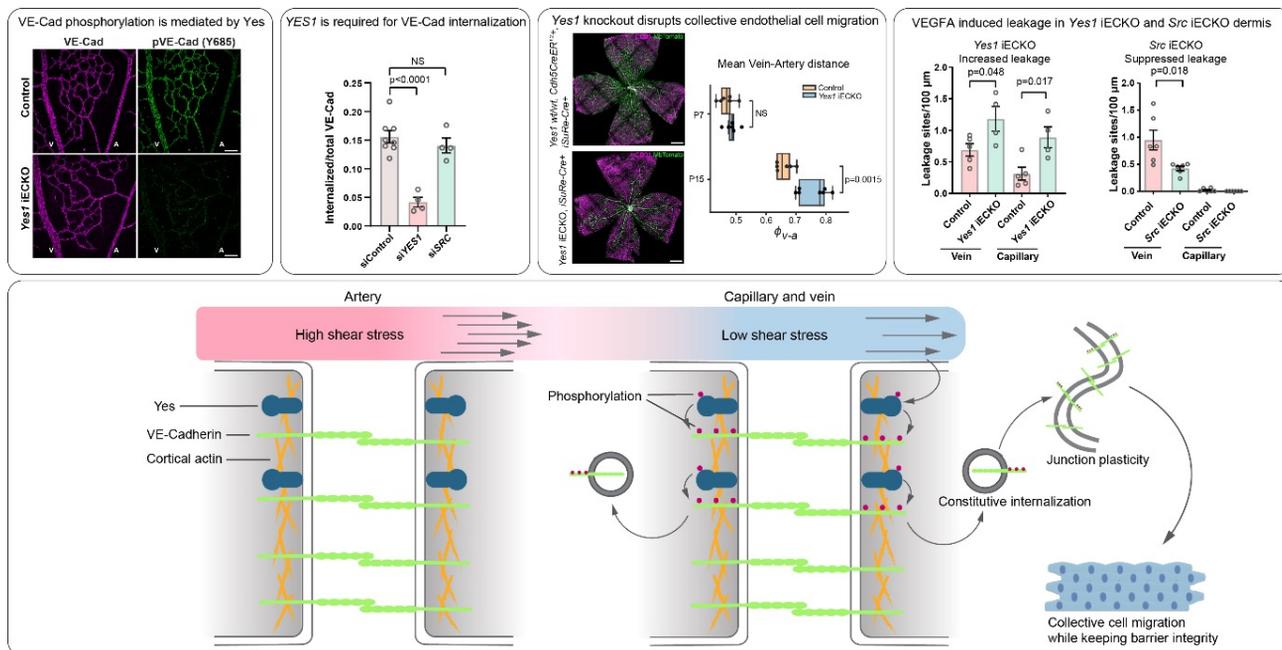


## Tyrosine-protein kinase Yes controls endothelial junctional plasticity and barrier integrity by regulating VE-cadherin phosphorylation and endocytosis.

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### Key findings:

- The Src-related Yes tyrosine kinase, is localized at endothelial cell (EC) junctions where it becomes activated in a flow-dependent manner.
- EC-specific Yes1 deletion suppresses VE-cadherin phosphorylation and arrests VE-cadherin at EC junctions. This is accompanied by loss of EC collective migration and exaggerated agonist-induced macromolecular leakage.
- In EC-specific Src-deficiency, VE-cadherin internalization is maintained and leakage is suppressed, showing that Src and Yes have opposite roles in the regulation of vascular barrier.
- These results show that Yes-mediated phosphorylation regulates constitutive VE-cadherin turnover, thereby maintaining endothelial junction plasticity and vascular integrity.