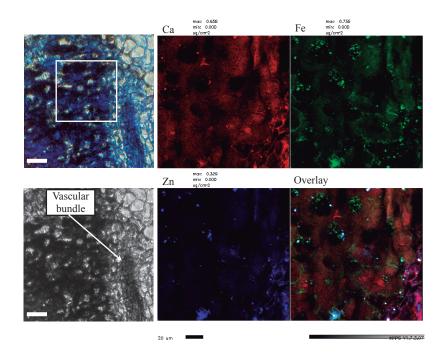
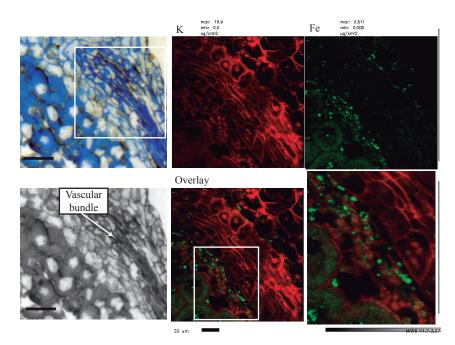


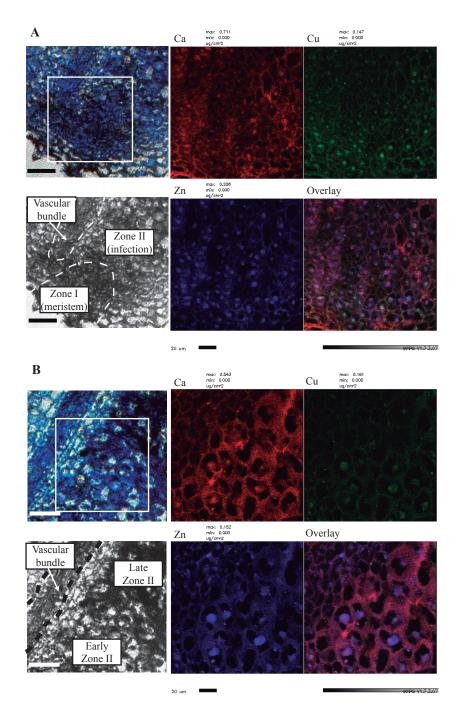
Suppl. Fig. 1. Overview of K, Fe and Zn distribution in a *M. truncatula* nodule. Cross section of nodule stained with toluidine blue (upper left panel) and diagram of the different nodule regions (lower left panel). Scale bars indicate 200  $\mu$ m. The boxed region was analysed by S-XRF at beamline 8-BM-B. Potassium is indicated in red, iron in green and zinc in blue (middle and right squares). Bar indicates 200  $\mu$ m.



Suppl. Fig. 2. Ca, Fe and Zn distribution in early zone III of *M. truncatula* nodule. Cross section of nodule stained with toluidine blue (upper left panel) and diagram of the different nodule regions (lower left panel). Scale bars indicate 50  $\mu$ m. The boxed region was analysed by S-XRF at beamline 2-ID-E. Calcium is indicated in red, iron in green and zinc in blue (middle and right panels). Scale bar indicates 20  $\mu$ m.



Suppl. Fig. 3. K and Fe distribution in zone III of *M. truncatula* nodule. Cross section of nodule stained with toluidine blue (upper left panel) and diagram of the different nodule regions (lower left panel). Scale bars indicate 50  $\mu$ m. The boxed region was analysed by S-XRF at beamline 2-ID-E. Potasium is indicated in red and iron in green (upper middle and right panels). The lower right panel is a detail of the overlay composition panel to its left. Scale bar indicates 20  $\mu$ m.



Suppl. Fig. 4. (A) Ca, Cu and Zn distribution in zone I and early zone II and late zone II (B) of *M. truncatula* nodule. Cross section of nodule stained with toluidine blue (upper left panels) and diagram of the different nodule regions (lower left panels). Scale bars indicate 50  $\mu$ m. The boxed region was analysed by S-XRF at beamline 2-ID-E. Calcium is indicated in red, copper in green and zinc in blue (middle and right panels). Scale bar indicates 20  $\mu$ m