

- Supporting Information -

**Endemic plants: From design to a new way of smart hybrid
nanomaterials for green nanomedicine applications.**

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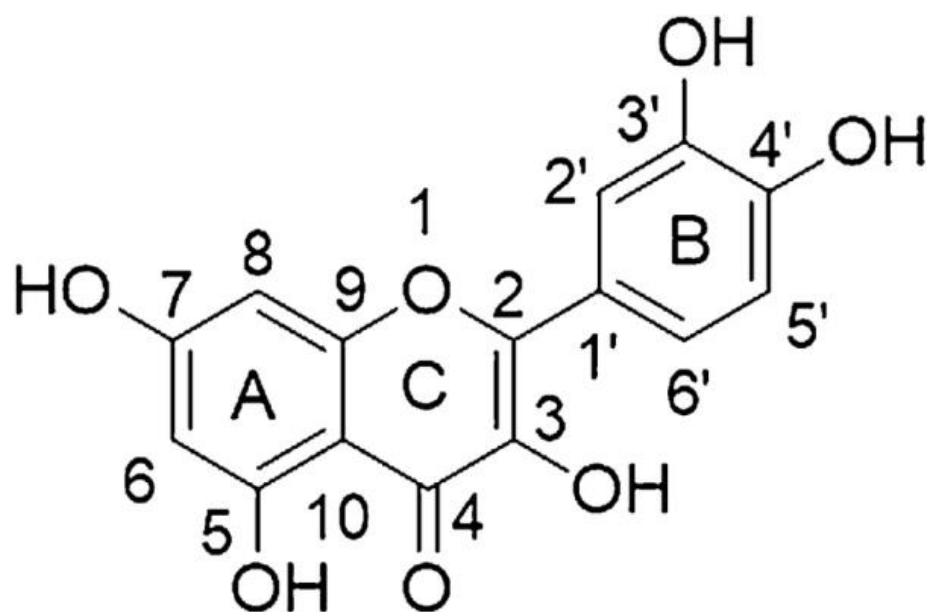


Figure S1: Schematic representation of Quercetin (3,3',4',5,7-pentahydroxyflavone). Annotations are used for the description of Raman spectra assignments in the manuscript.

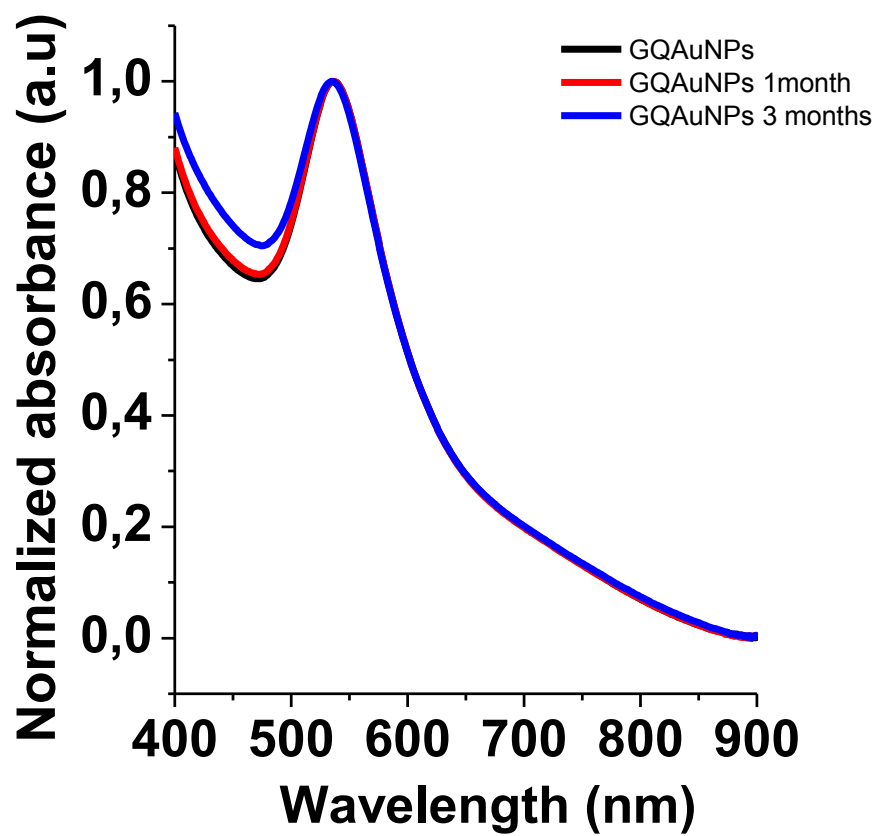


Figure S2: Changes in the UV-Vis absorption spectra of GQAuNPs when incubated in buffer solution at pH 5.5 up to three months.

| | Mean (mV) | Area (%) | St Dev (mV) | | Size (d.nm): | % Volume: | St Dev (d.nm): |
|-------------------------------------|----------------------|--------------|-------------|-----------------------------------------------|----------------------|--------------|----------------|
| Zeta Potential (mV): -19,0 | Peak 1: -19,0 | 100,0 | 8,04 | Z-Average (d.nm): 35,92 | Peak 1: 24,31 | 0,0 | 12,24 |
| Zeta Deviation (mV): 8,04 | Peak 2: 0,00 | 0,0 | 0,00 | Pd: 0,703 | Peak 2: 1,015 | 100,0 | 0,4579 |
| Conductivity (mS/cm): 0,0533 | Peak 3: 0,00 | 0,0 | 0,00 | Intercept: 0,852 | Peak 3: 0,000 | 0,0 | 0,000 |
| Result quality Good | | | | Result quality Refer to quality report | | | |

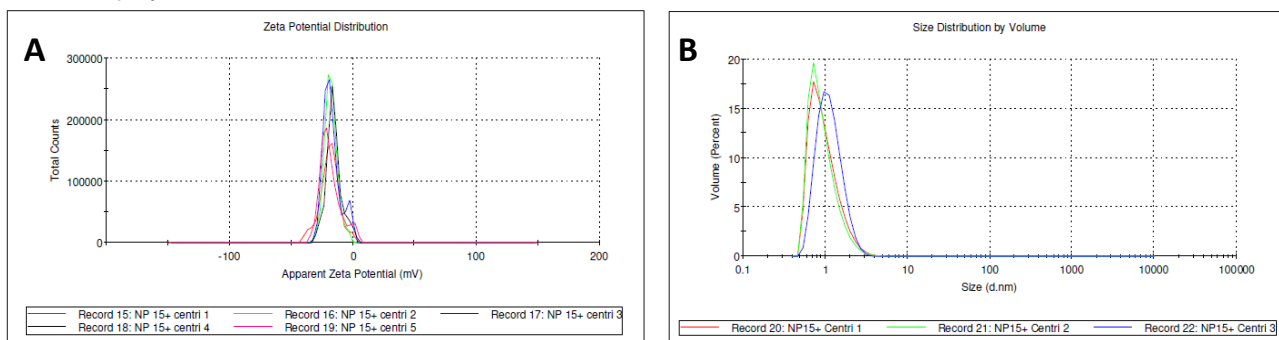


Figure S3: (A) Light-scattering intensity-based diameter distributions. (B) Volume-weighted diameter distributions obtained from the dynamic light-scattering data.

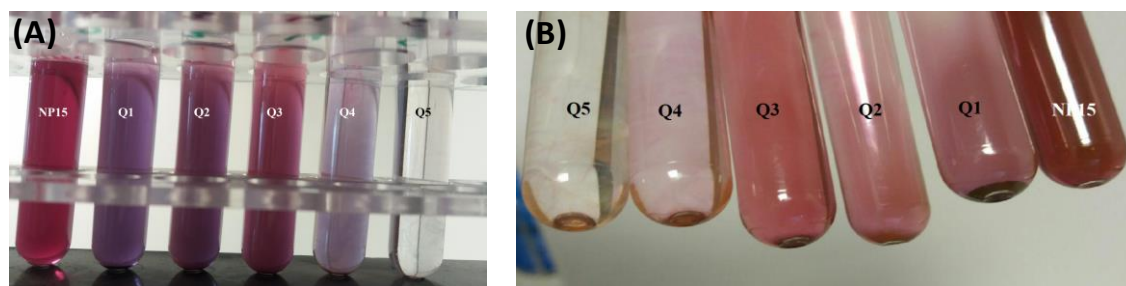


Figure S4. Pictures of the sample (A) directly after synthesis and (B) after 5 h cooling at RT.

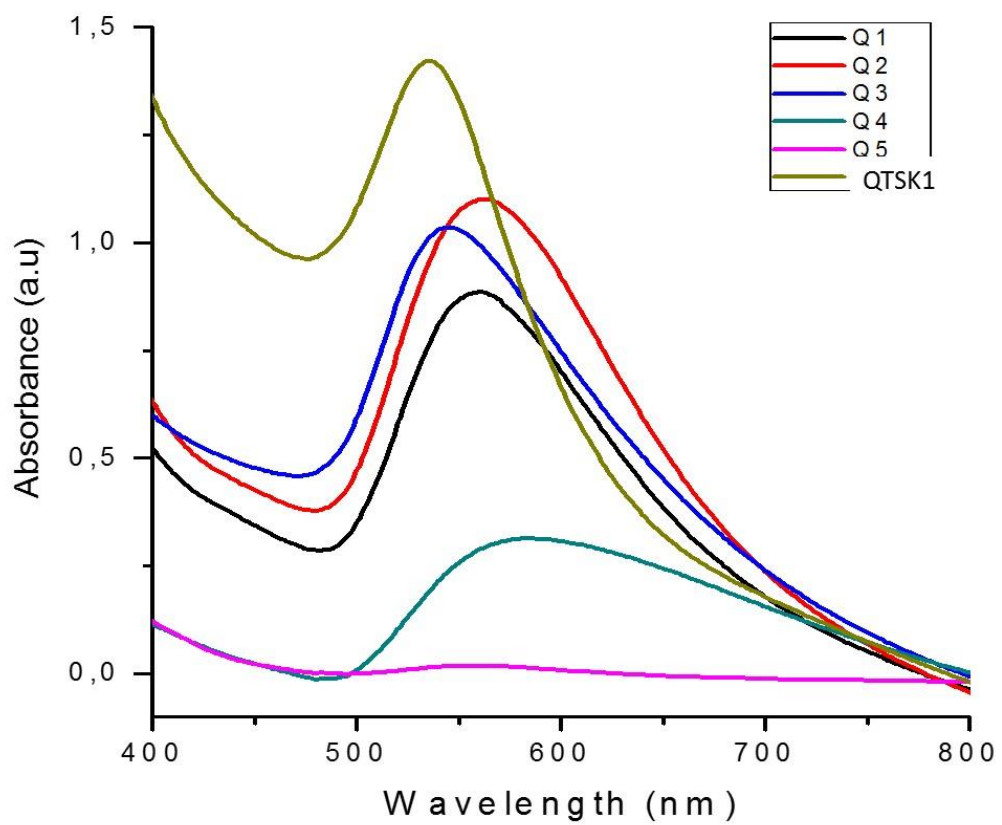


Figure S5. UV-vis spectra of the samples (Q1-5 and QTSK1).

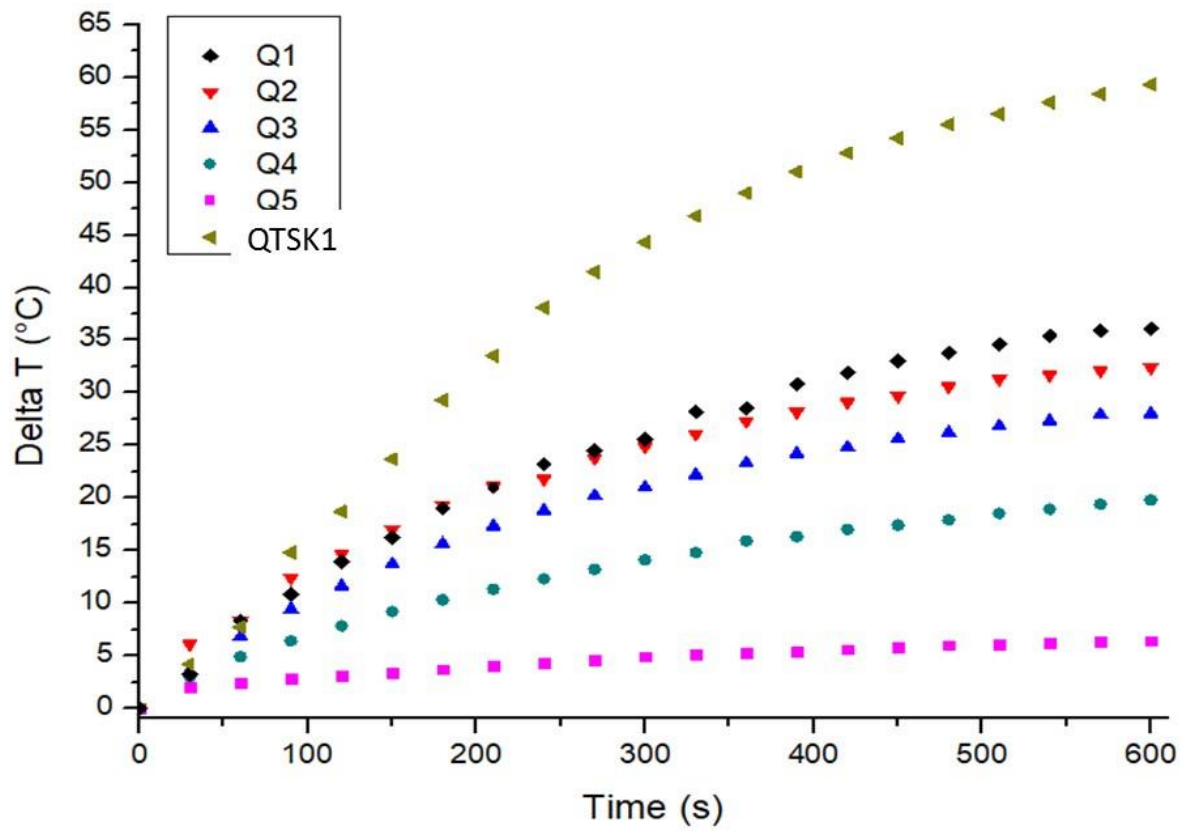


Figure S6. Temperature profiles of samples (OD=1) obtained by heating with a laser and measured using thermocouple.

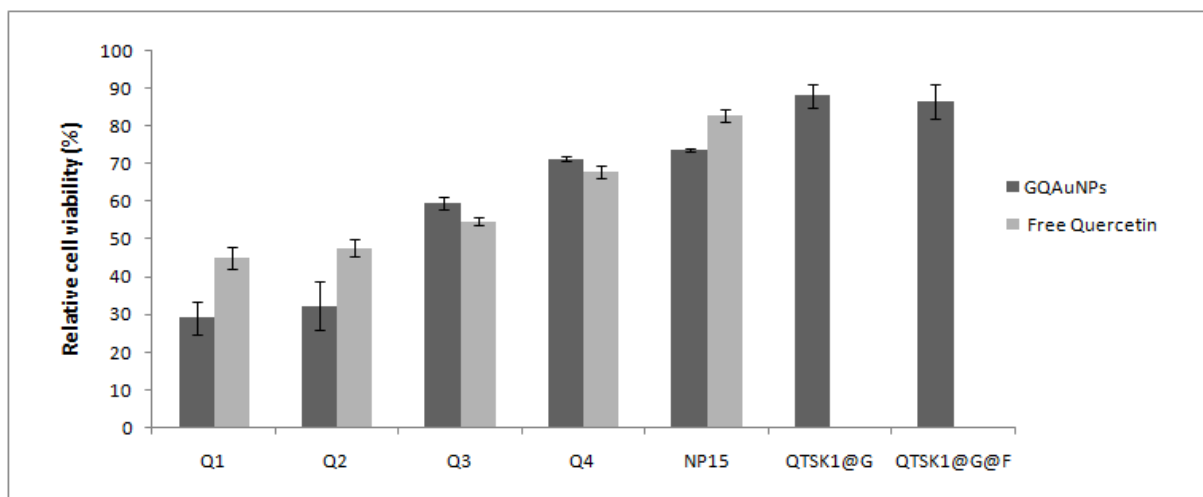


Figure S7. Relative cell viability of MiaPaCa2 cells after 24 h exposure to the prepared AuNPs and free Quercetin. Each nanoparticle is compared with the free quercetin at the same concentration. Data are expressed as a percentage relative to values obtained for control (mean \pm standard error; n = 3).