

Title: Gold nanoparticles modified nano liposome carriers

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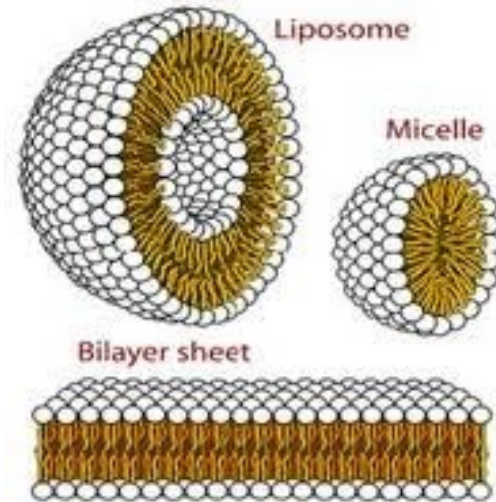
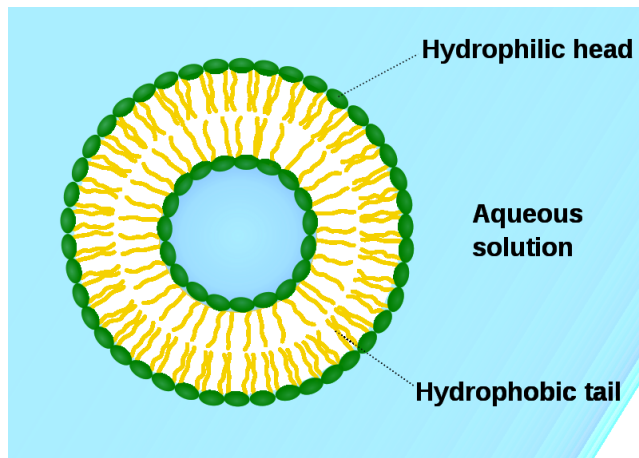
Date : 20.09.2013

Content

- a) Characteristics of liposomes
- b) Use of liposomes
- c) Biocompatibility
- d) Manufacture and detection of zinc transporter
- e) Prospects and conclusion

a) Characteristics of liposomes

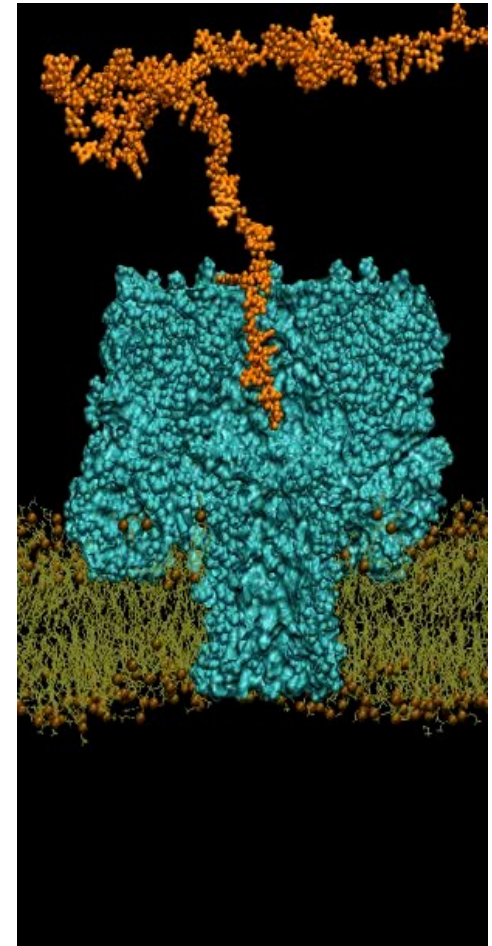
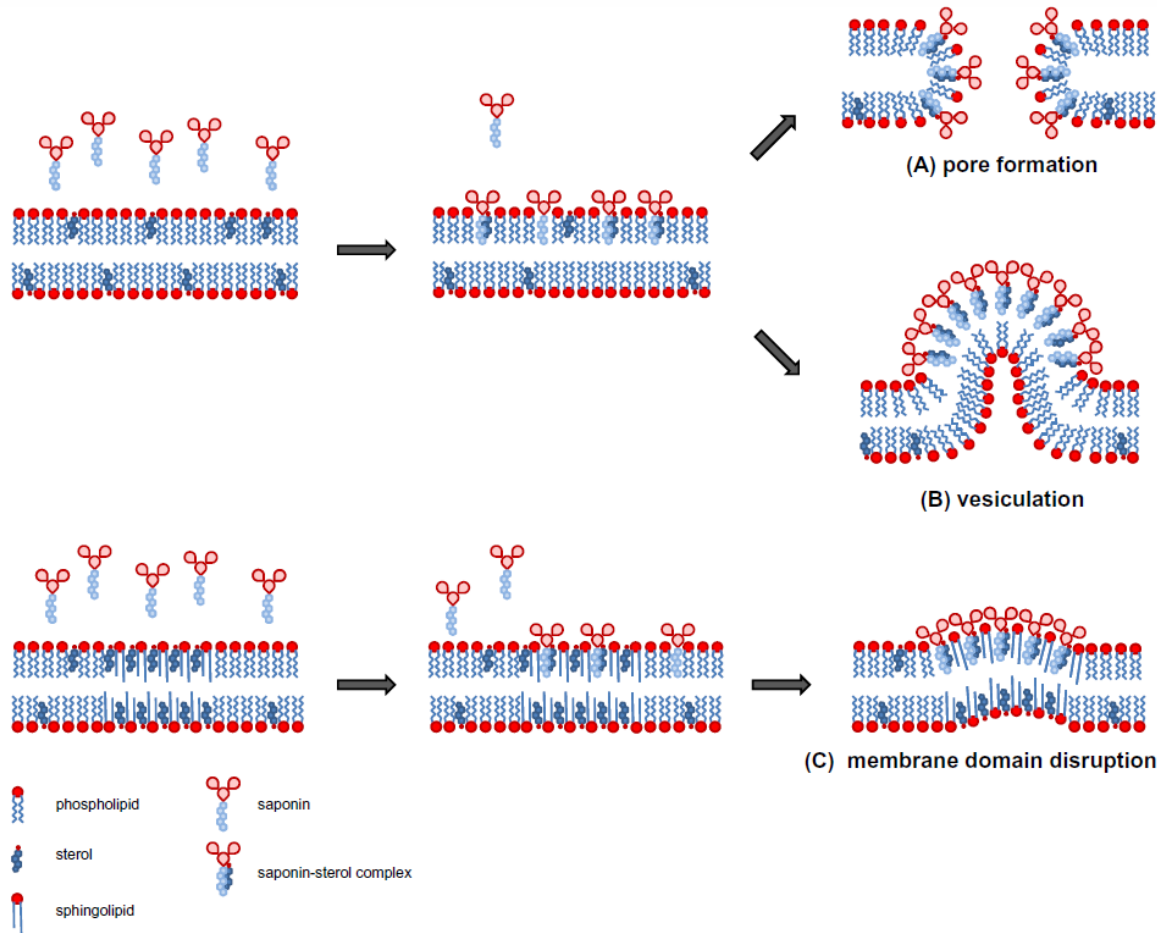
- Liposomes were first described in 1961 by the British haematologist Alec D Banghamem
- Liposomes are spherical phospholipid bilayer



- Dimensions can be 100 nm – 5 μ m

b) Use of liposomes

- Model biological membranes
- Transport of substances

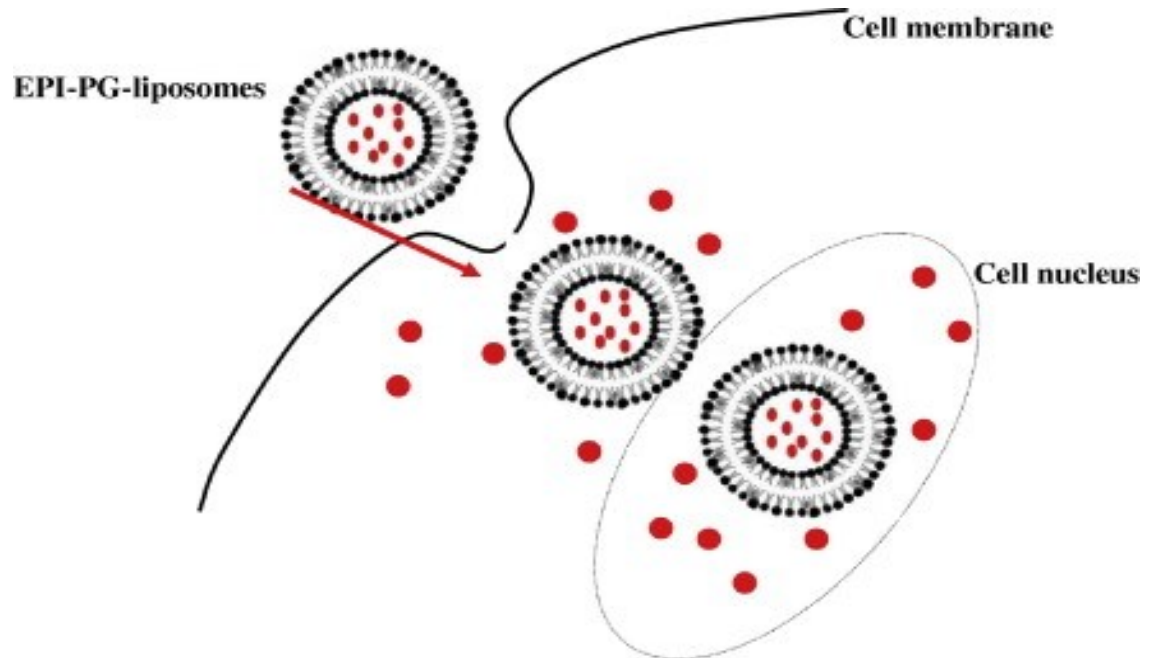
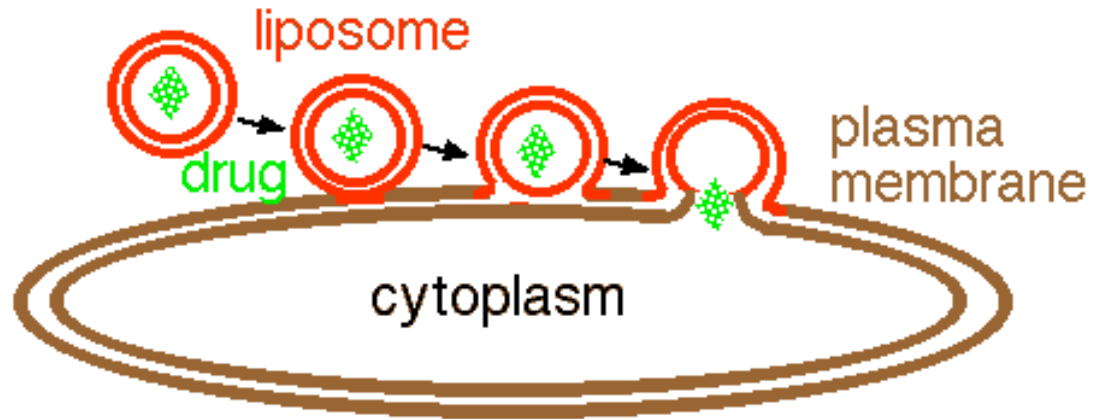
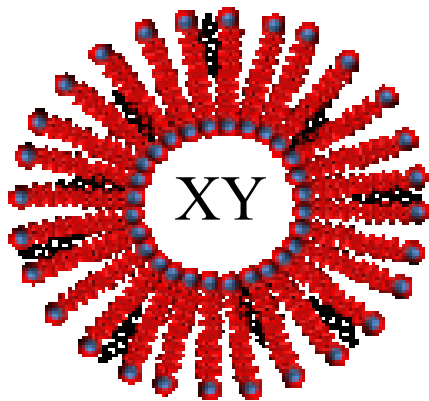


c) biocompatibility

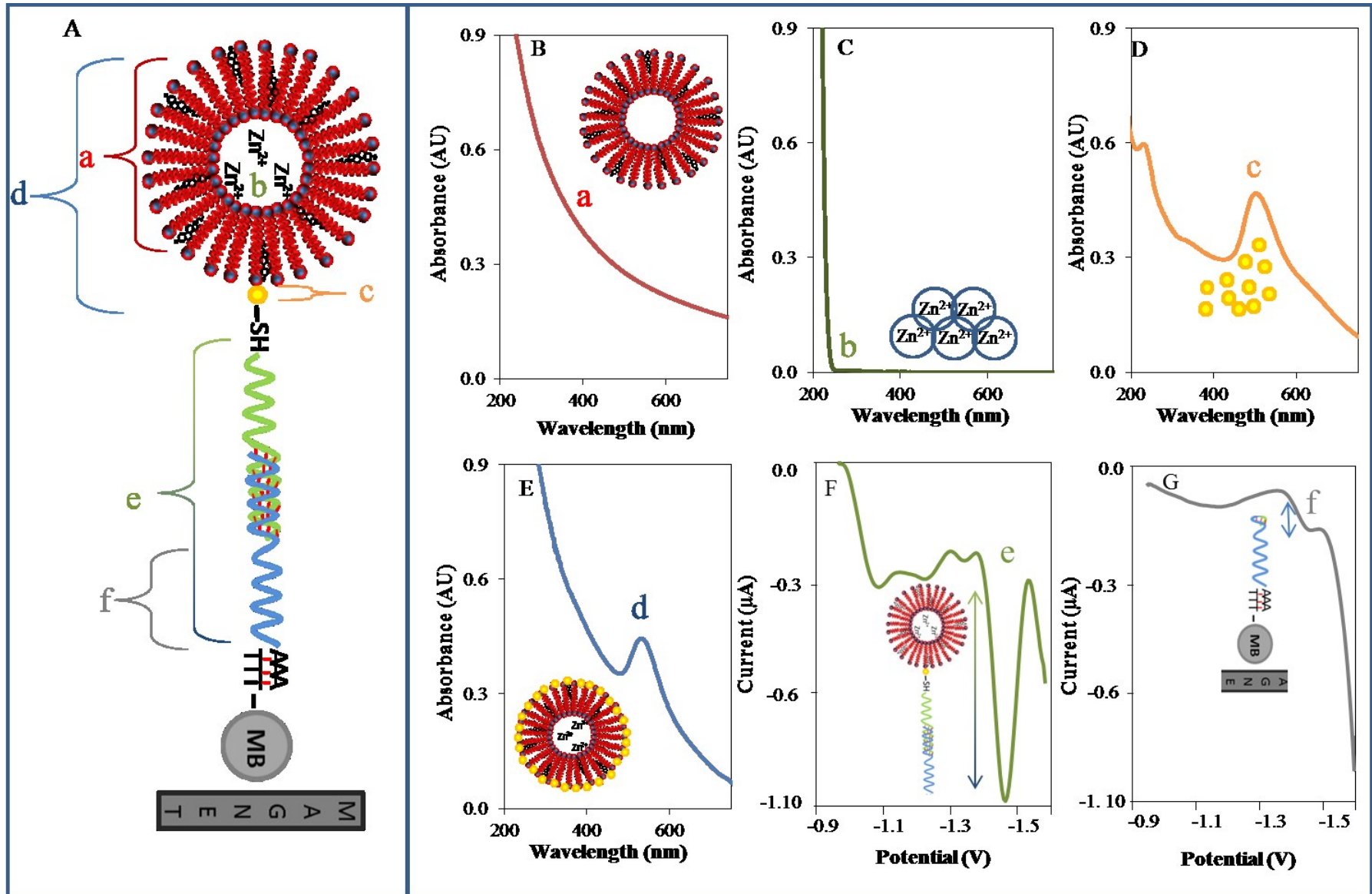
- 1) Liposomes are combined with the cell via membrane phospholipid
- 2) Liposome gets into cells via endocytosis entire

Modification of the liposome

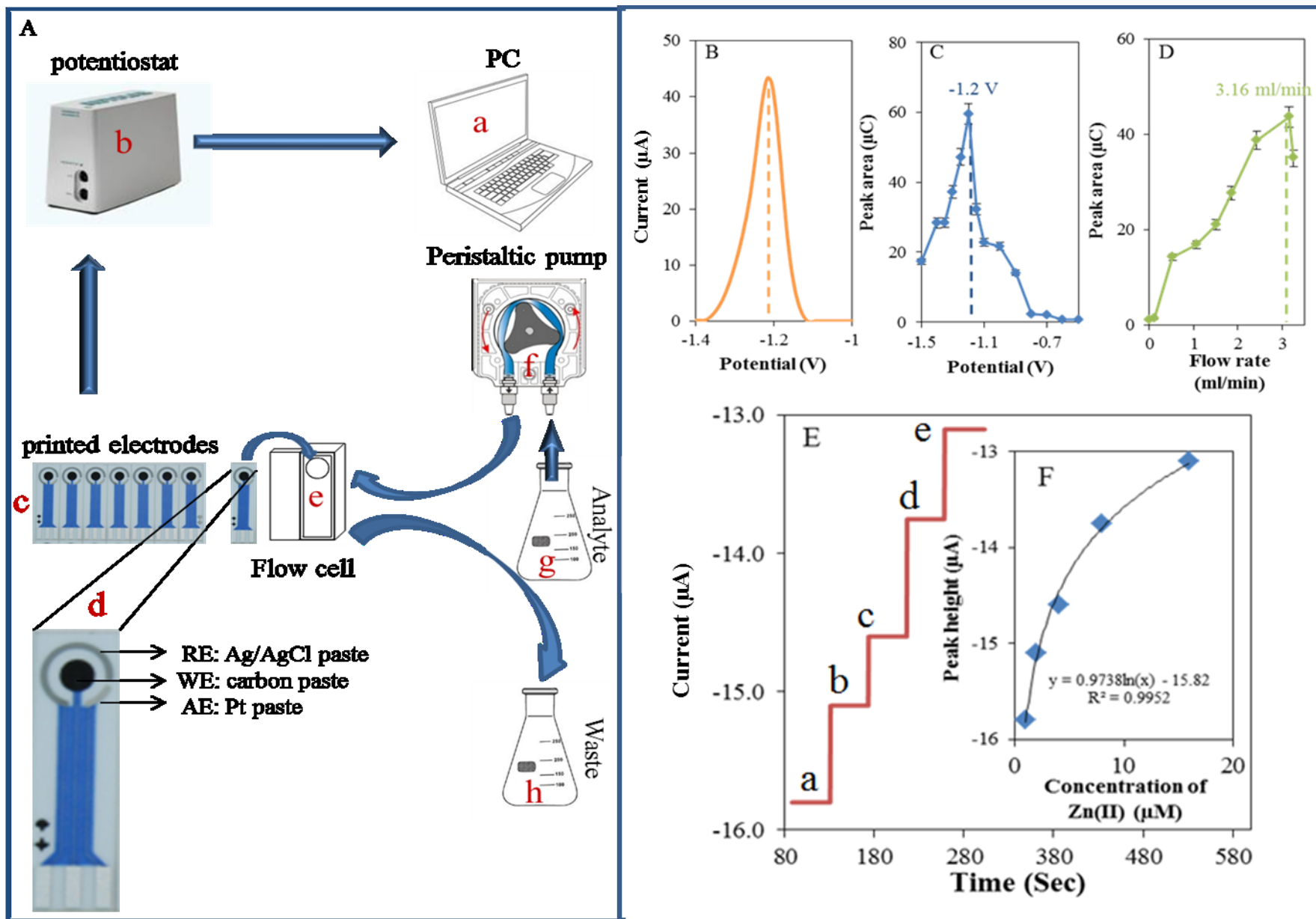
XY = drugs, proteins, DNA, enzymes, and metal ions



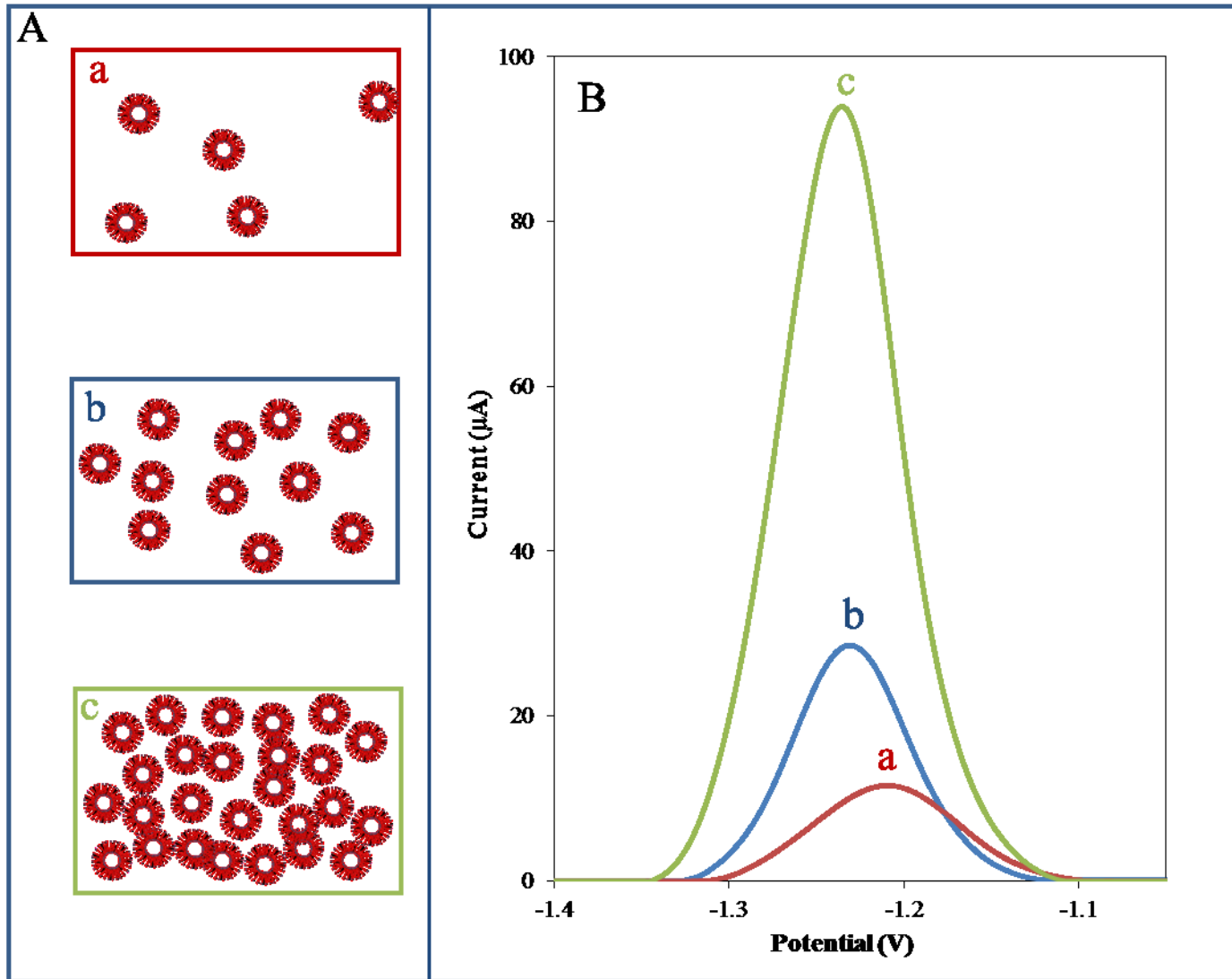
d) Manufacture zinc transporter with nucleic acid



d) Electrochemical detection and optimization



d) Electrochemical detection and optimization



e) Prospects and conclusion

Prospects

- Green fluorescent protein with liposomes
- Combination with cells

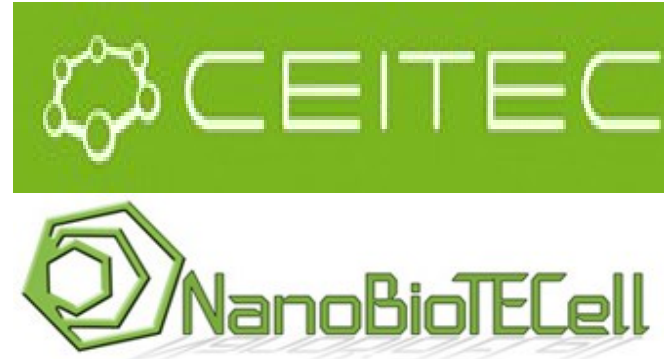
Conclusion

- Liposomes are intensively studied molecule
- The use involves the transport of substances and studying membrane
- In this experiment has succeeded in creating modular nanodevices with targeted binding

Acknowledgment

Grant agency

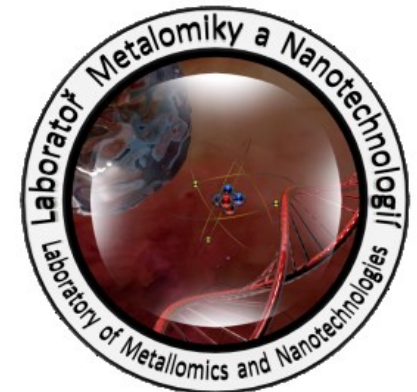
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INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Thank you for your attention

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