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By using nanomedicine strategies APPêgo's group - nanoBiomaterials for Targeted Therapies (nBTT) - aims at providing *in situ* and in a targeted manner the required signals to promote nervous tissue regeneration. The research on new biomaterials for application in neurosciences includes the development of new polymers/nanostructures for the design of alternative vectors to viruses for efficient nucleic acid delivery in the context of neurological diseases and peripheral neuropathies, as well as the preparation of nerve grafts for spinal cord injury treatment. Emphasis is given to the application of *in silico*, *in vitro* (2D and 3D surfaces, microfluidics, advanced microscopy) and *in vivo* (animal models) tools to assess the safety and the potential of the new proposed therapeutic strategies.

She is the Scientific Director of the Bioimaging Centre for Biomaterials and Regenerative Therapies of INEB and Invited Associate Professor at ICBAS and FEUP.