# Mechanisms of Ewing sarcoma metastasis : biochemistry and biophysics

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# Publications

1. "CXCR4 signaling is controlled by immobilization at the plasma membrane"
   E. Beletkaia, S.F. Fenz, W. Pomp, E.B. Snaar-Jagalska, P.W.C. Hogendoorn, T. Schmidt
   *under review at BBA - Molecular cell research*

2. "The mechanical phenotype of Ewing sarcoma cell lines predicts their metastatic niche"
   E. Beletkaia, O. Iendaltseva, H.E. Balcioglu, P.C.W. Hogendoorn, E.H.J. Danen, T. Schmidt
   *in preparation*

3. "CXCR4-CXCL12 axis is conserved between zebrafish and humans and drives breast cancer micrometastasis formation in a zebrafish xenograft model"
   C. Tulotta, C. Stefanescu, E. Beletkaia, J. Busmann, T. Schmidt, B.E. Snaar-Jagalska
   *in preparation*

4. "Novel splice variants of CXCR4 identified by transcriptome sequencing"
   L.G. Sand, A.G. Jochemsen, E. Beletkaia, T. Schmidt, P.C.W. Hogendoorn, K. Szuhai
   *Biochem. Biophys. Res. Commun.*, **466** (1), 89-94 (2015)

5. "Subcellular trafficking and transfection efficacy of polyethylenimine-polyethylene glycol polyplex nanoparticles with a ligand to melanocortin receptor-1."
   M. Durymanov, E. Beletkaia, A. Ulasov, Y. Khramtsov, G. Trusov, N. Rodichenko, T. Slastnikova, T. Vinogradova, N. Uspenskaya, E. Kopantsev, A. Rosenkranz, E. Sverdlov, A. Sobolev
   *J. Control Release*, **163** (2), 211-9 (2012)

6. "Investigation of transport and unpacking mechanisms of polyplexes for transfection efficiency on different cell lines"
   G. Trusov, A. Ulasov, E. Beletkaia, Y. Khramtsov, M. Durymanov, A. Rosenkranz, E. Sverdlov, A. Sobolev
   *Dokl. Biochem. Biophys.*, **437** (1), 77 (2011)

# Curriculum vitae

Elena Beleţkaia was born on May 4, 1989 in Chisinau, Moldova. She did her undergraduate studies at the Lomonosov Moscow State University (MSU) specializing in biophysics. She performed her pre-diploma and diploma projects in the Laboratory of Molecular Genetics at the Institute of Gene Biology under supervision of Prof. dr. A.S. Sobolev. During her diploma project she investigated physico-chemical properties of the polyethilenimine-based polyplexes and intracellular trafficking of polyplexes in different types of cells. In 2011 Elena successfully finished her diploma project and graduated from the MSU with a diploma with honors.

In September 2011 Elena Beleţkaia joined the group of Prof. dr. T. Schmidt as a PhD student. During her PhD research she focused on studying molecular mechanisms of various processes underlying metastasis of Ewing sarcoma. She presented results of her work at various international conferences in the USA, France, Germany, Austria, and the Netherlands. Through the time of her PhD Elena guided students during practical courses and during a bachelor project.

As her next step, Elena will join the group of Dr. D. Heinrich at Leiden University as a postdoctoral fellow.