

NPF proteins are part of protein regulatory network involved in hormone-dependent nutrient sensing
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Members of the plant NITRATE TRANSPORTER 1/PEPTIDE TRANSPORTER (NRT1/PTR) family (NPF) display protein sequence homology with the SLC15/PepT/PTR/POT family of peptide transporters in animals. Compared to their animal and bacterial counterparts, these plant proteins transport a wide variety of substrates: nitrate, peptides, amino acids, dicarboxylates, glucosinolates, IAA, JA, GA and ABA. Using functional screens in heterologous systems, we have identified transporters in this family that are part of protein regulatory network involved in hormone dependent nutrient sensing in Arabidopsis. Other approaches initiated to identify other component of nitrate-hormone crosstalks will be presented.