Title:	Identification and Characterization of Unknwn Iron Deficiency Responsive Genes in Arabidopsis thaliana
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Abstract:	Iron is an essential micronutrient for all organisms as it is involved in many vital processes like respiration, photosynthesis, pathogen defense, chlorophyll biosynthesis, etc. Iron is an essential growth determinant in plants. They acquire this micronutrient maintaining its homeostasis as excess of Iron can be toxic to the growth and development of plants due to its catalytic role in forming hydroxyl radicals. Iron homeostasis is poorly understood, and there are numerous genes involved that have yet to be identified. In this effort, I attempted to identify and analyse two such unknown genes, AT5G05250 and AT1G62420, that may be important in iron homeostasis maintenance. Under iron-deficient conditions, I found that inhibiting AT5G05250 and AT1G62420 inhibits primary root growth. As a result, these genes, along with others with comparable activities, may play a redundant role in the iron deficiency signalling pathway.
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