

## <sup>13</sup>C Endorectal Coil

### MR Coils Made-to-Measure

<sup>13</sup>C metabolic MR imaging is getting more and more exciting, especially since this technique is beginning to be explored in human applications. Dedicated RF coils play an important role in this context. Tx coils should pose high Tx efficiency for short RF pulses whereas an optimized SNR is needed during signal reception. Additionally, <sup>1</sup>H overview imaging or shimming needs to be available. Last but not least, high requirements in safety and workflow are set due to application in humans.

- dual-tuned <sup>13</sup>C / <sup>1</sup>H
- receive-only
- sealed coil head with soft coating
- integrated <sup>13</sup>C Urea calibration phantom
- easy coil positioning
- CE certified as medical device
- use of <sup>1</sup>H body coil allowed
- dedicated <sup>13</sup>C transmit coil required

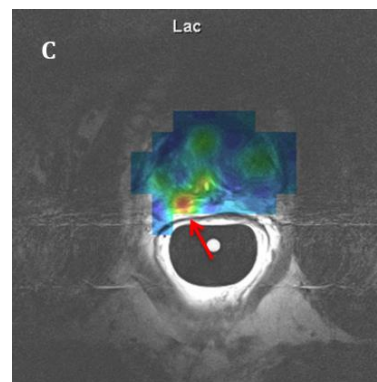
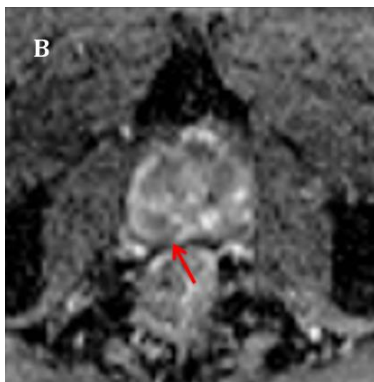


Image Courtesy: Fiona Gong, University College London, U.K.

T2 weighted image (A) and diffusion MR image (B) from routine multi-parametric MRI demonstrating a focal tumour (arrow) confirmed at biopsy as Gleason 3+4; more visible on hyperpolarised MRI study as increased <sup>13</sup>-C lactate signal (arrow)

## Specifications

approvals	Medical Device, CE according to Council Directive 93/42/EEC
$B_0$ -field strength	3 T
housing dimensions	9.7 x 3.1 x 2.2 cm (coil head) / Ø 1.2 cm (coil neck)
weight	ca. 1.2 kg (coil only) / ca. 3.5 kg (holder)