

## Timperman Research Group Publications

### Journal Articles

Nunn, B. L.; Timperman, A. T. "Marine Proteomics," *Marine Ecology Progress Series* **2007**, 332, 281-289.

Lim, M. Feng, K., Chen, X.; Wu, N.; Raman, A.; Nightingale, J.; Gawalt, E.; Korakakis, D.; Hornak, L. A. and Timperman, A. T. "Adsorption and Desorption of Stearic Acid Self-assembled Monolayers on Aluminum Oxide," *Langmuir* **2007**, 23, 2444-2452.

Griffith, B.; Walsh, C.; Szeszel-Fedorowicz, W.; Timperman, A. and Salati, L. M. "Identification of hnRNPs K, L and A2/B1 as candidate proteins involved in the nutritional regulation of mRNA splicing," *Biophysica et Biochimica Acta – Gene Structure and Expression*, **2006**, 1759, 552–561.

Razunguzwa, T. T.; Warrier, M.; Timperman, A. T. "An ESI-MS Compatible Permanent Coating of Glass Surfaces Using Polyethylene Glycol Terminated Alkoxysilanes for Capillary Zone Electrophoretic Protein Separations" *Analytical Chemistry* **2006**; 78, 4326-4333.

Razunguzwa, T. T.; Lenke, J.; Timperman, A. T. "A Stable Electrokinetic/Hydrodynamic Flow Microfluidic CE-ESI/MS Interface utilizing a Hydrodynamic Flow Restrictor for Delivery Samples under Low EOF Conditions" *Lab on a Chip* **2005**, 5, 851-855.

Powell, M. J.; Timperman, A. T. "Quantitative Analysis of Protein Recovery from Dilute, Large Volume Samples by Tangential Flow Ultrafiltration" *Journal of Membrane Science* **2005**, 252, 227-236.

Powell, M. J.; Sutton, J. N.; Del Castillo, C. E.; and Timperman, A. T. "Marine Proteomics: Generation of Sequence Tags for Dissolved Proteins in Seawater Using Tandem Mass Spectrometry" *Marine Chemistry* **2005**, 95, 183-198.

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Morris, D. L.; Sutton J. N.; Harper, R. G.; Timperman, A. T. "Reversed Phase HPLC Separation of Human Serum Employing a Novel Saw Tooth Gradient: Toward Multidimensional Proteome Analysis" *Journal of Proteome Research* **2004**, 3, 1149-1154.

Harper, R. G.; Workman, S. R.; Schuetzner, S.; Timperman, A. T.; Sutton, J. N. "Low Molecular Weight Human Serum Proteome Using Ultrafiltration, Isoelectric Focusing and Mass Spectrometry" *Electrophoresis* **2004**, 25, 1299-1306.

Razunguzwa, T.; Timperman, A. T. "Fabrication and Characterization of a Fritless Microfabricated Electroosmotic Pump with Reduced pH Dependence" *Analytical Chemistry* **2004**, 76, 1336-1341

Zhang, Y.; Timperman, A. T. "Integration of Nanocapillary Arrays into Microfluidic Devices for Use as Analyte Concentrators" ***Analyst*** **2003**, *128*, 537-542.

### **Book and Encyclopedia Chapters**

Jo, K. D.; Bhattacharya, S.; Timperman, A. T. "Laser Based Micromachining" in ***Encyclopedia of Microfluidics and Nanofluidics***, Dongqing Li Ed., Springer Verlag, *accepted* 2007.

Kelly, K.; Reschke, B.; and Timperman, A. T. "Interfacing Microchannel Electrophoresis with Electrospray Ionization Mass Spectrometry" in ***Biological Applications of Microfluidics***, F. A. Gomez. Ed., Methods in Molecular Biology, John Wiley & Sons, Inc., *accepted* 2007.

Reschke, B.; Kelly, K.; and Timperman, A. T. "Liquid Chromatography" in ***Encyclopedia of Microfluidics and Nanofluidics***, Dongqing Li Ed., Springer Verlag, *in press* 2006.

Razunguzwa, T.; Timperman, A. T. "Interfacing Microchip Capillary Electrophoresis with Electrospray Ionization Mass Spectrometry" In ***Microchip Capillary Electrophoresis***, Henry, C. S. Ed., Methods in Molecular Biology Series, v. 339, Humana Press, **2006**, 67-83.

Powell, L. M.; Timperman, A. T. "Proteome Analysis" In ***HPLC of Proteins and Peptides***, Aguilar, M.-I. Ed., Methods in Molecular Biology Series, v. 251, Humana Press, **2004**, 387-399.