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SOOLGLE: A WEB SEARCH ENGINE FOR COMPARATIVE GENOMICS IN *SOLANACEAE*

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Tomato (*Solanum lycopersicon*) and potato (*S. tuberosum*) genomes are currently being sequenced.

Much effort has been invested to sequence ESTs from these solanaceaus species and to identify unigenes. As a consequence, large collections of ESTs are world-wide available because of the wide interest for berry production (tomato) and for tuber (potato) with regards to cultivation for food consumption.

The EST survey of tomato as well as of potato transcriptomes, combined with the knowledge gained from the Arabidopsis genome sequence, can be used to perform large scale analysis and facilitate comparative functional genomics.

In order to achieve this task, we applied an Arabidopsis-based gene and gene family annotation of both the solanaceous transcriptomes and set up a web based search engine to provide the information to the whole interested community.

The results of the analysis can be explored via the *Soolgle* web search engine available at http://biosrv.cab.unina.it/soolgle.

Soolgle provides a quick route to decipher the function of tomato and potato protein transcripts and to identify ortholog sequences among Solanaceae and Brassicaceae plant species. It integrates information from several other databases including TAIR, TIGR, MATDB, NCBI RefSeq. In addition, cross-references to the *in-house* developed databases TomatEST, PotatEST and the *S. lycopersicum* Genome Browser are included.