Plantastic Discoveries

What is a

"natural GMO"?

And what does Prof. Marc Van Montagu have to do with it?



The term "natural GMO" is not used in scientific discourse!

However, it can be used to describe organisms that experience genetic modifications through natural processes - like horizontal gene transfer.

Van Montagu, Jeff Schell and Mary-Dell Chilton

have discovered

how Agrobacterium tumefaciens transfers some of

its genome into a plant, infecting it with a disease.





so important?



*Please note that the graphics are simplified and not proportional, for precise information about the process read the papers provided on the last page



Key finding:

A. tumefaciens is a natural vector ("transporter") of genes! Based on that, the scientists developed methods for **introducing beneficial foreign genes into plants**.



resistance, stress tolerance, improved nutritional content, ...



These findings paved the way for the development of genetically modified crops.

The agrobacterium-mediated gene transfer method has since been instrumental in enhancing many crops:



Ringspot virus resistant papaya





Insect resistant eggplant

Pest resistant cotton

.... and many more

