In a first aspect of the present disclosure, there is provided a use of porous carbon particles in the manufacture of a medicament for the treatment or prevention of liver disease wherein 20% to 90% of the total pore volume of the particles is made up of pores having a mean diameter of 2 nm or less and 75% or more of the remainder of the total pore volume is made up of pores having a mean diameter of from 30 nm to 500 nm, and the particles are formulated for oral or rectal administration.

In a second aspect of the present disclosure, there is provided a use of porous carbon particles as defined herein in the manufacture of a medicament for modulation of ~~the gut-liver axis~~gut dysbiosis or modulation of obesity.

In a third aspect of the present disclosure, there is provided a use of porous carbon particles as defined herein in the manufacture of a medicament for use in the treatment or prevention of a disease or condition selected from coronary artery disease, inflammatory bowel disease, irritable bowel syndrome, pouchitis, hypertension, stroke, obesity or complications of obesity.

In a fourth aspect of the present disclosure, there is provided porous carbon particles wherein 20% to 90% of the total pore volume is made up of pores having a mean diameter of 2 nm or less and 75% or more of the remainder of the total pore volume is made up of pores having a mean diameter of from 30 nm to 500 nm, wherein the particles are coated in order to control their release and adsorption properties.

In a fifth aspect of the present disclosure, there is provided a use of porous carbon particles as defined herein in the manufacture of a medicament for the treatment or prevention of liver disease.

In a sixth aspect of the present disclosure, there is provided a use of porous carbon particles as defined herein in the manufacture of a medicament for modulation of gut dysbiosis or modulation of obesity.

In a seventh aspect of the present disclosure, there is provided a use of porous carbon particles as defined herein in the manufacture of a medicament for use in the treatment or prevention of a disease or condition selected from coronary artery disease, inflammatory bowel disease, irritable bowel syndrome, pouchitis, hypertension, stroke, obesity or complications of obesity.

The present disclosure also provides porous carbon particles for use in the treatment or prevention of liver disease wherein 20% to 90% of the total pore volume is made up of pores having a mean diameter of 2 nm or less and 75% or more of the

remainder of the total pore volume is made up of pores having a mean diameter of from 30 nm to 500 nm.

The present disclosure also provides a method of treating or preventing liver disease, comprising administering an effective amount of such porous carbon particles.

The present disclosure also provides use of such porous carbon particles in the manufacture of a medicament for the treatment or prevention of liver disease.

Brief description of the drawings

Figure 1: Pore distribution for phenolic resin derived carbons as measured by nitrogen adsorption and determined using BJH method for TE9 carbons unactivated to activated to 29 and 47% burn off. Activation primarily increases the pores in the micropore (<2nm diameter). The small macropores (50-500nm) are largely unaltered with no introduction of pores in the 2-50nm range (mesopores).

Figure 2: Representative pore size distribution of porous carbon particles of the invention, measured by Mercury porosimetry (A: TE7 test carbon; B: TE8 test carbon). The larger peak at above 30,000 is due to the voids between the carbon particles and not to porosity.

Figure 3: Increase in the macropore volume (50-500nm) with the increase in the pore former concentration from TE3 to TE7 for carbon activated to approximately 50% burn

off along. No significant introduction of pores in the mesopore range (2-50nm) or change in the pores in the micropore domain.

Figure 4: A Effect of degree of activation on the pore structure as determined by mercury porosimetry, evolution of pore volume on a cm3/gm basis and reduction in bulk density caused by activation; B Effect of degree of activation on pore structure as determined by mercury Porosimetry, change in the mercury pore volume in cm3/cm3 as a function of activation extent.

19. Use according to claim 16, wherein the complication of cirrhosis is selected from portal hypertension, ascites, renal failure, hepatic encephalopathy and acute-on-chronic liver failure.

~~20. Use of porous carbon particles as defined in any one of claims 1 to 15 in the manufacture of a medicament for modulation of the gut-liver axis.~~

~~21. Use according to claim 20 wherein the modulation of the gut liver axis is by modulation of~~ Use of porous carbon particles as defined in any one of claims 1 to 15 in the manufacture of a medicament for modulation of gut dysbiosis or modulation of obesity~~, or increased gut permeability~~.

~~22~~21. Use ~~according to claim 21,~~ of porous carbon particles as defined in any one of claims 1 to 15 in the manufacture of a medicament for use in the treatment or prevention of a disease or condition selected from coronary artery disease, inflammatory bowel disease, irritable bowel syndrome, pouchitis, hypertension, stroke, obesity or complications of obesity.

~~23~~22. Use according to claim ~~22~~21, wherein the disease or condition is associated with gut dysbiosis and/or alterations in gut permeability.

23. Porous carbon particles wherein 20% to 90% of the total pore volume is made up of pores having a mean diameter of 2 nm or less and 75% or more of the remainder of the total pore volume is made up of pores having a mean diameter of from 30 nm to 500 nm, wherein the particles are coated in order to control their release and adsorption properties.

24. Porous carbon particles according to claim 23, wherein the particles are coated with a film that will allow predominant release into the large bowel.

25. Porous carbon particles according to claim 23 or claim 24, wherein said particles are as defined in any one of claims 2 to 15.

26. Use of porous carbon particles as defined in any one of claims 23 to 25 in the manufacture of a medicament for the treatment or prevention of liver disease.

27. Use according to claim 26, wherein the liver disease is as defined in any one of claims 16 to 19.

28. Use of porous carbon particles as defined in any one of claims 23 to 25 in the manufacture of a medicament for modulation of gut dysbiosis or modulation of obesity.

29. Use of porous carbon particles as defined in any one of claims 23 to 25 in the manufacture of a medicament for use in the treatment or prevention of a disease or condition selected from coronary artery disease, inflammatory bowel disease, irritable bowel syndrome, pouchitis, hypertension, stroke, obesity or complications of obesity.

30. Use according to claim 29, wherein the disease or condition is associated with gut dysbiosis and/or alterations in gut permeability.

31. Use according to any one of claims 26 to 30, wherein the particles are formulated for oral or rectal administration.