

=== ORAL PRESENTATION ABSTRACTS ===

Significant Stages in the Evolution of Plant Biotechnology Research in Romania

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Biotechnology is a horizontal domain spread today in almost all others sciences. Even from the beginning of our civilization, humankind accessed biotechnology based on traditional knowledge bringing up today old wine beer or yogurt technologies the major steps in the evolution of this domain took place in the last century. Accessing life either as cells, organisms or part of them or even products of living organisms was part of the classical biotechnology. Today, accessing modelling in living forms and transferring them in new products and services may create nano-technologies. Changing the DNA of the cells will ground modern biotechnology with all implications in our daily life. Romania, is positioned in Central - East Europe and due to political climate it was not an important part in the green revolution that starts late in 1960 in Pakistan. Still, we mention that Andronescu was the first agronomist working in the USA and developing in 1928 the first collection of maize germ plasm following the model already started all over the world after the publication in 1916 of Nikolai Vavilov regarding the theory of centres of origin of species. Over 3000 accession have been developed in the Institute for Agronomy Bucharest being the very first catalyst for maize breeding for our country. Still, due to the Second World War it was almost everything lost and starting later a new strategy for research in the domain. However, the new scientific community lost their connection at the global level and creates delays in further developing these domains. Thus, if during these very years tremendous work have been done in the plant cell culture, only after other 30 years starts (during 1980) starts in Romania the study of plant biotechnology, and reconnecting the scientific world to the global

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level. A tremendous contribution to this recovery process is due to prof. Dorina Cachiță Cosma from University of Cluj and other collaborators from Bucharest. Only in 20 years the evolution of plant biotechnology was really important in our country, scientists reconnecting themselves to the world. Protoplast cultivation, plant cells cultivation from many species, micropropagation, developing germ plasm collection of the country, the breeding of new hybrids or cultivars in all species of food security interest was only part of this process. We may mention here successful results in plant cell physiology, electron-microscopy, electroporation and other new technology all together connected for grounding the essence of biotechnology in Romania. Also, during 1970 it was registered the first transformations in bacteria and later on during 1990 the first genetically modified plants based on in vitro culture and using bacterial vectors. Since 2000 in Romania nano-technologies are occupying an impressive range in research projects with different implications. We are optimistic that the scientific research in Romania will continue to evolve and to become part of the world culture heritage.