

A

Sample	Organism	Sample source	Data preprocessing	Inter-batch heterogeneity	Sample-to-sample heterogeneity	Technical factors	# batches	# samples (excluding pools)	# pool samples	Biological factors	# features	Dataset accession
Alzheimer	Human	CSF	DIA-NN	Medium: All batches overlap with at least one other batch	Very high: samples from patients with neurological disorders. Alzheimer's disease is a heterogeneous disorder and the controls have a wide variety of of neurological disorders with no cognitive impairment		21	408 (839 with duplicates)	84	Disorder Sex Age	~900 (proteins)	
Aging mouse study	Mouse	Liver tissue	R package proBatch	High: Some overlap between some batches. Some batches are very far from the others	Medium: samples come from population of inbred mice originating from two parental strains	Protein digestion batch MS batch MS drift	7	372	3 (discarded*)	Strain Diet Age	~17000** (precursors)	PRIDE PXD009160
Adenocarcinoma	Human	Plasma	R package XCMS R package CAMERA	Very high: No verlap between batches. All batches are very far appart	High: samples come from cancer patients	MS batch MS drift	3	642 (571 colorectal cancer, 73 chronic enteritis)	79	Disease	8113 (peaks)	com/dengkuis

B

