

Phenomics and Imaging

Moderated by:

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The last decade has included many breakthroughs in technologies for the collection of genotypic data. However, progress in the collection of phenotypic data has not been nearly as rapid. There is an urgent need for both higher throughput methods of measuring existing phenotypes, as well as methods for measuring phenotypes that are currently invisible. In this panel we will hear from three speakers who are developing technologies that address both of these needs. Chris Topp and Sang-Joon Lee are both developing methods to quantify traits not previous amenable to phenotyping. The former will discuss ways of quantifying root architecture under both lab and field conditions, while the latter will tell us about a method for quantifying the rate water flows through individual xylem vessels within plants. Finally, we will hear from Lie Tang, who will address the need for high throughput, high accuracy phenotyping technologies by telling us about some of his group's work collecting phenotypes using computer vision technology.