Electronic Supplementary Material (ESI) for Integrative Biology

Supporting Information :

Plasmonic Gold and Luminescent Silicon Nanoplatforms for Multimode Imaging of Cancer Cells

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Table S2. Differences between silica and silicon

Silica in nanostructures	Silicon nanocrystals
Formula – SiO_2	Formula - Si
Used to encapsulate active materials e.g gold	Used as Active Material e.g. optical imaging
Amorphous	Crystalline
Non-Luminescent	Luminescent
Well studied	New and novel material
Generally used as a Controllable Coating	Never used as coating
Never used for size controlled emission	Used for sized tunable emission
Not the main focus of studies (other materials, such as gold, quantum dots, drugs,)	The main focus of its' studies (how can it be used for imaging, how does it interact)

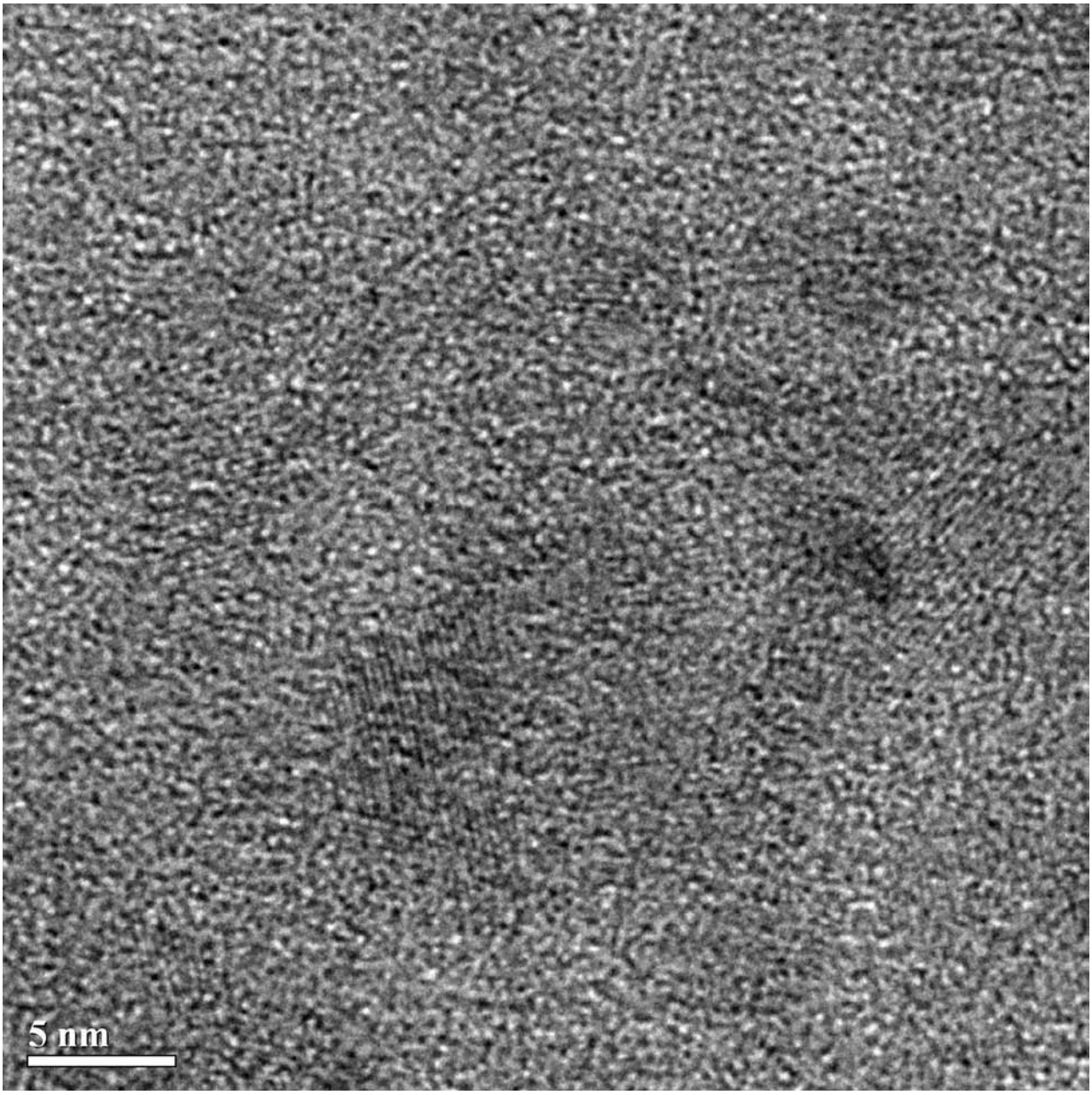

Figure S1. Transmission electron microscopy image of ethyl undecylenate terminated silicon quantum dots.

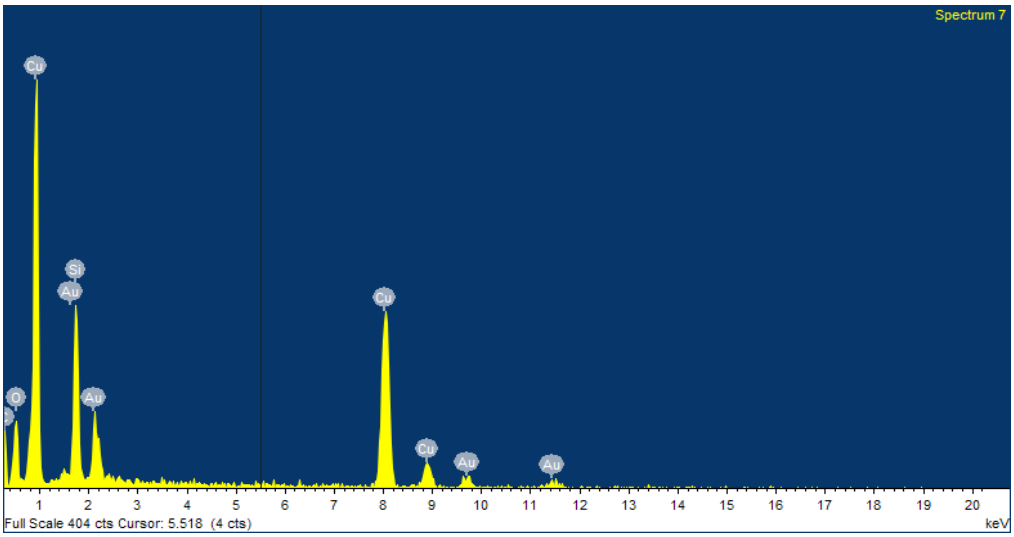

Figure S2. EDS analysis of the Si/Au nanostructure

Table S2. Atomic ratio and weight ratio data from EDS

	Silicon	Gold	Carbon	Copper	Oxygen
Atomic Ratio (%)	3.44	0.38	67.08	4.49	24.60
Weight Ratio (%)	5.84	4.57	48.63	17.21	23.76

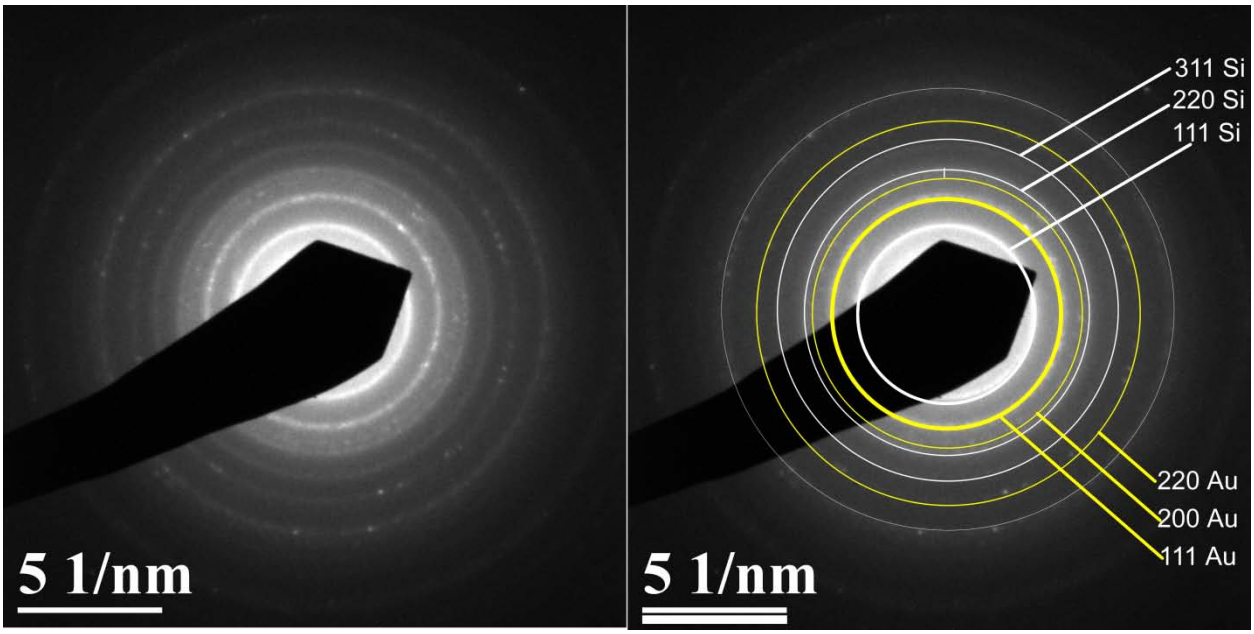

Figure S2. Selected Area Electron Diffraction Showing different planes of Silicon and Gold from a golden silicon sample.

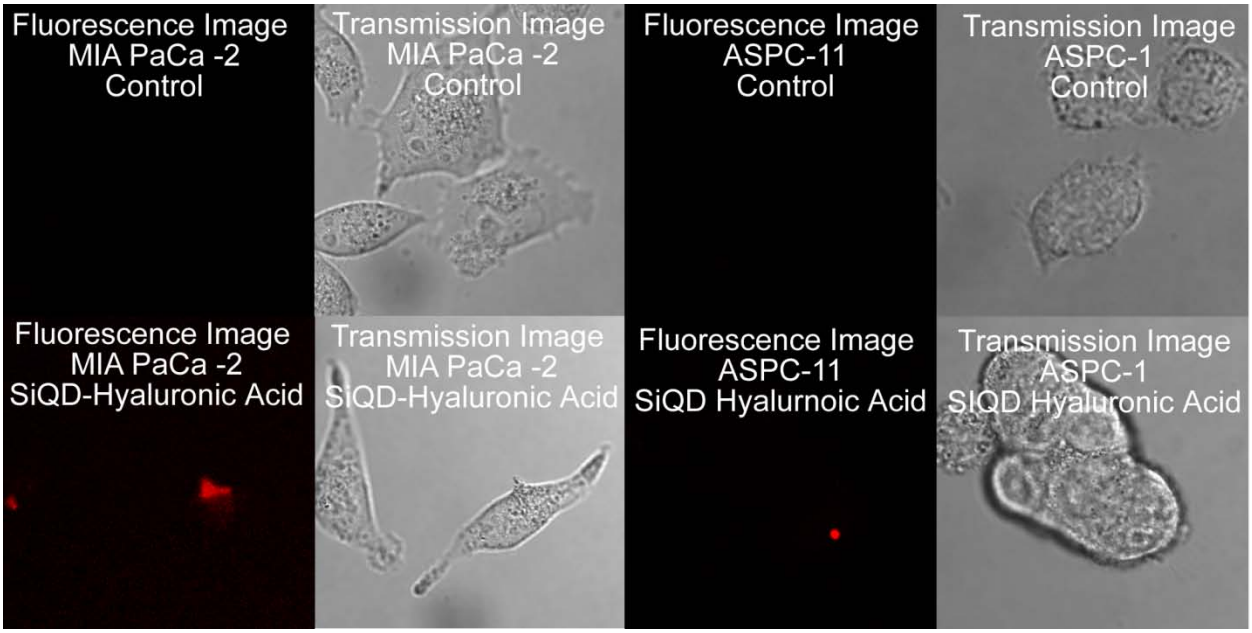

Figure S3. Preliminary Imaging of pancreatic cancer cells targeted with SiQDS for imaging.

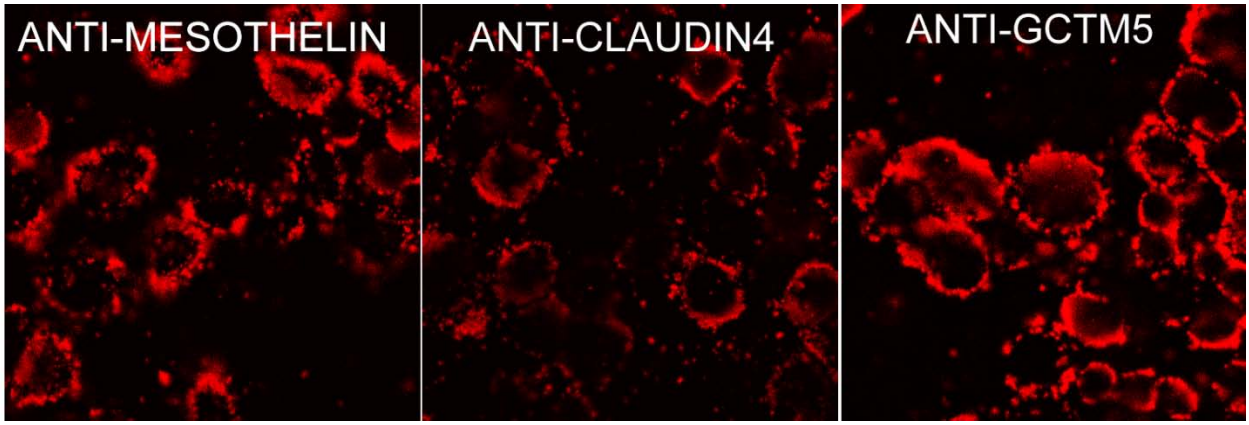

Figure S4. Imaging of Panc-1 cancer cells targeted with SiQDs functionalized with Anti-mesothelin, Anti-Claudin4 and Anti-GCTM5