



EDITORIAL

The main mission of SPMicros has always been to provide its members with a readily accessible way of interacting with their colleagues and to achieve a high level of discussion and publication of their research. This is implemented in a complementary way by National and International Congresses and Seminars and by the publication of the work in top ranked journals in the field such as “Microscopy and Microanalysis”.

We are very happy to announce that the Congress of the Portuguese Society for Microscopy – Microscopy in Research - held in Monte da Caparica at December 9 and 10, 2013, raised a wide interest not only in the Life and Materials Sciences that usually constitute our meetings, but also in new areas like Archeology, Conservation and Restoration that are now contributing to a significant number of communications. Some of abstracts incorporated are from communications made at the joint Iberian meeting “Microscopy at the Fronteers of Science 2013 held at Tarragona, 17-20 September 2013. We welcome all the new participants and members of the Society that choose to remain with us and take part in our activities.

It is apparent from the communications submitted to these Congresses that there is a renewed interest in microscopy in several areas of research and that its role “as the eyes of the researcher”, which has been unduly neglected during some years, is again being recognized as an essential aspect of scientific endeavor.

A. P. Alves de Matos
President of SPMicros (2012-2013)

Introduction to the SPMicros Special Issue from the XLVII Annual Congress

António Pedro Alves de Matos

SPMicros has promoted 47 Annual Congresses and participated in several other initiatives such as regional courses and seminars during its activities that began in 1966. The main mission of SPMicros has always been to provide its members with an accessible way of interacting with their colleagues and achieving a high level of discussion and publication of their research. This is brought about in a complementary way by National and International Congresses and Seminars and by the publication of their work in top ranked journals in the field such as “Microscopy and Microanalysis”. We are very happy to realize that this XLVII Congress of the Portuguese Society for Microscopy “Microscopy in Research” has raised a wide interest not only in Life and Materials Science that usually constitute our meetings, but also in new areas like Archeology, Conservation and Restoration that are now featured in a significant number of communications. This volume illustrates a selection of papers from the XLVII Congress demonstrating the diversity of fields that are increasingly interested in Microscopy methods among the Portuguese research community. It is apparent from the communications submitted to this Congress that the role of microscopy as “the eyes of the researcher” is again being recognized as an essential aspect of scientific endeavor.

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- 2 *3D Volume rendering of invertebrates using Light-Sheet Fluorescence Microscopy*; E.J. Gualda and N. Moreno
- 4 *Micro-scale elemental partition in brain structures of the fish *Liza aurata**; Godinho, R.M., Pereira, P., Raimundo, J., Pacheco, and M., Pinheiro, T.
- 6 *Fine structure comparison of eggshell from *Lucilia sericata* and *Calliphora vicina*, Calliphoridae with forensic importance*; Centeio, N., Farinha, A., Dourado, C.G., Oliveira, A.R., Dias, D. and Rebelo, M.T.
- 8 *Morphology and distribution of antennal sensilla in a mealybug parasitoid, *Anagyrus sp. near pseudococci* (Hymenoptera, encyrtidae)*; Fortuna, T.M., Franco, J.C. and Rebelo, M.T.
- 10 *Light and electron microscopy study of the digestive system in the *Euopisthobranchia* (Mollusca, Gastropoda)*; Lobo-da-Cunha, A., Oliveira, E., Alves, A. and Calado, G.
- 12 *Microanatomical alterations in the gut of an marine polychaete (*Eulalia viridis*, Errantia: Phyllodocidae) during the digestive process*; A.P. Rodrigo, M.H. Costa, P.M. Costa
- 14 *Ultrastructural and histochemical study of the digestive gland in cephalaspideans (Mollusca, *Euopisthobranchia*)*; Lobo-da-Cunha, A., Oliveira, E., Alves, A. and Calado, G.
- 16 *Compromised development of flatfish (*Solea senegalensis*) larvae under ocean warming and acidification*; Pimentel, M.S., Faleiro, F., Machado, J., Rosa, R.
- 18 *Effects of exposure to oxide nanoparticles (Al_2O_3 and ZnO) singly and mixtures on *Carassius auratus* gills*; M. Benavides, P. Coelho, C. Lodeiro, M.S. Diniz
- 20 *Distribution and partitioning of trace element in the cellular compartments of marine phytoplankton exposed to metals*; Godinho, R.M., Cabrita, T., Alves, L., Pinheiro, T.
- 22 *Characterisation of bioactive protein-bound polysaccharides from *Amanita ponderosa* cultures*; Salvador, C., Martins, M.R., Arteiro, J.M., Caldeira, A.T.
- 24 *An ultrastructural study of ejaculated spermatozoa from three patients presenting total sperm immotility*; Sousa, M., Gouveia, M., Ferraz, L., Barros, A., Oliveira, E., Alves, A., Sá, R.
- 26 *DYT1 dystonia-associated mutant affects cytoskeletal dynamics*; Santos, M., Rebelo, S., da Cruz e Silva, E. F., da Cruz e Silva, O. A. B.
- 28 *Olfactory mucosa stem cells differentiate into neuron-like cells*; Sacramento, S, Rebelo, S and da Cruz e Silva, O. A. B
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- 32 *Ocean acidification promotes cellular burst on photosynthetic (kleptoplactic) sea slugs*; Dionísio, G., Cruz, S., Serôdio, J., Calado, R., Rosa, R.

- 34 *The effect of A β and PKC on actin network remodeling*; Henriques, A. G., Carvalho, L. P., Oliveira, J. M. and da Cruz e Silva, O. A. B.
- 36 *APP and its secreted fragment sAPP in SH-SY5Y neuronal-like migration*; Pinho, A.C., Dias, R., Cerqueira, A.R., da Cruz e Silva, O.A.B., Vieira, S.I.
- 38 *Bacterial biofilms, antibiotic resistance and healthcare-associated infections: a dangerous connection*; Bandeira, M., Carvalho, P.A., Duarte, A. and Jordao, L.
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