This Schedule lists some examples of clinical studies that have been carried out on low intensity pulsed ultrasound systems (LIPUS) such as the EXOGEN® product. (EXOGEN® is the registered trade mark of Exogen, Inc). The studies below have not utilised a Melmak LIPUS device.

<table>
<thead>
<tr>
<th>STUDY</th>
<th>OUTCOME MEASURES</th>
<th>RESULTS</th>
<th>TECHNICAL SPECIFICATIONS OF LIPUS DEVICE</th>
</tr>
</thead>
</table>
➤ tp = 200 μs  
➤ REF = 1 KHz  
➤ le = 30 mW/cm² |
| Walsh et al, Effect of Low Intensity Pulsed Ultrasound on Healing of an Ulna Defect Filled with a Bone Graft Substitute. *Journal of Biomedical Materials Research Part B: Applied Biomaterials, 86B, 2008: pp 74–81* | Rate of healing of bone defect        | LIPUS resulted in more new bone growth at wk 4 and 12 compared to control and increased VEGF expression | ➤ f = 1.5 ± 5% MHz  
➤ tp = 200 ± 10% μs  
➤ REF = 1 ± 10% KHz  
➤ le = 30 ± 30% mW/cm² |
➤ tp = 200 μs  
➤ REF = 1 KHz  
➤ le = 30 mW/cm² |
➤ tp = 200 μs  
➤ REF = 1 KHz  
➤ le = 30 mW/cm² |
| Busse et al, The effect of low-intensity pulsed ultrasound therapy on time to fracture healing: a meta-analysis. *CMAJ. 2002 Feb 19;166(4): pp 437-441* | Time to fracture healing              | LIPUS may significantly reduce the time to fracture healing for fractures treated non operatively | ➤ f = 1.5 ± 5% MHz  
➤ tp = 200 ± 10% μs  
➤ REF = 1 ± 10% KHz  
➤ le = 30 ± 30% mW/cm² |

**Melmak Ultrasound Device Specifications**
- Resonant Frequency: f = 1.5 MHz
- Signal Pulse Duration: tp = 200 μs
- Pulse Repetition Rate: REF = 1 KHz
- Spatial Average Intensity: le = 30 mW/cm²
- Waveform: Puls = Pulsed

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