

Speaker: Stefania Giacomello, KTH Royal Institute of Technology/SciLife Lab

Talk Title: Host and host-pathogen transcriptomic studies at the spatial level

Abstract: Stefania Giacomello will present their latest technology developments to study host-pathogen interactions at the spatial level and give an overview of their efforts in mapping the spatiotemporal dynamics of the reproductive development of Norway spruce cones.

Key publications:

1. Spatial metatranscriptomics resolves host-bacteria-fungi interactomes. Saarenpää S, Shalev O, Ashkenazy H, Carlos V, Lundberg DS, Weigel D, Giacomello S. *Nat Biotechnol.* 2023 Nov 20. doi: 10.1038/s41587-023-01979-2. Online ahead of print. PMID: 37985875
2. Dual spatially resolved transcriptomics for human host-pathogen colocalization studies in FFPE tissue sections. Sounart H, Lázár E, Masarapu Y, Wu J, Várkonyi T, Glasz T, Kiss A, Borgström E, Hill A, Rezene S, Gupta S, Jurek A, Niesnerová A, Druid H, Bergmann O, Giacomello S. *Genome Biol.* 2023 Oct 19;24(1):237. doi: 10.1186/s13059-023-03080-y. PMID: 37858234
3. Miniature spatial transcriptomics for studying parasite-endosymbiont relationships at the micro scale. Sounart H, Voronin D, Masarapu Y, Chung M, Saarenpää S, Ghedin E, Giacomello S. *Nat Commun.* 2023 Oct 14;14(1):6500. doi: 10.1038/s41467-023-42237-y. PMID: 37838705
4. Spatially resolved transcriptome profiling in model plant species. Giacomello S, Salmén F, Terebieniec BK, Vickovic S, Navarro JF, Alexeyenko A, Reimegård J, McKee LS, Mannapperuma C, Bulone V, Ståhl PL, Sundström JF, Street NR, Lundeberg J. *Nat Plants.* 2017 May 8;3:17061. doi: 10.1038/nplants.2017.61. PMID: 28481330