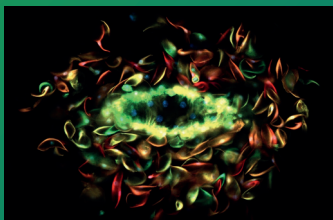
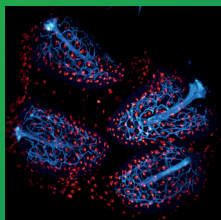
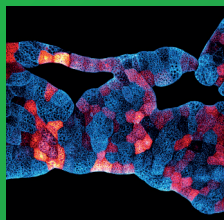
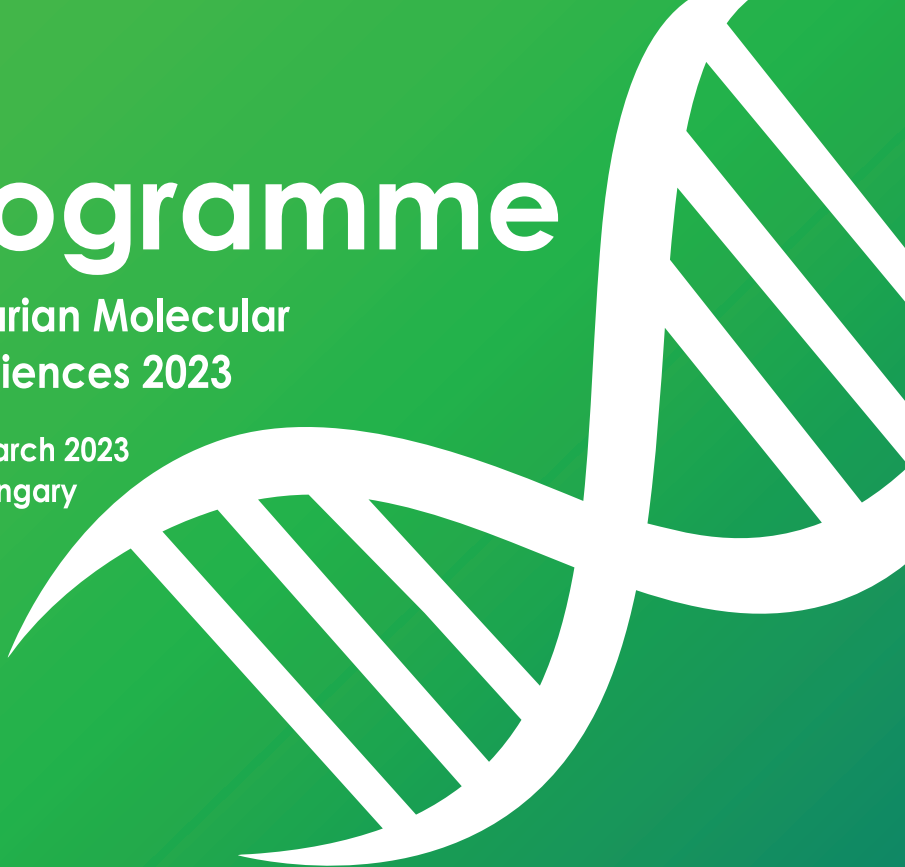


# Programme

Hungarian Molecular  
Life Sciences 2023

24-26 March 2023  
Eger, Hungary



Hungarian  
Biochemical  
Society



**MAGE**

Hungarian Genetics Society

# Superresolution STED microscopy from its inventors

## Facility Line

fastest time to result

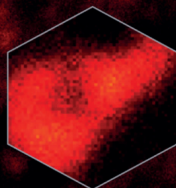


## Compact Line STEDYCON

expands any microscope  
to confocal & STED



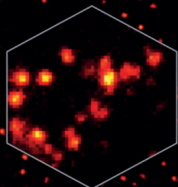
„There are many reasons  
why your standard  
fluorescence microscope ...



... should be a STED“.

Stefan W. Hell, Nobel Laureate in Chemistry 2014

1  $\mu\text{m}$



# UNICAM

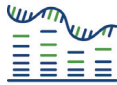
1144 Budapest, Kőszeg utca 29.  
Telefon: +36 1 221 5536  
E-mail: [unicam@unicam.hu](mailto:unicam@unicam.hu)  
Web: [www.unicam.hu](http://www.unicam.hu)

**Novogene** is a leading provider of genomic services and solutions with cutting edge Next Generation Sequencing (NGS) and bioinformatics expertise. With clinically certified laboratories and one of the largest sequencing capacities in the world, we utilise our **deep scientific knowledge, first-class customer service and unsurpassed data quality** to help realise our clients their research goals in the rapidly evolving world of genomics. With over 2,000 employees, multiple locations around the world and over 790 publications in top tier journals such as Nature and Science, we are a world-leader in providing NGS services.



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# CellDrop

Automated Cell Counter

Closes: May 11, 2023 Secret code: GOGREEN



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## Count Cells Without Slides

Scan to enter, then complete additional actions to earn more chances to win. Entry is open to researchers around the world!

További információkért és demo készülék kipróbálásával kapcsolatban érdeklődjön Imri Ádám termékmenedzsernél az alábbi elérhetőségek bármelyikén:  
Tel.: +36 30 700 4659, email: [info@kvalitex.hu](mailto:info@kvalitex.hu)

### Kik vagyunk?

A **Clinomics Europe** vezető szerepet tölt be a **multiomikán alapuló molekuláris diagnosztikában** és **precíziós gyógyászatban**. Innovatív orvosi biotechnológiai vállalatunk 2021 júniusában alakult a koreai, elsősorban **foliadékbiopsziával** foglalkozó Clinomics Inc. első európai uniós leányvállalataként. Célunk, hogy a legkorszerűbb molekuláris diagnosztikai módszerek alkalmazásával és fejlesztésével hozzájáruljunk társadalmunk egészségés jövőjéhez.

### Mit kínálunk?

#### CD-PRIME: FOLYADÉKBIOPSZIA A RÁKDIAGNOSZTIKA SZOLGÁLTATÁBAN

A **foliadékbiopszia** innovatív, a hagyományos biopsziához képest **minimálisan invazív** módszer a **CTC-k** (keringő tumorsejtek), illetve **ctDNA** (keringő tumor-DNS) izolációjára, számtalan új lehetőséget nyitva a **rákdgnosztikában** és **-kutatásban**. Integrált, mikrofluidikai technológiára épülő platformunk, a **CD-Prime** fizikai jellemzők alapján, gyorsan és egyszerűen **dúsítja a CTC-eket** kezeletlen vérmintából, melyek így integritásukat megőrizve állnak rendelkezésre további vizsgálatokra.



#### KUTATÁSI SZOLGÁLTATÁSOK: EGYEDI MEGOLDÁSOK EGYEDI PROJEKTEKHEZ

Gazdag eszközparkunk rengeteg különböző **tudományos projekt** során nyújthat segítséget, többek közt:

- **keringő nukleinsavak** extrakciójában foliadékbiopsziás módszerekkel; **CTC-k** vérmintából történő dúsításában; **extracelluláris vezikulák** tisztításában; nukleinsavak mennyiségének és minőségének mérésében; különféle downstream elemzésekben (**qPCR, digitális PCR, NGS**); **bioinformatikában**.



#### MOLEKULÁRIS GENETIKAI DIAGNOSZTIKA

A legmodernebb diagnosztikai módszereket alkalmazva **gyors, szakmailag megbízható** eredményt biztosítunk **5 munkanapon belül** az alábbi területeken:

- *Kardiovaszkuláris kórképek, trombózishajlam*
- *Családtervezés, infertilitás*
- *Rákhajlam és foliadékbiopszia alapú rákszűrés*
- *Nutrigenetika*
- *Sportgenetika*



#### LABORATÓRIUMI ESZKÖZÖK ÉS REAGENSEK

Elérhetőek nálunk **automata nukleinsav-izoláló** rendszerek, molekuláris genetikai és mikrobiológiai **PCR kitek**, **mikroRNS** expressziós analízishez szükséges reagensok, ezen felül általános laboratóriumi **reagensok, oligonukleotidok és primer próbák**. A teljes választék megtekinthető weboldalunkon!



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# Our exhibitors

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A magyar tudomány szolgálatában.

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## GENERAL INFORMATION

### CONFERENCE ORGANISERS

Magyar Biokémiai Egyesület (Hungarian Biochemical Society)

Magyar Genetikusok Egyesülete (Hungarian Genetics Society)

### ORGANISING COMMITTEE

**László Buday<sup>1</sup>, Gábor Juhász<sup>2</sup>, Beáta Lontay<sup>3</sup>, József Mihály<sup>2</sup>, Rita Sinka<sup>4</sup>,  
László Virág<sup>3</sup>**

1 Institute of Enzymology, Research Centre for Natural Sciences

Magyar tudósok körútja 2., Budapest H-1117

<http://www.ttk.hu/ei/en/>

2 Institute of Genetics, Biological Research Centre

Temesvári krt. 62., Szeged H-6726

<http://www.brc.hu/en>

3 Department of Medical Chemistry, University of Debrecen

Egyetem tér 1., Debrecen H-4032

<https://chemistry.med.unideb.hu/en>

4 Department of Genetics, University of Szeged

Középfasor 52, Szeged H- 6726

<https://u-szeged.hu/>



## **TECHNICAL ORGANISERS**

Diamond Congress Ltd.  
1255 Budapest, P.O. Box 48.  
Tel: +36-1-225-0209  
elesetele@diamond-congress.com  
<https://www.diamond-congress.hu/>

## **WEBSITE OF THE CONFERENCE**

<https://www.hunlifesci.hu>

## **WEBSITE OF THE HUNGARIAN BIOCHEMICAL SOCIETY**

<http://www.mbkegy.hu>

## **WEBSITE OF THE HUNGARIAN GENETICS SOCIETY**

<http://www.magenegy.hu/hu/>

## **VENUE**

Hotel Eger-Park  
3300 Eger  
Szálloda utca 1-3.  
Tel.: +36-36/522-200

## **OPENING HOURS OF THE REGISTRATION**

Friday, 24 March, 2023	12.00 – 18.00
Saturday, 25 March, 2023	08.30 – 18.00
Sunday, 26 March, 2023	08.30 – 13.30

## **ONSITE CONTACT NUMBERS**

Éles-Etele Nóra / Varga Attila  
+36/70-9438-543, +36/20-936-2969  
Diamond Congress Ltd.

## **OFFICIAL LANGUAGE**

Official language of the Conference is English (no translation is available).





Registration fee (incl. VAT)	Payment till 15 February	Payment after 15 February
Registration fee for industrial participants	101.000 Ft	111 000 Ft
Registration fee for senior researchers*	95.000 Ft	105.000 Ft
Registration fee for junior researchers**	71.000 Ft	79.000 Ft
Registration fee for exhibitors	71.000 Ft	71.000 Ft
Registration fee for accompanying persons	63.000 Ft	63.000 Ft

\*Only for participants with academic background

\*\*Junior researcher: Ph.D. and university student, or researcher under 30;

Registration fees include admission to the scientific sessions, conference materials, admission to the exhibition, welcome reception, banquet dinner, coffee breaks, lunches.

Accompanying persons' registration fee and exhibitor's registration fee is not valid for admission to the scientific part of the Conference, and these fees do not include conference materials, only meals and social events.

### **ORAL PRESENTATIONS (PL-1 – PL-4, O-01 – O-60)**

The schedule of the oral presentations can be seen in the detailed programme of this booklet. Speakers and session chairs are kindly requested to keep the time of the presentations. Make sure to bring your presentation file written on a USB flash drive. Presenters are kindly requested to give their presentation file to the technicians in the lecture rooms preferably half day before beginning of the corresponding session.

**Oral presentations:** Congress Hall, Session Room Liget I.

### **POSTER PRESENTATIONS (P-001 – P-145)**

Poster presenters of **ODD poster numbers** are kindly requested to mount their posters **before** the opening of the conference (or latest during the coffee break in the afternoon) and remove them on Saturday /25 March/ till 11:00 the latest (during the coffee break), to enable the authors of the next poster session to mount their posters in time.

Poster presenters of **EVEN poster numbers** are kindly requested to mount their posters on Saturday /25 March/ from 13:30 **before** the afternoon session starts and remove them latest at lunch time on Sunday /26 March/.

Posters will be identified by poster numbers, which are indicated in the programme booklet and in the conference application.

For mounting and removing the posters, please take it into consideration, that there will be oral presentations in the room! Please use the breaks for these actions. Also please use the poster sessions and breaks for discussions.



Poster sessions: Room Liget I. and Liget corridor

Pins are to be provided to fix the posters by the technical organisers.

Authors of ODD number posters will present their work between 20:00-22:00 on Friday, 24 March.

Authors of EVEN number posters will present their work between 16:45-19:00 on Saturday, 25 March.

## EXHIBITON

In accordance with the conventions of the conference, parallel to the scientific sessions a professional exhibition is to be organised. Please have a look at the exhibition floor plan of the booklet.

## ACCOMMODATION

Hotel rooms are booked under the name of the participants. Conference participants may occupy the rooms from 14:00 on the day of arrival and should arrange the check out until 10:00. The hotel ensures a luggage room. The parking lot of the hotel is available for our participants free of charge. Guests are kindly requested to settle their extra room bills (such as phone calls, drinks and minibar) prior to departure.

The room prices include buffet breakfast, VAT, city tax and the usage of wellness facilities (pools, jacuzzi, sauna park and steam bath).

## SOCIAL PROGRAMMES *(incl. in the registration fees)*

Friday, 24 March, 2023	Welcome dinner (Restaurant of Hotel Park)
Saturday, 25 March, 2023	Banquet (Congress Hall of Hotel Eger)
Saturday & Sunday, 25-26 March, 2023	Lunches (Restaurant of Hotel Park)
Friday - Sunday, 24-26 March, 2023 (indicated in the programme)	Coffee breaks (Conference level of Hotel Eger)

All participants and accompanying persons will receive a personal badge upon registration. You are kindly requested to wear your name badge when attending the meetings or social events.

Extra consumption, which is not included in the menus are kindly requested to settle prior to departure.



## **CANCELLATION POLICY**

Cancellations on registration and hotel reservation can be made only in writing. The refund for cancellations made prior to 25 February, 2023 is 85%. After this date the conference secretariat has to pay the advanced payments to the hotel, and there is no way to refund in case of latter cancellation.

## **PAYMENT, INVOICES**

The price of the ordered services will be indicated on the final invoice according to the Hungarian official financial rules. Official final invoices and receipts for fees paid by the participants are sent by e-mail right after the payment arrives to our bank account. Please forward them to the financial department of your institution.

## **LIABILITY AND INSURANCE**

The organisers cannot accept liability for any personal accidents, loss of belongings or damage to private property of participants and accompanying persons that may occur during the conference.

## **EVENT APPLICATION AND QR CODE HUNTING**

The conference is supported by SmartEvents© mobile application. Using the application is free and voluntary for all registered delegates and the content used therein is accessible only for 'Hungarian Molecular Life Science Conference 2023' participants. The application helps the delegates to find all information regarding the event, manage the daily agenda, download materials, communicate with all the other participants on the event and more.

We offer the conference delegates a fantastic QR CODE HUNTING game. After downloading the event application participants can visit the exhibitors and scan the individual exhibitor's QR code with their mobile device. Everybody who has visited at least 15 exhibitors, will automatically be entered to win a PRIZE! Valuable prizes will be drawn during the Banquet /25 March/, so make sure to scan the codes till the dinner.



## Day 1 – Friday, 24 March 2023

14:30            **Opening**

### Plenary session / Congress Hall

*Chair: József Mihály*

14:40    **PL-1    Mechanisms of selective autophagy**

Sascha Martens

15:20    **PL-2    Chromosomal R-loops: Who are they?**

Lóránt Székvölgyi

### Company talks / Congress Hall

16:00            **Powerful digital insights to accelerate data analyses  
precision and interpret results with confidence**

BioMarker

Erika Tóth

16:15            *Coffee break*



## Day 1 – Friday, 24 March 2023

### Molecular mechanism of diseases I./ Congress Hall

Chair: László Virág

- 17:00    **O-01    Inflammasome activation in peritumoural astrocytes augments proliferation of breast cancer cells in the brain**  
 Ádám Mészáros, Kinga Molnár, Csilla Fazakas, Adél Lüvi, László Tiszlavicz, Attila E Farkas, Imola Wilhelm, István Krizbai
- 17:20    **O-02    L-amino acid transporters are required for efficient thermogenesis in human adipocytes during adrenergic stimulation**  
 Rini Arianti, Boglárka Ágnes Vinnai, Rahaf Al Rifai, Szilárd Póliska, Ádám Anderko, Éva Csősz, László Fésüs, Endre Kristóf
- 17:35    **O-03    Acute and long-lasting immunological changes in prostate cancer patients treated with three different radiotherapy protocols**  
 Katalin Balázs, Zsolt Jurányi, Zsuzsa Kocsis S, Géza Sáfrány, Katalin Lumniczky
- 17:50    **O-04    Application of chimera antigen receptor expressing macrophages in tumour cell killing**  
 Endre Kókai
- 18:05    **O-05    Angiotensin II-induced systemic inflammation enhances C3a-mediated vasoconstriction in mice**  
 Imre Babay, Nóra Melinda Kerkovits, Csillag Virág Tóth, Gábor Szénási, Mónika Kosztelnik, Zoltán Benyó

18:30    ***Welcome dinner***

20:00    Poster discussion with drinks – ODD number posters



## Day 1 – Friday, 24 March 2023

### Protein structure & Proteomics I. / Room Liget I.

Chair: Mihály Kovács

- 17:00    **O-06    Intracrine signaling of IL-2 membrane receptors**  
Julianna Volkó, Ádám Kenesei, Meili Zhang, Péter Várnai,  
Gábor Mocsár, Boglárka Bozsó, Michael N Petrus, Károly  
Jambrovics, Zoltán Balajthy, Andrea Bodnár, Katalin Tóth,  
Thomas A Waldmann, György Vámosi
- 17:20    **O-07    Structure and function relationships of ABC transporters  
involved in sterol transport**  
Zoltán Hegyi, Tamás Hegedűs, László Homolya
- 17:35    **O-08    Structure and function of Semaphorin-5A  
glycosaminoglycan interactions**  
Gergely Nandor Nagy, Xiao-Feng Zhao, Richard Karlsson, Karen  
Wang, Henrik Clausen, Rebecca Louise Miller, Roman Giger, Edith  
Yvonne Jones
- 17:50    **O-09    MAP kinase-mediated activation of RSK1 and MK2 substrate  
kinases**  
Péter Sok, Gergő Gógl, Anita Alexa, Klára Kirsch, Attila Reményi
- 18:05    **O-10    Photoreceptor phosphorylation modifies plant  
development**  
András Viczián, Valentina Madár, Éva Ádám, Ferenc Nagy

18:30    ***Welcome dinner***

20:00    Poster discussion with drinks – ODD number posters

**Day 2 – Saturday, 25 March 2023****Molecular mechanism of diseases II. / Congress Hall***Chair: Gábor Szabó*

- 09:00    **O-11    Extensive, but spatially restricted spongiform vacuolization in the CNS is accompanied by alterations in neurophysiological parameters and behaviour of the Gde1-/- mouse**  
Zsófia I. László, Christina Miskolczi, Benjámín Barti, László Bíró, Dániel Nagy, Zoltán K. Varga, Bíborka Bruzsik, Huba Szebik, Máté Tóth, Csaba Cserép, Fruzsina Mógor, Mária Baranyi, Flóra Göllöncsér, Kata Nagy, Imre Kacsokovics, Gabriel Simon, Ben Cravatt, Beáta Sperlágh, Ádám Dénes, Éva Mikics, **Zsolt Lele**, István Katona
- 09:20    **O-12    A combination of strongly associated prothrombotic SNPs could efficiently predict the venous thrombosis risk**  
Shewaye Fituma Natae, János Sándor, Mohammed Abdulridha Merzah, Róza Ádány, Zsuzsanna Bereczky, Szilvia Fiala
- 09:35    **O-13    Association of HDL subfraction profile with the development of insulin resistance**  
Péter Pikó, Zsigmond Kósa, János Sándor, Ildikó Seres, György Paragh, Róza Ádány
- 09:50    **O-14    Developing a mouse model to investigate diabetes-related vascular calcification and the role of ABCC6**  
Viola Pomozi, Krisztina Fülöp, Eszter Kozák, Natália Tőkési, András Váradi
- 10:05    **O-15    Fibroblast heterogeneity critically affects tumorigenesis in colorectal cancer**  
András Áron Soós, Andrea Kelemen, Zsuzsanna Szvicsek, Adrián Orosz, Zoltán Wiener

10:20    *Coffee break*



### Day 2 – Saturday, 25 March 2023

#### Cell differentiation and signaling I. / Room Liget I.

Chair: Beáta Lontay

- 09:00    **O-16**    **What does protein phosphatase 5 do with mitotic kinases?**  
Edit Ábrahám, Zsuzsánna Réthi-Nagy, Péter Vilmos, Rita Sinka,  
Zoltán Lipinszki
- 09:20    **O-17**    **Study of intracellular pattern recognition Nod-like  
receptors in skeletal muscle cells**  
Eduárd Bíró, Mikako Onozaka, Hala Ahmad, Szilvia Benkő
- 09:35    **O-18**    **IRS1 as a novel player in EGF mediated signaling in  
pancreatic cancer cells**  
Tamás Takács, Loretta László, Anita Kurilla, Álmos Tilajka, Julianna  
Novák, László Buday, Virág Vas
- 09:50    **O-19**    **Breast cancer control by modulating serotonin-dependent  
signalling**  
Iván P. Uray, Máté Lengyel
- 10:05    **O-20**    **CXCR4-CXCL12 signaling regulates development of extrinsic  
innervation to the colorectum**  
Viktória Halasy, Emőke Szőcs, Ádám Soós, Tamás Kovács, Nóra  
Fejszák, Ryo Hotta, Allan M. Goldstein, Nándor Nagy

10:20    *Coffee break*





## Day 2 – Saturday, 25 March 2023

### Bioinformatics / Congress Hall

Chair: Sándor Pongor

- 11:05    **O-21    Predicting drug effects through whole cell simulations**  
 Bence Keömley-Horváth, Szabolcs Cselgő Kovács, Áron Weber,  
 Kinga Sükösd, István Reguly, Erzsébet Fichó, Attila Csikász-Nagy
- 11:25    **O-22    Promoter identification with bidirectional transformers  
 trained on metagenome data**  
 Babett Bodnár, Balázs Ligeti
- 11:40    **O-23    Role of extrachromosomal DNA in small cell lung cancer  
 heterogeneity and plasticity**  
 Lőrinc S. Pongor, Christopher W. Schultz, Anish Thomas
- 11:55    **O-24    The macro- and microevolution of the yeast *S. cerevisiae* in  
 the host with experimental evolution, genomics and  
 metagenomics**  
 Walter P. Pfliegler, Hanna Viktória Rácz, Alexandra Imre
- 12:10    **O-25    The role of correlated motions of conserved motifs and the  
 binding modes of agonists in the activation mechanism of G  
 protein-coupled receptors**  
 Argha Mitra, Arijit Sarkar, Szabolcs Dvorácskó, Mária Harmati,  
 Zsuzsánna Réthi-Nagy, Krisztina Buzás, Zoltán Lipinszki, Attila  
 Borics
- 12:25    **O-26    Dogs or rodents? An animal model for human cognitive  
 aging**  
 Dávid Jónás, Enikő Kubinyi

12:40    *Lunch*



## Day 2 – Saturday, 25 March 2023

### Cell differentiation and signaling / Room Liget I.

Chair: Rita Sinka

- 11:05    **O-27**    **A distinct transcriptome characterizes neural crest-derived cells at the migratory wavefront during enteric nervous system development**  
Nándor Nagy, Rhian Stavelly, Adam Sóos, Emőke Szócs, Allan M. Goldstein
- 11:25    **O-28**    **The role of thin filament associated proteins in sarcomere growth**  
Péter Görög, Szilárd Szikora, Tóth Krisztina, Dávid Farkas, Tamás Gajdos, Tamás Polgár, Miklós Erdélyi, József Mihály
- 11:40    **O-29**    **Identification of a novel network regulating lamellocyte fate in the lymph gland of *Drosophila melanogaster***  
Bayan Kharrat, Nikolett Virág, Erika Gábor, Rita Sinka, Ferenc Jankovics, Viktor Honti
- 11:55    **O-30**    **The dark side of regeneration: mutagenic consequences of whole-body regrowth in planarians**  
Ádám Póti, Dávid Szüts, Jelena Vermezovic
- 12:10    **O-31**    **Convergent evolution in glutamate dehydrogenase activity in *Drosophila* and human**  
Viktor Vedelek, Balázs Vedelek, Gábor Juhász, Péter Lőrincz, Rita Sinka
- 12:25    **O-32**    **Age dependent hormetic response to HSF-1 depletion suggests a compensatory mechanism of unfolded protein response in *Caenorhabditis elegans***  
Dániel Kovács, János Barnabás Biró, Tímea Sigmond, Bernadette Hotzi, Saqib Ahmed, Umar Mohammad, Márton Kovács, Tibor Vellai, János Barna

12:40

*Lunch*



## Day 2 – Saturday, 25 March 2023

### Plenary session / Congress Hall

Chair: László Buday

- 14:10 **PL-3** **Multiomics examination of samples collected from patients with obesity and/or type 2 diabetes**  
 Petra Magdolna Bertalan, Uladzislau Vadadokhau, Erdenetsetseg Nokhoijav, Balázs Kunkli, Gergő Kalló, Miklós Káplár, József Tőzsér, Miklós Emri, Éva Csősz
- 14:50 **PL-4** **Transient upregulation of P-glycoprotein in drug-tolerant persister cells can be targeted to prolong survival in a mouse model of triple-negative breast cancer**  
 Kornélia Szebényi, András Füredi, Eszter Bajtai, Ágnes Csiszár, Gergely Szakács
- 15:30 *Technical break*

### Protein structure & proteomics II. / Congress Hall

Chair: Éva Csősz

- 15:40 **O-33** **Global analysis of the plasma membrane-associated subproteome during chondrogenesis**  
 Patrik Kovács, Tibor Hajdú, Judit Vágó, Roland Takács, Róza Zákány, Péter Brázda, David J. Boocock, Csaba Matta
- 16:00 **O-34** **Statistical analysis of the proteome of extracellular vesicles isolated by size exclusion chromatography for the assessment of the immunological background of post-covid syndrome**  
 Gábor Kecskeméti, Gabriella Dobra, Mátyás Bukva, Krisztina Buzás, Zoltán Szabó
- 16:15 **O-35** **Thermal analysis of structural and functional dynamics of FH2 domain of DAAM**  
 Rauan Sakenov, Mónika Ágnes Tóth, Veronika Takács-Kollár, Andrea Teréz Vig, Beáta Bugyi
- 16:30 **O-36** **DisCanVis: Visualizing integrated structural and functional annotations to better understand the effect of cancer mutations located within disordered proteins**  
 Norbert Deutsch, Mátyás Pajkos, Gábor Erdős, Zsuzsanna Dosztányi
- 16:45 *Poster discussion with coffee break – EVEN number posters*
- 20:00- 23:00 **Banquet – Congress Hall**



## Day 2 – Saturday, 25 March 2023

### Cell differentiation and signaling II. / Room Liget I.

Chair: Gábor Juhász

- 15:40    **O-37**    **A unifying mechanism of lysosomally regulated autophagic degradation by TRPML/MLCOLN1**  
Arindam Bhattacharjee, Hussein Abuammar, Zsolt Lakatos, Gábor Juhász
- 16:00    **O-38**    **Myosin phosphatase promotes insulin-sensitizing mechanisms in C2C12 muscle cells**  
Ádám Ungvári, Ilka Keller, Richárd Kinter, Sára Széles, Beáta Lontay
- 16:15    **O-39**    **A non-catalytic herpesviral protein reconfigures ERK-RSK signaling by targeting kinase docking systems**  
Anita Alexa, Péter Sok, Krisztián Albert, Ádám L. Póti, Laura Dénes, Attila Reményi
- 16:30    **O-40**    **Finding novel autophagy activation targets in *Drosophila* neurodegeneration and ageing models**  
Fanni Keresztes, Janka Szinyákovics, Gergő Falcsik, Tünde M. Balog, Tímea Burján, Tibor Vellai, Tibor Kovács

16:45                    *Poster discussion with coffee break – EVEN number posters*

20:00- 23:00    **Banquet – Congress Hall**



### Day 3 – Sunday, 26 March 2023

#### DNA repair and drug development / Congress Hall

Chair: Dávid Szüts

- 09:30 **O-41 Oxygen dependent mutagenesis in mismatch repair deficient cells**  
Eszter Németh, Rita Lózsa, Dávid Szüts
- 09:50 **O-42 Chemotherapy 2.0: Liposomal formulation of a highly toxic anthracycline derivative is effective against an array of different cancer types including drug resistant tumors**  
András Füredi, Szilárd Tóth, Kristóf Hegedüs, Krisztina Kiss, Zoltán Varga, Gábor Mező, Gergely Szakács
- 10:05 **O-43 Concordant or not? Performance and concordance rates analysis of ten prediction algorithms on clinically relevant variants from the BRCA1 and BRCA2 genes**  
Erda Qorri, Takács Bertalan, Enyedi Márton Zsolt, Lajos Pintér, Lajos Haracska
- 10:20 **O-44 The complex role of mesenchymal stem cells in the tumor microenvironment**  
Flóra Vajda, Áron Szepesi, Zsuzsa Erdei, Kornélia Szebényi, Katalin Német, Gergely Szakács, András Füredi
- 10:35 **O-45 Nuclear regulation of myosin phosphatase by Mg<sup>2+</sup>-dependent protein phosphatase 1B in tumor suppressor pathway**  
Ilka Keller, Ádám Ungvári, Beáta Lontay

10:50 *Coffee break*



### Day 3 – Sunday, 26 March 2023

#### Genome manipulation & archeogenetics / Room Liget I.

Chair: Zoltán Ivics

- 09:30    **O-46**    **Advances in *Sleeping Beauty* transposon-based therapeutic cell engineering**  
Zoltán Ivics, Csaba Miskey, Matthias Ochmann, Lacramioara Botezatu, Tobias Bexte, Orsolya Barabás, Evelyn Ullrich, Michael Hudecek
- 09:50    **O-47**    **SuperFi-Cas9 exhibits remarkable fidelity but severely reduced activity yet works effectively with ABE8e base editor**  
Péter István Kulcsár, András Tálás, Zoltán Ligeti, Sarah Laura Krausz, Ervin Welker
- 10:05    **O-48**    **Archaeogenetic analysis of the human remains from the family cemetery of the genus *Aba***  
Gergely István Varga, Kitti Maár, Zoltán Maróti, Emil Nyerki, Balázs Tihanyi, Orsolya Váradi, Alexandra Ginguta, Bence Kovács, Petra Kiss, Monika Dosztig, Zsolt Gallina, Miklós Makoldi, Oszkár Schütz, Tibor Török, Endre Neparáczi
- 10:20
- 10:35    **O-50**    **Preliminary genetic results about Sarmatians from the Carpathian basin**  
Oszkár Schütz, Zoltán Maróti, Emil Nyerki, Endre Neparáczi, Balázs Tihanyi, Bence Kovács, Kitti Maár, Gergely Varga, Alexandra Gînguță, Tibor Török

10:50    *Coffee break*



### Day 3 – Sunday, 26 March 2023

#### Epigenetics & regulation of gene expression / Congress Hall

Chair: Tamás Arányi

- 11:30    **O-51**    **Generation and characterization of hepatocyte-specific de novo DNA methyltransferase (DNMT) 3A and DNMT3B double knockout mice**  
 Dániel Márton Tóth, Muazu Muhyiddeen, Virgil Tamatey, Dóra Kővári, Andrea Kádár, Mária Ashaber, Csaba Fekete, Flóra Szeri, Tamás Arányi
- 11:50    **O-52**    **Tail-oring epigenetic regulation via the histone variant H2A.Z**  
 László Imre, Péter Nánási Jr., Ibtissem Benhamza, Kata Nóra Enyedi, Gábor Mező, Éva Hegedüs, György Vámosi, Gábor Szabó
- 12:05    **O-53**    **Moesin functions in the nucleus as a new member of the Mediator complex**  
 Ildikó Kristó, Zoltán Kovács, Péter Borkúti, Anikó Szabó, Zoltán Lipinszki, Aladár Pettkó-Szandtner, Péter Vilmos
- 12:20    **O-54**    **Human abdominal subcutaneous-derived active beige adipocytes carrying *FTO* rs1421085 obesity-risk alleles exert lower response to thermogenic activation**  
 Endre Kristóf, Attila Vámos, Rini Arianti, Boglárka Ágnes Vinnai, Rahaf Al Rifai, László Fésüs
- 12:35    **O-55**     **$\beta$  common receptor-family cytokines as inducers of NLRP2 expression**  
 Hala Ahmad, Gergő Kovács, Eduárd Bíró, Szilvia Benkő

13:00    ***Closing ceremony***  
***Congress Hall***

13:15    ***Lunch***



## Day 3 – Sunday, 26 March 2023

### Regulatory RNA / Room Liget I.

Chair: Tamás Orbán

- 11:30    **O-56**    **Comparative analysis of epitranscriptomic profiles in maternal and somatic ribosomes of zebrafish**  
Máté Varga, Christian Fagre, Rebeca Medina, Ana Milovanovic, Renáta Hamar, Diána Kaszás, Austin Draycott, Eva Maria Novoa, Wendy Gilbert
- 11:50    **O-57**    **Novel ori-proximal herpesvirus transcripts with putative regulatory roles in DNA replication and transcription identified by short and long-read RNA-sequencing**  
Balázs Kakuk, Gábor Torma, Dóra Tombácz, Islam A.A. Almsarrhad, Gergely Ármin Nagy, Ádám Fülöp, Ákos Dörmő, Zsolt Csabai, Zsolt Boldogkői
- 12:05    **O-58**    **Transcriptional regulation during heat stress in plants**  
István Szádeczky-Kardoss, Henrik Mihály Szaker, Radhika Verma, Dániel Silhavy, Tibor Csorba
- 12:20    **O-59**    **The miRNA content of bone marrow-derived extracellular vesicles contribute to protein pathway alterations involved in ionising radiation-induced bystander responses**  
Ilona Barbara Csordás, Eric Andreas Rutten, Tünde Szatmári, Prabal Subedi, Lourdes Cruz-Garcia, Dávid Kis, Christine von Toerne, Martina Forgács, Géza Sáfrány, Soile Tapio, Christophe Badie, Katalin Lumniczky
- 12:35    **O-60**    **Structural dissection of the RNA binding mechanism of a disordered loop in Ezh2**  
Beáta Szabó, András Micsonai, Csenge Lilla Szabó, Fanni Sebák, Andrea Bodor, József Kardos, Ágnes Tantos

13:00    **Closing ceremony**  
**Congress Hall**

13:15    *Lunch*





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| P-003 | <b>Fanni Keresztes</b><br>Autophagy-related small GTPase proteins' effect on <i>Drosophila</i> lifespan and Parkinson's disease model   |
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| P-011 | <b>Márk Kovács-Valasek</b><br>Identification of novel cryptic primycin biosynthetic gene clusters within the pseudonocardiaceae family  |
| P-012 | <b>Balázs Liget, Zsófia Molnár</b><br>Transfer learning for microbiome based predictive disease classification  |
| P-013 | <b>Kolos Nemes</b><br>Predicting drug response in small cell lung cancer cell lines using gene expression signatures  |
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- P-029 **Eliza Guti**  
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# Fedezze fel az élet alkotóelemeit!



## A konfokális mikroszkópia új szintje

Tudományos kérdéseink megválaszolásához a lehető legjobb adatokra van szükség a lehető legrövidebb expozíciós idő mellett. Ezt biztosítja a ZEISS LSM 900 kompakt konfokális mikroszkópja, minden részletében optimalizálva a legjobb képi eredmények eléréséhez. Az innovatív LSM Plus konfokális technológiával kiegészülve egyedülálló módon javítja minden többszörös és élősejtes képalkotás minőségét. Növelje a felbontást és a képminőséget kiváló érzékenység és lényegesen kevesebb fotobleaching mellett!

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Seeing beyond



## Számítógéppel vezérelt folyékony nitrogénes mélyfagyasztók biológiai anyagok fagyasztására és felolvasztására.

A klinikai vizsgálatok és kutatások során az ellenőrzött sebességű fagyasztás bevett eljárás a biológiai anyagok, őssejtek, csontvelő és köldökzsínór vér krioprezerválásához. A GMP protokollokkal összhangban a sejttanyagokat lefagyasztják, majd kriogén hőmérsékleten tárolják.

Az IceCube eszközök megbízható, reprodukálható eredményeket érnek el a maximális üzembiztonság mellett. Klinikai, állatorvosi és kutatási minták ellenőrzött sebességű fagyasztásához és felolvasztásához használják. Rendelkezik az Orvosi eszközökről szóló irányelv (MDD) tanúsítványával.



## IC Biomedical gyártmányú cseppfolyós nitrogénes tárolók, tartályok, dewar edények.

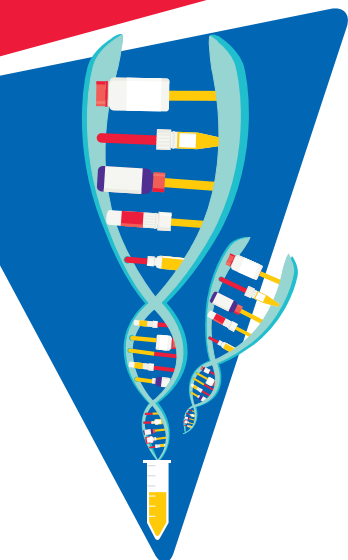
A tárolás történhet a cseppfolyós nitrogén gőz fázisában (vapor phase,  $-150^{\circ}\text{C}$  és  $-196^{\circ}\text{C}$  között) és folyadék fázisában is (liquid phase,  $-196^{\circ}\text{C}$ -on). A tárolás felügyelésére automatikus monitoring rendszert ajánlunk, amely felügyeli, folyamatos felvilágosítást ad a tartályok hőmérsékletéről és a cseppfolyós nitrogén aktuális szintjéről.



## Sejtszámláló és sejtanalizálóműszerek

emlős, szomatikus és élesztő sejtek vizsgálata. Teljes sejtciklus, apoptózis és élő-holt sejtarány meghatározása.

**chemometec**



## It all starts with a PCR

We have listed our bestsellers for all types of PCR: Standard, Hot Start, Long/Accurate and Challenging, as well as qPCR, RT-PCR and Genotyping. For a complete listing of our PCR products, visit [SigmaAldrich.com/pcr](http://SigmaAldrich.com/pcr)

	Item Number	Description
qPCR	4913957001	FastStart™ Universal Probe Master (Rox) (1250 x 20 µL), 1250 reactions
	4673484001	FastStart SYBR® Green Master (500 x 20 µL), 500 reactions
	4913850001	FastStart Universal SYBR® Green Master (ROX) (4 x 1.25 mL), 200 reactions
	54438-500RXN	SYBR® Green JumpStart™ Taq ReadyMix (12.5 mL), 500 reactions
	KK4601	KAPA SYBR® FAST Universal (5 mL), 500 reactions
RT-PCR	3531287001	Transcriptor Reverse Transcriptase, 200 reactions
	11483188001	First Strand cDNA Synthesis Kit For RT-PCR (AMV), 30 reactions
	KK4715	KAPA Probe Fast Universal (5000 x 20 µL), 5000 reactions
	5893151001	Transcriptor Universal cDNA Master, 100 reactions
	5091284001	Transcriptor High Fidelity cDNA Synthesis Kit, 100 reactions
Genotyping	KK7352	KAPA HotStart Mouse Genotyping Kit, 500 reactions
	KK5121	KAPA2G Fast Genotyping Mix (25 µL), 500 reactions
	KK5620	KAPA2G Fast HotStart Genotyping Mix (1.25 mL), 100 reactions
	R4775-12ML	REDExtract-N-Amp™ PCR ReadyMix™ (12 mL), 1000 reactions
	R2523-100RXN	REDTaq® ReadyMix™ PCR Reaction Mix (2.5 mL), 100 reactions

	Item Number	Description
Standard PCR	11647687001	Taq DNA Polymerase (1 U/µL, 4 x 250 U), 2000 reactions
	11636103001	PCR Master (2.5 U, 10 vials)
	11814362001	PCR Nucleotide Mix (10 x 200 µL), 5000 reactions
	D4309-1KU	REDTaq® DNA-Polymerase (1 U/µL), 1000 reactions
	D1806-1.5KU	Taq DNA-Polymerase aus Thermus aquaticus (5 U/µL), 1500 reactions
Hot Start PCR	12032929001	FastStart™ Taq DNA Polymerase (5 U/µL, 2 x 250 U), 250 reactions
	4738381001	FastStart™ Taq DNA Polymerase dNTPack (4 x 250 U), 500 reactions
	4710444001	FastStart™ PCR Master (8 x 1.25 mL), 400 reactions
	P1107-100RXN	JumpStart™ REDTaq® ReadyMix™ Reaction Mix, 100 reactions
	KK5802	KAPA2G Fast Multiplex Mix (500 x 25 µL)
Long and Accurate PCR	11681842001	Expand™ Long Template PCR System (2 x 360 U), 190 reactions
	11732650001	Expand™ High Fidelity PCR System (2 x 250 U), 200 reactions
	4738292001	FastStart™ High Fidelity PCR System dNTPack (2 x 250 U), 200 reactions
	71086-3	KOD Hot Start DNA Polymerase, 200 U
	KK5609	KAPA2G Fast HotStart ReadyMix™ with Dye (6.25 mL), 500 reactions
Challenging PCR	3553400001	FastStart™ High Fidelity PCR System (500 U), 200 reactions
	3553361001	FastStart™ High Fidelity PCR System (2500 U), 1000 reactions
	71975-3	KOD Xtreme™ Hot Start DNA Polymerase (200 U)
	KK5702	KAPA2G Robust HotStart ReadyMix™ (6.25 mL), 500 reactions
	12140306001	GC-RICH PCR System (100 U), 50 reactions

### Elérhetőségünk:

Merck Life Science Kft.

Október huszonharmadika utca 6-10.

1117 Budapest

[rendeles@merckgroup.com](mailto:rendeles@merckgroup.com)

+36 1 463 8100

# PIPETTE LIKE A PRO

## SAPPHIRE pipettahegyek

Maximális precizitás és folyadék visszanyerés  
a Greiner Bio-One termékeivel.

- Dobozos, ömlesztett és utántöltős kiserelésekben.
- Filteres és filter nélküli kivitelek.
- „Low retention”-kis visszatartású pipettahegyek.
- Univerzális illeszkedés: a pipettahegyek kompatibilisek minden általánosan használt egy- és többcsatornás pipettával.
- Hosszított pipettahegy forma: csökkenti a kontamináció kockázatát pipettázás során.
- Tökéletesített pipettahegy kialakítás: a sima felszínnek csökkenti a folyadék visszatartást, ezáltal minimalizálják a költséges reagensek és minták veszteségeit.
- Kitűnő átlátszóságú orvosi minőségű polipropilénből készül a minták tökéletes láthatósága érdekében.
- Egyszerűen olvasható beosztás a minta térfogat gyors ellenőrzésére.
- Vékonyított fal kialakítás: tökéletes illeszkedés és pontosság változatlan teljesítmény mellett, csökkentett műanyag felhasználással.
- Rugalmas pipettahegy és gallér kialakítás: minimalizált felszívási és kienegedési erő és optimális illeszkedés.
- **We take your rack back:** visszavesszük és újrahasznosítjuk használt pipettahegyes dobozait.



- / DNáz, Rnáz, humán DNS és PCR inhibitor mentes
- / Nem pirogén és nem citotoxikus
- / Kioldódó anyagokra tesztelt
- / Sterilitási biztonsági szint SAL 10-6
- / EU-ban gyártott és a nemzetközi szabványoknak megfelelően tesztelt
- / Teljesen automatizált csomagolás a részecske-szennyezések megelőzése érdekében
- / Teljes nyomonkövethetőség

**További információért és ingyenes mintáért keresse kollégáinkat a Greiner standon vagy az alábbi elérhetőségeken:**

**Kelet-Magyarország:**

Merva László  
+36 30 321 5190  
laszlo.merva@gbo.com

**Nyugat-Magyarország és Budapest:**

Dr. Jancsó András  
+36 30 498 9689  
andras.jancso@gbo.com



## QIAcuity nanoplate-alapú digitális PCR készülék



Csatlakozzon a legújabb technológiát alkalmazó tudományos élvonalhoz.

Ne hagyja ki ezt a nagyszerű lehetőséget, mellyel most eredményeit egy új, DIGITÁLIS szintre emelheti.

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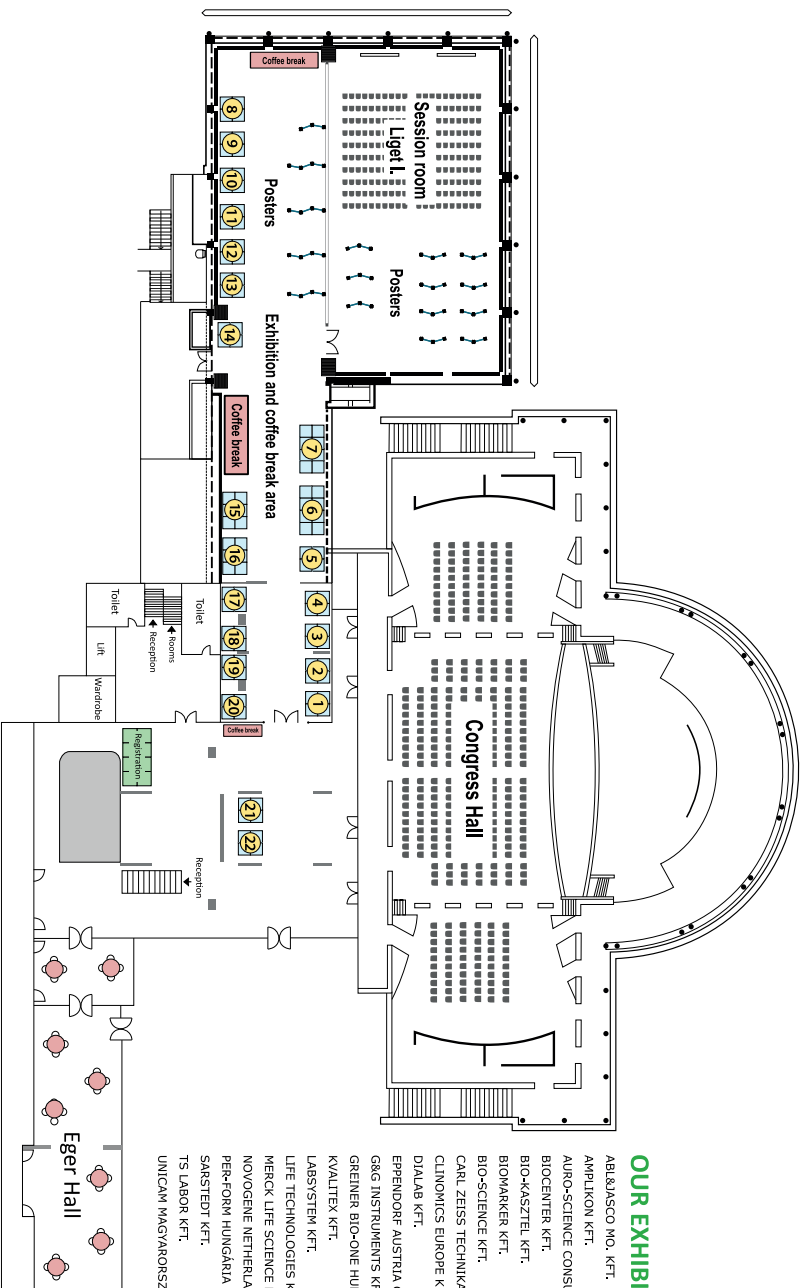
Tel: +36 28 419 986, +36 28 412 674;  
biomarker@biomarker.hu; www.biomarker.hu



# Hungarian Molecular Life Sciences 2023

24-26 March 2023, Eger, Hungary

## Map and exhibition floor plan



### OUR EXHIBITORS

- |           |                              |
|-----------|------------------------------|
| 8. stand  | ABLASCÓ MO. KFT.             |
| 22. stand | AMPLIKON KFT.                |
| 18. stand | AURO-SCIENCE CONSULTING KFT. |
| 4. stand  | BIOCENTER KFT.               |
| 20. stand | BIO-KASZTEL KFT.             |
| 15. stand | BIOMARKER KFT.               |
| 17. stand | BIO-SCIENCE KFT.             |
| 1. stand  | CARL ZEISS TECHNIKA KFT.     |
| 13. stand | CLINOMICS EUROPE KFT.        |
| 12. stand | DIALAB KFT.                  |
| 19. stand | EPPENDORF AUSTRIA GMBH       |
| 3. stand  | G&G INSTRUMENTS KFT.         |
| 5. stand  | GREINER BIO-ONE HUNGARY KFT. |
| 14. stand | KVAALTEX KFT.                |
| 9. stand  | LABSYSTEM KFT.               |
| 16. stand | LIFE TECHNOLOGIES KFT.       |
| 2. stand  | MERCK LIFE SCIENCE KFT.      |
| 6. stand  | NOVOGENE NETHERLANDS B.V.    |
| 21. stand | PER-FORM HUNGÁRIA KFT.       |
| 11. stand | SARSTEDT KFT.                |
| 10. stand | TS LABOR KFT.                |
| 7. stand  | UNICAM MAGYARORSZÁG KFT.     |