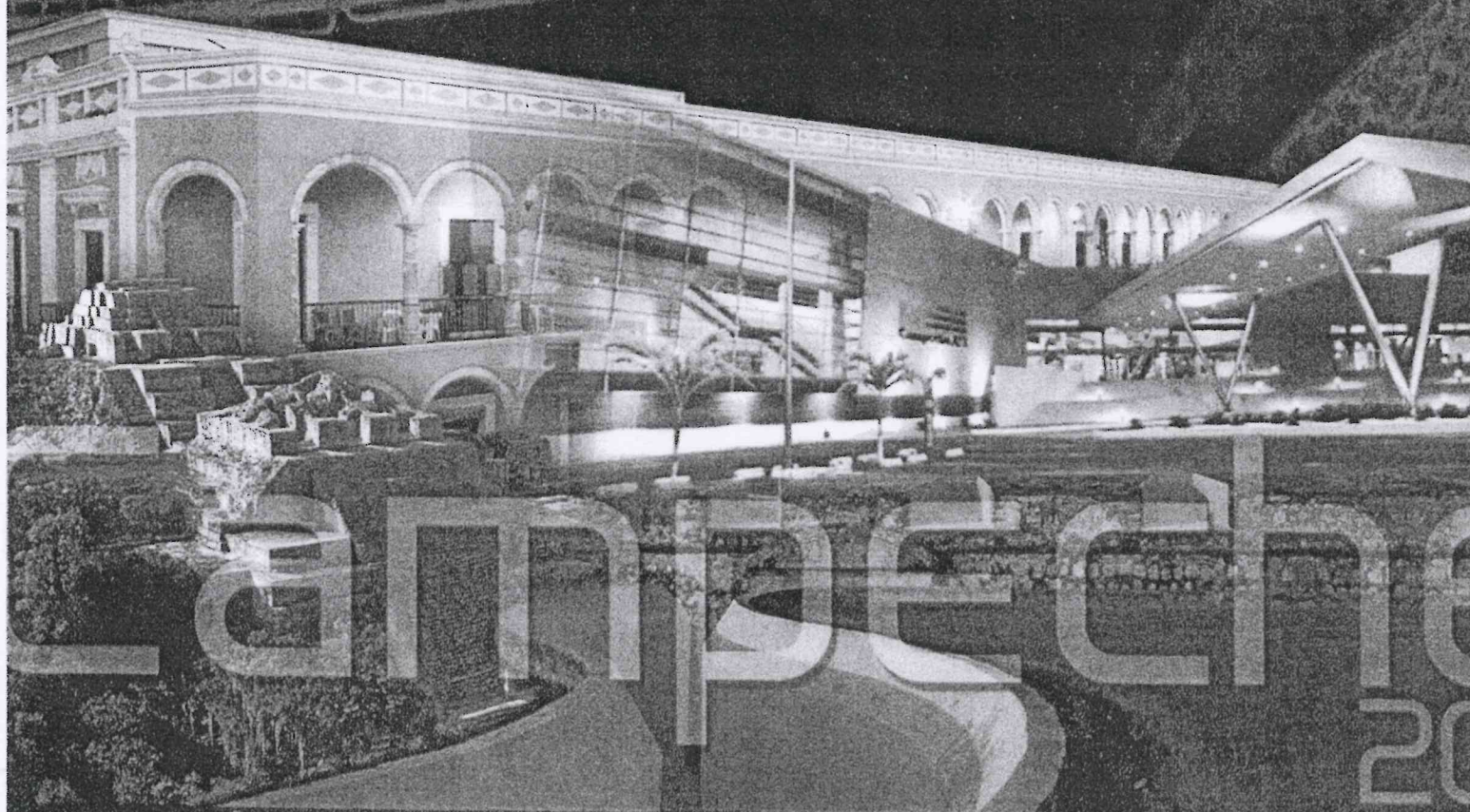


# XIV NATIONAL CONGRESS OF BIOCHEMISTRY

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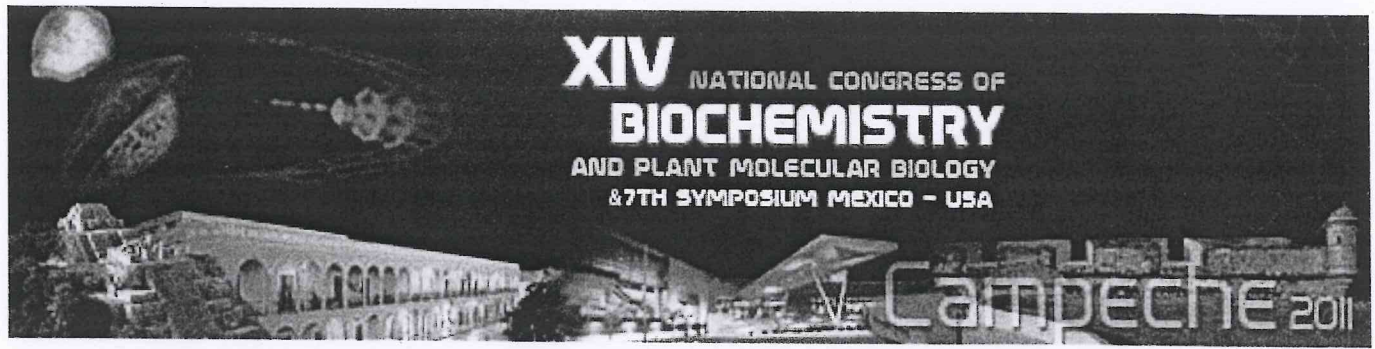
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## Establishment of an *in vitro* culture system for resurrection plants of *Selaginella* genera

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Several *Selaginella* plant species are characterized by a high degree of desiccation tolerance, as well as being indicators of stability and variability in an ecosystem. Despite of being ideal plant models to identify genes involved in desiccation tolerance, so far there are not reports in literature regarding to the development of an *in vitro* culture system for any species from this genera. With the aim to address this problem, in this work we evaluated different conditions to obtain axenic *in vitro* systems for two resurrection *Selaginella* Mexican species: *Selaginella lepidophylla* and *Selaginella sartorii*. These species were selected on the basis of their clear desiccation tolerance phenotypes. We tested several agents (NaDCC, ethanol, triton, tween, sodium hypochloride, PPM, etc.) using different concentrations and exposition for several periods of time. For culture, solid MS media added with or without PPM was used. Another variable under study was the source of explants. During the course of experiments, we evaluated contamination appearance, and the generation of new green and root tissues. The best protocols were corroborated for reproducibility. Finally we obtained specific protocols for each *Selaginella* species, which will be very useful for strict and deeper phenotypic, physiological and molecular studies of this kind of plants in response to any stimuli and even genetic transformation. Authors thank SIP-IPN and CONACYT for funding.