

=== ORAL PRESENTATION ABSTRACTS ===

Plant Stem Cells – Theoretical and Practical Studies

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In modern biology the theoretical studies on plant cell totipotency has led first to the birth of plant biotechnology and second, more recently to meristemotherapy or gemmotherapy, which interconnects with animal or human cell stem therapies, a very recent field in modern medicine.

In 1994 the Italian author Fernando Piterá, has published „Compendio di gemmoterapia clinica (Meristemoterapia)”, where it is first mentioned the term of meristemotherapy as the use of germs, buds and very young shoots as a treatment because they contain meristems the cells maintained by the plants for their continuous growth.

At global level, but in our country as well, meristemotherapy based on plant stem cells or meristematic cells made up the medical treatments or modern cosmetics, treatments that evolve fast as it does the therapeutic use of animal stem cells.

In the literature there are no data on the use of in vitro plant cells or meristems as resources for meristemotherapy, although the plant biomass which can be obtain in bioreactors in vitro might be a very good source for obtaining fitotherapeutic products. Moreover, if such techniques will be applied the efficiency and profitability might be greatly improved, the production could be extended all year long, the technological flux becoming independent of the season in the temperate zones.

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