Fig A – Blume et al.

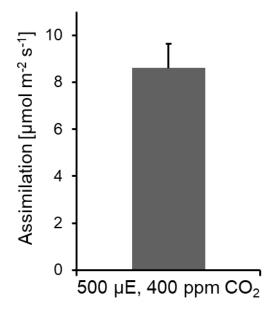


Fig A. CO<sub>2</sub> assimilation of 5-weeks-old *Arabidopsis* plants. Net  $CO_2$  assimilation was recorded under ambient  $CO_2$  conditions (400 ppm) and light saturating conditions (500  $\mu$ E).

Fig B – Blume et al.

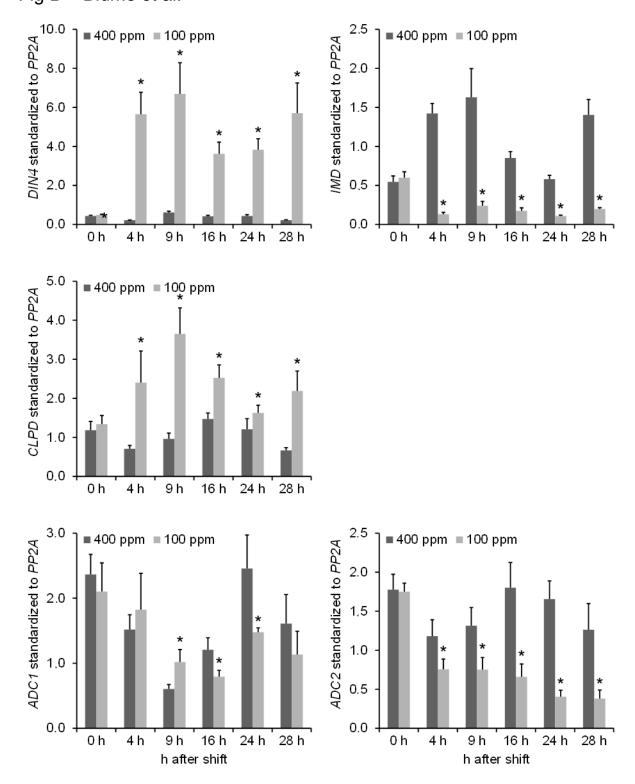


Fig B. Transcript levels of selected genes of leucine synthesis (*IMD*) and degradation (*DIN4*), protein degradation (*CLPD*), and polyamine synthesis (*ADC1*, 2) at 400 ppm and 100 ppm  $CO_2$  standardized to *PP2A*. Data are the mean of five biological replicates  $\pm$  SD. Significance was tested according to the two-tailed Student's t-test; values were changed to  $log_2$  ratios to allow this test (\* p<0.05) DIN4, Dark-induced 4; IMD, Isopropylmalate dehydrogenase; CLPD, caseinolytic protease D; ADC, arginine decarboxylase.

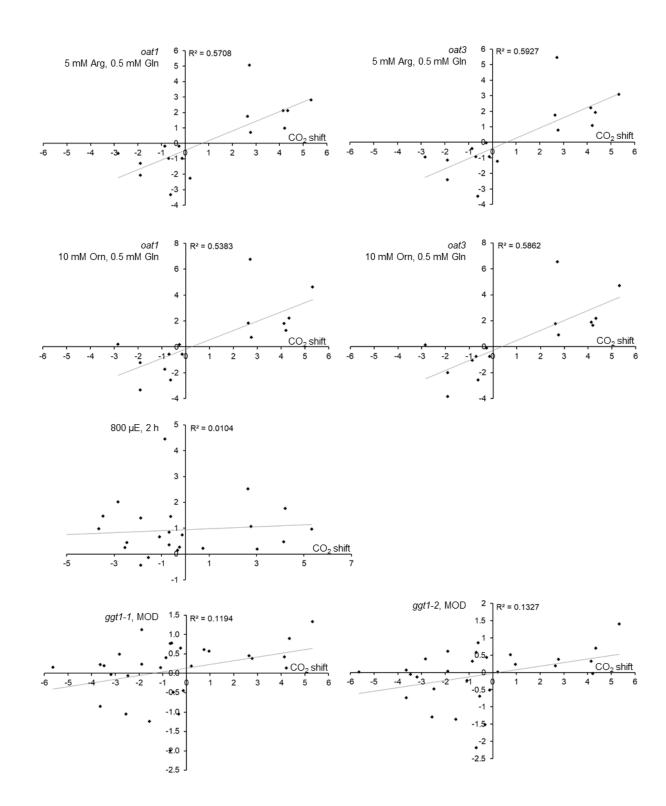


Fig C. Correlation of log2 metabolite changes between the low CO<sub>2</sub> shift and in response to different stresses/different Arabidopsis mutants. The fold changes are given in Fig 6.

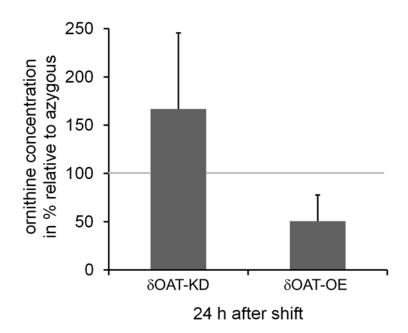


Fig D. Concentration of ornithine in knockdown (KD) and overexpression (OE) lines of  $\delta OAT$  after a shift from 400 ppm to 100 ppm CO<sub>2</sub> relative to azygous plants. Plant material was harvested 24 h after shifting the plants to low CO<sub>2</sub> concentrations. Data are the mean of three (KD) or two (OE) biological replicates  $\pm$  SD. Grey line: wild type  $\delta OAT$  level.