Photoshop Tutorial: how to add scale bars?

1) Open your scale slide image.

2) You need to measure the pixel distance between the 0.01 mm (=10 um) grid lines. To do this, use the "Measure Tool" and draw a line between two grid lines. The "Info" window will now show you the distance "D" (make sure that the "Info" window is set to display pixels not inches or centimeters. This can be changed using the little triangle on the "Info" window). Now you know how many pixels represent 10 um.

3) Add the scale bar to your cell image. To do this, open your cell image and chose the "Marquee" tool. Set the style to "Fixed Size" and use a width that equals the number of pixels that you need for 10 um.
4) To make the scale bar permanent, use the "Fill" command from the "Edit" menu to fill your rectangle selection with a color. In this example, the "foreground color" is set to black as can bee seen in the two overlapping squares that represent the foreground/background colors (see red highlighted oval).
5) You are done! If you like, you can crop your image to remove areas that contain no cells. Also, you can adjust the contrast or the "levels" (=histogram). You can also add text or arrows etc. Here is an example of the final image: