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Agrobacterium goes live on the web

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Agrobacterium tumefaciens is a pathogenic bacterium capable of inserting small pieces of genetic material into the genome of the plant or animal cell that it colonizes. This property makes Agrobacterium a very useful tool for injecting manipulated genetic material into cells. On August 21, Rajinder Kaul and co-workers at the University of Washington School of Medicine, in collaboration with colleagues from DuPont and the University of Campinas in Brazil released on the worldwide web the complete sequence of the Agrobacterium tumefaciensstrain C58.

They report that the *A. tumefaciens* genome contains a total of more than 5.67 million base pairs. The sequence for each of the C58 replicons is presented, and with the exception of a few small scattered low-quality regions, Southern blot analysis suggests that all these sequences are complete.

They caution that this is still a work in progress, and annotation is not yet available, but they pledge to publish a manuscript describing these results by the end of 2001.

A greater understanding of the *Agrobacterium* genome may help to develop more efficient tools for genetically engineering crops that are more nutritious, less allergenic and with improved disease-resistance

From a broader perspective, the investigators describe their work "as a part of an ongoing second green revolution in agriculture". They say, "this revolution holds the promise of meeting the needs of an increasing world population - at a time when water, agricultural land, and forests are becoming increasingly scarce".

References

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