**Analyzing intra- and extracellular expression and function of NM23 (NME) homologs in metastatic processes of breast cancer**

During the last 6 months we established MDA-MB231T cell lines transfected by FLAG::NM23-H1, MYC::NM23-H2 and the control vector. Next, the overexpression of the appropriate fusion proteins was tested in these cell lines by Western blotting using antibodies specific for the TAGs and NM23-H1. At the moment, supernatants of the above mentioned cell lines are analyzed for the presence of the tagged NM23 homologs, in addition different vesicular fractions are separated and isolated for the same reason. Metabolic characterization of the original MDA-MB231 cell line was elaborated: we detected increased glycolytic activity and decreased, minimal capacity of the TCA cycle coupled with oncometabolite 2-hydroxyglutarate (2-HG) production. MDA-MB231 xenografts were generated in SCID mice: tissue and serum samples of these mice will be further examined (analysis of NM23 expression using different techniques, furthermore examining metastasis models will be also possible).