# Supplemental Data 2 Detailed description of the used holmium-166 poly-L-lactic acid microspheres

The used biocompatible holmium-166 poly-L-lactic acid microspheres (166HoMS) had a mean diameter of 30 micrometer (± 5 micrometer, 97% of the microspheres have a diameter of between 15 and 60 micrometer). The maximum energy of the β− radiation is 1.85 MeV (50.0%) and 1.77 MeV (48.7%). The maximum range of the emitted beta particles in tissue is 8.7 mm with a mean of 2.5 mm. In addition, holmium-166 emits primary gamma photons (81 KeV). Holmium-166 has a half-life of 26.83 hours. The mass percentage of the element holmium (holmium-165 and holmium-166) in the microspheres was between 19.5% – 19.7%. 166HoMS can be visualized *in vivo* with MRI and SPECT and with CT when the concentration 166HoMS in tissue is sufficient. Intratumoral holmium-166 microspheres are similar to the CE-marked product QuiremSpheresTM, intended to be used for selective internal radiation therapy of liver cancer.