

**Abstract****Ultrasonic Treatment of Cancers**

5        A method of treatment, clinical treatment assembly, robotic manipulator and  
controlling arrangements for the treatment of cancers are described. The invention has  
particular application in the treatment of breast cancer. A robotic manipulator (18)  
carries a jig assembly (30). The jig assembly (30) includes an array of treatment probes  
(52, 54, 56) and a single diagnostic probe (58). The probes can to be moved by the  
10    robotic manipulator (18) in three directions (x, y,  $\theta$ ). A subject breast tissue is received in  
a tank (16) through an operating window (14), and the robotic manipulator (18) is to  
firstly diagnose the sight of a tumour in the breast tissue. Once the tumour has been  
located by use of the diagnostic probe (58), the treatment probes (52, 54, 56) are used to  
ablate the tumour by the superposition of ultrasonic waves at a focal region. A series of  
15    such lesions may be performed in sequence to traverse the full extent of the tumour.

(Fig. 2)