

Appendix 3. Gene Ontology (GO) enrichment analysis on the subset of biological processes present in GO Fat set created by DAVID (n=810 probes) from differently regulated genes expressed in pooled mouse C57BL/6J retina between all groups; normal control (NCD), high-fat diet (HFD), normal or high-fat diet with bilberries (BB) fed *ad libitum* for 12 weeks.

Term	Count	Fold Enrichment	p-value
GO:0006334~nucleosome assembly	10	3,93	0,001
GO:0031497~chromatin assembly	10	3,82	0,001
GO:0034728~nucleosome organization	10	3,77	0,001
GO:0065004~protein-DNA complex assembly	10	3,77	0,001
GO:0043010~camera-type eye development	13	2,87	0,002
GO:0070306~lens fiber cell differentiation	4	12,74	0,003
GO:0001654~eye development	14	2,56	0,003
GO:0016311~dephosphorylation	13	2,64	0,004
GO:0002088~lens development in camera-type eye	6	5,06	0,006
GO:0006470~protein amino acid dephosphorylation	11	2,77	0,006
GO:0006323~DNA packaging	10	2,84	0,009
GO:0007601~visual perception	10	2,84	0,009
GO:0007423~sensory organ development	18	2,01	0,009
GO:0050953~sensory perception of light stimulus	10	2,81	0,009
GO:0006333~chromatin assembly or disassembly	10	2,63	0,014
GO:0065003~macromolecular complex assembly	21	1,78	0,015
GO:0034622~cellular macromolecular complex assembly	15	1,98	0,020
GO:0043523~regulation of neuron apoptosis	8	2,87	0,021
GO:0006816~calcium ion transport	10	2,37	0,025
GO:0043525~positive regulation of neuron apoptosis	4	6,04	0,027
GO:0006796~phosphate metabolic process	42	1,39	0,027
GO:0006793~phosphorus metabolic process	42	1,39	0,027
GO:0043933~macromolecular complex subunit organization	21	1,64	0,032
GO:0042440~pigment metabolic process	5	3,87	0,039
GO:0051262~protein tetramerization	4	4,99	0,044
GO:0034621~cellular macromolecular complex subunit organization	15	1,76	0,048
GO:0060537~muscle tissue development	10	2,11	0,048
GO:0006325~chromatin organization	18	1,64	0,049

[http://david.abcc.ncifcrf.gov/content.jsp?file=functional\\_annotation.html#summary](http://david.abcc.ncifcrf.gov/content.jsp?file=functional_annotation.html#summary)