



Centre de Nanosciences et de Nanotechnologies

Séminaire

Vendredi 30 juin
11h – salle Richard Planel - C2N site Marcoussis

Prof Joseph WANG

“Nanomachines that write, image, repair, sense, isolate, deliver and destroy”

Summary:

The remarkable performance of biomotors has inspired scientists to create synthetic nanoscale machines that mimic the function of these amazing natural systems. Creative research efforts across the globe have led to powerful and versatile man-made nanomachines. Significant improvements in the capabilities of these nanoscale machines have led to greatly enhanced speed and power, motion control, cargo-towing force, versatility, functionality and scope of synthetic nanomotors. The greatly improved capabilities of artificial nanomotors have paved the way to exciting and important new applications. Our team has recently described nanoscale machines capable of ‘writing’ (patterning) nanoscale features, repairing electrical circuits, perform high resolution imaging, generating energy, isolating cancer cells, detecting intracellular targets, or sensing and neutralizing threats. These recent advances and new capabilities will be described, along with future prospects and challenges.