Application number/Title: 44550 - Development of a predictive model for waist circumference for comparison of measurement methods between research studies

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Keywords provided by the Applicant PI to describe the research project:
anthropometry, calibration, measurement error, predictive modelling, waist circumference

Application Lay Summary:

The size of a persons waist (waist circumference) can be used to identify people who are at higher risk of developing certain diseases such as diabetes and heart disease. It is very commonly measured in research studies alongside other measures of body size such as height, weight and hip size. However the is no one commonly agreed way to identify where the waist is so the way waist circumference is measured varies between studies. The aim of this research project is to investigate whether it is possible to estimate waist circumference from other measures of body size and then compare this estimated waist circumference with measured waist circumference in two studies which defined the waist differently, one in Russia and one in Norway. The reason to do this is to understand if any differences between the Russian and Norwegian study are due to differences in how waist was measured or because people actually have larger (or smaller) waists in Russia compared to Norway. This approach could then be used to compare waist size between other studies which have measured waist circumference using different locations and improve ability to make comparisons between studies taking place in different countries. The project will take 9 months.