To run the test, follow these steps:

1- Open the "tubular p(EMA-co-HEA) scaffold\_scale bar.tif" file in ImageJ (File -> Open…)

2- Set the scale using the image scale bar (Analyze -> Set Scale...)

(In case no scale is set the results will be displayed in pixels. Refer to the user manual for further details on how to set scale)

3- Threshold the image (Image -> Threshold)

The thresholded image should look like "tubular p(EMA-co-HEA) scaffold\_threshold.tif"

4- Generate the Results table (Analyze -> Analyze Particles...) (see “Results table.jpeg” and “Results.xls” for an example)

Make sure the “Centroid” and “Fit Ellipse” were already checked in Analyze -> Set Measurement before running Analyze Particles. If "Outlines" are selected in the "Show" drop down menu, an image showing the outline of the particles detected and listed in the Results table will be created. (See “Drawing of tubular p(EMA-co-HEA) scaffold\_outlined.tif ” for an example)

5- Run the ND plugin (Plugins -> ND)

6- Enter the coordination number

Output:

A new result table is created (See “Distance between particles table.jpeg” and “Distance Between Neighboring Particles.xls for an example, where coordination number = 4) listing the average distance between each particle and it nearest neighbors, the distance between each particle and its nearest neighbor and the average wall thickness between each particle and its nearest neighbors.

The values in the final results table depend on the parameters set in scaling and thresholding the image. To replicate the same results make sure you choose the provided image. (“tubular p(EMA-co-HEA) scaffold\_threshold.tif”)