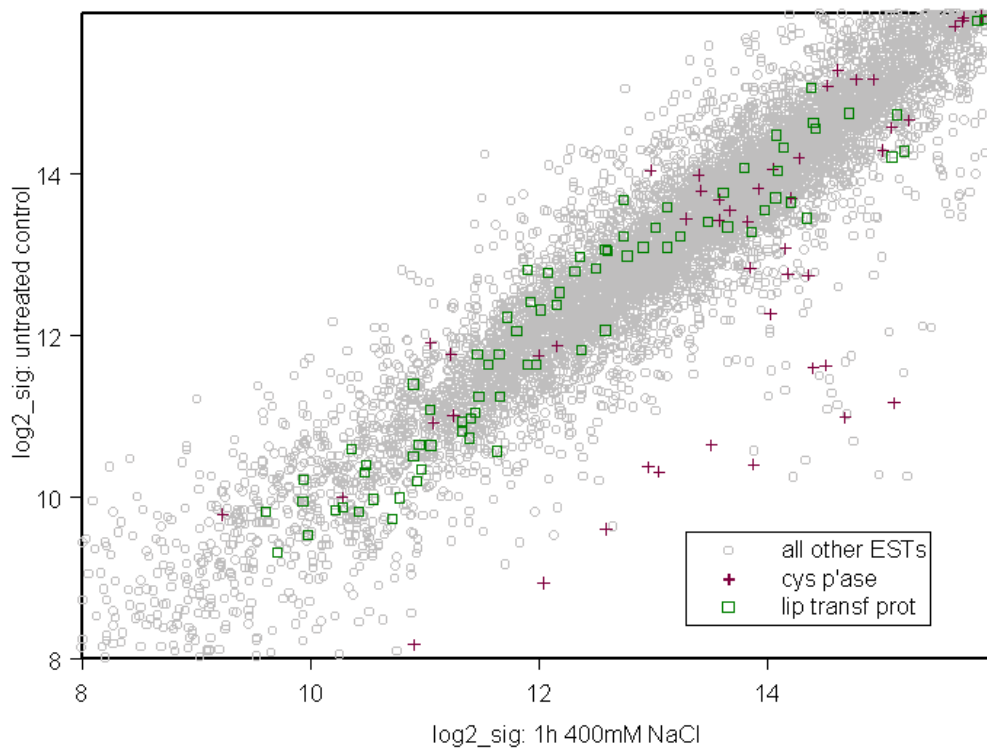


NaCl treatment induces dynamic changes in expression of gene families in ice plant.

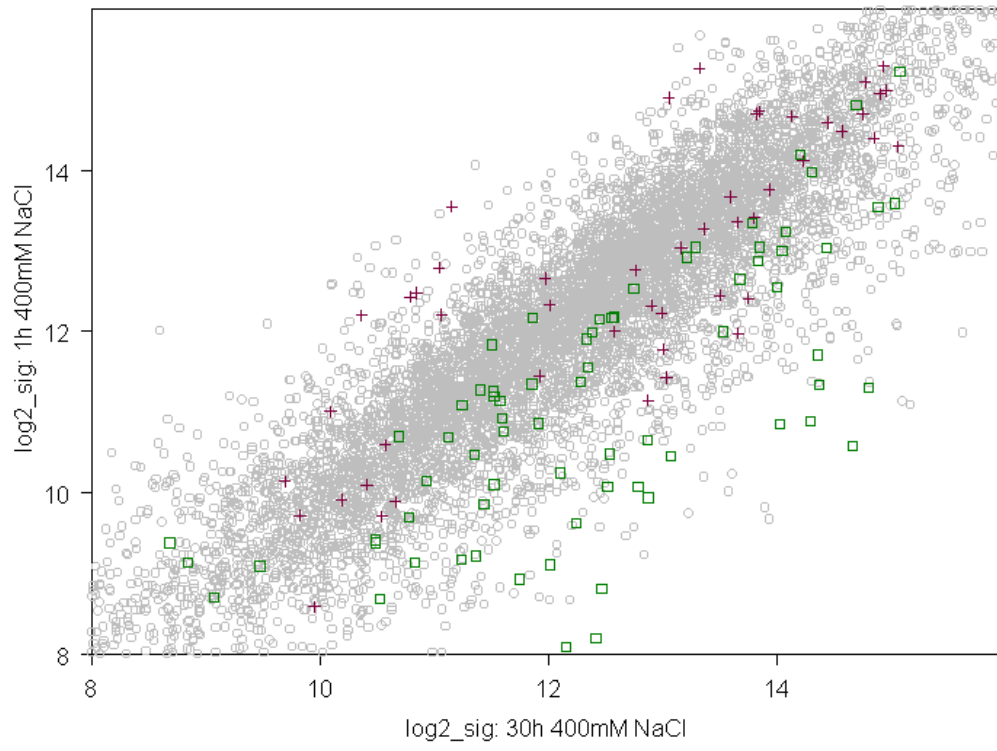
After treating 6 week-old ice-plant roots with 400mM NaCl, we analyzed changes in gene abundance over time, using 4000-EST microarrays produced in our laboratories. Many transcripts were dynamically regulated, and some of these transcripts were associated with large gene families, such as the lipid transfer proteins and the cysteine proteinases shown below. As a comparison of the two figures below shows, transcript levels of several (but not all) of the cysteine proteinases respond rapidly (<1 hour) to NaCl treatment, but do not show any further change after 30h. Conversely, lipid transfer proteins show little response after 1h, but a much greater change after 30h. We are continuing to investigate the differential responses of various gene families, and of genes within families, to osmotic stress.

6w root: 1h 400mM NaCl vs. untreated control



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6w root: 30h 400mM NaCl vs. 1h 400mM NaCl



M001106C GS3 Nov 24, 2000 4:42:25 PM