



**Figure 6:** Normalized histograms for quantitative age-related macular degeneration (AMD) disease biomarkers. Distributions of **A)** Total retina (TR) volume ( $\mu\text{m}^3$ ), **B)** Retinal pigment epithelium and drusen complex (RPEDC) volume ( $\mu\text{m}^3$ ), **C)** abnormal TR thickness score ( $\mu\text{m}^3$ ), and **D)** abnormal RPEDC thickness score ( $\mu\text{m}^3$ ) for the 115 normal (blue bars) and 269 AMD (red bars) subjects calculated within the 5 mm fovea-centered cylinder.

These histograms were normalized with respect to the number of subjects to facilitate a direct comparison between the AMD and control groups. Note that no volume threshold could robustly separate the normal from AMD subjects for histograms in (A) and (B). More efficient quantitative disease imaging biomarkers were obtained by generating abnormality scores. As a close inspection of (D) shows that a simple

thresholding of the abnormal RPEDC thickness score could correctly separate most subjects into the control and AMD groups.