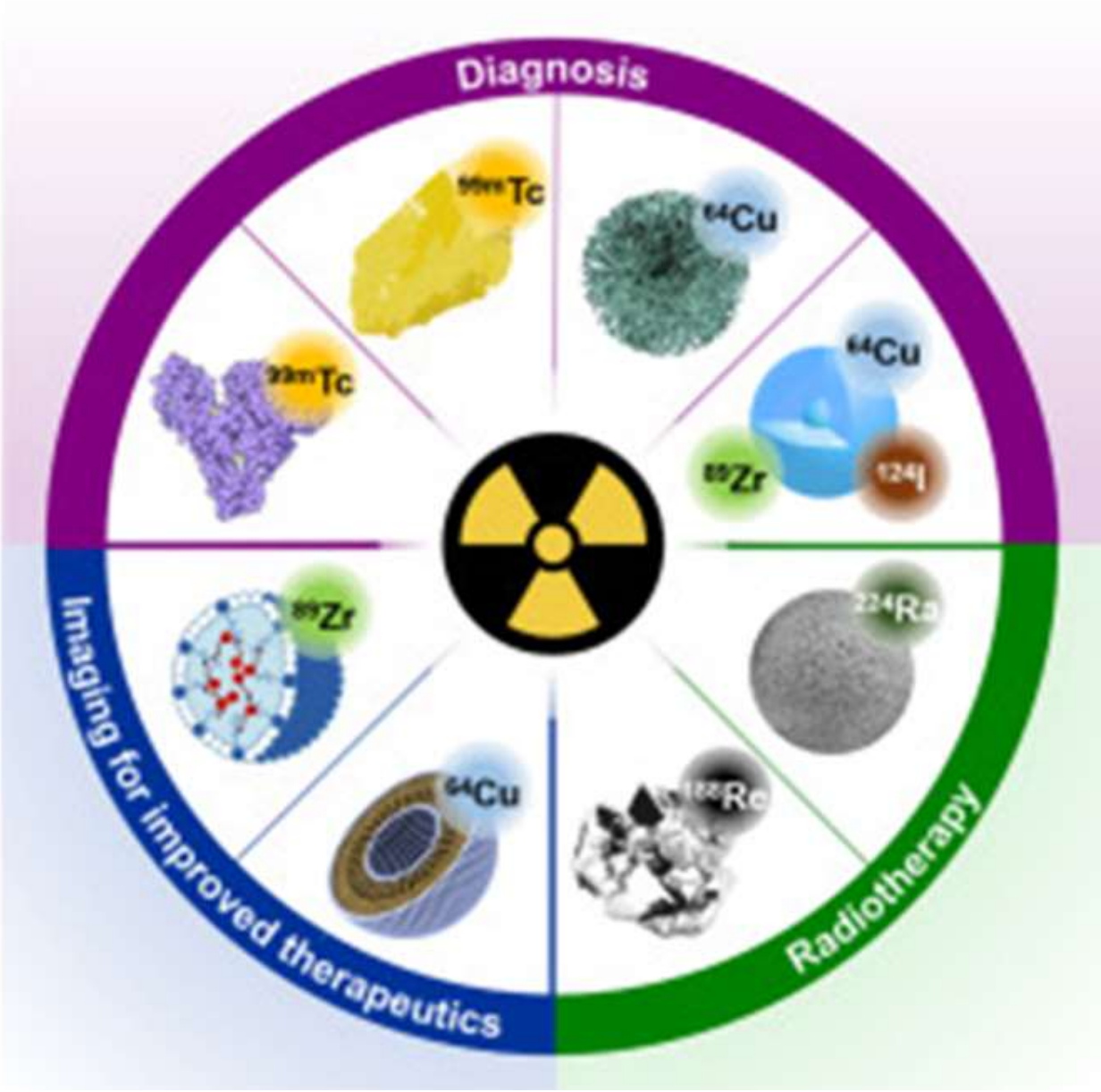
ANY ADMINISTRATION ROUTE

- IT: intra-tumoral
  IV: intra-venous
  IP: intra-peritoneal
- Oral/enteral
- Other routes: nasal, sublingual, transdermal, rectal, vaginal, pulmonary…

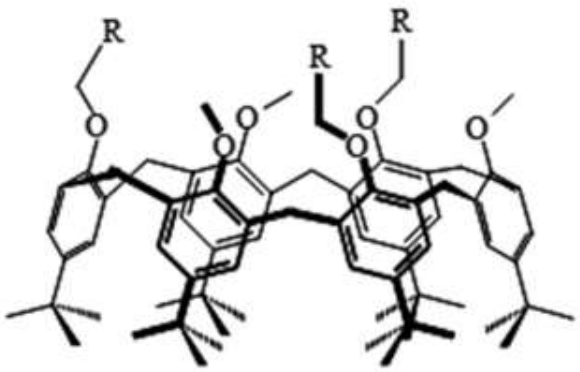
NANO-drops (50-60nm)







Calix[6]arene



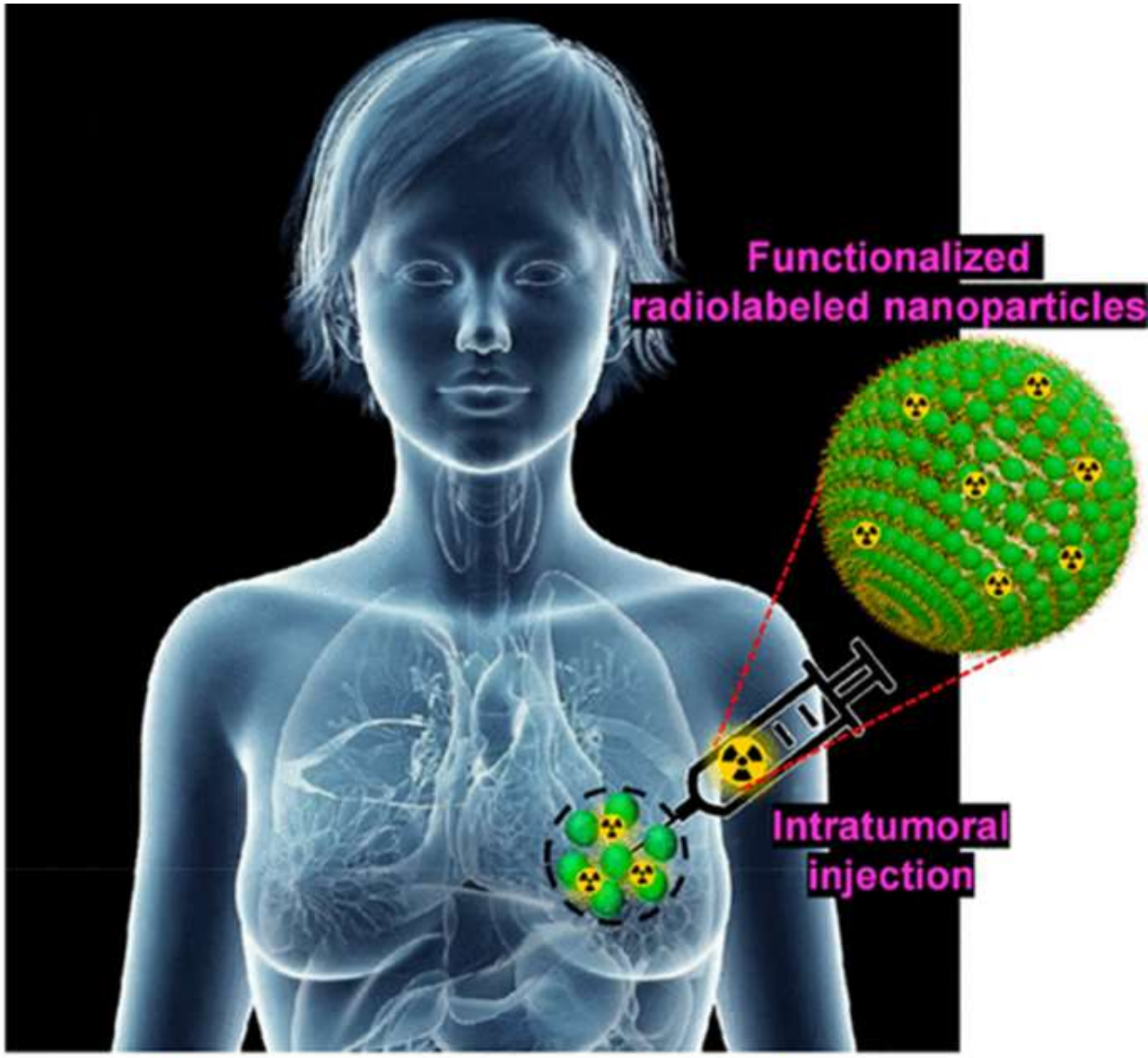
1,3,5-OCH_3-2,4,6-OCH_2R-*p-tert*butylcalix[6]arene
R = CONHOH (LH_3) or R = COOH ($L'H_3$)

Properties of LH_3

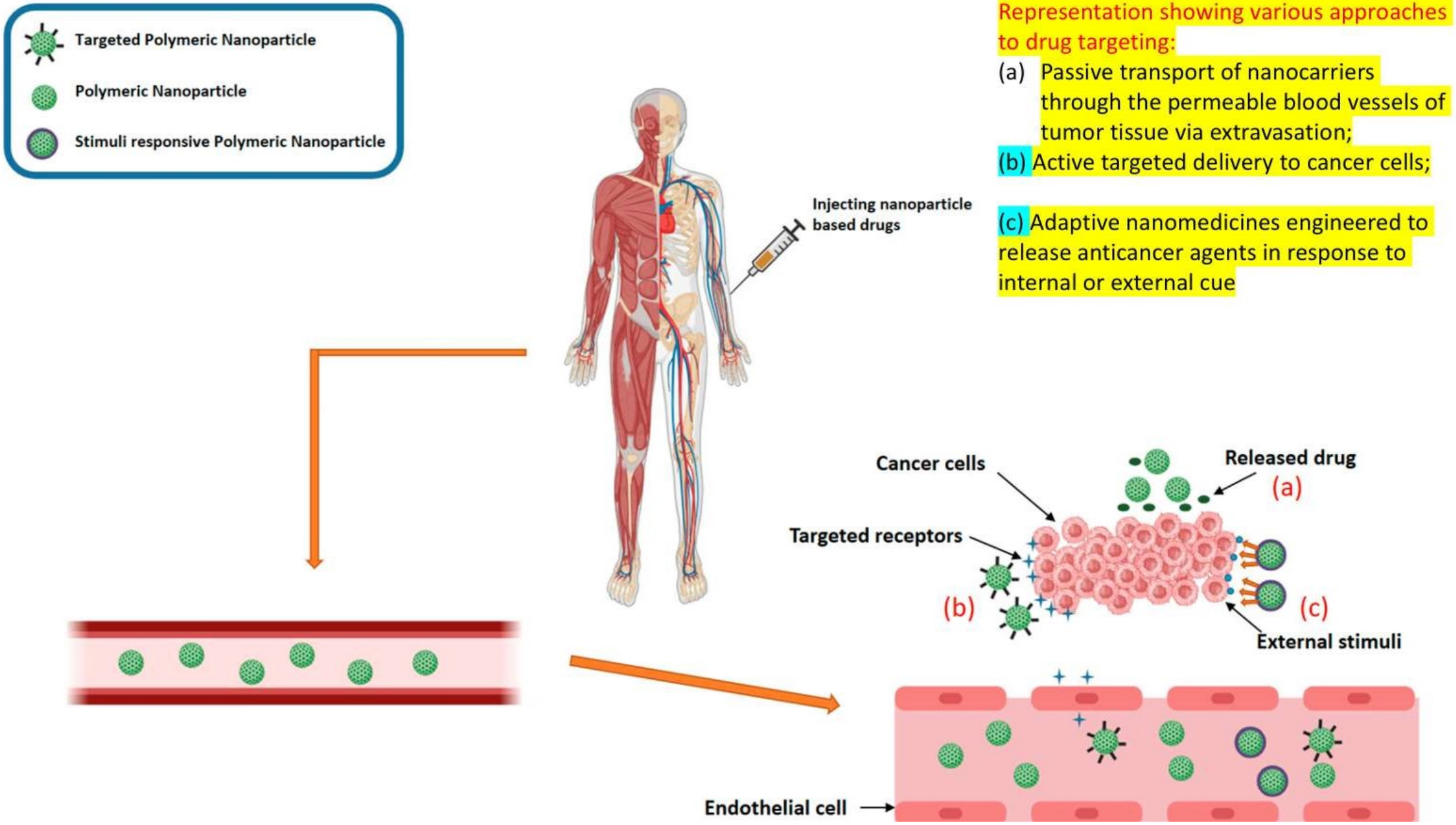
- **Hydroxamic chelating functions** (CONHOH) of LH_3 are supposed to present a very **high affinity** towards **Pu(IV)** [1]

- LH_3 has a very good **affinity** towards **uranyl ion** thanks to the geometry of the cavity and the chelating groups nature [2]

⇒ **LH_3 is supposed to be a promising molecule to extract Pu and U**



Nanoscale brachytherapy

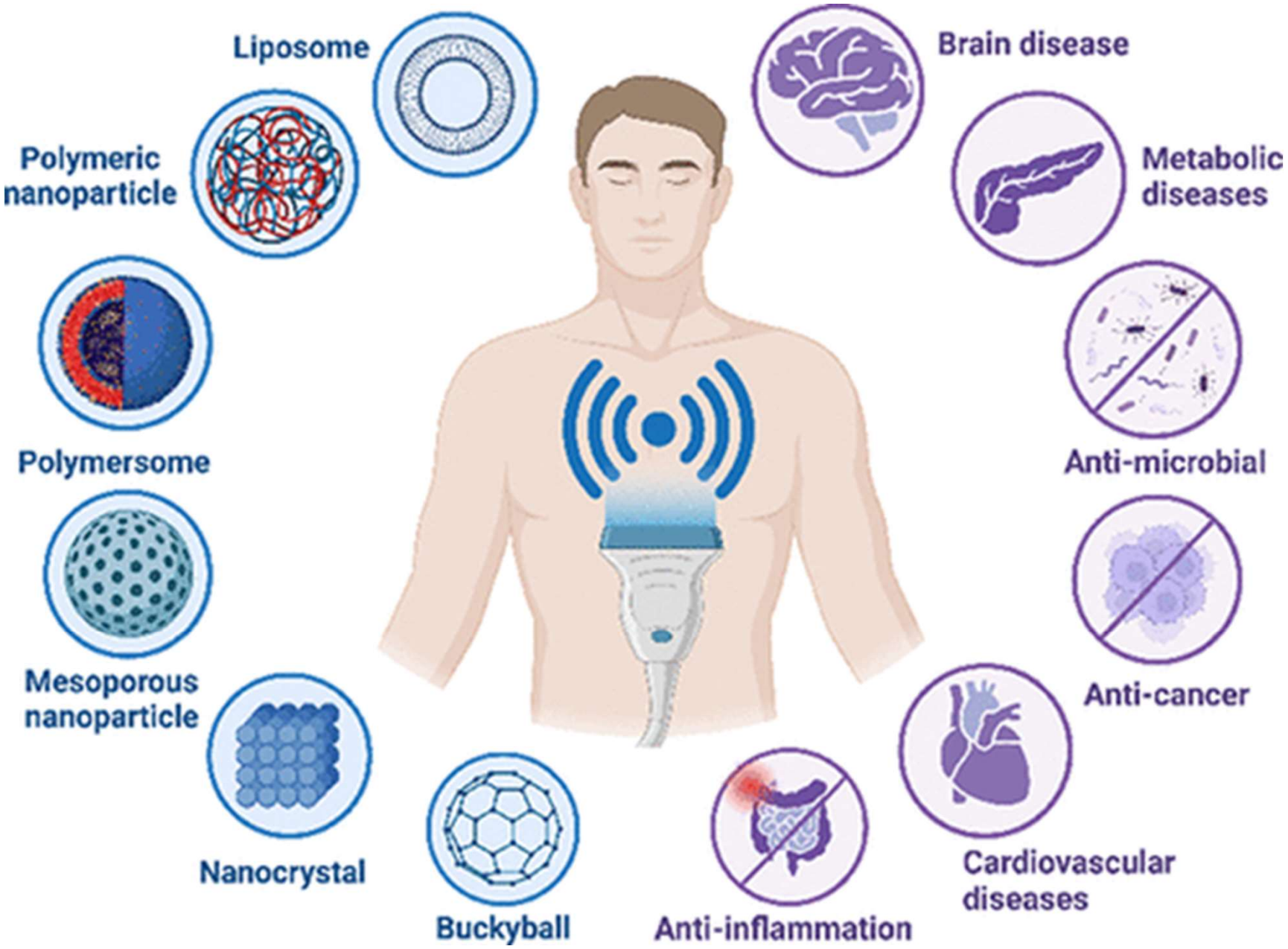


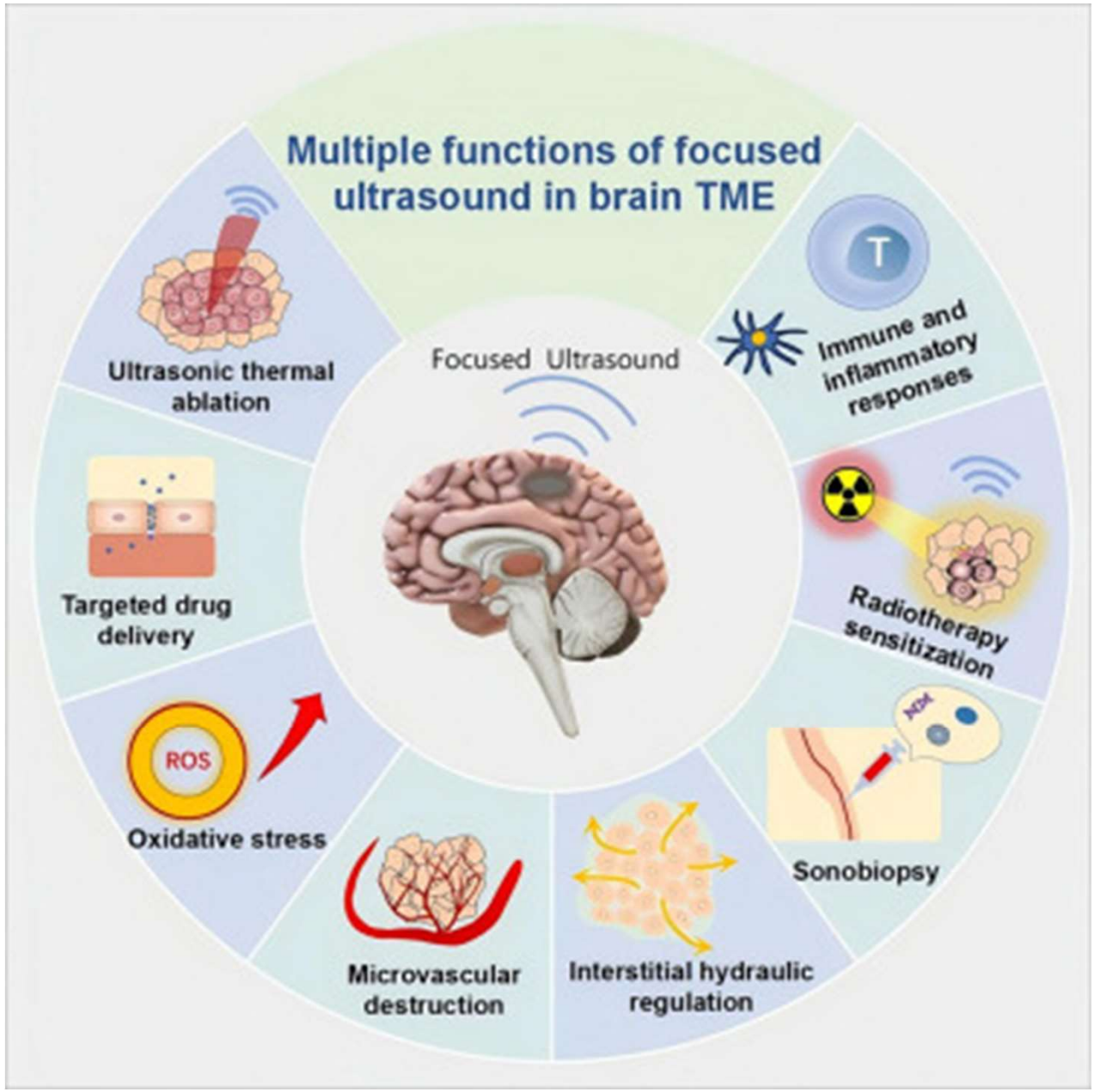
Representation showing various approaches to drug targeting:

(a) Passive transport of nanocarriers through the permeable blood vessels of tumor tissue via extravasation;

(b) Active targeted delivery to cancer cells;

(c) Adaptive nanomedicines engineered to release anticancer agents in response to internal or external cue


Liposome
Polymeric nanoparticle
Polymersome
Mesoporous nanoparticle
Nanocrystal
Buckyball
Anti-inflammation
Cardiovascular diseases
Anti-cancer
Anti-microbial
Metabolic diseases
Brain disease


Multiple functions of focused ultrasound in brain TME
Focused Ultrasound
Ultrasonic thermal ablation
Immune and inflammatory responses
Targeted drug delivery
Radiotherapy sensitization
ROS
Oxidative stress
Sonobiopsy
Microvascular destruction
Interstitial hydraulic regulation