

Carol Murphy has worked at IMBB-BR since 2001. She has a B.Sc. and PhD from University College Dublin. She worked as a post-doctoral fellow at the EMBL in the lab of Marino Zerial, a pioneer in endocytic membrane trafficking, leading to major advances in the field of trafficking. She has experience in the role of small GTPases of the RAB and RHO families in membrane trafficking, and has been a leading participant in several EU funded programs including the FP6 ENDOTRACK grant with leaders in the field of membrane trafficking and signaling including Marino Zerial, Harald Stenmark, John Heath, and others. CM has published 40 papers and has > 2,300 citations. Between 2015-2017 she was appointed Senior Lecturer in Advanced Biological Imaging in the School of Biosciences, University of Birmingham, UK. During this period she was involved in the Advanced Biomedical Imaging network COMPARE. She has established the "Confocal Microscopy Unit" at the University of Ioannina and IMBB-BR, including super resolution STED and TIRF microscopy. Furthermore, she established a human stem cell facility in IMBB-BR and at the University of Birmingham which carries out basic cell biology and applications in regenerative medicine. In the last 10 years she has investigated the role of the endocytic pathway in growth factor signaling. Her research focuses on elucidating the interconnection between membrane receptor trafficking and signaling output, exemplified by studying the role of TGF $\beta$  family members (TGF $\beta$ , Activin A and BMP4) and VEGF in endothelial cells. She also investigates trafficking and signaling during pluripotency and differentiation using human embryonic stem cells and human induced pluripotent stem cells and is interested in the role of endocytic trafficking during stem cell differentiation. Finally, she uses human embryonic stem cells, human induced pluripotent stem cells and mature primary endothelial cells for translational targets related to tumour angiogenesis and regenerative medicine.