

**Supplementary Table 4** Pathway analysis of metabolic biomarkers in AH on OAG.

Pathway Name	Match Status	P	FDR	Impact
Aminoacyl-tRNA biosynthesis	10/48	1.0015E-07	8.4124E-06	0
Arginine and proline metabolism	6/38	0.00026094	0.01096	0.18883
Valine, leucine and isoleucine biosynthesis	3/8	0.00075666	0.021187	0
Glycine, serine and threonine metabolism	5/33	0.0010987	0.023073	0.24577
Arginine biosynthesis	3/14	0.0044277	0.063554	0.07614
Glutathione metabolism	4/28	0.0045396	0.063554	0.09935
Taurine and hypotaurine metabolism	2/8	0.015701	0.18841	0.42857
Biotin metabolism	2/10	0.024444	0.25667	0.2
Galactose metabolism	3/27	0.028382	0.26244	0.0338
Alanine, aspartate and glutamate metabolism	3/28	0.031243	0.26244	0.20032
Glyoxylate and dicarboxylate metabolism	3/32	0.04415	0.33714	0.10582

OAG, Open Angle glaucoma; AH, Aqueous humo