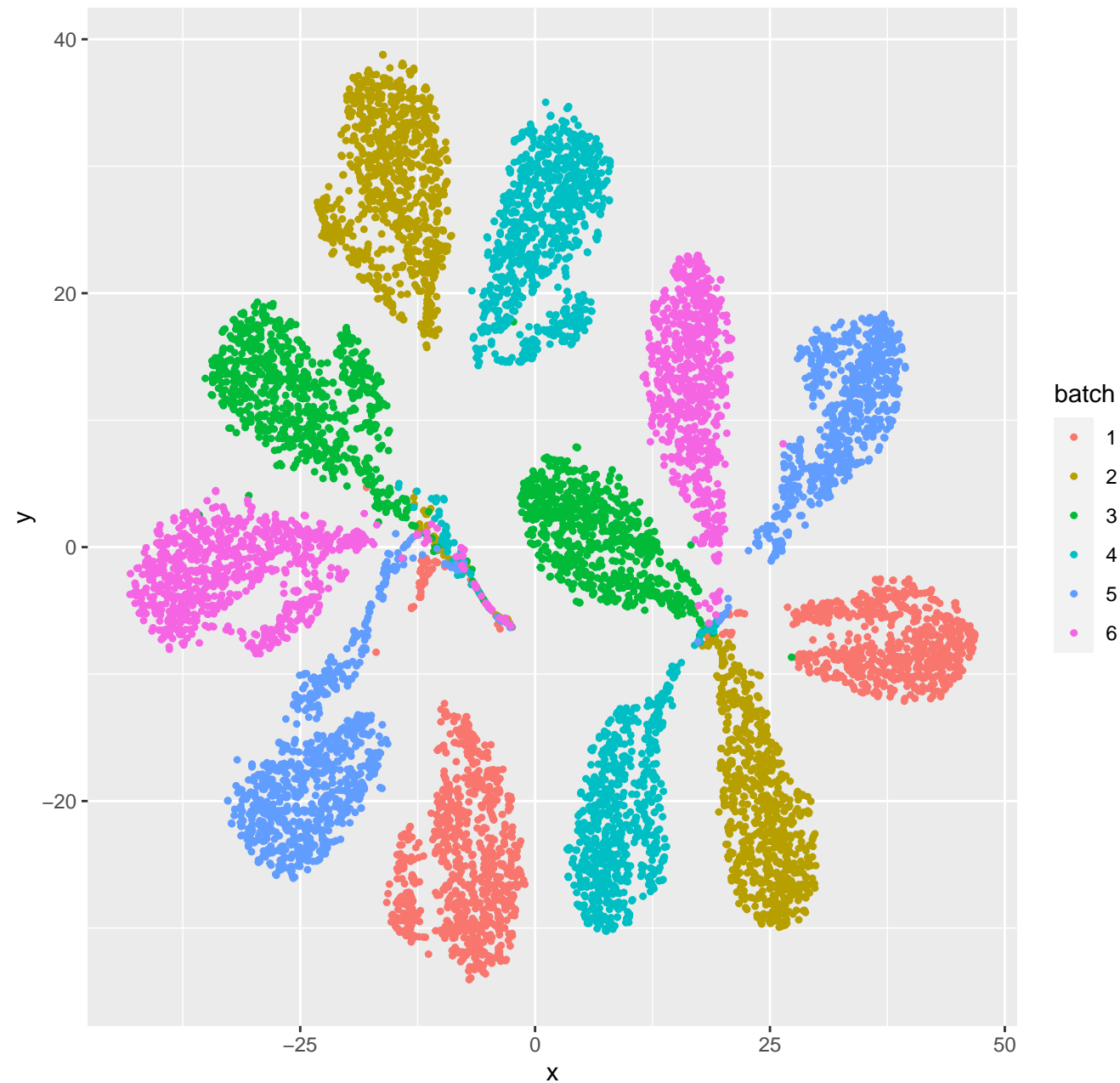observed counts batches (adjusted)

observed counts clusters (adjusted)