

Peter Friedl



Peter Friedl, M.D., Ph.D., was born and raised in Germany, received his M.D. degree from the University of Bochum in 1992 and the Ph.D. degree from the McGill University, Montreal in 1996. Since 2007 he has been directing the Microscopical Imaging Centre of the Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands and since 2011 holds a joint-faculty position at the University of Texas MD Anderson Cancer Center, Houston, TX. His research interest is the mechanisms and plasticity of cell migration in immune regulation and cancer metastasis, with emphasis on cell-matrix adhesion, pericellular proteolysis and cell-cell communication during migration. His laboratory identified pathways determining diversity and plasticity of cell migration, collective cancer cell invasion, and the contribution of migration

pathways to immune defence and cancer resistance. His research activities aim to identify the mechanisms of immune cell and cancer cell migration, with emphasis on routes, plasticity and outcome of migration in physiological (immune cell migration) and pathological context (cancer invasion and metastasis). Specific mechanisms of interest include the function of cell adhesion receptors (integrins, surface glycans), cell surface proteases (MMPs, MT-MMPs), microenvironmental signals (tissue microanatomy, hypoxia, nutrient deprivation), and their impact on cancer invasion and metastasis, tissue destruction, and anti-tumor immune defense. Current basic themes include the cellular, molecular and physical plasticity of cell migration in leukocytes and cancer cells in vitro and in vivo, to combine intravital imaging of tissue microenvironments and preclinical anti-cancer therapy