Abstract
A method suitable for routine clinical analyses of urinary proteins is presented. This method is a two-dimensional electrophoresis procedure, combining cellulose acetate electrophoresis and sodium dodecyl sulfate-polyacrylamide gels electrophoresis followed by silver staining. The resulting two-dimensional electrophoresis opened the protein spectrum and some of the latter were identified, by immunoblotting or MALDI mass spectrometry. There are low molecular weight protein: Orosomucoid (40 kDa), apolipoprotein AI (28 kDa), Zinc-alpha2-glycoprotein (43 kDa), C-terminal perlecan fragment LG3 (23 kDa), lipocalin-type prostaglandin D2 synthase (29 kDa) and inter-alpha-trypsin inhibitor heavy chain H4 (35 kDa). They include studies of acute and chronic kidney injury, renal transplantation, glomerular disease and malignancy of the urogenital tract. This method approaching the emerging proteomic technologies allows simultaneous examination of the patterns of multiple urinary proteins as a powerful non-invasive tool for diagnosis and monitoring of variety of human diseases.

Keywords
Two-dimensional electrophoresis urine, zinc-alpha2-glycoprotein, fragment LG3, prostaglandin D2 synthase, inter-alpha-trypsin inhibitor H4, vascular endothelial.