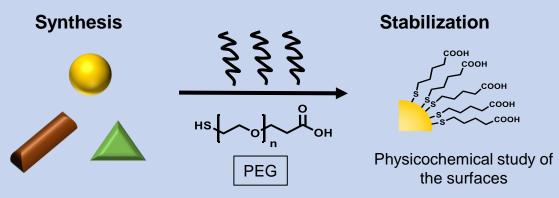
# Engineering Gold Nanoparticles Surface for Biotechnological Applications

Rafael Ramírez Jiménez, PhD. Student

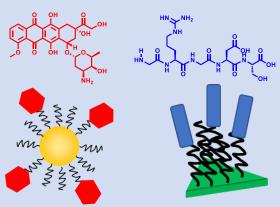
raramjim@unizar.es

## Preparation of gold nanoparticles



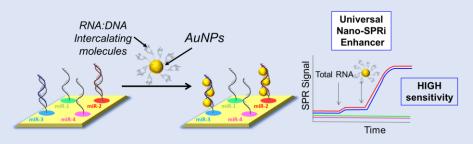
ACS Appl. Mater. Interfaces 2021, 13, 23, 27533-27547

### **Functionalization**



Nanomaterials **2020**, 10, 3, 1–10

### **Biosensors**



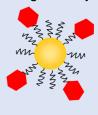
Detection of Multiple Sclerosis (MS)

Anal. Bioanal. Chem. 2019, 411, 9, 1873-1885

#### **Treatment**







Treatment for cancer

Unpublished results









PTT

