My long-term research interest is to unravel the genetic and molecular control of reproductive development and shoot and inflorescence architecture of barley in response to environmental variation (abiotic stresses). My research group has detected and characterised major regulators of reproductive development in response to photoperiod, temperature and drought using quantitative genetics and Next-Generation-Sequencing (NGS) based methods in natural and mutant barley populations. In particular, we have used the annual wild barley (Hordeum vulgare spontaneum), the progenitor of cultivated barley, for the identification of novel genes and alleles controlling development and stress adaptation.