THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:-

1. A polymer for administering at a treatment site to form a hydrogel to physically space/isolate target tissue for radiotherapy, the polymer comprising:

a first monomer for binding water;

a second monomer for imparting mechanical properties;

optionally, a third monomer for binding to a natural or synthetic peptide or protein (NSPP); and

a fourth monomer for imparting phase-transition behaviour.

2. A polymer according to claim 1, wherein the first monomer is oligo (ethylene) glycol monomethyl ether methacrylate (OEGMA).

3. A polymer according to claim 1 or claim 2, wherein the second monomer is hydroxyethyl methacrylate poly(lactic acid) (PLA/HEMA).

4. A polymer according to any one of the preceding claims, wherein the third monomer, if present, is N-acryloxysuccinimide (NAS).

5. A polymer according to any one of the preceding claims, wherein the fourth monomer is (N-isopropylacrylamide) (NIPAAm).

6. A polymer according to any one of the preceding claims, wherein the polymer comprises: the first monomer in an amount of from about 1 to about 15 mol%; the second monomer in an amount of from about 5 to about 50 mol%; the third monomer in an amount of 0 to about 15 mol%; and the fourth monomer in an amount which makes up the remainder to 100% of the polymer.

7. A polymer according to any one of the preceding claims, wherein: the first monomer is OEGMA; the second monomer is PLA/HEMA; the third monomer is NAS; and the fourth monomer is NIPAAm,

wherein the polymer comprises: OEGMA in an amount of from about 1 to about 15 mol%; PLA/HEMA in an amount of from 5 to about 50 mol%; NAS in an

amount of from 0 to about 15 mol%; and NIPAAm in an amount of up to about 85 mol%.

8. A polymer according to any one of the preceding claims, wherein to administer the polymer at the treatment site, it is dissolved or dispersed in aqueous solution at a polymer concentration of about 280 mg/mL.

9. A polymer according to claim 8, wherein the target tissue for radiotherapy is a human prostate gland.

10. A polymer according to claim 9, wherein administering the polymer at the treatment site is performed by injection.

11. A polymer according to claim 10, wherein the polymer is injected between a patient's rectum and prostate to provide a temporary space between said organs, thereby reducing the dosage of radiation delivered to the rectum.

12. A polymer according to any one of the preceding claims, for use in therapy.

13. A kit for physically spacing/isolating target tissue for radiotherapy, the kit comprising a polymer as defined according to any one of claim 1 to 11; means for administering said polymer; and instructions for administering said polymer at or proximal to said target tissue.