16. The device according to claim 15, wherein the arms are attached to the frame by screw threads, the screw action of these threads adjusts the position of the membrane above the surface of the sample.

17. The device according to any one of claims 10 to 16, wherein the support structure is configured to position the microsphere anywhere along an *x*-, *y*- or *z*-axis direction.

18. A system for imaging a sample, the system comprising:

(a) an optical component; and

(b) the device according to any one of claims 10 to 17.

19. A method for imaging a sample, the method comprising:

(a) retaining a microsphere in a membrane according to any one of claims 1 to 9;

(b) positioning the microsphere above the surface of the sample;

(c) illuminating the surface of the sample, whereby light reflected from the surface is reflected through the microsphere and focused through an optical component; and

(d) detecting the light to form an image of the surface.

20. The method according to claim 19, wherein the microsphere is positioned at a predetermined distance of less than 1 μm above the surface of the sample.