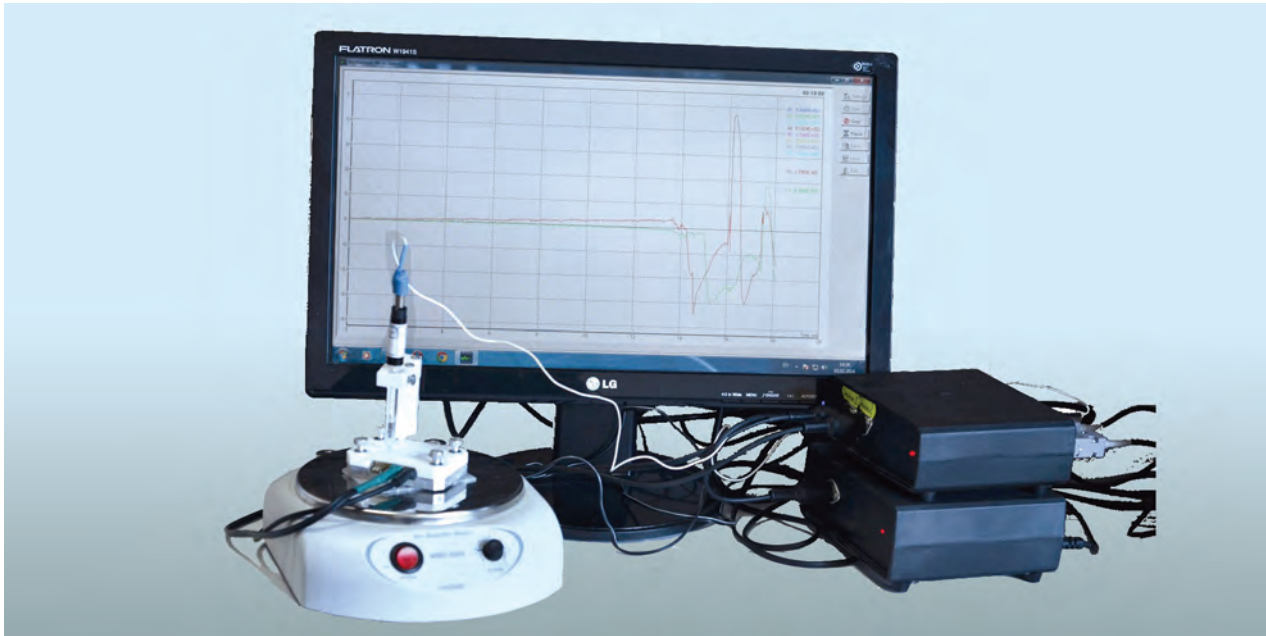


## BIOSENSOR SYSTEM FOR UREA AND CREATININE DETECTION



### Areas of Application

The system is designed to diagnose the kidney function and to control the quality of hemodialysis

### Advantages

Commercial analogs are absent. Unlike the existing methods of creatinine and urea detection, the proposed system does not require any sample pretreatment, is notable for a low laboriousness and a low cost of analysis, has a high sensitivity and selectivity of detection, enables a quick analysis (rapid analysis) and simultaneous determination of both metabolites in real time, at the bedside

### IPR Protection

IPR3

### Specification

| Показник                   | Bioselective element based on |                    |
|----------------------------|-------------------------------|--------------------|
|                            | creatinine deiminase          | recombinant urease |
| Analyte                    | Creatinine                    | Urea               |
| Linear detection range, mM | 0.02–2.0                      | 0.5–20             |
| Operation stability, h     | 8                             | 8                  |
| Storage stability, months  | 5                             | 5                  |
| Time of analysis, min      | 5–7                           | 5–7                |
| Measurement error, %       | ≤5                            | ≤5                 |

### Stage of Development.

Suggestion for Commercialization

IRL6, TRL5

Manufactured, upon request.

Seeking partners for mass production

### Contact Information

Oleksii P. Soldatkin, Institute of Molecular Biology and Genetics of the NAS of Ukraine;  
+38 044 200 03 28, e-mail: a\_soldatkin@yahoo.com