

Preparation of gold glyconanoparticles (AuGNPs) as theragnostic agents for brain ischemia

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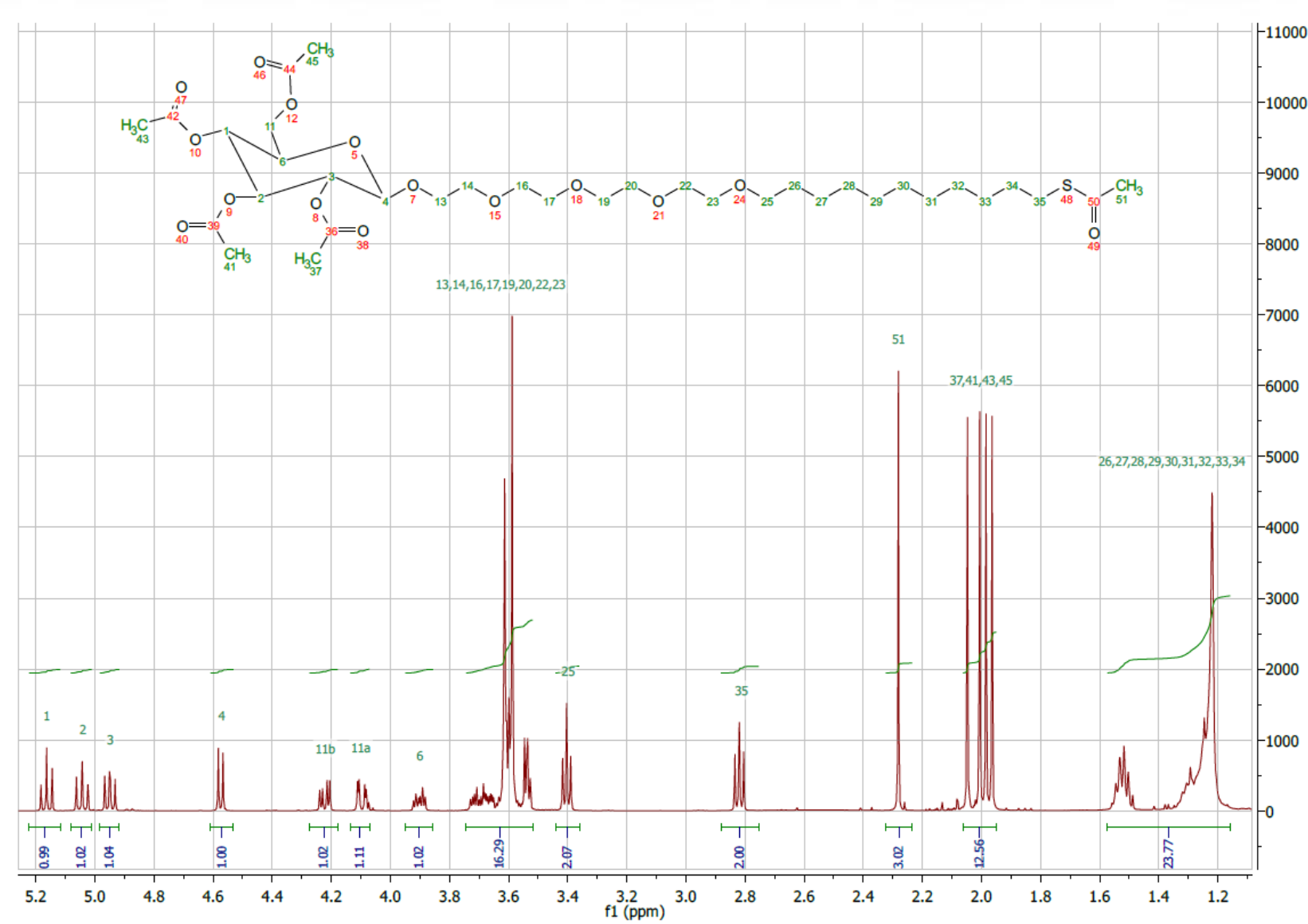
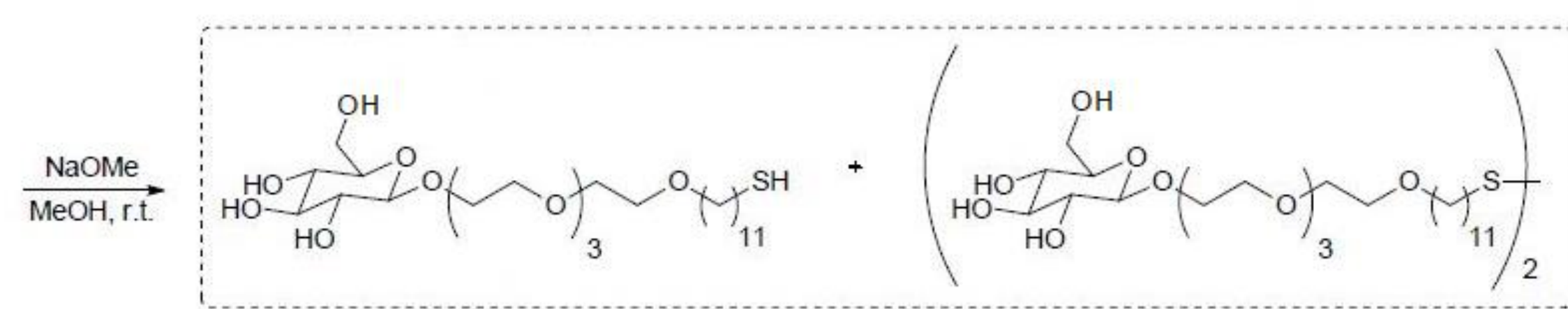
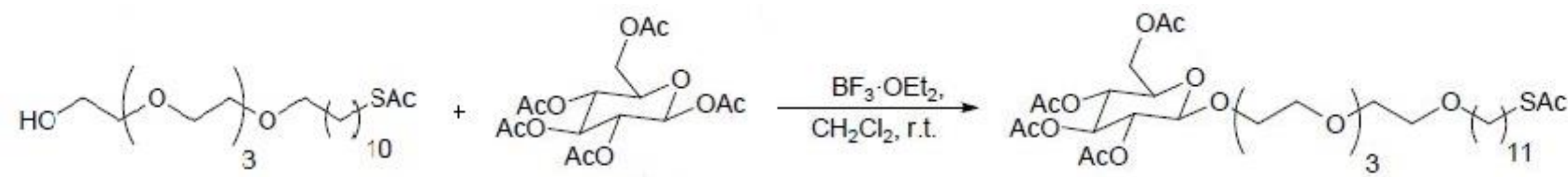
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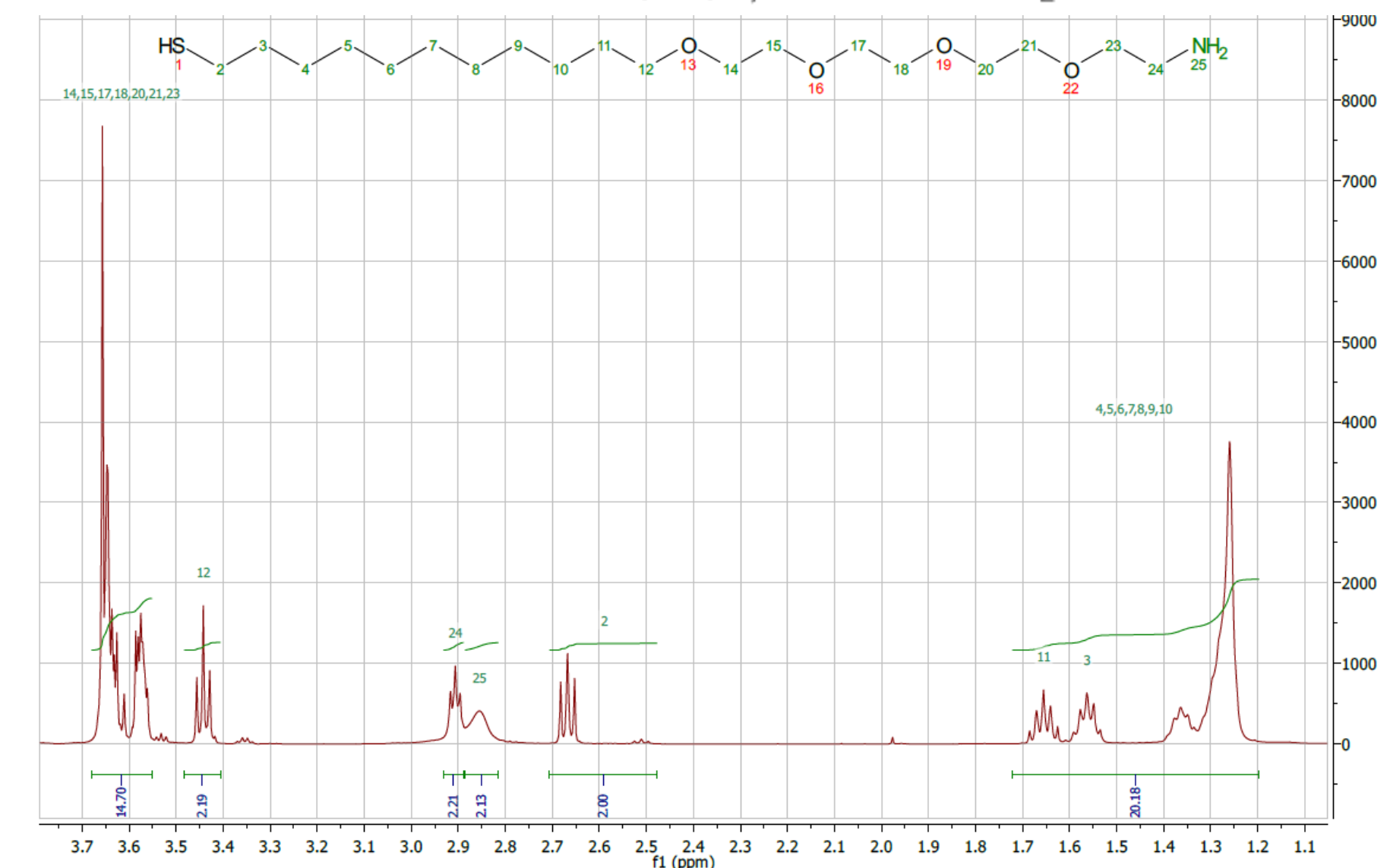
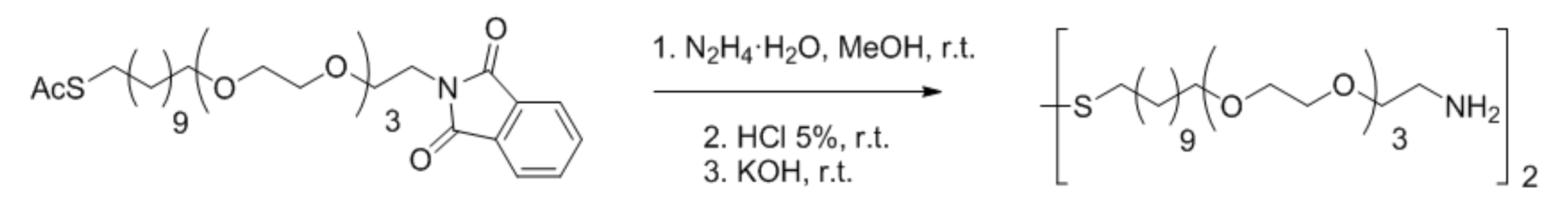
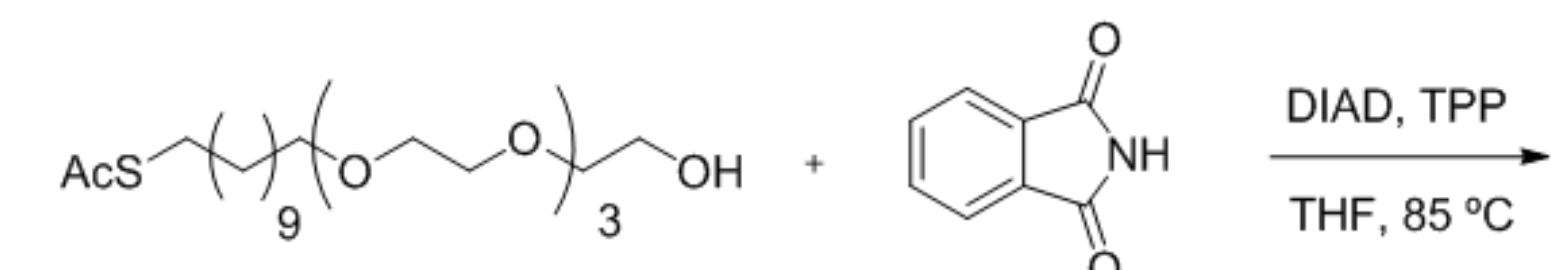
Aims of the project

- Synthesis of glycosylated ligands
- Synthesis of AuGNPs
- Develop strategies to radiolabel AuGNPs both at the core and at the shell
- Evaluate biodistribution of AuGNPs in healthy rodents
- Use AuGNPs as imaging probes in cerebral ischemia

Glycosylated ligand synthesis

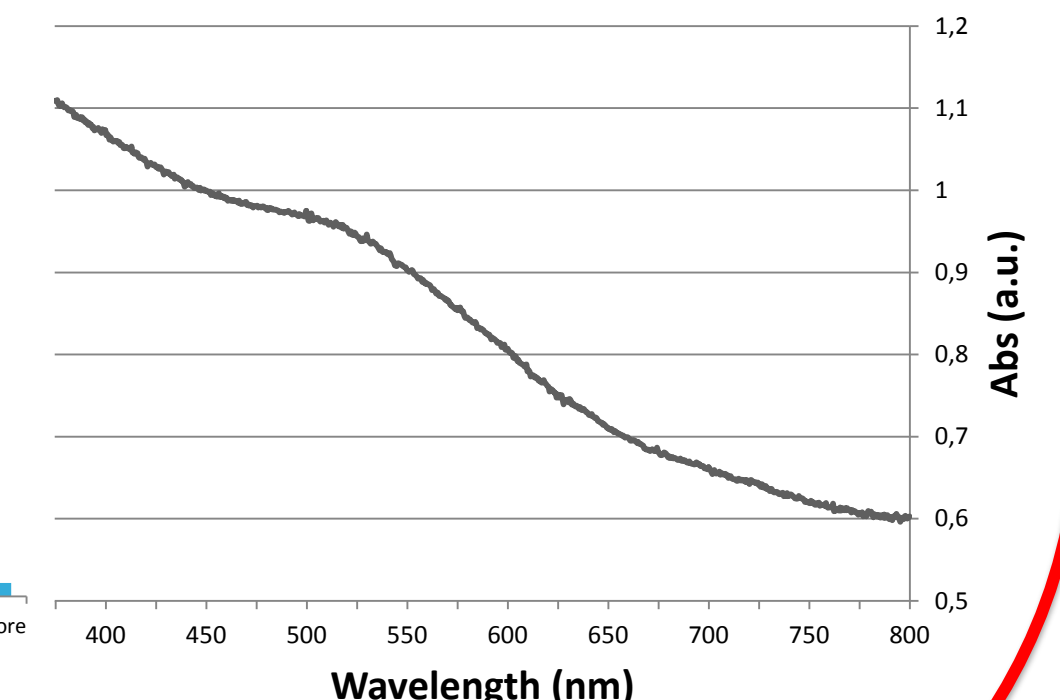
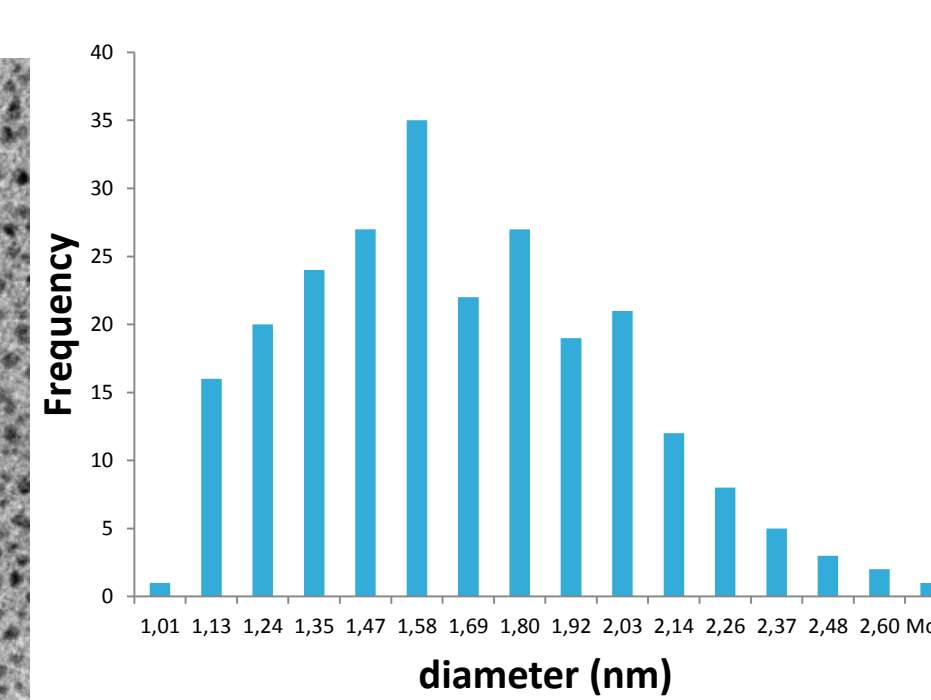
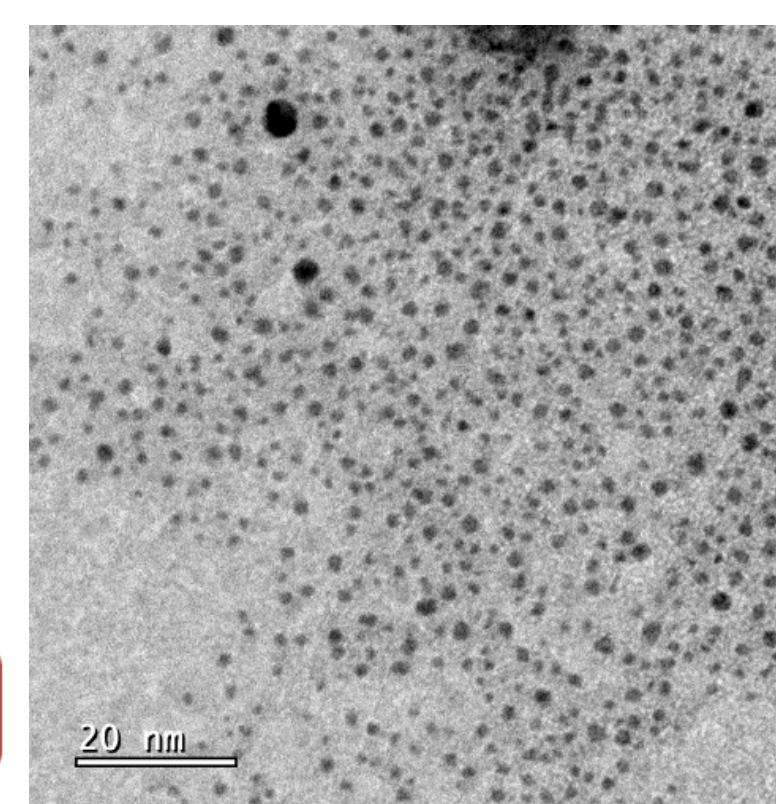
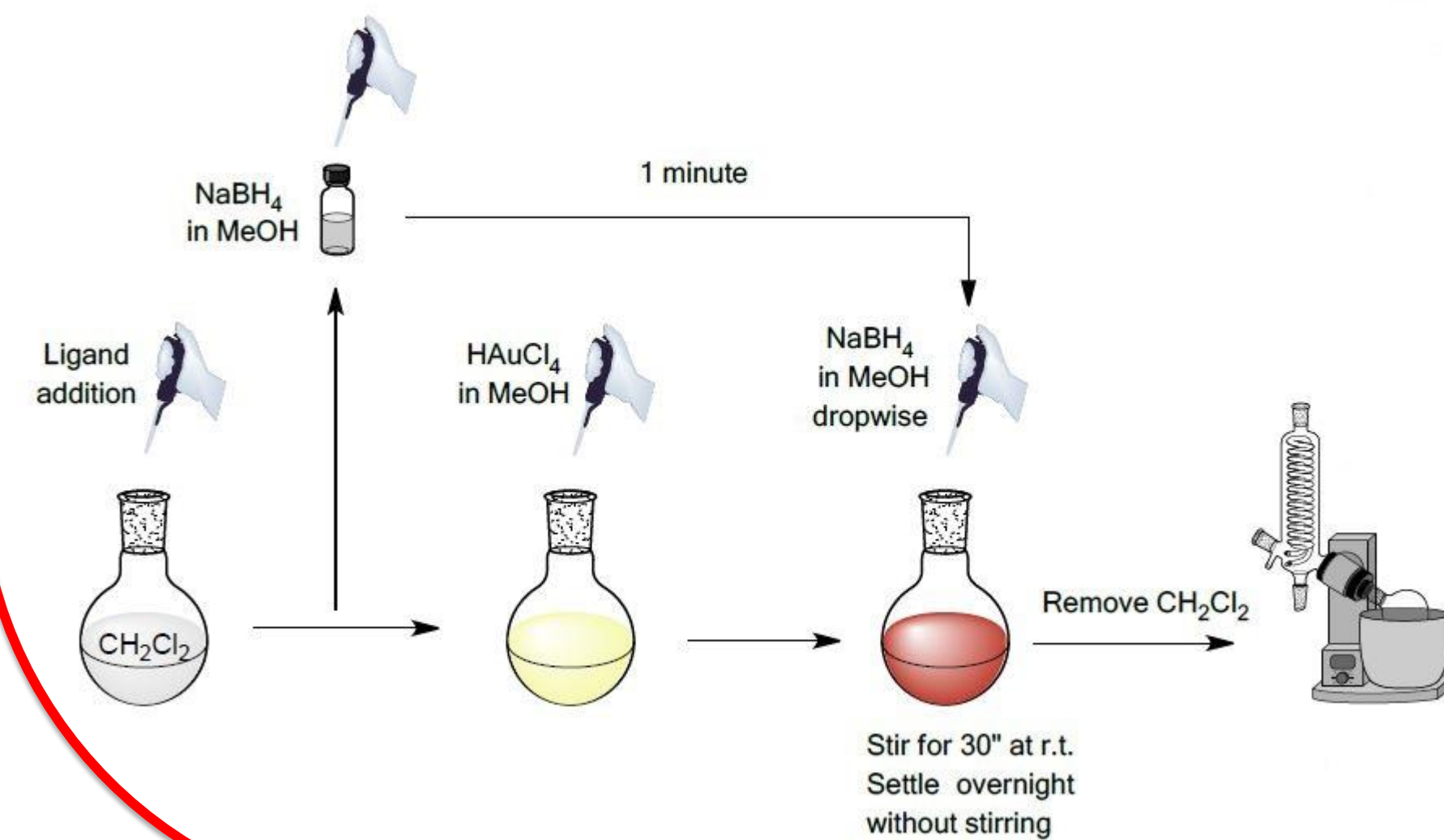


Amino ligand synthesis



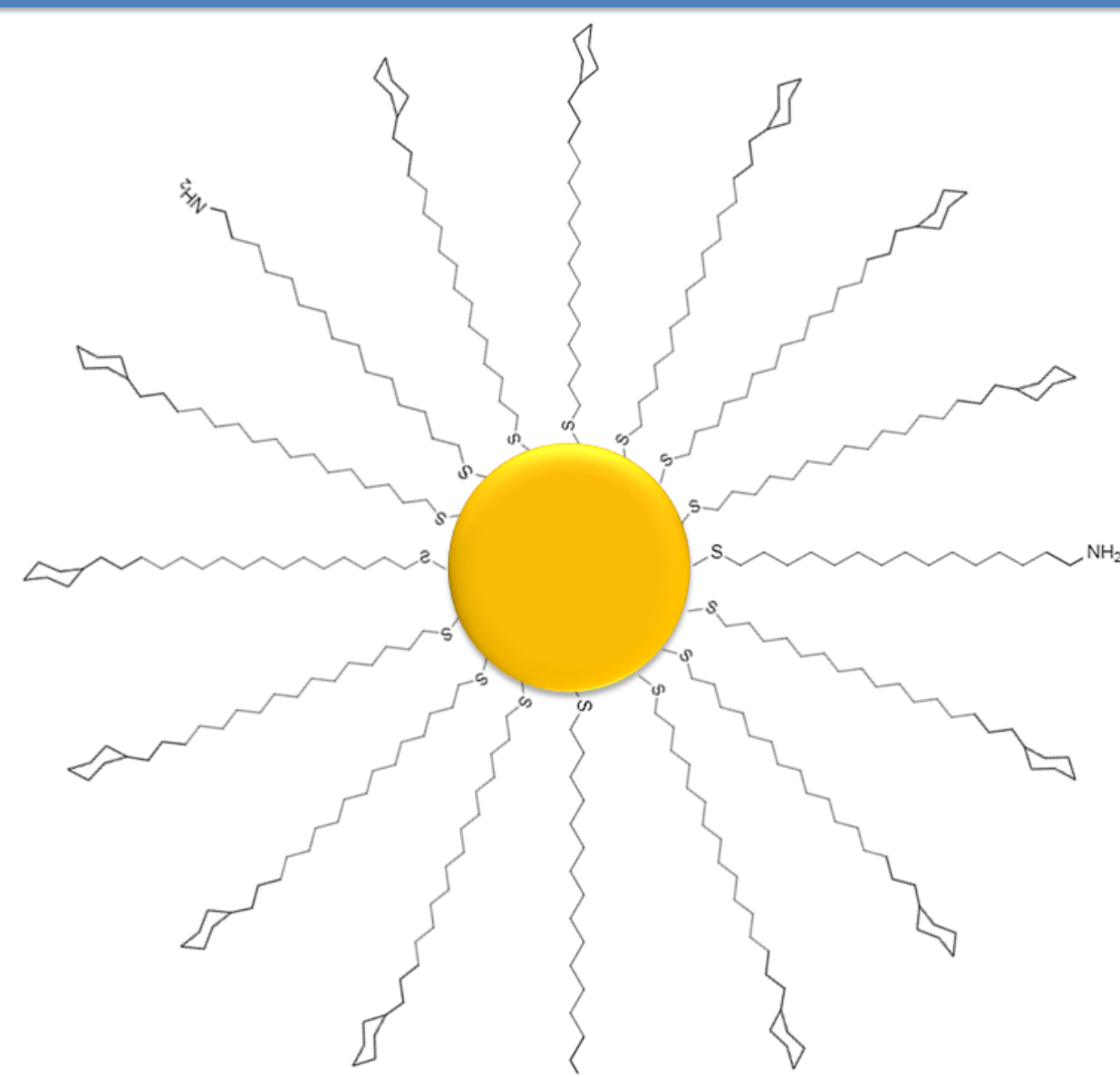
PRESENT

AuNPs synthesis and purification

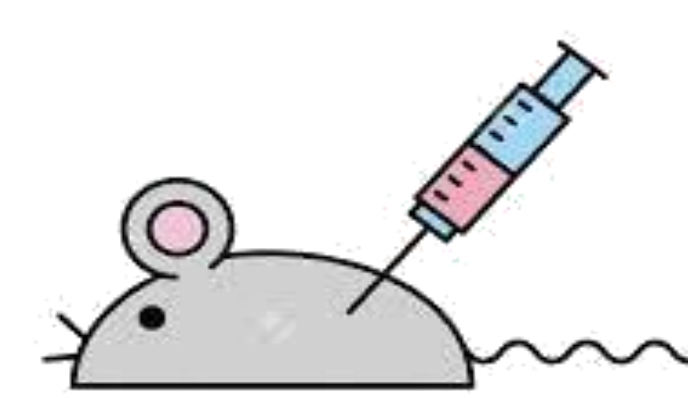


Weighted average= 1,67 ± 0,36nm

NEXT FUTURE

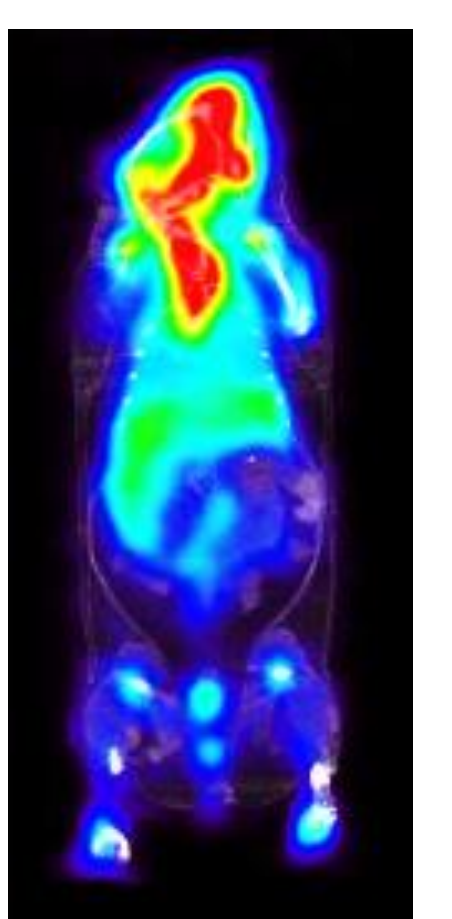
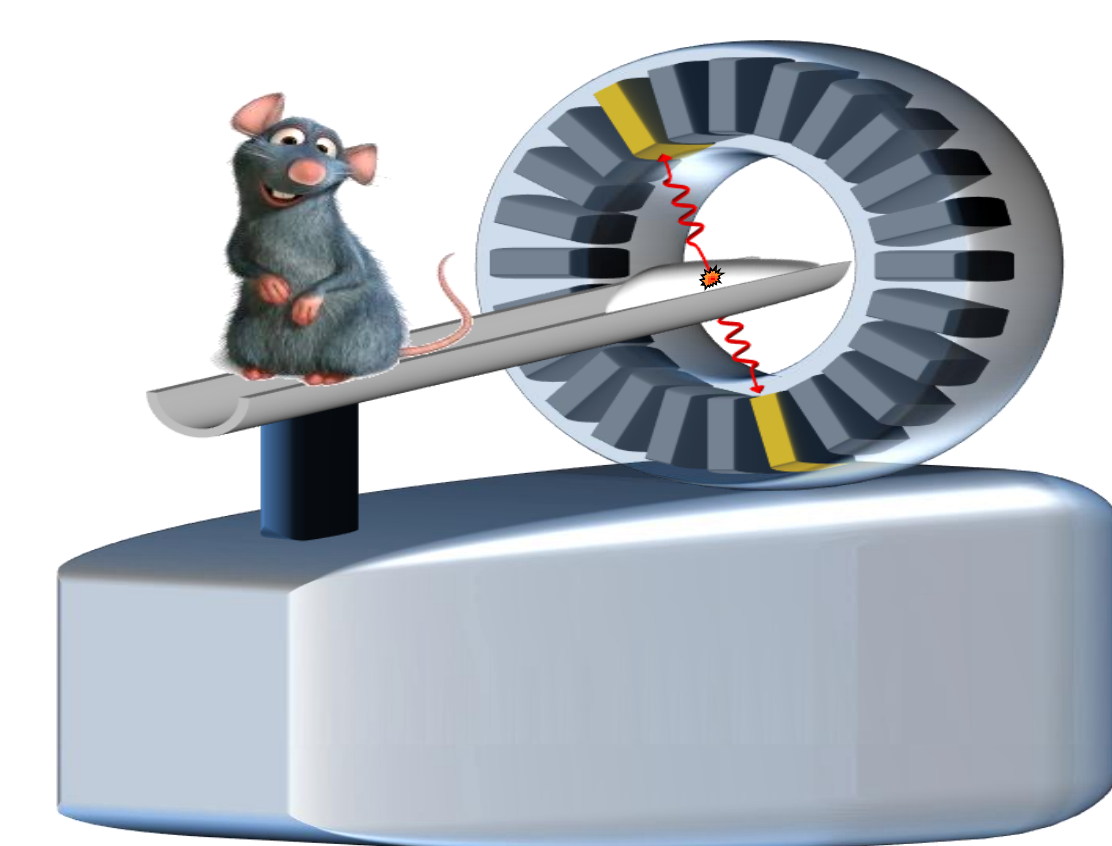
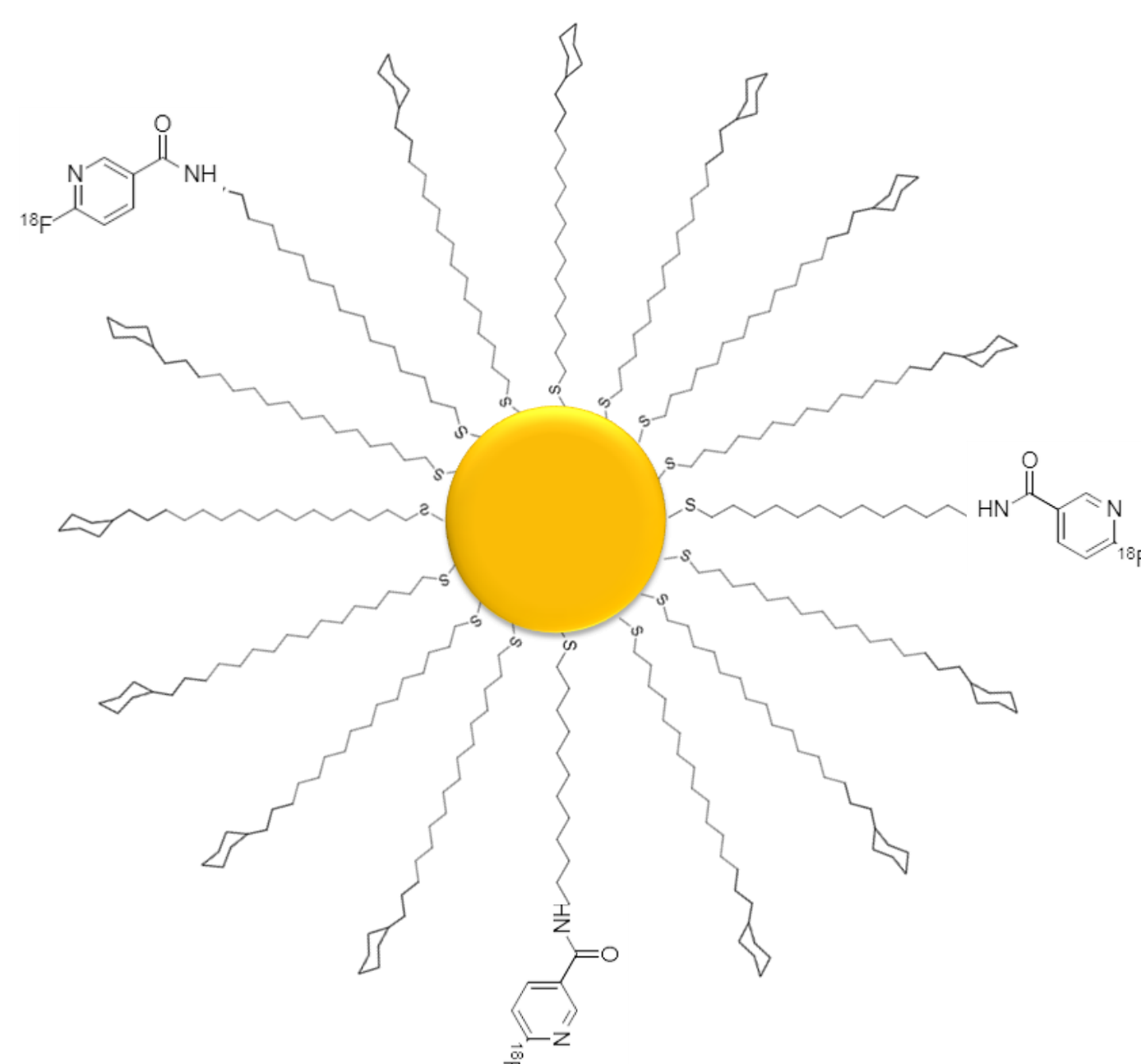
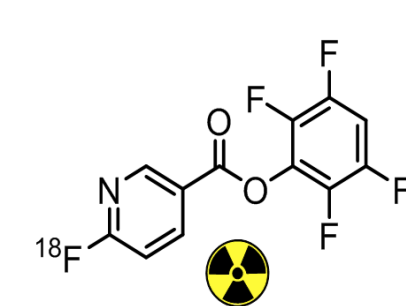


In vivo biodistribution studies of the NPs in healthy rodents



Selected nanosystems will be used as imaging probes in rat model cerebral ischemia

Radiolabelling of AuNPs via amide formation between the amino ligand and the ester of the ¹⁸F-labelled prosthetic group



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