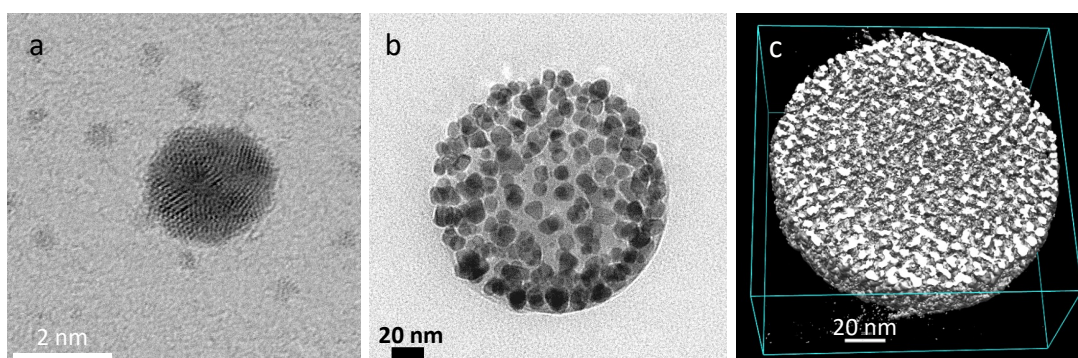


# Engineering gold nanomaterials: from nanoclusters to supraparticles

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Gold nanomaterials have emerged as valuable tools in a variety of high-end applications. Proper tuning of their size and of their possible self-assembly into larger structures is essential to obtain custom morphological and functional features. In this talk, I will present the design and synthesis of differently sized and functionalized gold nanoparticles (NPs) and atomically precise nanoclusters (NC). I will then discuss how, by modulating the interparticle interactions *via* supramolecular design, NPs and NCs can be employed as building blocks to devise highly pure single crystals and supraparticles, and the possible application of these self-assembled systems.



**Figure 1:** (a) STEM image of gold nanoparticles and nanoclusters. (b) TEM image of gold-peptide superstructures. (c) EM Tomography reconstruction of gold fluororous supraparticles.

## References

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