



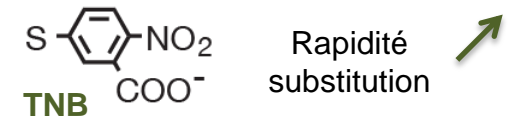
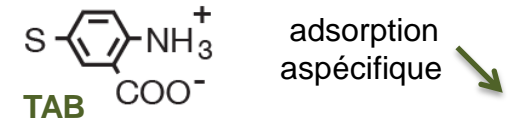
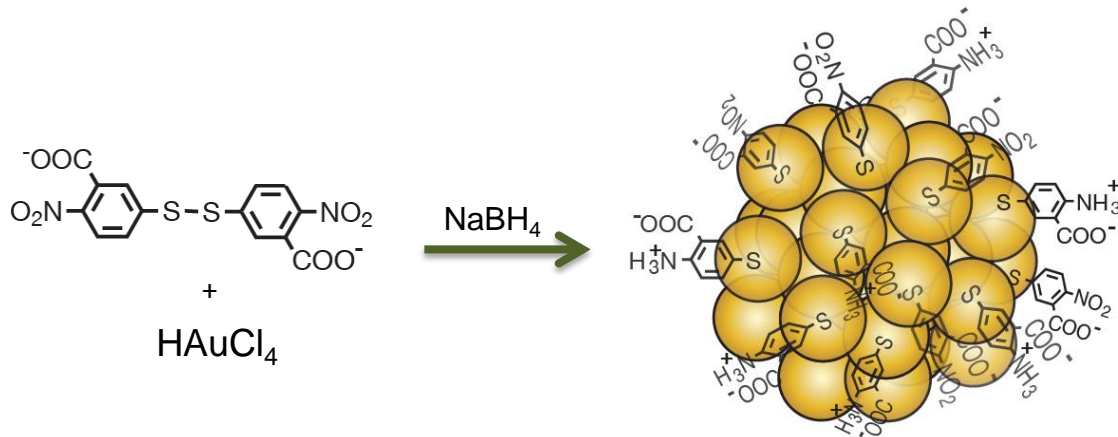
Sphère de 102 atomes d'or pour explorer l'intérieur d'une cellule vivante

Objectif: Synthèse de sondes pour de la cryo-Tomographie Electronique *in cellulo*

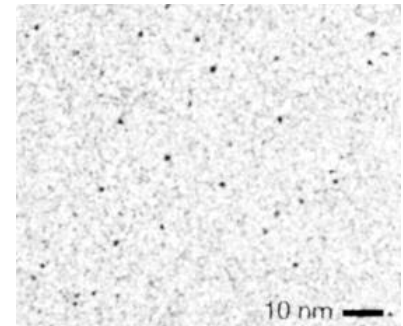




1. Synthèse d'une nouvelle sphère d'or



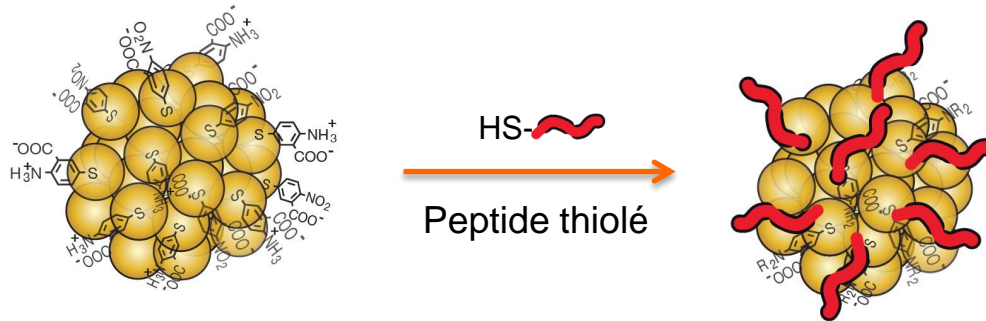
- Particule **définie** (1,4 nm; 21 kDa)
- Soluble dans l'eau
- Réactivité sélective



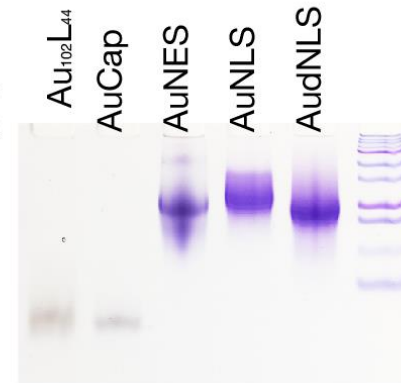
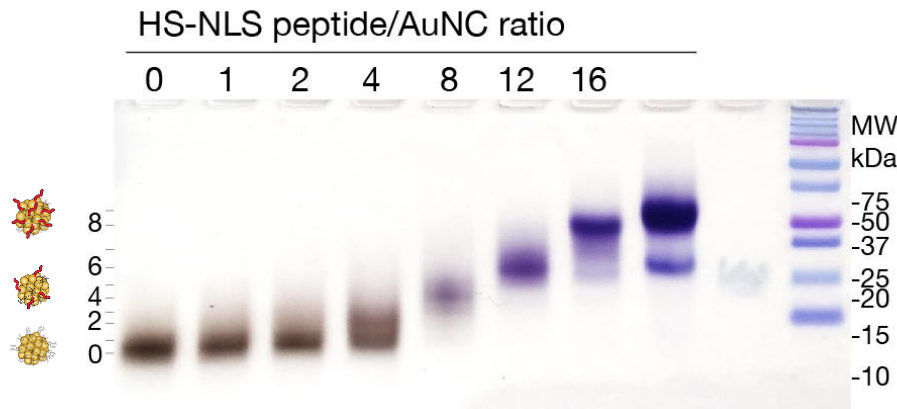
Solution Au₁₀₂TAB₃₀TNB₁₀
- glace amorphe -



2. Décoration sélective de la sphère d'or



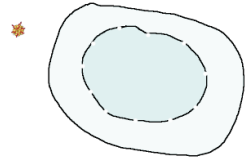
Abbreviation	Sequence	Intracellular activity
HS-NLS	CALNNGAGPKKKRKVED	Nuclear Import
HS-dNLS	CALNNGAGPKTKRKVED	Inactive
HS-NES	CALNNGALAKLAGLDINKTa	Nuclear Export
HS-Cap	CALNNG	Capping & Shielding



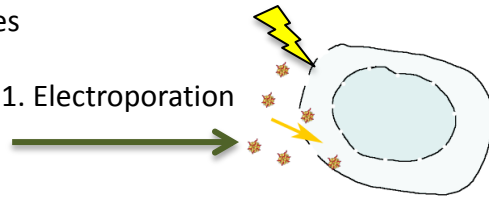


3. Comportement à l'intérieur d'une cellule vivante

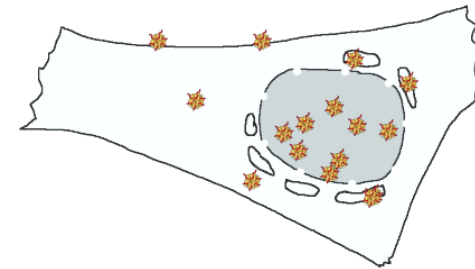
HeLa + Sphères d'or décorées



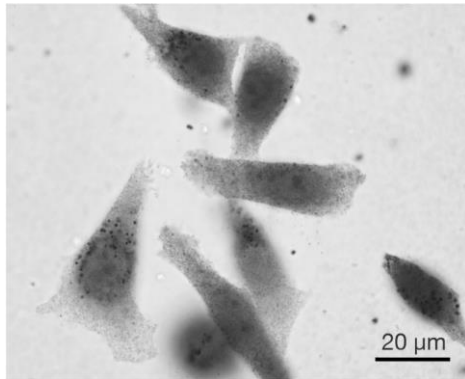
1. Electroporation



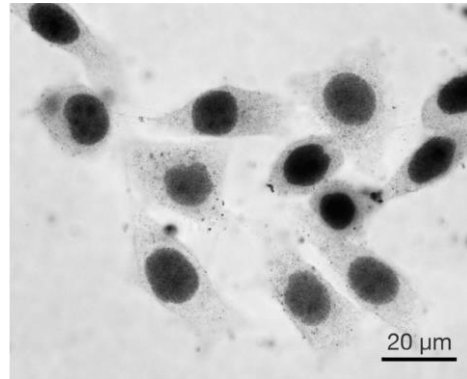
24h



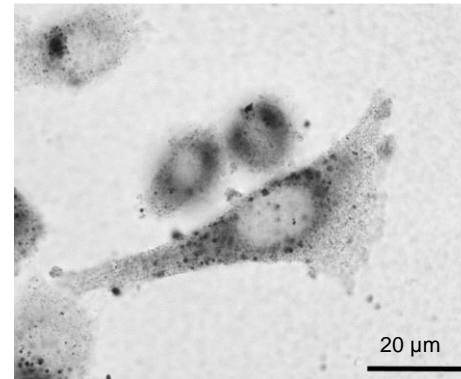
AuCap*



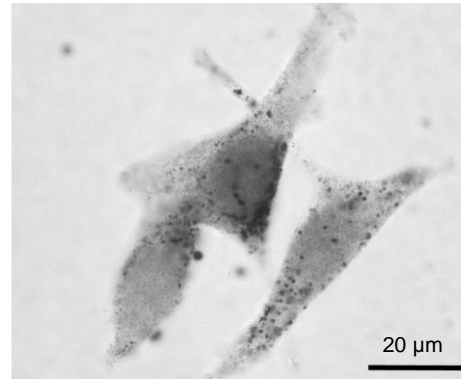
AuNLS*



AuNES*



AuNES + leptomyicine*



*Révélation des particules aux sels d'argent

- Sphères d'or biocompatibles et biofonctionnalisables
- Usage intracellulaire « cellule vivante » **et autres...**