In 50% of all cases, bladder cancer patients develop tumor progression despite modern surgical methods such as radical cystectomy. A solution to the problem might be the identification and understanding of molecular biomarkers which could result in the development of advanced methods with better preventive, diagnostic, and therapeutic potential. One suitable approach is the identification of a bladder cancer-specific molecular marker in order to enhance patients' outcome. We and others have identified EMMPRIN as a prognostic biomarker in a variety of tumor diseases. EMMPRIN (CD147, extracellular matrix metalloproteinase inducer) is a cell surface protein that is expressed among other cell types, in particular in tumor cells. Since its first description in 1982 it is established that overexpression of EMMPRIN correlates with tumor progression and patient outcome. EMMPRIN expression levels can be used as an independent prognostic factor for survival. Recently, EMMPRIN has been defined as a potential target for tumor therapy in preclinical studies.