**Background:** Salinity is a major abiotic stress factor in current worlds agriculture. It is quite chaotic situation in the fields, that dissolved salts in the irrigation waters are not controllable.

**Aim:** To investigate the salt tolerance in three widely used Arabidopsis accessions by comparing their photosynthetic performance.

**Hypothesis:** A distinct response in relation to salt stress will be reflected in the photosynthetic performance of Plants.

**Accessions & conditions:**
*Arabidopsis thaliana*
- cv Columbia-0 (USA),
- cv Landsberg erecta-0 (Germany),
- cv Wassileskija (Russia).

**Results:** The Arabidopsis accessions showed slow growth during stress condition. Healthy four weeks old plants subjected to stress (Fig 2) showed decreasing chlorophyll content under stress (Fig 4). Plants did not show tolerance at 150 mM NaCl (Fig 3). The photosynthetic efficiency of plants (0-100 mM) did not decrease during one week of stress and recovery. Non-photochemical quenching changed during recovery phase (Fig 5) implicating change in pH.

**Fig 1** Three accessions under focus.
**Fig 2** Four weeks old plants.
**Fig 3** Plants on day 5 of stress at 150 mM salt conc.
**Fig 4** Chlorophyll content in 7-day salt treated plants.
Impact of salinity on photosynthetic performance in Arabidopsis Ecotypes.

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Conclusion:
• Current results suggest the salinity decreases both plant growth and photoprotective ability of photosynthetic apparatus in Arabidopsis.
• Col-0 ecotype tend to show higher salt tolerance comparative to Ws-4 and Ler-0.
• Hydroponic system used for the study supported the experiment to find out the salinity tolerance of the ecotypes(100mM).

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Fig 5 NPQ on day 7 of recovery phase in col-0