



**Soft Flow Hungary  
Kutató Fejlesztő Kft.**

*innovation by creativity*

[www.softflow.hu](http://www.softflow.hu)

[www.softflow.com](http://www.softflow.com)

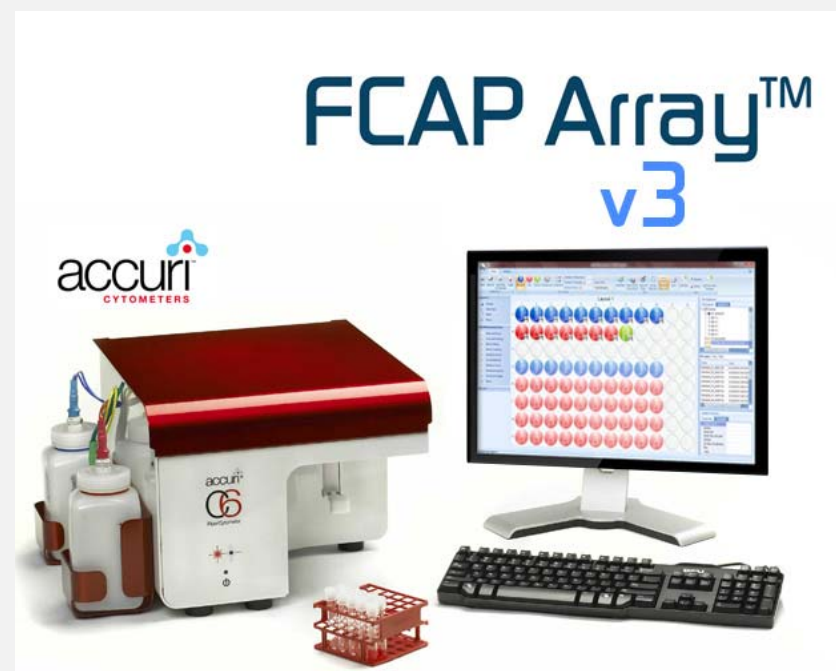


**Dél-dunántúli Regionális  
Innovációs Díj – 2011**



# Soft Flow Hungary Kutató Fejlesztő Kft.

**Fungi-Plex** – élelmiszerbiztonsági,  
analitikai reagens kit fejlesztése  
**Accuri C6** áramlási citométerrel  
és az **FCAP Array v3** adatkiértékelő  
szoftverrel



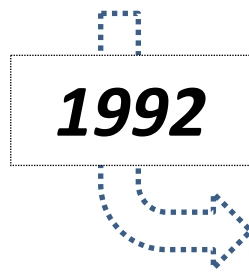
**RIÜNET: Innováció és gazdaságfejlesztés  
Gödöllő, 2011. december 8.**

*Lustyik György  
Ügyvezető igazgató*



*Soft Flow, Inc.*  
Minneapolis, USA

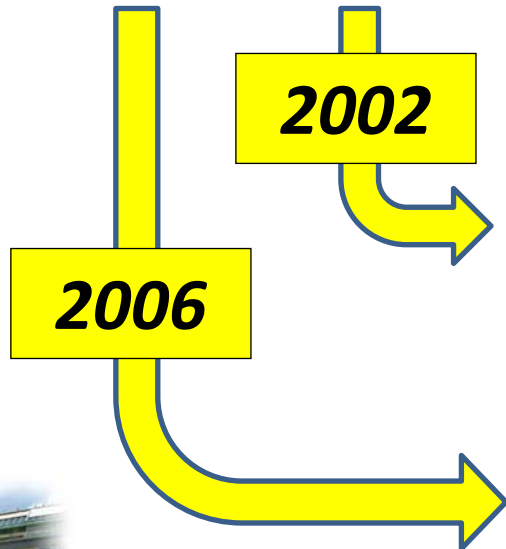
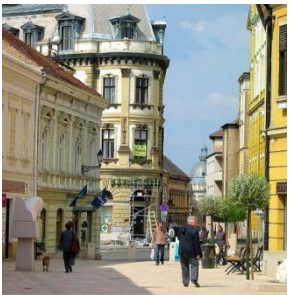
**1988**



**1992**



*Soft Flow Hungary Ltd.*  
Debrecen, Hungary



**2002**



*Soft Flow Informatika*

*Soft Flow Informatika Ltd.*

**2006**



*Soft Flow Biotechnology Ltd.*





PÉCSI TUDOMÁNYEGYETEM  
Általános Orvostudományi Kar  
Biofizikai Intézet

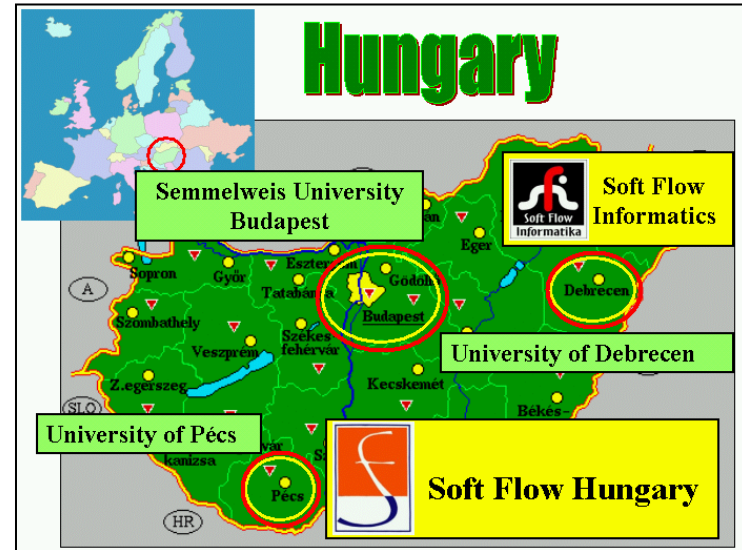
University Research Park  
Madison, Wisconsin

Soft Flow, Inc.  
Madison, Wisconsin  
Minneapolis, Minnesota

[www.softflow.com](http://www.softflow.com)

Soft Flow Hungary Kutató Fejlesztő Kft., Pécs

[www.softflow.hu](http://www.softflow.hu)



Lab on Beads™





**Soft Flow Hungary Kutató Fejlesztő Kft.**

**7628 Pécs, Kedves u. 20., Hungary**

**Tel.: +36 72 240-064 \* Fax: +36 72 240-065**

**e-mail: [bd@softflow.hu](mailto:bd@softflow.hu) \* [www.softflow.hu](http://www.softflow.hu)**

- In business since 1992, Debrecen, Hungary
- BD Biosciences representative since 1994
- 29 employees (January, 2011)

**Sales and distribution of  
BD Biosciences products**

**Development of  
multiplexed assay kits**

**Software  
development**

Soft Flow Informatics Ltd., Debrecen 2000.

Soft Flow Biotechnology Ltd., Gödöllő, 2006.

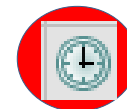
**2006.**



**Soft Flow, Inc.**

2722 Highway 694, Suite 130 New Brighton, MN 55112, USA

Tel.: (651) 633-0301 \* Fax: (651) 633-0341 \* e-mail: [contact@softflow.com](mailto:contact@softflow.com) \* [www.softflow.com](http://www.softflow.com)



## Member of SME Clusters

***BIB***: Biotechnology Innovation Base



***PEIK***: Pecs Center for Health  
Industry Research



**Supported by Scientific Advisory Board**

**Operated by Professional Management**

**Specific Focus on IP Management**

# Recession – What to do?

## BIO-2010



**Biotech 2010 Life Sciences:  
Adapting For Success**

*It is not the strongest of the species that survives,  
nor the most intelligent, but the one most  
responsive to change* —Charles Darwin

**BIO International Convention | Chicago**  
May 4, 2010



**G. Steven Burrill**  
Chief Executive Officer  
Burrill & Company



The cover of the report features a portrait of Charles Darwin and the text: "It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change." —Charles Darwin. At the bottom, it says "24th ANNUAL REPORT ON THE INDUSTRY".

***„It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to the change”***

**– Charles Darwin -**

# **Principal R&D activity**

## **Development of multiplexed cytometric bead array (CBA) technologies**

Fast, simple, low cost method for simultaneous analysis of composition of samples such as blood, food, feed, water (enzymes, hormones, cytokines, toxins, ...)

## **Development of reagents for the CBA kits**

## **Software development for flow cytometry data processing**

## **Contract Research/Services: High Content Screening**

**Flow cytometry, Special Cell Lines, Microscopy, ELISPOT**



# Current R&D Projects

## Assay kits for food/feed safety industry

- Detection of mycotoxins with ELISA type multiplexed CBA assay
- ELISA development
- Immunoaffinity columns

## Flow cytometric acquisition and analysis software development



# **Development of Multiplexed CBA, ELISA and ELISPOT kits for Detection of Avian (Bird) Cytokines\***

(For monitoring the pandemic spread of zoonotic agents, and for veterinary diagnostic purposes)

- ★ Hybridoma cell lines (more than 40 clones) producing anti-bird-cytokine monoclonal antibodies
- ★ Recombinant bacteria and cell lines for production of avian cytokines

**(Molecular biology laboratories are under development in Gödöllő and in Pécs)**

*\*R&D cooperation with Institute for Animal Health (Compton, England)*

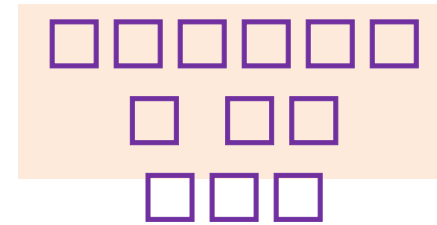
## Soft Flow's Product Portfolio

### ● Flow Cytometry software products – on the market

- Multiplexed and ELISA kits for food/feed safety monitoring
- Six micotoxins, hormones, antibiotics - on the market
- WellLight: A lab device for supporting labwork with 96 (and 386) well plates – US Patent pending, released for marketing and distribution
- TB test to detect TB infection and latent TB infection – in clinical test phase
- Cytotrix-2: a novel family of branched polypeptide conjugates – Patent pending – PTC Phase

**Selling Patent Rights \* Licensing \* Partnering in Industrial Application**

# Flow Cytometry Software



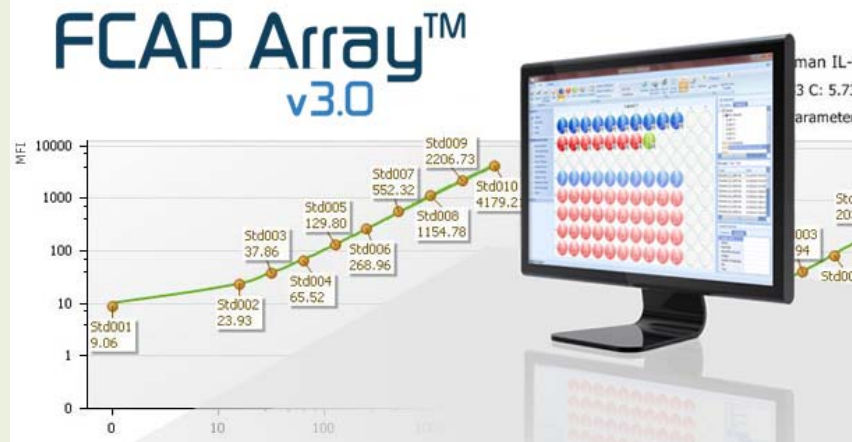
Distributed by: 

BD Biosciences, California  
Stratedigm Co., California



**We are looking for distributor partners  
(China, Asia).**

Developed in cooperation with BD Biosciences - California



Special Support for the FACS Verse™ Flow Cytometer (BD Biosciences)

Already on the market

Developed in cooperation with Stratedigm - California

Special Support for the Stratedigm Family of Flow Cytometers Operated with the CellCapture software

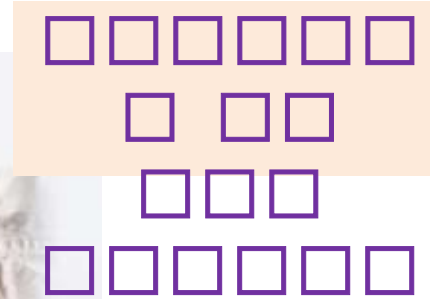


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*Estimated market size:  
> 100 thousand*

A laboratory device that helps to avoid pipetting errors when working with plates.



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**Soft Flow Biotechnology Ltd. (Gödöllő) produces monoclonal antibodies for the development of food/feed safety assay kits:**

- **Mikotoxins:**

- Ochratoxin A**
- Aflatoxin B1**
- Zearalenone**
- T-2 toxin**
- Fumonisin B1**
- (DON)**

- **Antibiotics:**

- Gentamicin**
- Sulfadiazine**
- Sulfamethazine**
- Sulfathiazole**
- Tylosin**

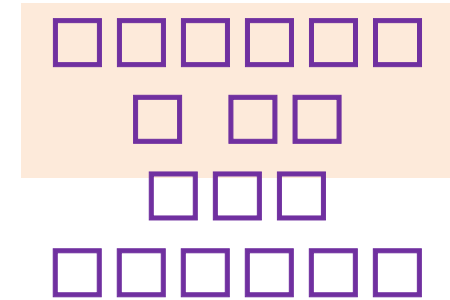
We have one of the best collection of anti-mycotoxin antibodies, which are licensed to several leading companies.

# Food/Feed Safety Product Line



The very first multiplexed assay kit for measuring all (6) mycotoxins simultaneously

+ SIX ELISA Kits for each mycotoxins



**We are looking for distributor partners (China, Asia).**

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**Cytotrix-2:** a novel family of branched polypeptide conjugates –  
**Patent pending – PTC Phase**

**Cytotrix-2 is a compound for use in serum-free attachment of cells to solid surfaces. The novel polypeptides are especially useful for serum-free attachment of stem cells to solid surfaces.**

**Selling Patent Rights \* Licensing \* Partnering in Industrial Application**

# Cytotrix-2

**Patent pending:**

**BRANCHED POLYPEPTIDES AND THEIR USE IN PROMOTING  
ADHESION OF CELLS TO SOLID SURFACES**

**Inventors:** Dr. Emilia Madarász<sup>1</sup>, Dr. Zoltán Mező<sup>2</sup> and Dr. Károly Markó<sup>1</sup>

<sup>1</sup> Institute of Experimental Medicine, Hungarian Academy of Sciences

<sup>2</sup>Research Group of Peptide Chemistry at ELTE, Hung. Acad. Sci.

Patent rights:



**Soft Flow Hungary Ltd.**

7628 Pécs, Kedves u. 20., Hungary

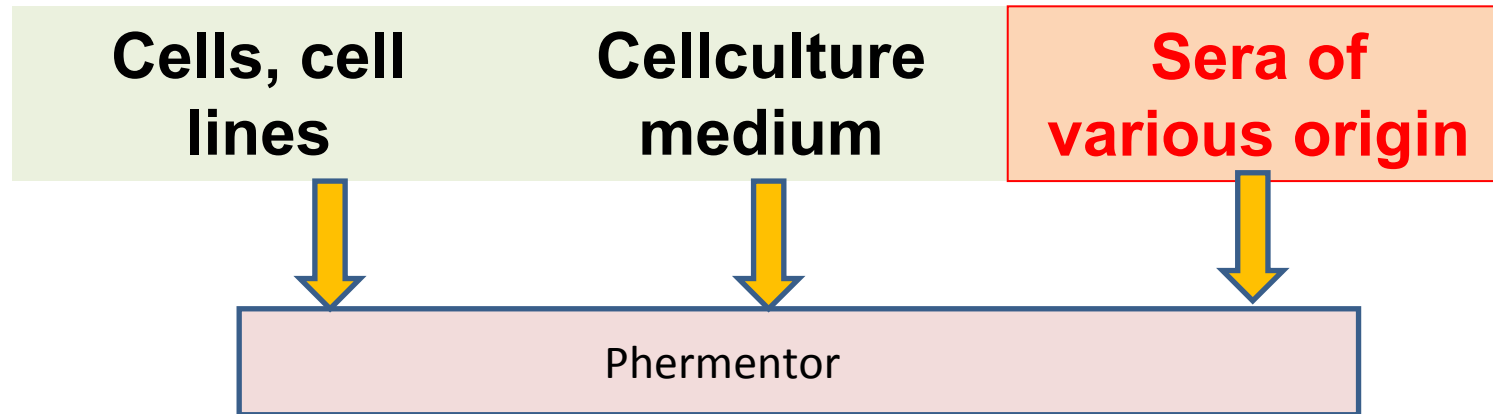
**PCT**

**20 May 2010**

**PCT Filing Number P1000264**

**:**

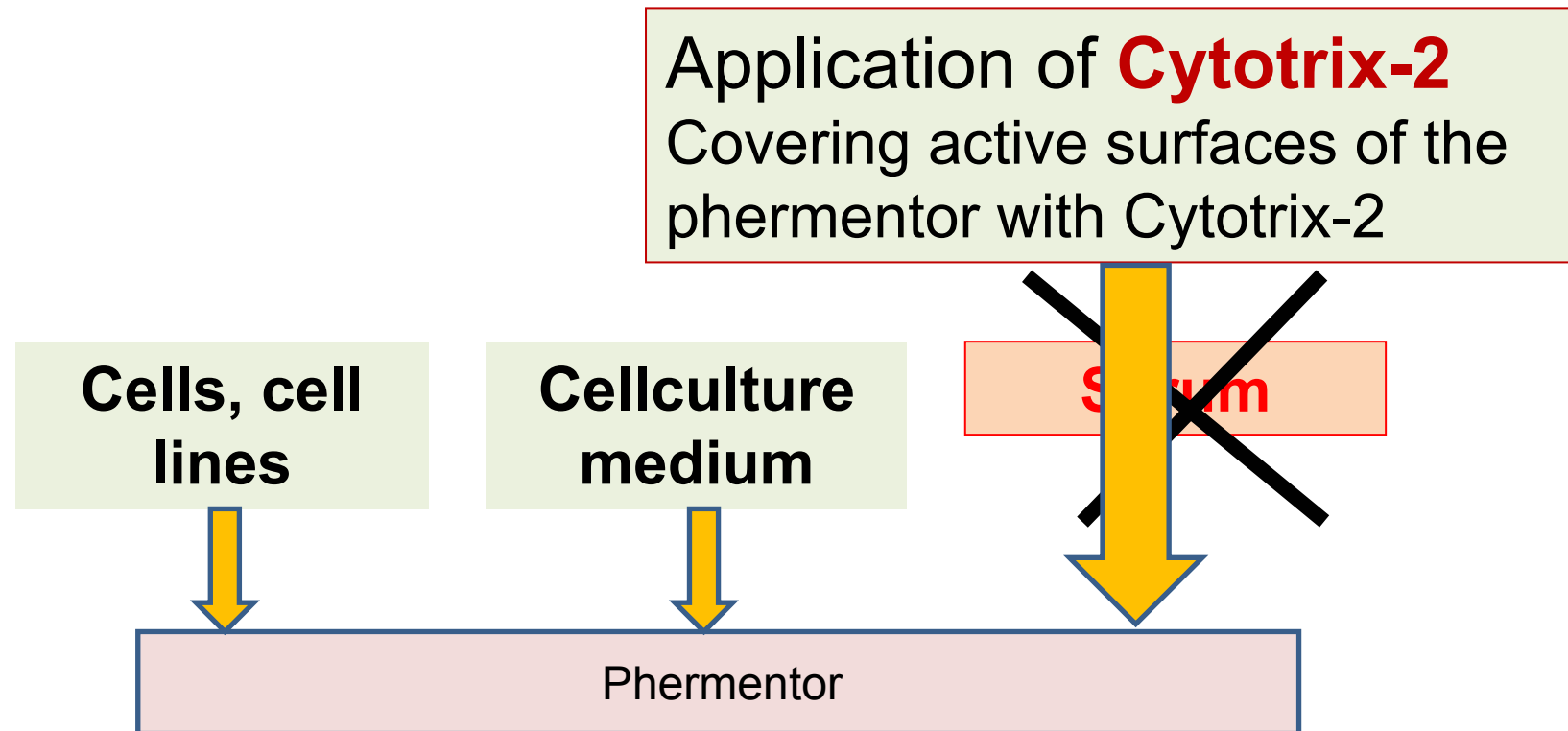
# Traditional cell culture techniques:



*Sera represents a hazard due to the presence of potential anaphylactic factors and a large number of biologically active – **but not defined** compounds that it contains.*

**This prevents the use of sera in cultivating cells for human cell therapy.**

# Cell culture without serum:



**Cytotrix-2 is chemically well defined compound:**

Allows cell cultivation for human cell therapy

# Cytotrix-2

## SAK-c(RGDfC)

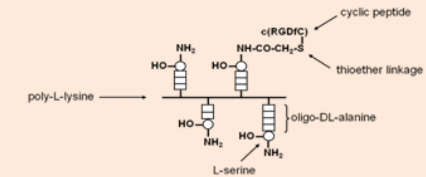
SAK polymer, carrying cyclic RGD pentapeptides on terminal 25 positions of serine

SAK: (poly-lysine, oligo-D/L-alanine-serine)

C(RGDfC): cyclic(arginyl-glycyl-aspartyl-D-phenylalanyl-cysteine)

[cyclic RGD] pentapeptide

SAK-c(RGDfC)



# **Basic Economics, Market Potential:**

- **Application and manufacturing of „biosimilars” is growing**
  - In the pharma industry
  - In biotechnology
  - In agriculture, ...
- **Stem cell applications grow exponentially**
- **A typical, medium size fermentor generates biosimilars of a few million USD value per week**
  - Estimated cost-reduction by using Cytotrix-2 is at least 10-20%
- **Synthesis/manufacturing is solved, Cytotrix-2 is a low cost compound**

*Thank you for your  
attention*

*City of Pécs, Hungary*



[www.softflow.com](http://www.softflow.com)