NEW MOLECULAR DIAGNOSTICS OF CANCER
Glycan microchip designed for molecular diagnostics of 4 cancers:

- breast,
- ovarian,
- colorectal,
- mesothelioma

The array consists of 600 ligands – mostly glycans and glycopeptides. Each ligand is represented at 6 replicates for better accuracy. Sensitive fluorescent detection.

**PRODUCT**

Glycan array is a plastic chip (1’ x 3’) where 600 ligands are displayed

**PRINCIPLE OF THE DIAGNOSTICS**

Detection of diagnostic-valuable anti-glycan antibodies in serum/plasma

Diagnostic value - combinations of 8 - 10 antibodies-markers ("signatures"), specific for each disease

Cell membrane

Glycoprotein

Glycolipid

Proteoglycan

Cancer cell

Antibodies
**THE GLYCAN MICROCHIP**

![Diagram of Glycan Microchip]

**Glycan immobilization**

- **Surface active 3D nano-layer**
- **Surface stabilizing nano-barrier addlayer**
- **Plastic support**

**Glycan immobilization**

**Microchip benefits**

- High accuracy due to inclusion of several versions of the same ligand in composition of microchip.
- Multiplexity due to wide range of immobilized ligands;
- Low background and wide dynamic range due to fluorescent detection and newly developed friendly surface architecture;
- Detection of high affinity antibodies which known to have the best Dx value (whereas ELISA detects full range of Abs);
- Low cost enables mass-diagnostics.

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*Images and figures not transcribed.*
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