



# BIOSENSORS/ MAGNETIC NANOPARTICLES/ BIOMATERIALS

Design and development of biosensors.  
Design, synthesis, characterization and toxicity,  
anti-inflammatory and anti-oxidant effect studies  
of hybrid metallo-flavonoid complexes,  
encapsulated in surface-modified magnetic dendrimer nanocarriers,  
targeting neuroprotective pharmaceutical nanobiotechnology.

## Application Field

Sensors•Diagnostics•Pharmaceuticals•Nutrition

## Services Offered to Third Parties

Design and synthesis of novel nanomaterials•Characterization•Biochemical studies

## Laboratory of Materials for Electrotechnics

**Head of the Laboratory** Professor George Litsardakis

**Members of the Lab/Research Team** George Litsardakis, Eleftherios Halevas

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## Laboratory of Biochemistry

**Head of the Laboratory** Professor Theodora Choli-Papadopoulou

**Members of the Lab/Research Team** Anastasia Pantazaki, George Katsipis

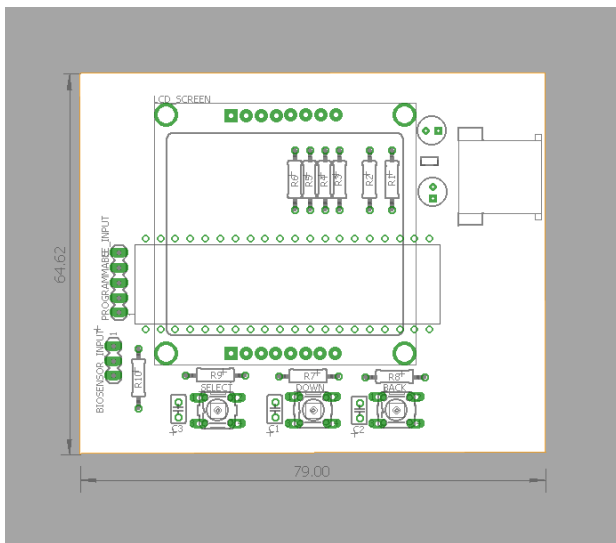
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## Laboratory of Inorganic Chemistry

**Head of the Laboratory** Professor Athanasios Salifoglou

**Members of the Lab/Research Team** Athanasios Salifoglou, Christiane Nday

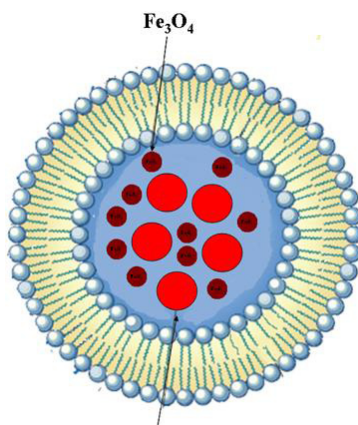
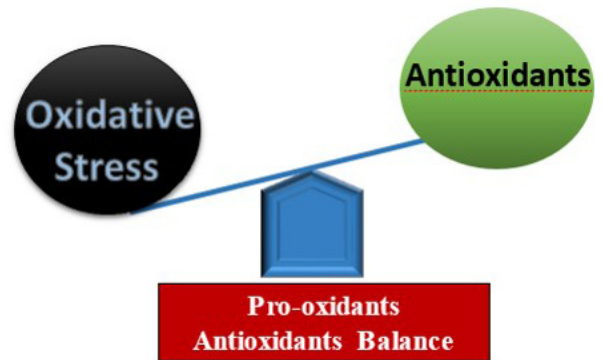
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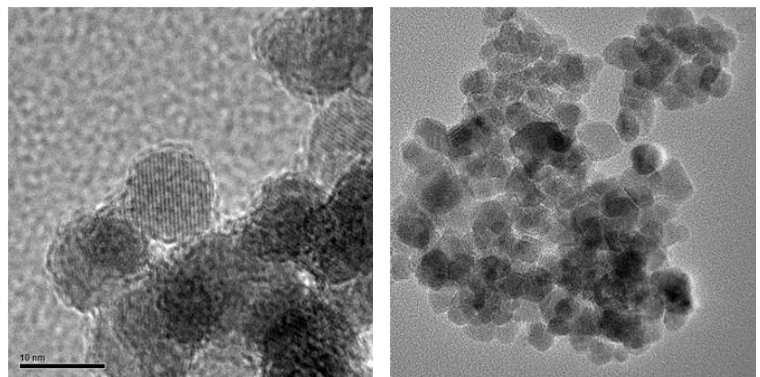
**Fig. 1-2**  
Design and development of biosensors for Point-of-Care applications



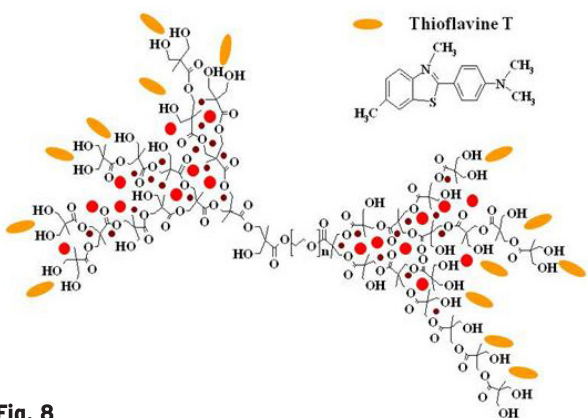
**Fig. 3-4**  
Antioxidants against oxidative stress



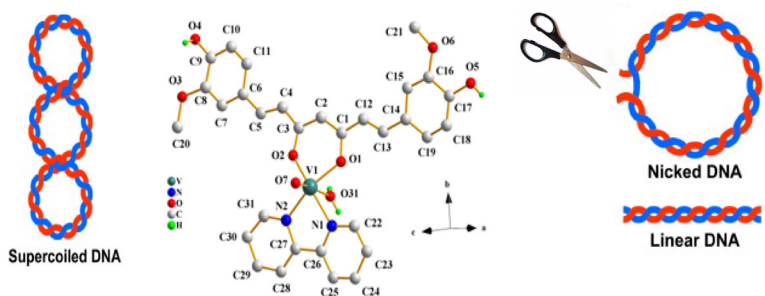
**Fig. 5**  
Magnetic liposome encapsulating metallo-flavonoid complex particles



**Fig. 6-7**  
HRTEM image of magnetic nanoparticles



**Fig. 8**  
Magnetic dendrimer encapsulating metallo-flavonoid complex particles, with ThT surface functionalization



**Fig. 9**  
Supercoiled DNA chain disruption induced by vanadium-flavonoid complex