

FIGURE S1:

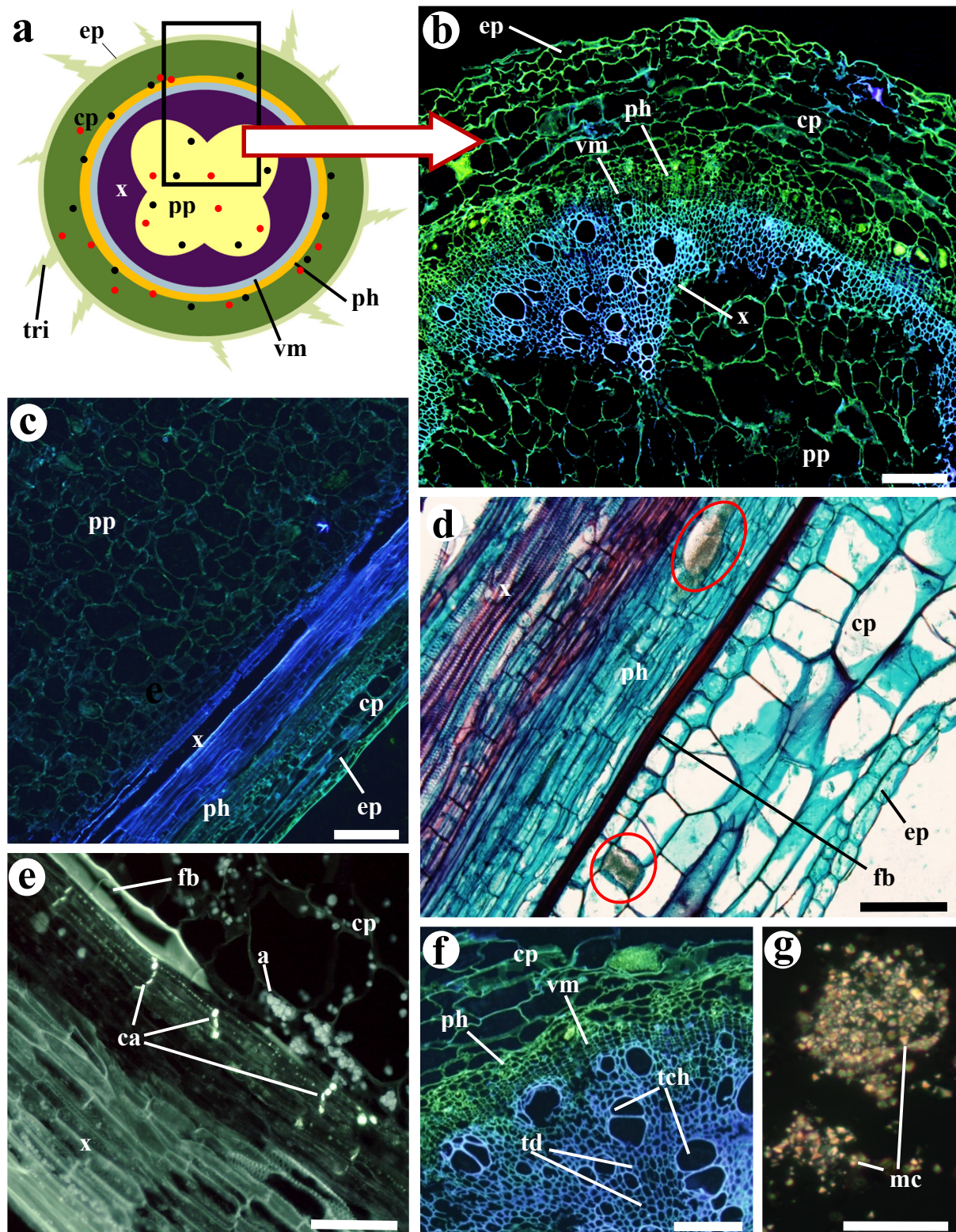


Figure S1. Histology of tomato stem, below the cotyledon leaves, one month after sowing. (a) Scheme of transversal section of tomato stem. (b) Transversal section of tomato stem, observe the next distribution from the inside to the outside: pith parenchyma (pp), xylem (x), vascular meristem (vm), phloem (ph), cortical parenchyma (cp) and epidermis (ep). Note the vascular ring. (c, d, e) Longitudinal sections of tomato stems. Note in (c) the typical colour of xylem conducting cells under UV-2 excitation, in (d) the crystalline inclusions remarked by red circles, in (d,e) a phloem fiber (fb) and in (e) the callose (ca) of phloem sieve plates and a group of amyloplasts (a). (f) Detail image of vascular tissue, observe the difference between tracheal cells (tch) and tracheid cells (td). (g) Detail of microcrystals (mc), observe the small size of each one. (d) Safranin-fast green. (e) Sirofluor. (b,c,e,f) Epifluorescence microscope. (d) Bright field microscope. (g) Polarisation microscope. a, amyloplast; ca, callose; cp, cortical parenchyma; ep, epidermis; fb, fiber; mc, microcrystals; ph, phloem; pp, pith parenchyma; tch, trachea; td, tracheid; tri, trichome; vm, vascular meristem; x, xylem. Scale bars: b,c,f = 200 μ m; d,e,g = 100 μ m.

FIGURE S2:

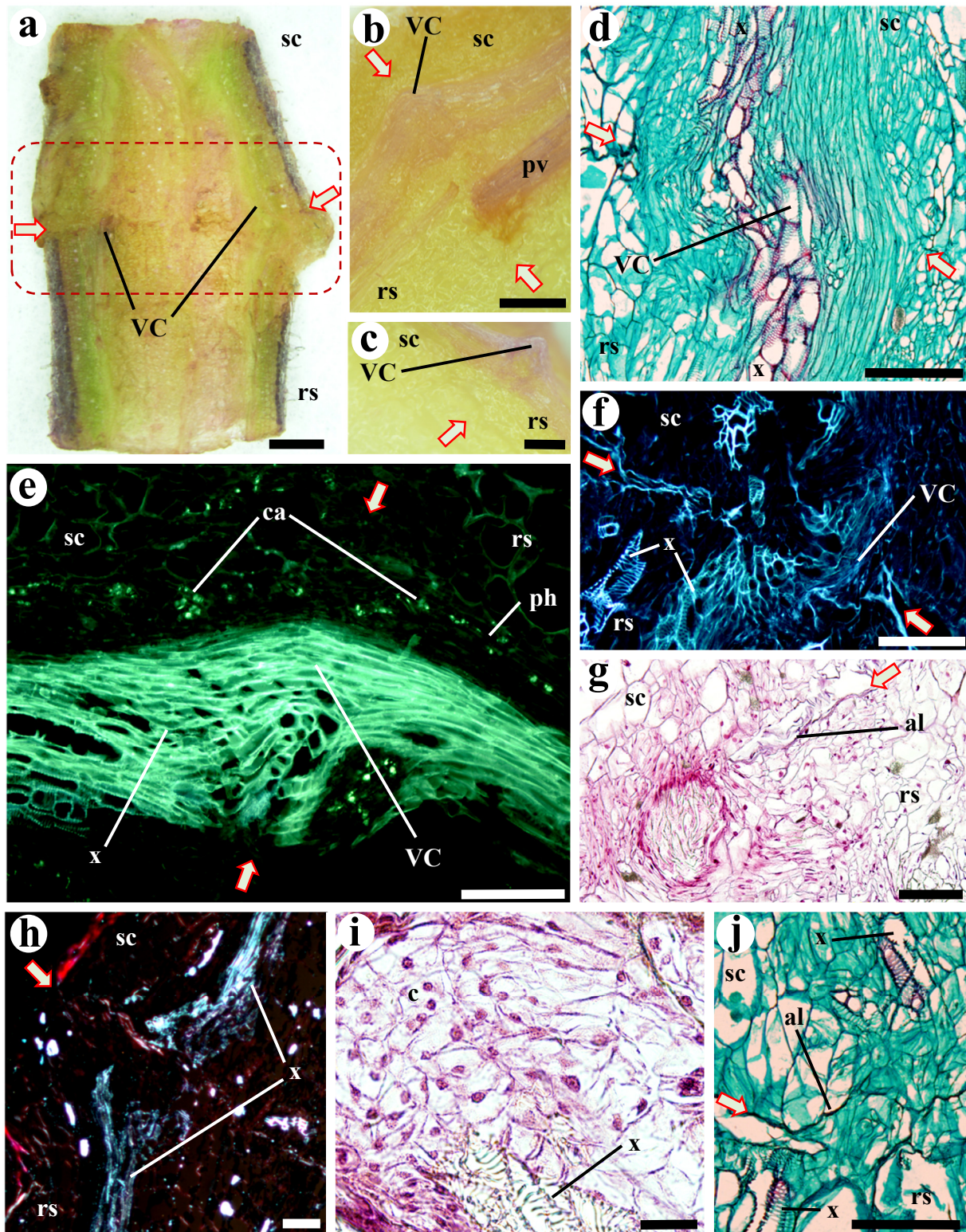


Figure S2. Histology of a functional tomato graft union 10 DAG. (a) Graft longitudinal section, note the adhesion between scion and rootstock and the consolidated vascular connections (VC) (b,c) Details of graft longitudinal section, observe the vascular connections (VC) between scion and rootstock and the pre-existing vasculature (pv) without connection. (d) Longitudinal section of vascular connection (VC), note how xylem (x) is continuous between scion and rootstock. (e) Longitudinal section of vascular connection (VC), observe especially how phloem (ph), distinguished by callose (ca) marking, is continuous. (f) Detail of vascular connection (VC). (g) Junction zone of graft union, note the adhesion line (al) between scion and rootstock. (h) Longitudinal section of graft union, birefringent structures are xylem cells, microcrystals and amyloplasts. (i) Callus cells (c) of graft union. (j) Detail of union zone, note the adhesion line (al) between graft parts. (d,j) Safranin-fast green. (e,f) Sirofluor. (g,i) Haematoxylin-eosin. (d,g,i,j) Bright field microscope. (e,f) Epifluorescence microscope. (h) Polarisation microscope. White arrows indicate the graft junction. *al*, adhesion line; *c*, callus cells; *ca*, callose; *ph*, phloem; *pv*, pre-existing vasculature; *rs*, rootstock; *sc*, scion; *VC*, vascular connections; *x*, xylem. Scale bars: a,b,c = 1 mm; d,e = 200 µm; f-h,j = 100 µm; i = 50 µm.