

Electrochemical Screening of Peptides for Targeting
CD13

Sanela Martić^{1*}, Rania Soudy², and Kamaljit Kaur^{2*}

¹Oakland University

Department of Chemistry, Rochester, Michigan, USA,
48309

²University of Alberta

Faculty of Pharmacy and Pharmaceutical Sciences,
Edmonton, Alberta, Canada,
T6G 2N8

Aminopeptidase N (CD13) is one of the molecular markers expressed within tumor cells [1]. The expression of CD13 cancer biomarker makes it an attractive target for chemotherapeutic drug development and diagnostic screening. The peptides containing the Asn-Gly-Arg (NGR) motifs are known to bind CD13 protein expressed in tumor cells and have been used for tumor targeting [2]. We aim to develop an alternative method for screening of the potential NGR-based peptides for CD13. The CD13 protein binding to a series of NGR-based peptides was monitored by electrochemical methods and will be discussed.

[1] Wickstrom, M., Larsson, R., Nygren, P., Gullbo, J. *Cancer Sci.* 2011, 102, 501-508.

[2] a) Pasqualini, R., Koivunen, E., Ruoslahti, E. *J. Biol. Chem.* 1995, 270, 1189-1196. b) Soudy, R., Ahmed, S., Kaur, K. *ACS Comb. Sci.* 2012, 14, 590-599.