Tutorial for EasyPubPlot

Dot Plot

Step 1: Prepare the Input Data

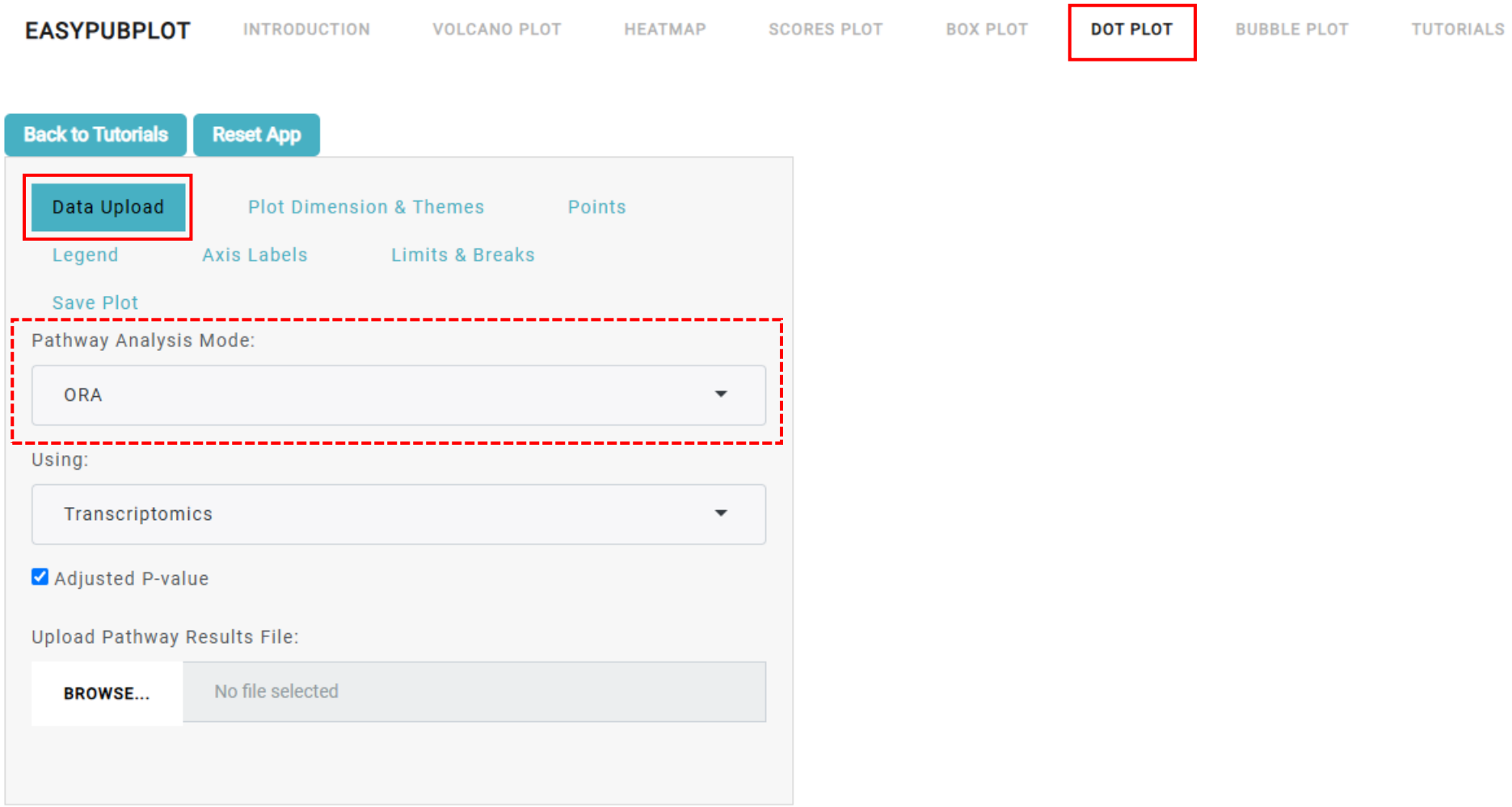
1. Prepare the input data file

	A	B	C	D	E	F	G
1	Description	Hits_count	Total_inpu	GeneRatio	Pvalue	P.adjust	FeaturesID
2	Metabolic pathways	119	312		6.94E-13	2.18E-10	Gsta3,Me1,Gstp1,Oat,Asns,Gpx2,Phgdh,Psat1,Cyp3a9,Car2,Cryl1,Nqo1,Ugt2b1,Inmt,Gsr,Tusc3,Cyp1a1,Aldh1
3	Glutathione metabolism	16	312		1.63E-09	2.56E-07	Gsta3,Gstp1,Gpx2,Gsr,Gclm,Chac1,Gstm7,G6pd,Gss,Mgst2,Gclc,Pgd,Odc1,Nat8,Rrm2,Srm
4	Ferroptosis	11	312		4.21E-07	4.40E-05	Slc7a11,Gclm,Sat2,Slc3a2,Gss,Sat1,Vdac2,Gclc,Hmox1,Map1lc3a,Tfrc
5	Bile secretion	15	312		1.39E-06	0.000109	Abcc3,Car2,Ephx1,Abcc4,Slc27a5,Kcnn2,Abcg5,Abcc2,Slc4a4,Slco1a2,Abcg8,Hmgcr,Adcy9,Abcb1a,Slc22a8
6	Metabolism of xenobiotics by cytochrome P450	11	312		7.42E-06	0.000466	Gsta3,Gstp1,Akr7a3,Ugt2b1,Ephx1,Cyp1a1,Gstm7,Cyp1a2,Mgst2,Ugt2b7,RGD1559459
7	Chemical carcinogenesis	12	312		1.06E-05	0.000554	Gsta3,Gstp1,Cyp3a9,Ugt2b1,Ephx1,Cyp1a1,Gstm7,Cyp1a2,Cyp2c12,Mgst2,Ugt2b7,RGD1559459
8	Retinol metabolism	11	312		3.75E-05	0.00168	Cyp3a9,Ugt2b1,Cyp1a1,Aldh1a1,Cyp1a2,Cyp2c12,Aox1,Ugt2b7,Cyp26b1,RGD1559459,Cyp4a8
9	Pentose and glucuronate interconversions	7	312		6.24E-05	0.00245	Cryl1,Ugt2b1,Akr1b8,Akr1a1,Ugt2b7,Ugdh,RGD1559459
10	PPAR signaling pathway	12	312		0.000168	0.005	Me1,Slc27a5,Scd,Cpt1b,Pck2,Fabp7,Fads2,Fabp5,Fabp4,Fabp2,Cyp4a8,Cd36
11	Drug metabolism - cytochrome P450	9	312		0.000175	0.005	Gsta3,Gstp1,Ugt2b1,Gstm7,Cyp1a2,Mgst2,Aox1,Ugt2b7,RGD1559459
12	ABC transporters	9	312		0.000175	0.005	Abcc3,Abcc4,Abcc9,Abcg5,Abcc6,Abca8a,Abcc2,Abcg8,Abcb1a
13	Aminoacyl-tRNA biosynthesis	9	312		0.000434	0.0114	Cars,Yars1,Farsb,Yars2,Iars1,Nars1,Sars1,Lars1,Ears2
14	Terpenoid backbone biosynthesis	6	312		0.000564	0.0136	Mvd,Fdps,Dhdds,Hmgcr,Acat2,Idi1
15	Drug metabolism - other enzymes	9	312		0.00114	0.0245	Gsta3,Gstp1,Ugt2b1,Gstm7,Mgst2,Ugt2b7,Rrm2,RGD1559459,Dpyd
16	Ascorbate and aldarate metabolism	5	312		0.00117	0.0245	Ugt2b1,Ugt2b7,Gulo,Ugdh,RGD1559459
17	Biosynthesis of amino acids	10	312		0.00191	0.0375	Asns,Phgdh,Psat1,Aldh18a1,Tat,Sds,Aco2,Aldoa,Got1,Psph
18	Porphyrin and chlorophyll metabolism	6	312		0.00234	0.0433	Ugt2b1,Ugt2b7,Hmox1,Ears2,Cox15,RGD1559459

Note: Column order needs to be identical with example data (if the information is unavailable, leave it empty). Column names can be different.

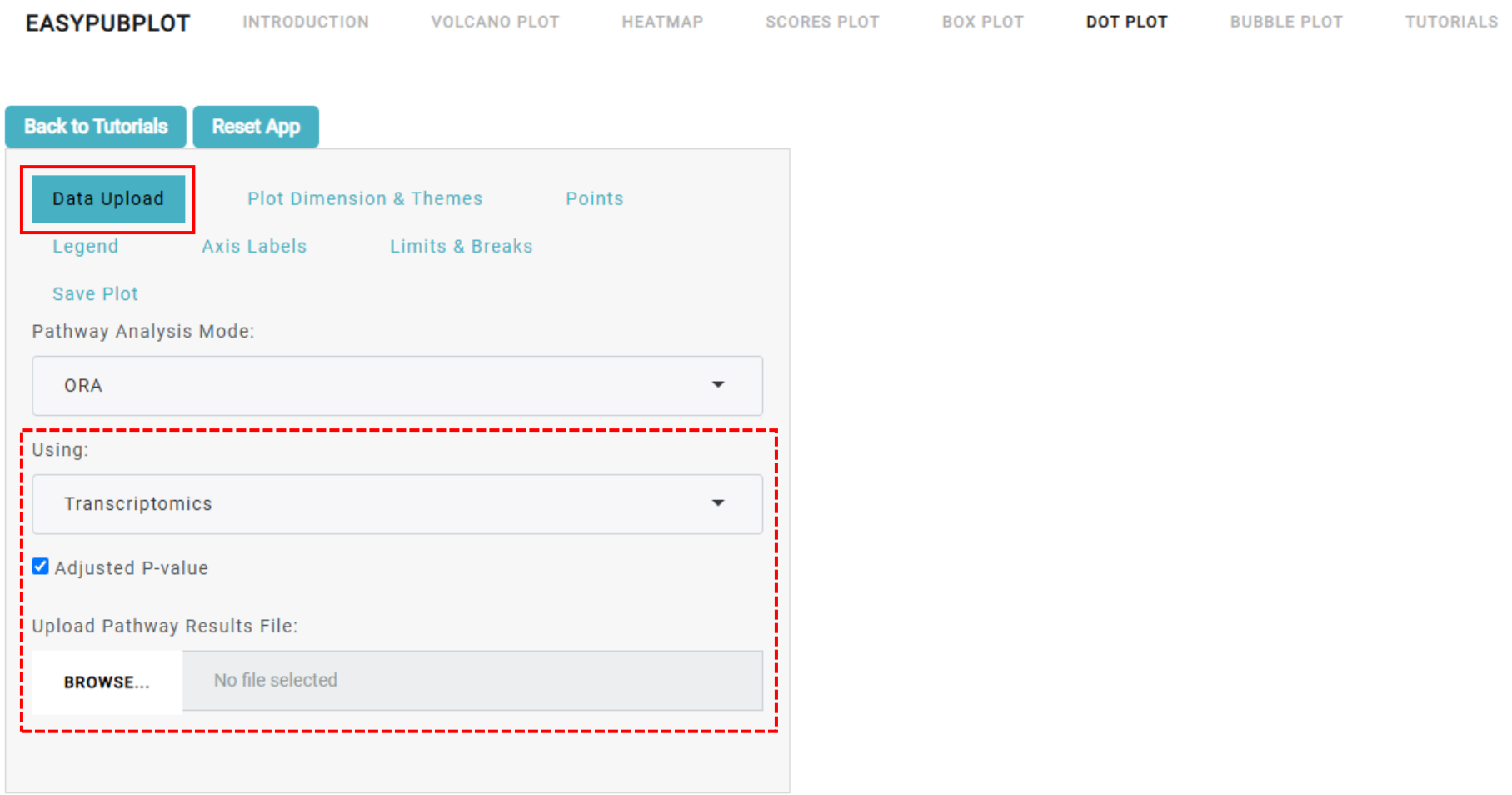
Step 2: Upload the Data

1. Select tab “Box Plot”.
2. Select subtab “Data Upload”.
   - ➢ Select option “Pathway Analysis Mode” to choose analysis mode (ORA or GSEA)



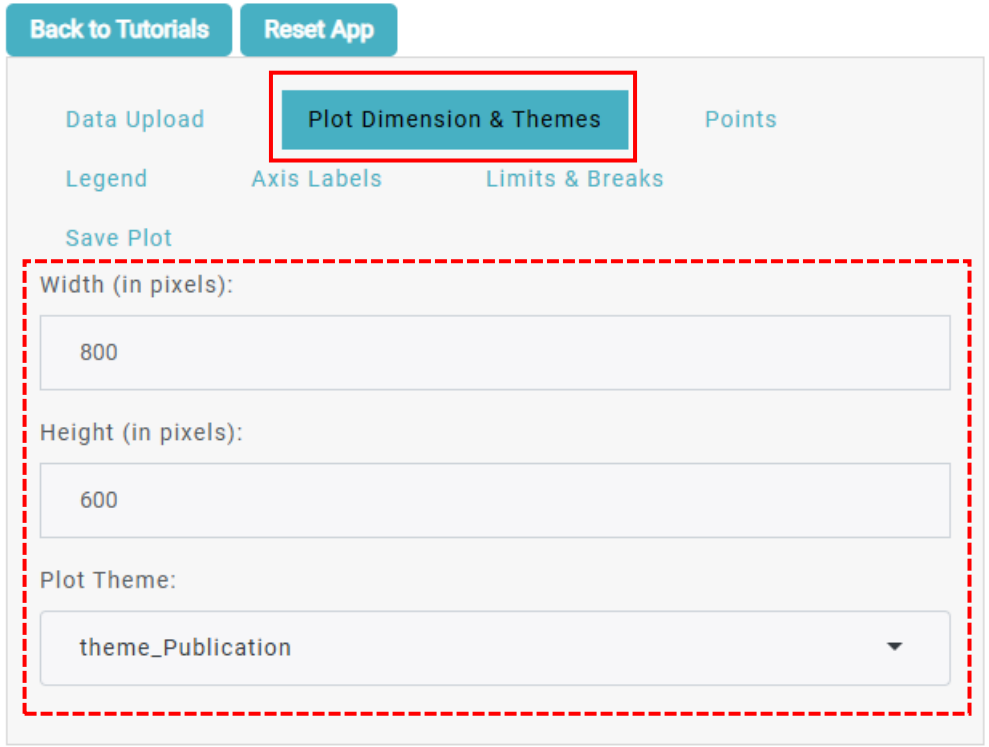
Step 2: Upload the Data

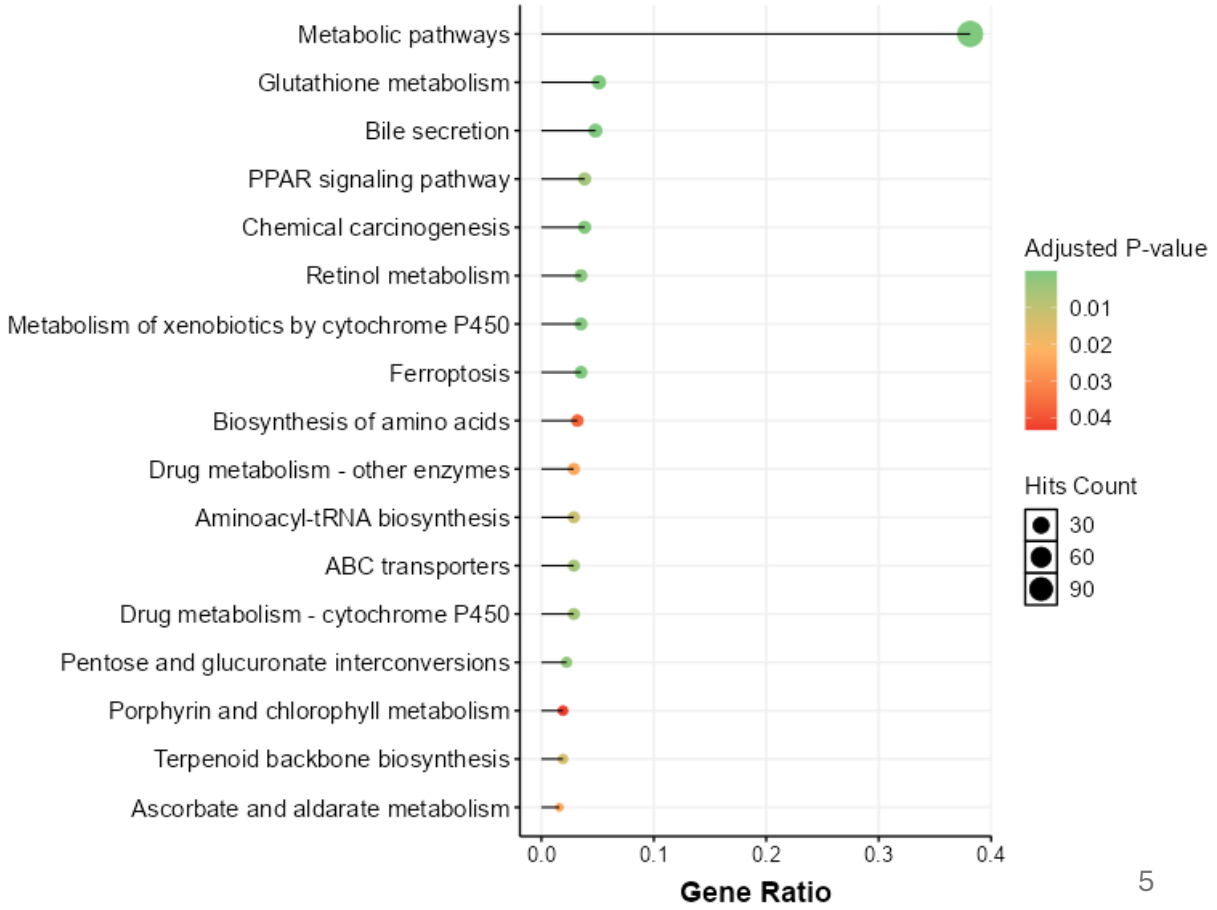
2. Select subtab “Data Upload”.
   - ➢ Select option “Using” to choose the appropriate platform (transcriptomics/metabolomics)
   - ➢ Select “Adjusted P-value” (Optional)
   - ➢ Upload data file



Step 3: Modify the Dot Plot

1. Select subtab “Plot Dimension & Themes”.
   - ➢ Select options “Width (in pixel)” and “Height (in pixel)” to modify the plot dimension.
   - ➢ Select option “Plot Theme” to choose the approriate theme.





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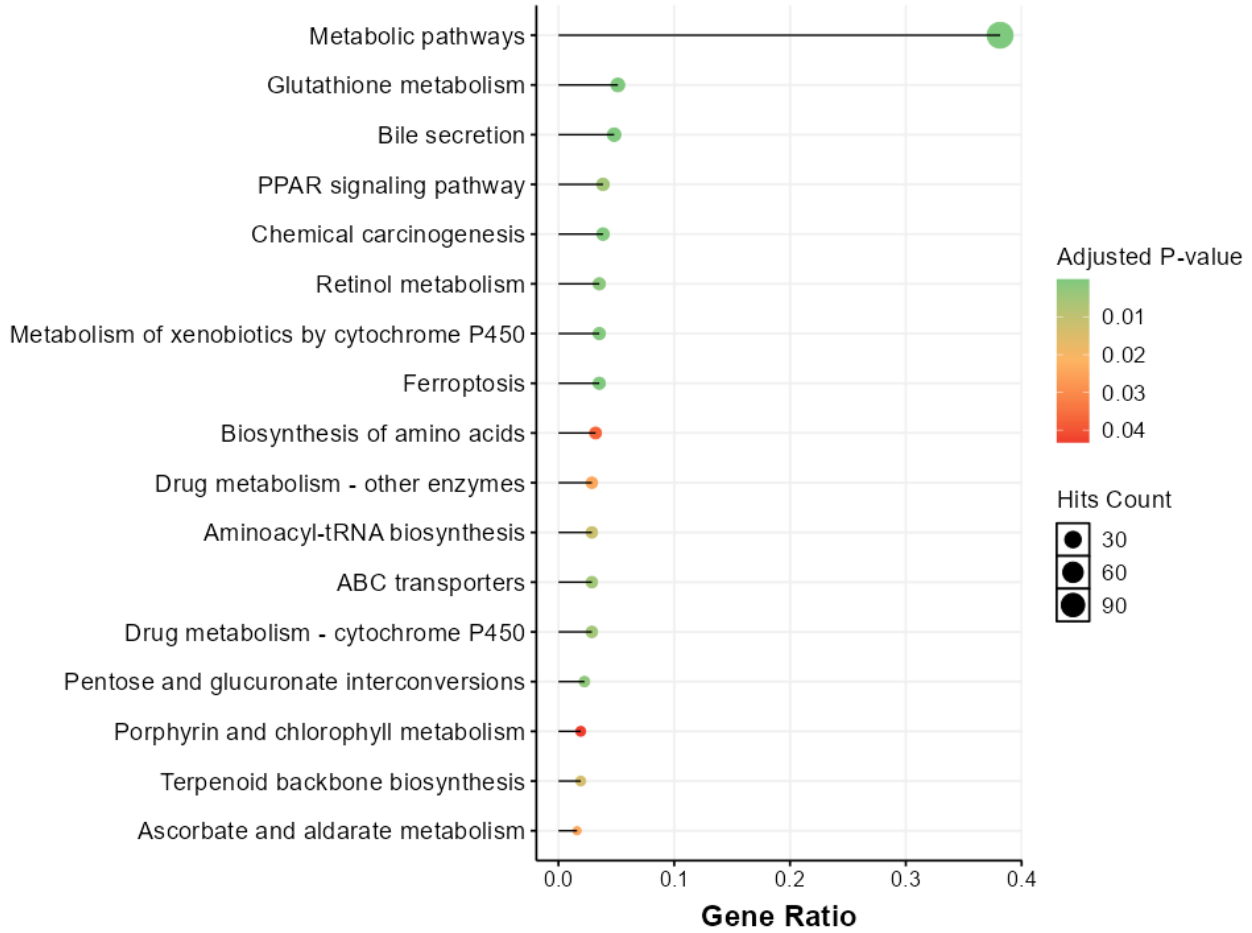
2. Select subtab “Points”.
   - ➢ Select options “Point Size Scale” to modify the appropriate scale of points.
   - ➢ Select options “(Adj) P-value Color” to choose the appropriate colors for (Adjusted) P-value of each point.



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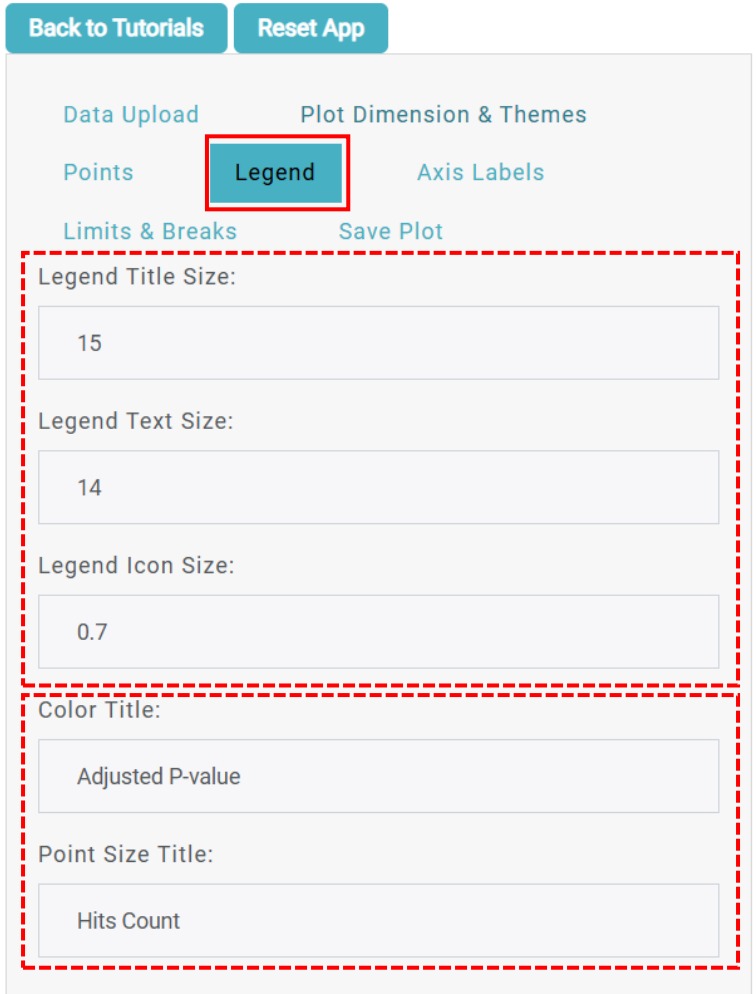
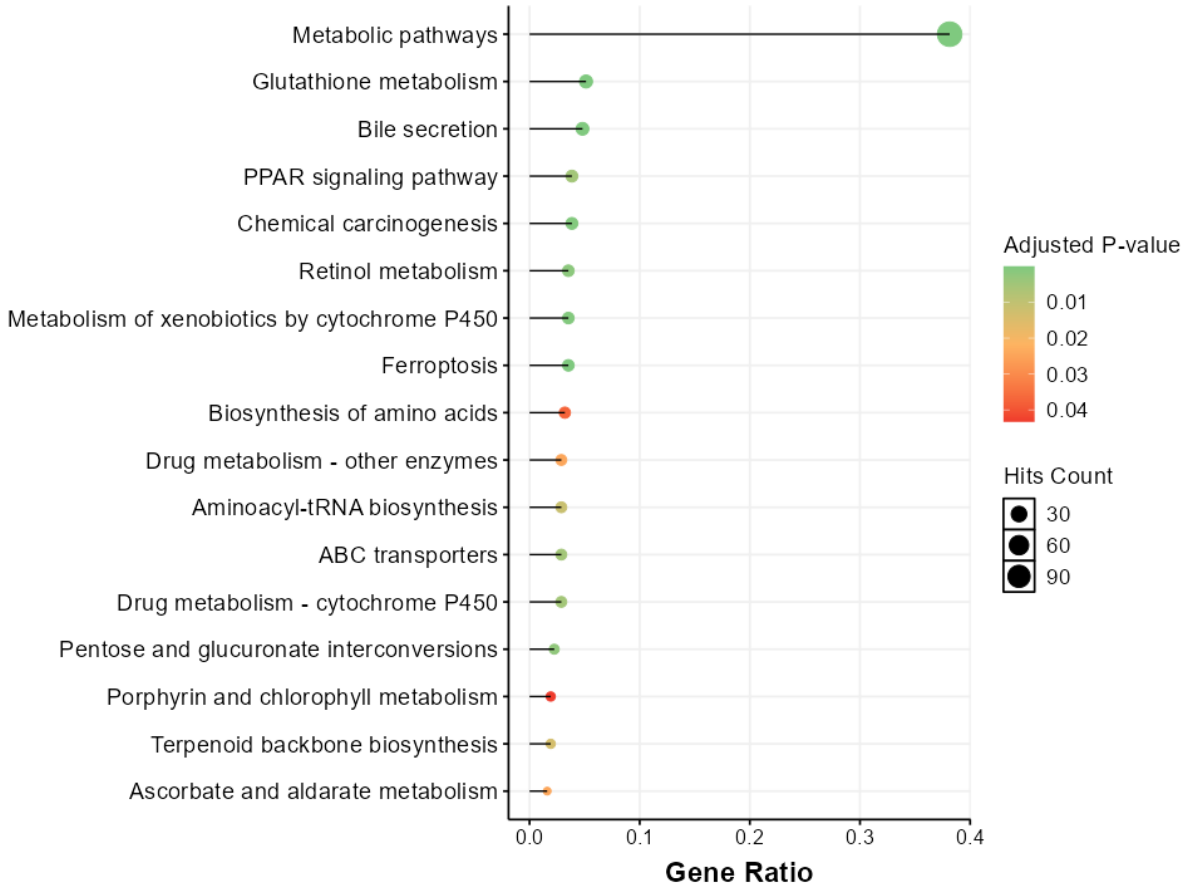
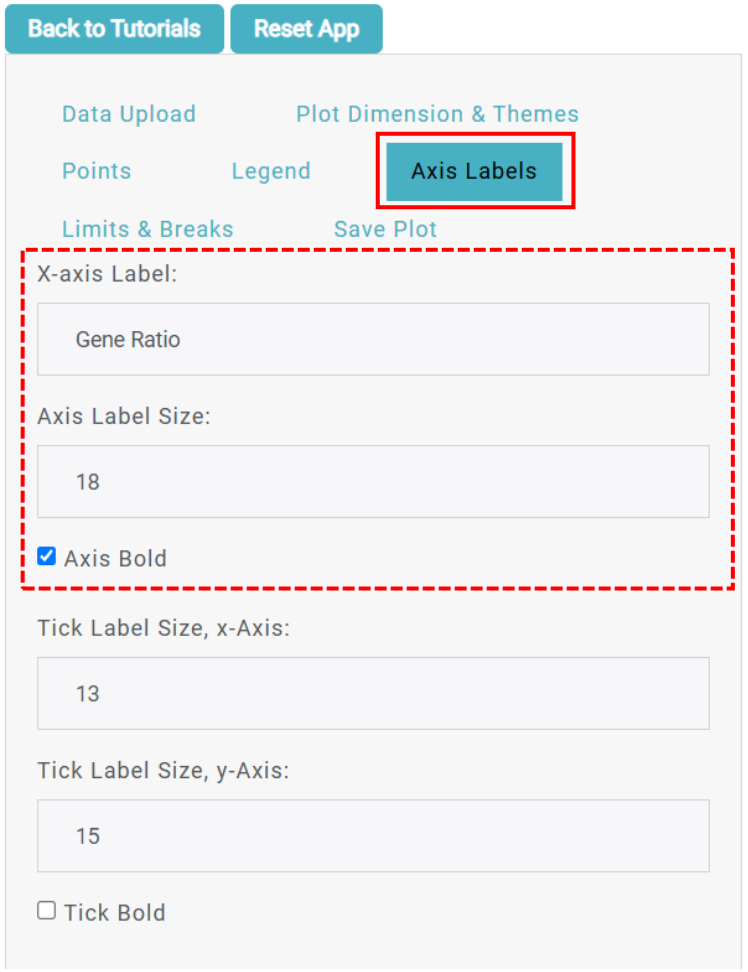
3. Select subtab “Legend”.
   - ➢ Select options “Legend Size” to modify the title size, text size and icon size.
   - ➢ Select options “Color Title” and “Point Size Title” to modify the color and point size titles, respectively.

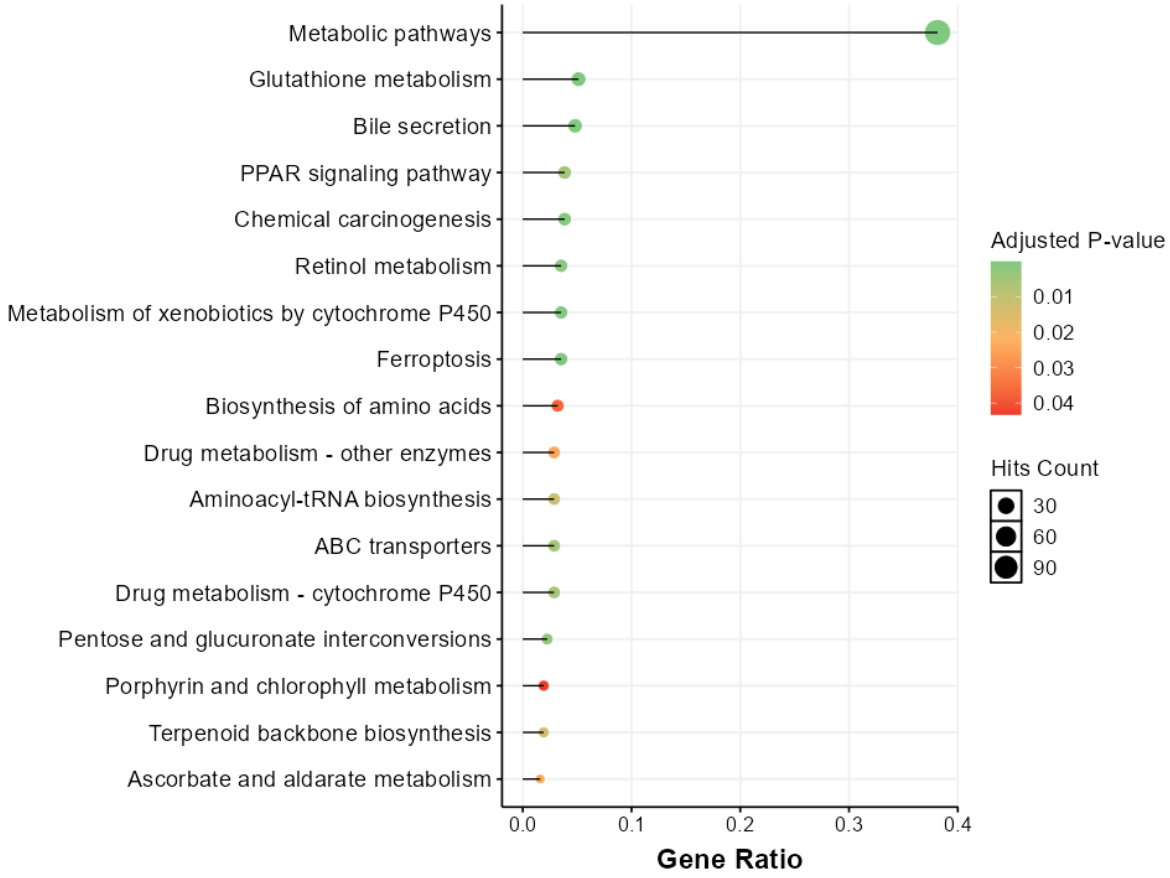




Step 3: Modify the Dot Plot

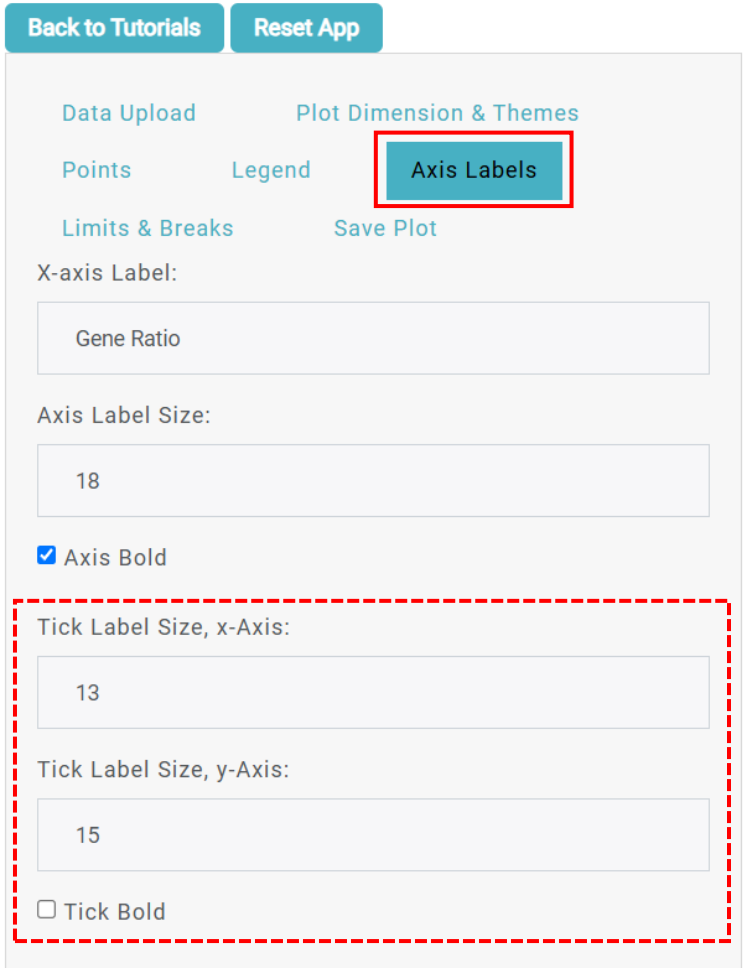
4. Select subtab “Axis Labels”.
   - ➢ Select option “X-axis Label” to modify the appropriate X-axis label.
   - ➢ Select options “Axis Label Size” and “Axis Bold” to modify the size and bold the X-axis label, respectively.

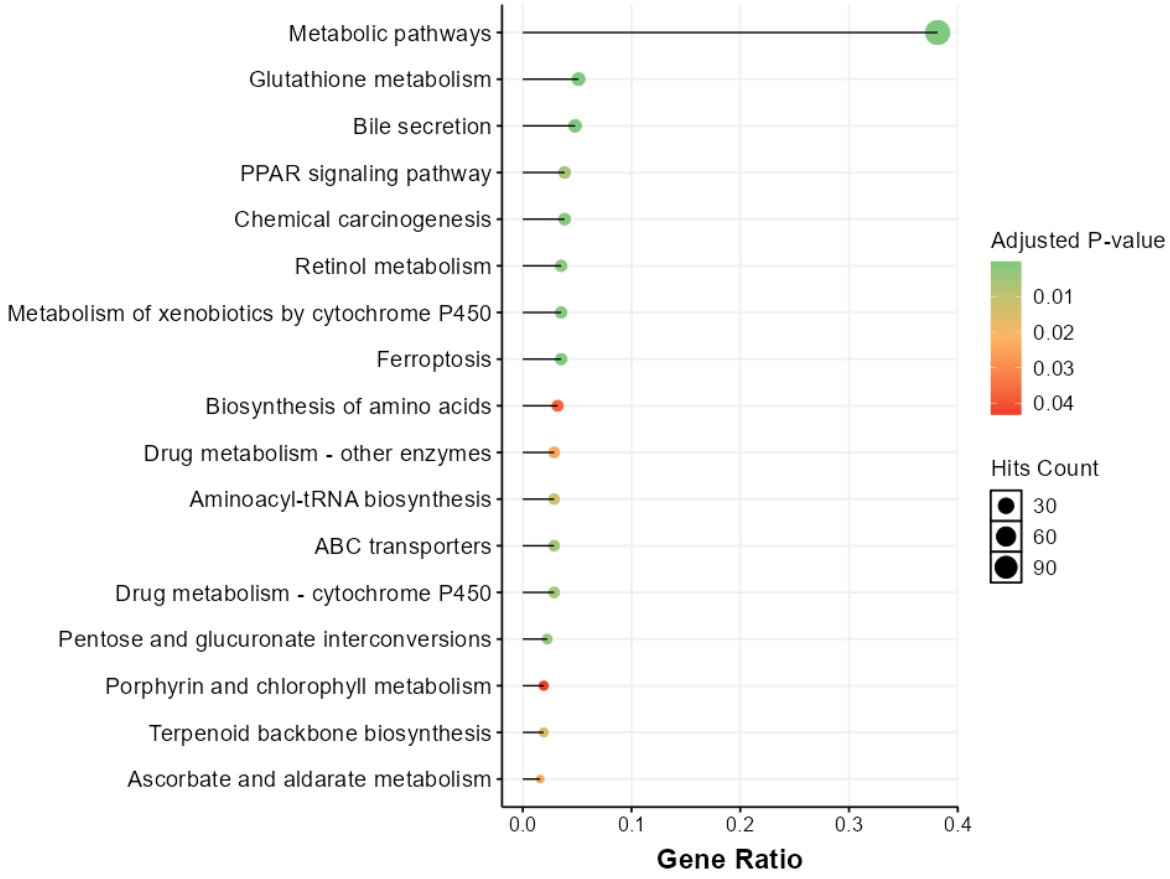




Step 3: Modify the Dot Plot

4. Select subtab “Axis Labels”.
   - ➢ Select options “Tick Label Size” to modify the size of tick labels.
   - ➢ Select option “Tick Bold” to bold the tick labels.

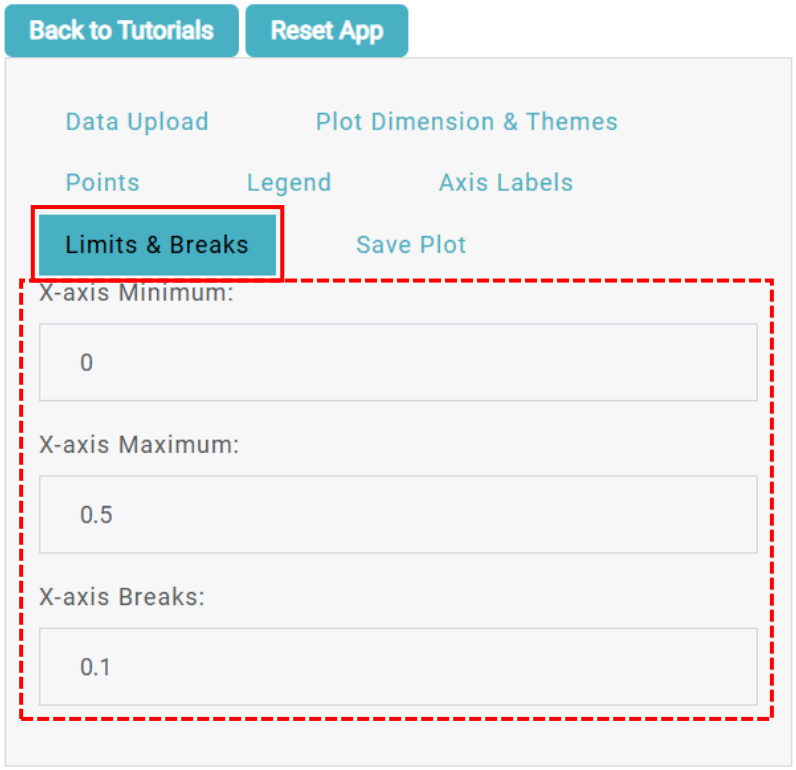


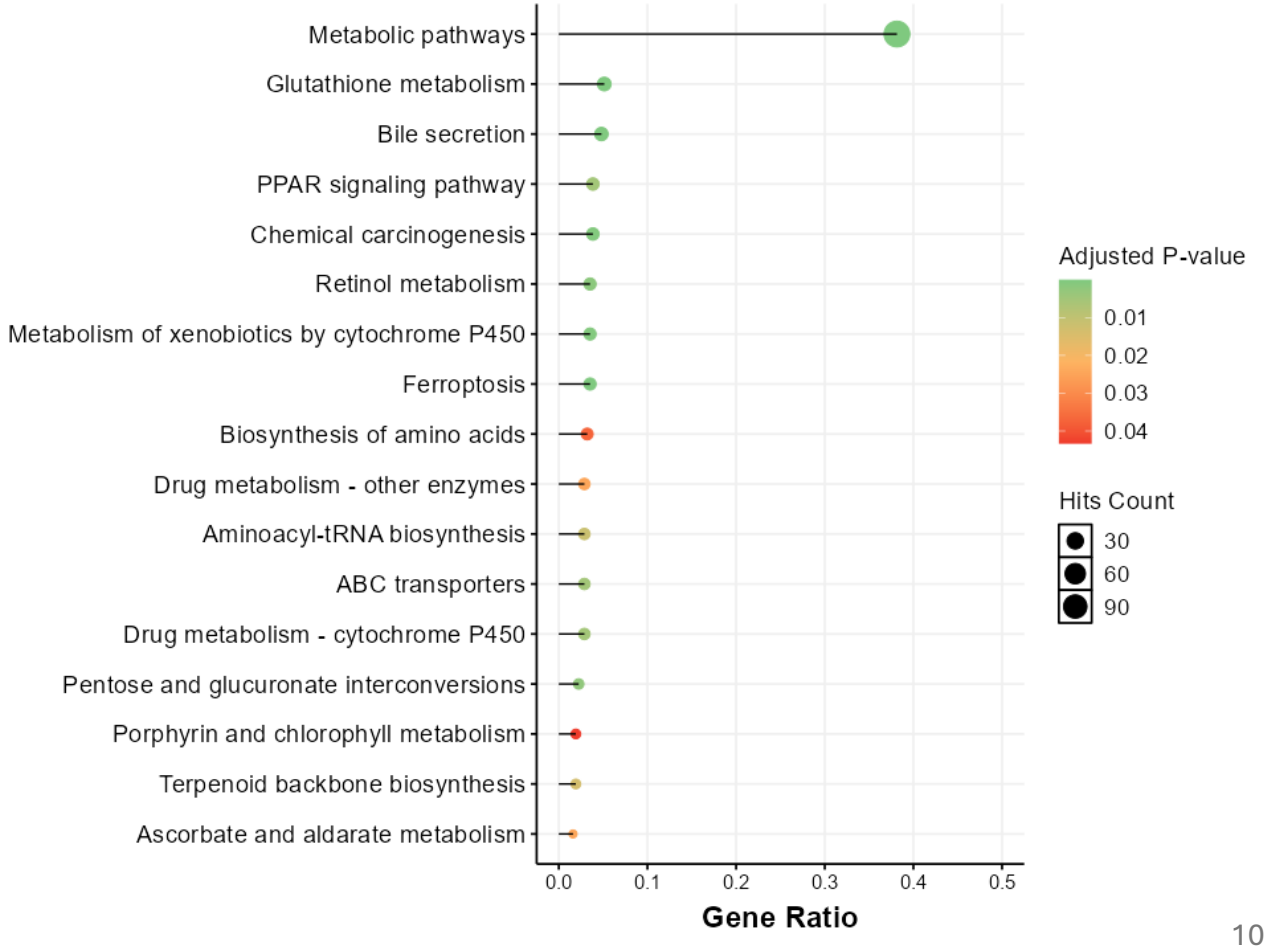


Note: The default settings is bold for X-axis legend, and not bold for tick labels.

Step 3: Modify the Dot Plot

5. Select subtab “Limits & Breaks”.
   - ➢ Select “X-axis Minimum”, “X-axis Maximum”, “X-axis Breaks” to modify X-axis limits and breaks.

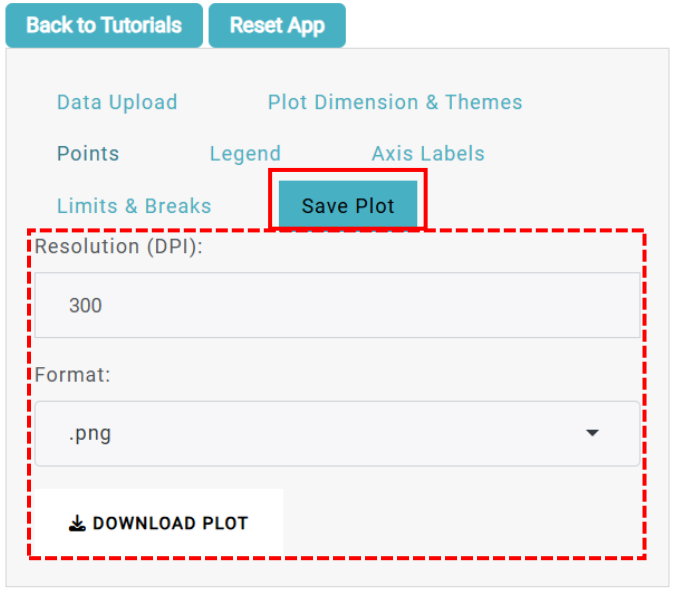


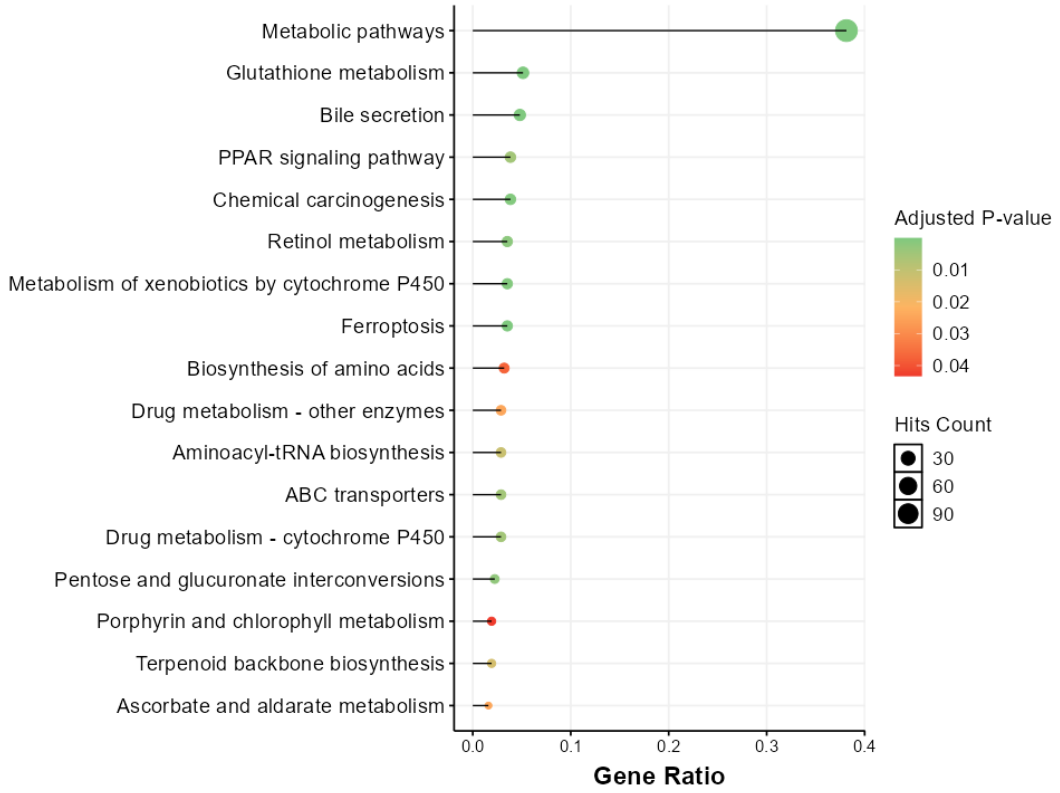


Step 4: Export the Dot Plot

Select subtab “Save Plot”.

- Select option “Resolution (DPI)” to choose the appropriate resolution (in DPI).
- Select option “Format” to choose the appropriate format (.png, .svg, .tiff, .pdf, .pptx).
- Select “Download Plot” to export the figure.





Note: The .svg format could be further processed with an approriate toolkit.