



37TH EUROPEAN IMMUNOGENETICS & HISTOCOMPATIBILITY CONFERENCE

MAY 20–23, 2024
GENEVA
SWITZERLAND



Unveiling Diversity, Nurturing Transplant Bonds,
Orchestrating immunity



FINAL PROGRAM

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WELCOME ADDRESS

Dear scientists, Dear EFI members,

It is with great pleasure and excitement that we welcome each one of you to the 37th Conference of the European Federation for Immunogenetics (EFI) in Geneva.

As we come together for this significant gathering, it is a testament to our shared commitment to advancing the field of Immunogenetics. Over the four days of the conference, we will have the privilege of engaging with cutting-edge research, insightful discussions, and networking opportunities. The scientific program is designed to cover a spectrum of topics, from the latest technological advancements to the ethical considerations that underscore our work in Immunogenetics. Our distinguished lineup of speakers, experts, and panelists will share their expertise, providing invaluable insights that will inspire and challenge our thinking.

Don't miss the final state-of-the-art lecture to navigate through our universe and beyond by learning more on exoplanets, a big field of expertise at the University of Geneva.

A conference of this size is not possible to arrange without the support from a number of faithful sponsors, who have prepared very interesting symposia. We sincerely thank all of them for their financial and scientific contributions.

We also hope that you will take time to visit and enjoy the international and peaceful atmosphere of Geneva, the smallest of the biggest capitals, which hosts international organisations, such as the European headquarters of the UN, the Red Cross, the WHO and a dozen of non-governmental organisations.

Hereby, we would like to express our gratitude to the EFI Executive Committee, the EFI Scientific Committee, the EFI Education Committee, to the members of the Organizing Committee as well as our PCO. They have all provided us with invaluable help and support in preparing the scientific program, organizing teaching sessions, evaluating abstracts and preparing the Conference.

Thank you for being an integral part of EFI 2024 in Geneva.

Here's to an inspiring and transformative conference!

From the local organizing committee
Sylvie Ferrari-Lacraz and Jean Villard



SPONSORS AND EXHIBITORS

WE WOULD LIKE TO THANK THE FOLLOWING PARTNERS FOR THEIR SUPPORT

Platinum Partners



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Bronze Partners



Special thanks to



The water bottles partner
The lanyards partner

The fondue forks partner

Tulip Run partner

Exhibitors



Supporters



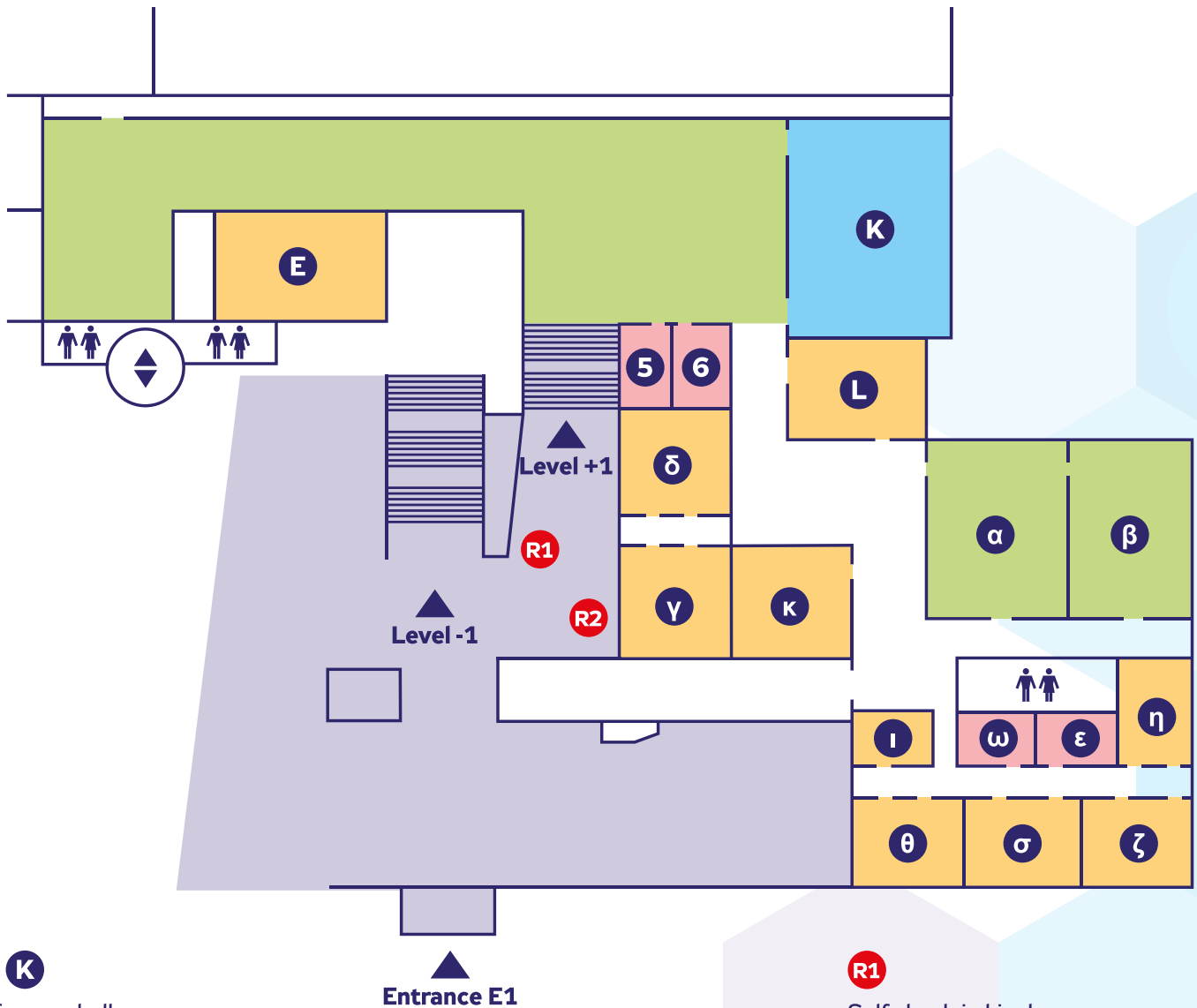
CONFERENCE INFORMATION

CONFERENCE VENUE

Palexpo Geneva

www.palexpo.ch

First floor



  Conference hall

Poster Session – Alpha, Beta





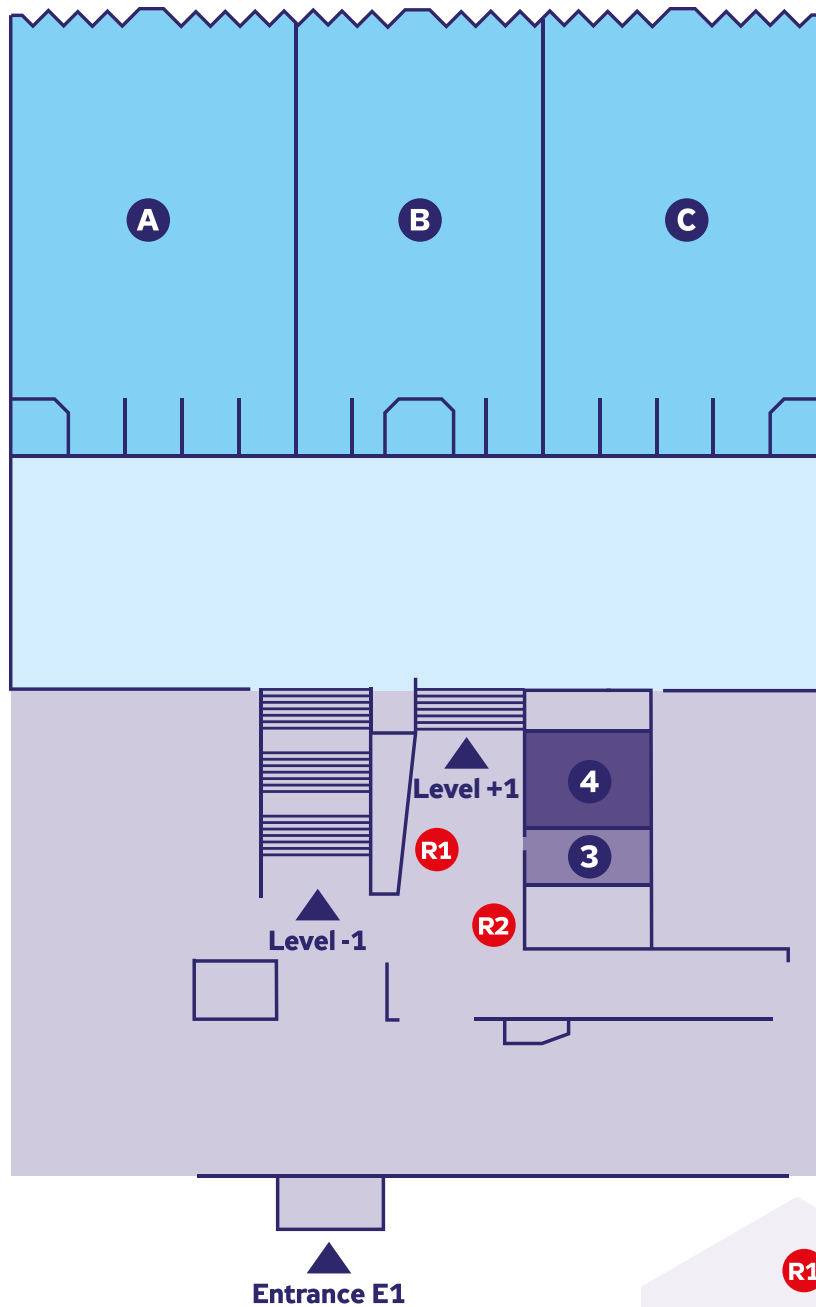

 Company private lounges – Epsilon, Omega, 5, 6

Conference meeting rooms – Gamma, Delta, Zeta, Eta, Theta, Iota, Kappa, Sigma, E, L

R1
Self check-in kiosks

R2 On-site registration, bag delivery

Ground floor



A B C

Conference halls

3

Speakers' Ready Room

4

Room 4

Exhibition area

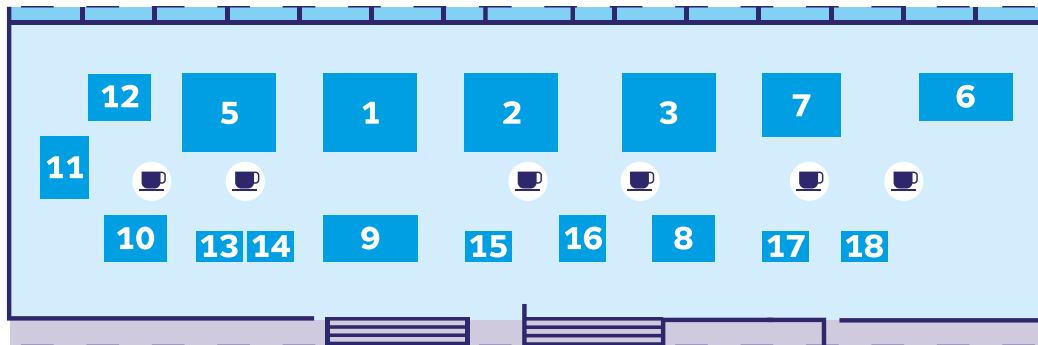
R1

Self check-in kiosks

R2

On-site registration, bag delivery

EXHIBITION PLAN



List of Exhibitors

- | | |
|---------------------------------------|---|
| 1 GenDx | 11 BAG Diagnostics GmbH |
| 2 CareDx, Inc. | 12 HistoGenetics |
| 3 Thermo Fisher Scientific | 13 Pirche AG |
| 5 Werfen | 14 Protrans medizinische diagnostische Produkte GmbH |
| 6 DiagnoSeq | 15 EFI Office |
| 7 Hansa Biopharma | 16 inno-train Diagnostik GmbH |
| 8 Devyser | 17 JETA Molecular |
| 9 Omixon | 18 STEMCELL Technologies |
| 10 DKMS Life Science Lab gGmbH | |

FREE WI-FI

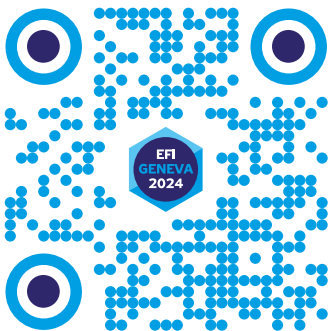
SSID: EFI2024

Password: Geneva2024

EFI 2024 MOBILE APPLICATION

With the mobile application, you will have access to the detailed program and all the important information related to the conference.

Download the mobile app in the App Store / Google Play.



EFI SOCIAL MEDIA

Follow EFI on Social Media

 <https://www.facebook.com/EFI2024>

 https://twitter.com/i/flow/login?redirect_after_login=%2FConferenceEfi

 <https://www.linkedin.com/company/efi-conference-2024/>

As for EFI conference 2024 use #EFI2024.

REGISTRATION

SELF-CHECK-IN

On-site registration and issue of badges will take place at self-check-in stations. You will receive a QR code before the conference via email. You can print the QR code or use your mobile device to obtain your badge.

On-site Registration Fee

Member	760 EUR
Non-member	860 EUR
Technician	490 EUR
Student	490 EUR
Retired	490 EUR
One-day fee (May 21/22)	530 EUR
One-day fee (May 23)	430 EUR
Distributor	270 EUR
Accompanying Person	160 EUR

Registration fee includes 8,1 % VAT.

The Registration Fee Includes:

- Access to the conference and all its sessions (not included for Accompanying Persons)
- Welcome Cocktail
- Opening ceremony
- Coffee and lunch breaks
- Wine and cheese poster session

The distributor fee allows for access to the exhibition only. Access to the sessions need a full conference ticket.

The One-day Registration Fee Includes:

- Access to the conference and all sessions taking place on the selected day
- Coffee and lunch breaks

The Accompanying person's Registration Fee includes:

- Access to the building and exhibition
- Welcome Cocktail
- Wine and cheese poster session
- Accompanying persons do not have access to scientific sessions

REGISTRATION DESK

Opening Hours

Monday, May 20, 2024	08:00–20:00
Tuesday, May 21, 2024	07:30–18:30
Wednesday, May 22, 2024	08:00–18:30
Thursday, May 23, 2024	08:00–14:00

NAME BADGE

All delegates will receive a name badge upon registration. Everyone is kindly requested to wear his/her badge when attending the conference.

DELEGATE
SPEAKER
ONE-DAY FEE (MAY 21,22)
ONE-DAY FEE (MAY 23)
ORGANIZER
PARTNER / EXHIBITOR
ACCOMPANYING PERSON

CERTIFICATE OF ATTENDANCE

All delegates will receive a certificate of attendance after the conference by email.



INSTRUCTIONS FOR SPEAKERS (ORAL)

Please prepare your presentation in 16:9 format (screen is in format ratio 16:9).

We recommend to save your PowerPoint presentation using PPT(X) format.

Each presenter will be given a time slot of 10 minutes in total. Each oral presentation should not exceed 8 minutes. It will be followed by 2 minutes discussion.

All speakers are requested to strictly keep their allocated time slots. Session chairs will enforce the schedule.

SPEAKERS' READY ROOM

All session halls are equipped with standard PowerPoint presentation facilities.

All presentations will be networked to the appropriate room "Speakers' Ready Room" (Office 6, located on the first floor of the venue).

All speakers are asked to submit their presentations to the Speakers' Ready Room at least 1 hour prior to the session you present in.

Early morning presentation:

Please submit your presentation the day before.

We kindly ask you to hand in your presentation to the technical staff in the Speakers' Ready Room on-site via an external drive. While doing so, we encourage speakers to verify their presentation. This will ensure no formatting errors.

IT support will be available in all the conference rooms during live sessions. All speakers are kindly requested to use provided PC onsite.

Please be present in the session room 15 minutes before the start of your session and follow the instructions from the Chairs and/or technician.

During your presentation, a remote control will be available for controlling your presentation. Please observe the time allotted to you as you will not be permitted to speak for a longer time.

At the end of the conference, all presentations will be deleted from the presentation system and computers on-site.

Opening hours of the Speakers' Ready Room

Monday, May 20, 2024	15:30–20:00
Tuesday, May 21, 2024	07:30–18:00
Wednesday, May 22, 2024	08:00–18:30
Thursday, May 23, 2024	07:30–12:30

INSTRUCTIONS FOR POSTER PRESENTERS

The poster section is located in the foyer of the 1st floor and in the Alpha + Beta rooms.

All posters will be presented in a “paper” format (printed posters) and will be organized according to the paper ID numbers.

- Posters must be prepared in PORTRAIT style (**please DO NOT prepare a landscape poster**). The recommended dimensions (for a good legibility) are **84.1 × 118.9 cm wide**. (format A0). Do NOT exceed the overall dimensions of the poster board (180 cm high by 95 cm wide).
- Posters will be displayed throughout the whole conference.
- Posters should be attached to the boards (smooth surface) with stickers, which will be supplied by the organisers.
- Fixing material (adhesive gum, standard tape) will be available in the Posters Area
- The poster boards will be numbered by the organizers.

The number of your poster can be found in the [List of posters](#). The presentation number assigned to your poster should not be placed on your poster.

POSTER CREATION

The header of the Conference can be downloaded here ([JPG format](#), [PDF format](#)), and the instructions on layout, font style, and margins are in the attached [preview](#). The preview is informative only. The text, illustrations, etc. should be big enough to be read from a distance of 1.5 meters, and the message of the poster should be clear and understandable.

Please print your poster and bring it with you to the Conference. **No** poster printing service is provided by the organizers. Please **DO NOT** prepare a landscape poster.

A SPECIAL SESSION

Poster Session viewing is scheduled on Tuesday, May 21 from 18:00–20:00

Be at your poster during this poster session to discuss your work with scientists visiting your poster. A Selection of posters will be assessed for best posters awards. The best posters awards will be announced during the closing ceremony on Thursday, May 23, from 12:00.

Poster mounting time:

Monday, May 20, 2024	16:00–19:30
Tuesday, May 21, 2024	07:30–10:00

Poster removal time:

Wednesday, May 22, 2024	17:00–19:00
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We ask the presenters to remove their posters during the removal time, otherwise they will be removed and discarded by the organizer.

ORGANISERS AND COMMITTEES

LOCAL ORGANIZING COMMITTEE

Jean Villard, *Chair, Switzerland*
Sylvie Ferrari-Lacraz, *Switzerland*
Stéphane Buhler, *Switzerland*
Valérie Olivier, *Switzerland*
José Manuel Nunes, *Switzerland*
Alicia Sanchez-Mazas, *Switzerland*

EFI SCIENTIFIC COMMITTEE AND ABSTRACT REVIEWERS

Luca Vago, *Chair, Italy*
Lotte Wieten, *the Netherlands*
John Trowsdale, *United Kingdom*
Alicia Sanchez-Mazas, *Switzerland*
Raphael Carapito, *France*
Pietro Crivello, *Germany*
Katharina Fleischhauer, *Germany*

EFI EXECUTIVE COMMITTEE

Ann-Margaret Little, *President, United Kingdom*
Marco Andreani, *President-elect, Italy*
Dave Roelen, *Secretary, the Netherlands*
Kay Poulton, *Deputy Secretary, United Kingdom*
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Antonij Slavcev, *Councilor, Czech Republic*
David Turner, *Councilor, United Kingdom*
Luca Vago, *Councilor, Italy*



SPEAKERS

Plenary 1: Solid Organ Transplantation (How to Transplant Highly Sensitized Patients)

Lori West, *Alberta Transplant Institute, Canada*

Mats Bengtsson, *Uppsala University Hospital, Sweden*

Pernille Bundgaard Koefoed-Nielsen, *Aarhus University Hospital Denmark*

Plenary 2: Hematopoietic stem cell transplantation (New therapies for acute leukemia: HSCT, CAR-T, Bispec-Ab)

Jakob Passweg, *USB, Basel*

Catherine Thieblemont, *APHP, Saint Louis*

Federico Simonetta, *HUG, Geneva*

Plenary 3: HLA Immunogenetics and Population Genetics a combined SIP-EFI session

Alicia Sanchez-Mazas, *UNIGE*

Diogo Meyer, *Sao Paulo, Brazil*

Paul Norman, *CU Anschutz, Denver, Colorado*

Plenary 4: Giving life-bone marrow / solid organ donors

Johannes Schetelig, *Dresden UniversityKlinik and DKMS*

Constanca Figueiredo, *Medizine Ochshule Hannover*

Efstratios (Stratos) Chatzixiros, *World Health Organization (Switzerland)*

Plenary 5: Antigen presentation and neoantigens

Giacomo Oliveira, *Harvard, Boston*

Andrea Sotto, *Human Technopole, Milan*

Michal Bassani-Steinberg, *CHUV*

SFHI session

Thomas Fehr, *Kantonspital Chur*

Fadi Issa, *Oxford, UK*

Tifanie Blein, *Institut Imagine, Paris*

Network immune cell session

Mikaël Pittet, *UNIGE*

Camilla Jandus, *UNIGE*

David Gfeller, *UNIL*

DP special session

Katharina Fleischhauer, *Essen, Germany*

Julien Racle, *UNIL*

Effie Petersdorf, *Fredhutchinson, Seattle*

Stéphane Buhler, *HUG, Geneva, Switzerland*

Teaching KIR

Paul Norman, *CU Anschutz, Denver, Colorado*

Alice Koenig, *CHU Lyon, France*

Stéphane Buhler, *HUG, Geneva, Switzerland*

Teaching transfusion

Deborah Sage, *NHS, London, UK*

Anthony Poles, *NHS, Bristol, UK*

Agnes Basire, *EFS, Marseille*

Teaching HLA and disease

Gwendaline Guidicelli, *CHU Bordeaux, France*

Frantisek Mrazek, *Olomuc University Hospital, Czech Republic*

Deborah Pritchard, *Wales, UK*

Young professionals session

Sandra Tafulo, *Portuguese Institute for Blood and Transplantation, Porto, Portugal*

Nicolas Vince, *Nantes University, France*

Lovis Christian, *HUG, Switzerland*

Closing ceremony

Monika Lendl, *UNIGE*



PROGRAM AT GLANCE

TIME	MONDAY, MAY 20, 2024
	Hall B
07:30	Registration
17:30	17:30–19:15 Opening Ceremony

TIME	TUESDAY, MAY 21, 2024			
	Hall A	Hall B	Hall C	Hall K
07:30	Registration			
08:30		08:30–10:00 Plenary session I Solid Organ Transplantation (How to Transplant Highly Sensitized Patients)		
10:00	Coffee Break			
10:30	10:30–12:00 Abstract session 1 Immunotherapy, gene therapy & NK cells	10:30–12:00 Special joint SFHI session – Tolerance	10:30–12:00 Abstract session 2 Bioinformatics, data analysis in immunogenetics	10:30–12:00 Teaching session 1 HLA and transfusion
12:00	Lunch			
12:10	12:10–12:50 Industry symposium Werfen			
13:10		13:10–13:50 Industry symposium CareDx		
14:00	14:00–15:30 Abstract session 3 New technologies in Immunogenetics	14:00–15:30 Special joint session with the Geneva University – The network of immune cells in health and disease	14:00–15:30 Abstract session 4 Immunogenetics in organ transplantation 1	14:00–15:30 Teaching session 2 HLA and diseases
15:30	Coffee Break			
16:00		16:00–17:30 Plenary session II Hematopoietic stem cell transplantation (New therapies for acute leukemia: HSCT, CAR-T, Bispec-Ab)		
17:30	17:30–18:10 Industry symposium Omixon	17:30–18:00 Serological nomenclature: update	17:30–18:10 Industry symposium Hansa Biopharma	
18:10	18:10–20:00 Wine and Cheese Poster viewing Session – Poster area on the 1 st Floor & Alpha + Beta rooms			

WEDNESDAY, MAY 22, 2024				
TIME	Hall A	Hall B	Hall C	Hall K
08:00	Registration			
08:30		08:30–10:00 Plenary session III HLA Immunogenetics and Population Genetics a combined SIP-EFI session		
10:00	Coffee Break			
10:30	10:30–12:00 Abstract session 5 Immunogenetics in organ transplantation 2	10:30–12:00 Special session – HLA DP models and beyond	10:30–12:00 Abstract session 6 MHC evolution, population genetics	
12:00	Lunch			
12:10	12:10–12:50 Industry symposium Thermo Fisher Scientific			
13:10	13:10–13:50 Industry symposium GenDx			
14:00	14:00–15:30 Abstract session 7 Hematopoietic stemcell transplantation	14:00–15:30 Young EFI professional special session – AI and big data in immunogenetics	14:00–15:30 Abstract session 8 Autoimmunity, Infection, Reproduction & Cancer	14:00–15:30 Teaching session 3 KIR in solid organ and hematopoietic stem cell transplantation
15:30	Coffee Break			
16:00		16:00–17:30 Plenary session IV Giving life- bone marrow / solid organ donor		
17:30		17:30–18:00 EFI Medals Ceremony		
18:00		18:00–19:00 EFI General Assembly		

THURSDAY, MAY 23, 2024	
TIME	Hall B
07:30	Registration
08:30	08:30–10:00 Best abstract session
10:00	Coffee break
10:30	10:30–12:00 Plenary session V Antigen presentation and neoantigens
12:00	12:00–13:00 Closing Ceremony

DETAILED PROGRAM

ASSOCIATED MEETINGS

SUNDAY, MAY 19, 2024

Room α + β (Alpha + Beta)

09:00–17:00

Inspectors workshop

Chairpersons

Blanka Vidan-Jeras, Christien Voorter, Sabine Scherer

Rooms ι (Iota), ω (Omega), Office 5, Office 6

09:00–17:00

ESHI diploma examination

MONDAY, MAY 20, 2024

Rooms θ (Theta), ω (Omega), ι (Iota), σ (Sigma), ζ (Zeta), ε (Epsilon), η (Eta)

08:30–16:30

Executive committee meeting
External proficiency testing committee meeting
IT & bioinformatics committee meeting
Accreditation committee meeting
Standards committee meeting
Education committee meeting
Scientific committee meeting

Chairpersons

Chairs of each committee

θ (Theta)
 ω (Omega)
 ι (Iota)
 σ (Sigma)
 ζ (Zeta)
 ε (Epsilon)
 η (Eta)

SCIENTIFIC PROGRAM

MONDAY, MAY 20, 2024

Room γ (Gamma)

12:00–13:30 **Population Genetics Working Group
(Open Meeting)**

Chairpersons *A. Sanchez-Mazas, José Nunes*

Hall B

17:30–19:15 **Opening Ceremony**

17:30–18:00 **Welcome addresses**
EFI President, Dean of the Faculty, Health Minister

18:00–18:15 **HLA award**
Steven Marsh

18:15–18:45 **Julia Bodmer award**
Luca Vago

18:45–19:15 **Ceppellini lecture**
Ann-Margaret Little

Exhibition Hall

19:30–21:30 **Welcome reception**

TUESDAY, MAY 21, 2024

Hall B

- 08:30–10:00** **Plenary session I**
Solid Organ Transplantation (How to transplant highly sensitized patients)
Chairpersons *Valérie Dubois, Sebastiaan Heidt*
- 08:30–09:00** **New approach to ABO – Incompatible transplantation**
Lori West
- 09:00–09:30** **Is Imlifidase the new magic bullet for highly sensitized recipients?**
Mats Bengtsson
- 09:30–10:00** **10 years of the Scandiatransplant acceptable mismatch program**
Pernille Bundgaard Koefoed-Nielsen

PARALLEL SESSIONS

Hall B

- 10:30–12:00** **Special joint SFHI session**
Tolerance
Chairpersons *Paul Rouzaire, Alice Aarnink*
- 10:30–11:00** **Mixed chimerism for induction of renal allograft tolerance**
Thomas Fehr
- 11:00–11:30** **Development and assessment of T cell therapies for transplantation**
Fadi Issa
- 11:30–12:00** **Genetic engineering to empower Treg therapy**
Tifanie Blein

Room K

- 10:30–12:00** **Teaching session 1**
HLA and transfusion
Chairpersons *Deborah Sage, Agnès Basire*
- 10:30–11:00** **Human platelet antigens - Definition and laboratory investigation**
Anthony Poles
- 11:00–11:30** **Fetal and neonatal alloimmune thrombocytopenia diagnosis and management: a commissioner point of view**
Agnes Basire
- 11:30–12:00** **Platelet refractoriness: laboratory diagnosis and patient management**
Deborah Sage

Hall A

- 10:30–12:00** **Abstract session 1: Immunotherapy, gene therapy & NK cells**
Chairpersons *Britta Eiz-Vesper, Roberto Crocchiolo*

Hall C

- 10:30–12:00** **Abstract session 2: Bioinformatics, data analysis in immunogenetics**
Chairpersons *Martin Maiers, James Robinson*

Room θ (Theta)

12:00–13:00 EC + ECC meeting

Hall A

12:10–12:50 Industry symposium: Werfen

Hall B

13:10–13:50 Industry symposium: CareDx

Room σ (Sigma)

13:30–14:30 CME/CPD Launch meeting

PARALLEL SESSIONS

Hall B

14:00–15:30 Special joint session with the Geneva University
The network of immune cells in health and disease

Chairpersons Nicole Mifsud, Frans Claas

14:00–14:30 **The neutrophil and macrophage networks**
Mikaël Pittet

14:30–15:00 **The ILC network**
Camilla Jandus

15:00–15:30 **The T/TCR network**
David Gfeller

Room K

14:00–15:30 Teaching session 2
HLA and disease

Chairpersons Gwendaline Guidicelli, Deborah Pritchard

14:00–14:30 **Best practices for HLA and Genetic Testing in H&I laboratories: SFHI Guidelines**
Gwendaline Guidicelli

14:30–15:00 **Current position of disease associations with the HLA system in clinical diagnostics**
Frantisek Mrazek

15:00–15:30 **HLA genetics and Coeliac disease**
Deborah Pritchard

Hall A

14:00–15:30 Abstract session 3: New technologies in Immunogenetics
Chairpersons Eric Spierings, Jakob Nilsson

Hall C

14:00–15:30 Abstract session 4: Immunogenetics in organ transplantation 1
Chairpersons Caroline Wehmeier, Claudia Lehmann

Hall B

16:00–17:30

Plenary session II
Hematopoietic stem cell transplantation
(New therapies for acute leukemia: HSCT, CAR-T, Bispec-Ab)

Chairpersons

Kay Poulton, Pietro Crivello

16:00–16:30

HSCT

Jakob Passweg

16:30–17:00

B-specific antibody therapy

Catherine Thieblemont

17:00–17:30

CAR-T cells

Federico Simonetta

Hall B

17:30–18:00

Serological nomenclature: update

Chairperson

Marcelo Fernández-Viña

Hall C

17:30–18:10

Industry symposium: Hansa Biopharma

Hall A

17:30–18:10

Industry symposium: Omixon

Poster Hall

18:10–20:00

Poster viewing session

WEDNESDAY, MAY 22, 2024

Hall B

08:30–10:00

Plenary session III
HLA immunogenetics and population genetics a combined SIP-EFI session

Chairpersons

Neema Mayor, Alicia Sanchez-Mazas

08:30–09:00

Using genomic data to understand the nature and timescale of selection on HLA genes
Diogo Meyer

09:00–09:30

Archaic introgression enhanced recognition of HLA-A by first nations Oceanian Natural Killer cells
Paul Norman

09:30–10:00

Unveiling HLA population diversity: evolutionary meanings and clinical implications
Alicia Sanchez-Mazas

PARALLEL SESSIONS

Hall B

10:30–12:00

Special session
HLA DP models and beyond

Chairpersons

Jill Hollenbach, Pierre-Antoine Gourraud

10:30–11:00

The importance of Immunopeptidomics data to analyze the immune response
Julien Racle

11:00–11:30

The immunopeptidome in HCT – lessons learned from HLA-DP
Katharina Fleischhauer

11:30–12:00

MHC class II haplotypes
Effie Petersdorf

Hall A

10:30–12:00

Abstract session 5: Immunogenetics in organ transplantation 2
Chairpersons Valérie Olivier, Jean-Luc Taupin

Hall C

10:30–12:00

Abstract session 6: MHC evolution, population genetics
Chairpersons Natasja de Groot, Steven Mack

Room 4

12:00–13:15

Presidents meeting

Hall A

12:10–12:50

Industry symposium: Thermo Fisher Scientific

13:10–13:50

Industry symposium: GenDx

PARALLEL SESSIONS

Hall B

14:00–15:30

Young EFI professional special session
AI and big data in immunogenetics

Chairpersons

Timo Olieslagers, Arianne Brandsma

14:00–14:30

AI and Big data: friend or foe?
Christian Lovis

14:30–15:00

Endeavour in HLA research, an exciting winding path
Nicolas Vince

15:00–15:30

Scientific career path; inspiration, collaboration and commitment
Sandra Tafulo

Room K

14:00–15:30 **Teaching session 3**
KIR in solid organ and hematopoietic stem cell transplantation
Chairpersons *Paul Norman, Stéphane Buhler*

14:00–14:30 **The KIR system**
Paul Norman

14:30–15:00 **KIRs in solid organ transplantation**
Alice Koenig

15:00–15:30 **KIRs in hematopoietic stem cell transplantation**
Stéphane Buhler

Hall A

14:00–15:30 **Abstract session 7: Hematopoietic stem-cell transplantation (HSCT)**
Chairpersons *Nina Svetlitzky, Katarzyna Bogunia-Kubik*

Hall C

14:00–15:30 **Abstract session 8: Autoimmunity, Infection, Reproduction & Cancer**
Chairpersons *Danillo Augusto, Fatma Oğuz*

Hall B

16:00–17:30 **Plenary session IV**
Giving life- bone marrow / solid organ donors
Chairpersons *Joannis Mytilineos, TBA*

16:00–16:30 **The DKMS studies**
Johannes Schetelig

16:30–17:00 **One organ for every recipient**
Constanca Figueiredo

17:00–17:30 **The view and strategy of WHO**
Efstratios (Stratos) Chatzixiros

Hall B

17:30–18:00 **EFI medals ceremony**
Chairperson *Ann-Margaret Little*

Hall B

18:00–19:00 **EFI General Assembly**

THURSDAY, MAY 23, 2024

Hall B

08:30–10:00

Chairpersons

Best abstract session

Marco Andreani, Luca Vago

10:30–12:00

Chairpersons

Plenary session V

Antigen presentation and neoantigens

Lotte Wieten, Esteban Arrieta-Bolaños

10:30–11:00

Deciphering the properties of antitumor T cells in solid cancers

Giacomo Oliveira

11:00–11:30

Lymphatic vessels as immunomodulators in cancer

Stéphanie Hugues

11:30–12:00

Antigen discovery for the development of personalized cancer immunotherapy

Michal Bassani-Sternberg

12:00–12:30

Chairpersons

Closing Ceremony

Marco Andreani, Sylvie Ferrari-Lacraz

12:00–12:15

19th IHIW presentation

12:15–12:30

Jon Van Rood award & best abstracts award

Committee chair: Steven Marsh

Best poster awards

Committee chair: Stefan Schaub

12:30–13:00

Lecture

The world of exoplanets

Monika Lendl

Remarks

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¹Biomedical Primate Research Centre, Netherlands

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Marco Andreani¹, Feliciano Mariotti², Anna Pira², Giuseppe Testa¹, Priscilla Caputi², Mariarosa Battarra¹, Tiziana Galluccio³, Franco Locatelli⁴ and Giovanni Di Zenzo²

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Steven Jervis¹, Kay Poulton¹, Antony Payton² and Arpana Verma²

¹Manchester Transplantation Laboratory, United Kingdom; ²University of Manchester, United Kingdom

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Milena Ivanova¹, Angelina Mladenova¹, Gergana Tsvetkova², Evgueniy Hadjiev² and Velizar Shivarov³

¹Department of Clinical Immunology, Alexandrovska University Hospital, Medical University Sofia, Sofia, Bulgaria; ²Department of Clinical Hematology, Alexandrovska University Hospital, Medical University Sofia, Sofia, Bulgaria; ³Department of Experimental Research, Medical University Pleven, Pleven, Bulgaria

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¹Department of Immunology, Leiden University Medical Center, Leiden, Netherlands; ²Department of Obstetrics and Gynaecology, Leiden University Medical Center, Leiden, Netherlands

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P7 | Effects of HLA-G molecules in Primary Biliary Cholangitis: The Sardinian Experience

Caterina Mereu¹, Michela Lorrari¹, Stefano Mocci¹, Roberto Littera², Michela Miglianti³, Celeste Sanna¹, Michela Murgia¹, Meropi Plousiou¹, Chiara Cocco¹, Alessia Mascia⁴, Marina Serra⁴, Sara Lai², Erika Giuressi², Maria Conti⁵, Cinzia Balestrieri⁵, Giancarlo Serra⁵, Francesco Pes⁵, Teresa Zolfino⁶, Andrea Perra³, Luchino Chessa³ and Sabrina Rita Giglio²

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Michela Lorrari¹, Caterina Mereu¹, Stefano Mocci¹, Roberto Littera², Silvia Deidda³, Celeste Sanna¹, Michela Murgia¹, Meropi Plousiou¹, Gaia Maria Tosone¹, Alessia Mascia⁴, Marina Serra⁴, Sara Lai², Erika Giuressi², Andrea Perra⁵ and Sabrina Rita Giglio²

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P9 | Islet Antibodies Among North Indian Type 1 Diabetes Patients: Prevalence and Persistence Pattern **Uma Kanga¹, Shreya Sharma², Alpesh Goyal² and Nikhil Tandon²**

¹Department of Transplant Immunology and Immunogenetics, All India Institute of Medical Sciences, India; ²Department of Endocrinology and Metabolism, All India Institute of Medical Sciences, India

Among this T1D cohort, 74.9% were HLA-DRB1*03 positive while only 30.6% were DRB1*04 positive. Significant associations of DRB1*03 alleles with presence of GAD antibodies and DRB1*04 alleles with ZnT8 antibody positivity were observed. Antibody persistence did not reflect any HLA association. A unique antibody profile was observed in this T1D cohort.

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Kirstine Kløve-Mogensen¹, Thure Mors Haunstrup¹, Tania Nicole Masmus², Andreas Glenhøj³, Petter Höglund⁴, Henrik Hasle⁵, Kaspar Rene Nielsen¹ and Rudi Steffensen¹

¹Department of Clinical Immunology, Aalborg University Hospital, Aalborg, Denmark; ²Department of Pediatrics and Adolescent Medicine, Copenhagen University Hospital, Rigshospitalet, Copenhagen, Denmark; ³Department of Hematology, Copenhagen University Hospital – Rigshospitalet, Copenhagen, Denmark; ⁴Department of Medicine Huddinge, Karolinska Institute, Stockholm, Sweden; ⁵Department of Pediatrics and Adolescent Medicine, Aarhus University Hospital, Aarhus, Denmark

P11 | Detection and identification of platelet antibodies using a Luminex bead assay

Nataša Katalinić¹, Tajana Crnić Marčetić², Sandra Šever Šušnjarić², Marijana Duhović² and Sanja Balen¹

¹Tissue Typing Laboratory, CHC Rijeka; Department of Clinical Laboratory Diagnostics, Medical Faculty Rijeka, Croatia; ²Tissue Typing Laboratory, Clinical Hospital Center Rijeka, Croatia

P12 | Distinguishing Anti-3-hydroxy-3-methylglutaryl-CoA reductase Immune-Mediated Necrotizing Myopathy from Non-Immune-Mediated Statin Myotoxicity: The Role of HLA-DRB1*11:01 Association

Diana Prieto-Peña¹, Nerea Mota-Pérez², J. Gonzalo Ocejó², Cristina Corrales-Selaya¹, Carmen García-Ibarbia³, Verónica Pulito-Cueto⁴, Raquel López-Mejías⁴, Ricardo Blanco¹ and José Luis Hernández³

¹Rheumatology Department, Hospital Universitario Marqués de Valdecilla, IDIVAL, Santander, Spain; ²Immunology Department, Hospital Universitario Marqués de Valdecilla, IDIVAL, Santander, Spain; ³Internal Medicine Department, Hospital Universitario Marqués de Valdecilla, IDIVAL, Santander, Spain; ⁴IDIVAL Health Research Institute of Cantabria, Santander, Spain

Myotoxicity and controls showed no significant differences in HLA-DRB1*11 allele distribution. Our findings suggest a strong association between HLA-DRB1*11, particularly HLA-DRB1*11:01, and anti-HMGCR IMNM, not observed in non-immune-mediated statin myotoxicity. Identifying HLA-DRB1*11:01 may help identify those at high risk of anti-HMGCR IMNM.

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Charalampos Skarlis¹, Nikolaos Markoglou², Maria Gontika³, Petros Prapas¹, Maria Kotsari¹, Artemios Artemiadis⁴, Maria-Roser Pons⁵, Leonidas Stefanis², Marinos Dalakas⁶, George Chrousos⁷ and Maria Anagnostouli²

¹Immunogenetics Laboratory, First Department of Neurology, School of Medicine, NKUA, Aeginition University Hospital, Greece; ²First Department of Neurology, School of Medicine, NKUA, Aeginition University Hospital, Greece; ³Penteli Children's Hospital, Greece; ⁴Neurology Department, Cyprus University, Greece; ⁵First Department of Pediatrics, School of Medicine, NKUA, Agia Sofia University Hospital, Greece; ⁶Neuroimmunology Laboratory, Department of Pathophysiology School of Medicine, NKUA, Greece; ⁷Clinical and Translational Research Unit in Endocrinology, NKUA, Greece

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Sarah Petermann¹, Brigitte Flesch², Beate Kirchharz³, Martina Wessiepe⁴, Svenja Woestmann¹ and Alexander Carbol¹

¹German Red Cross Blood Service Rhineland-Palatinate and Saarland, Bad Kreuznach, Germany; ²German Red Cross Blood Service West, Hagen, Germany; ³German Red Cross Blood Service West, Ratingen, Germany; ⁴University Hospital RWTH Aachen, Transfusion Medicine, Aachen, Germany

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Ezgi Dincer¹, Fatma Kaya Dagistanli², Kivanc Derya Peker³, Damlanur Sakiz⁴, Demet Kivanc Izgi¹, Hayriye Senturk Ciftci¹ and Fatma Savran Oguz¹

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Gurvinder Kaur¹, Ayushi Jain¹, Kamaljeet Singh¹, Lingaraja Jena¹, Ajay Gogia², Atul Sharma² and Ritu Gupta¹

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¹Chelyabinsk State University, Russia;

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Cigdem Kekik¹, Sonay Temurhan¹, Yeliz Ogret¹, Demet Kivanc Izgi¹, Behnoush Nasr Zanjani², Fatma Betul Oktelik³, Fatma Savran Oguz¹, Murat Kose⁴ and Gunnur Deniz³

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Ritu Aggarwal¹, Tanvi Bhatia¹, Arshiya Mehra¹ and Vanita Suri²

¹Department of Immunopathology, PGIMER, Chandigarh, India; ²Department of Obstetrics and Gynecology, PGIMER, Chandigarh, India

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Martin Petrek¹, Katerina Sikorova², Lenka Kocourkova³, Martin Dobias² and Jana Petrakova¹

¹University Hospital Olomouc and Faculty of Medicine and Dentistry Palacky University Olomouc, Czechia; ²University Hospital Olomouc, Czechia;

³Faculty of Medicine and Dentistry Palacky University Olomouc, Czechia

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Irina Pavlova¹, Elena Kuzmich¹, Elena Shilova¹, Tatyana Glazanova¹ and Ludmila Bubnova¹

¹Russian Research Institute of Hematology and Transfusiology, Russia

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Daria Stashkevich¹, Tatiana Suslova¹ and Alexandra L. Burmistrova¹

¹Chelyabinsk State University, Russia;

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Svetlana Balandina¹, Svetlana Belyaeva¹ and Daria Stashkevich¹

¹Chelyabinsk State University, Russia;

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Julien Paris¹, Sonia Bourguiba-Hachemi¹, Romain Casey², Nicolas Vince¹ and Pierre-Antoine Gourraud¹

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Nickolai Alexandrov¹, Ting Wang¹, Brian Nadon¹, Lindley Blair¹, Yuki Saito¹ and David Sayer²

¹Thermo Fisher Scientific Inc., United States; ²Thermo Fisher Scientific Inc., Australia

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Ngoc Giang Le¹, Jesse Mittertreiner¹, Susan Ott¹, Nanine de Groot¹, Marit van der Wiel¹, Natasja de Groot¹, Jesse Bruijnesteijn¹ and Ronald E. Bontrop¹

¹Biomedical Primate Research Centre, Netherlands;

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Ryan Nickens¹, Livia Tran², Leamon Crooms³ and Steven Mack²

¹Lafayette College, Easton, PA, United States; ²University of California, San Francisco, United States; ³University of Arizona, United States

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Henry Loeffler-Wirth¹, Claudia Lehmann², Nils Lachmann³ and Ilias Doxiadis²

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Henry Loeffler-Wirth¹, Nils Lachmann², Claudia Lehmann³ and Ilias Doxiadis³

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Cinthia Alves¹ and Eduardo Donadi¹

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Jonna Clancy¹, Silja Tammi², Jukka Partanen² and Satu Koskela¹

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Enrique Alanis¹, Diana Alcantara², Alicia Sanchez-Mazas¹ and José Manuel Nunes¹

¹Department of Genetics and Evolution, University of Geneva, Switzerland; ²Brighton and Sussex Medical School, United Kingdom

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Michaela Agapiou¹, Richard H.L. Natarajan², Claudia Rutt³, Sumati Misra³, James Robinson¹, Nezh Cereb³ and Steven G.E. Marsh¹

¹Anthony Nolan Research Institute, London, United Kingdom; ²UCL Cancer Institute, London, United Kingdom; ³Anthony Nolan Research Institute, London, United Kingdom; ³DATRI Blood Stem Cell Donors Registry, Chennai, India, United Kingdom

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Susanne Seitz¹, Karen Ende¹, Katharina Daniel², Vinzenz Lange² and Alexander H. Schmidt¹

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Nayane S. B. Silva¹, Sonia Bourguiba-Hachemi¹, Nathalie Bouatlaoui¹, Camille Plédet¹, Roxane van Olden¹, Sophie Limou¹ and Nicolas Vince¹

¹Nantes Université, INSERM, Ecole Centrale Nantes, CHU Nantes, CR2TI, UMR 1064, Nantes, France

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¹Immunology Department & National Tissue Typing Center, General Hospital of Athens "G. Gennimatas", Athens, Greece

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Franz Fenninger¹, Bronwyn Baillie¹, Karen Sherwood¹, Jenny Tran¹, James Lan¹ and Paul Keown¹

¹Dept. of Medicine, University of British Columbia, Vancouver, BC, Canada

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Enrique Alanis¹, Alicia Sanchez-Mazas¹ and José Manuel Nunes¹

¹Department of Genetics and Evolution, University of Geneva, Switzerland

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Cinthia Alves¹, Rafaela Miranda Barbosa¹ and Eduardo Donadi¹

¹Ribeirão Preto Medical School, University of São Paulo, Brazil;

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Benedict Matern¹ and Matthias Niemann²

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Deniz Akdemir¹ and Yung-Tsi Bolon¹

¹NMDP, United States

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Shahram Aliyari¹, Zahra Salehi², Benedikt Brors³, Kaveh Kavousi⁴ and Mohammad Hossein Norouzi-Beirami⁵

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Laura Bungener¹, Niels Kouprie¹, Magdalena Huberts-Kregel¹, Annechien Lambeck¹, Bart-Jan Kroesen¹ and Bouke Hepkema¹

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Matěj Röder¹, Vít Svojše², Tomáš Kebrle², Kateřina Jáklová¹, Jiří Gurka³, Petr Raška³ and Antonij Slavčev¹

¹Department of Immunogenetics, Institute for Clinical and Experimental Medicine, Prague, Czechia; ²Bindworks S.R.O., Czechia; ³Information Technology Division, Institute for Clinical and Experimental Medicine, Prague, Czechia

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Luis Cristovao Porto¹, Angela Maria Santos¹, Danielle Secco¹, Raiana Barbosa², Romulo Oliveira¹, Antonio Carlos Campos-de-Carvalho², Adriana Carvalho², Daniellii Oliveira³ and Tais Brunswick²

¹Rio de Janeiro State University, Brazil; ²Federal University of Rio de Janeiro, Brazil; ³National Cancer Institute, Brazil

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Manuel Quirno Costa¹, Maria Belén Balekjian¹, Santiago Meinardo Cambra² and Gustavo Piccinelli³

¹Laboratorio Nacional de Inmunogenética – INCUCAI, Argentina; ²Freelance Programmer, Argentina; ³Centro Provincial de Histocompatibilidad – CUCAIBA, Argentina

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Jue Wang¹, Huan Yu², Chen Chen², Jiajie Luo² and Hu Wang²

¹Clinical Transfusion Research Center Institute of Blood Transfusion, CAMS & PUMC, Chengdu, Sichuan Province, P.R. China, China; ²Genetics and Cancer Research Department, Qitan Technology Ltd., Beijing, P.R. China, China

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Amy De'Ath¹ and Deborah Pritchard¹

¹UK NEQAS for H&I, United Kingdom

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Amy De'Ath¹ and Deborah Pritchard¹

¹UK NEQAS for H&I, United Kingdom

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Hamid Ramezanali¹, Caitlin Haughey¹, Francesco Vezzi¹, August Jangerstad¹, Julia Paschke¹ and Silje Abrante¹

¹Devyser, Sweden

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Carlos Parga-Lozano¹ and Jim Adolfo Alfaro Ariza²

¹Research and Innovation Center CIIS and Fundacion Universitaria del Area Andina, Colombia; ²Fundación Universitaria del Área Andina, Colombia

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Jacek Nowak¹, Agnieszka Witkowska¹, Agnieszka Malinowska¹, Klaudia Nestorowicz-Kałużna², Elżbieta Graczyk-Pol¹, Anna Flaga¹, Urszula Szlendak¹, Anna Wnorowska¹, Aleksandra Wawiórko¹, Wiktoria Szwajkowska¹ and Agnieszka Gawron¹

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Milena Vraná¹ and Radek Plachy¹

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Alexandre Walencik¹, Laetitia Anquetil¹ and Mehdi Alizadeh²

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Paola Giustiniani¹, Federica Galaverna², Pietro Merli², Antonio Giuseppe Bianculli¹, Marco Becilli², Roberto Carta², Emilia Boccieri², Maria Troiano¹, Rita Maria Pinto², Mariarosa Battarra¹, Marco Andreani¹ and Franco Locatelli²

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P62 | Eplets mismatched analysis in a group of pediatric patients affected by hematological malignant diseases treated with haploidentical HSCT

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P63 | HLA-DQ heterodimers and graft failure after haploidentical stem cell transplantation in patients with acute leukemia

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P64 | Validation and implementation of HLA loss relapse detection by NGS-based HLA typing

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P65 | Impact of KIR genotype on clinical outcome of Hematopoietic Stem Cell transplants: a single center experience

Francesco Ingrassia¹, Alice Pecoraro¹, Maria Blando¹, Alessia Angela Corica¹, Floriana Di Paola¹, Giuseppe Davi¹, Rosalba Bavetta¹, Floriana Bruno¹, Serena Mistretta¹, Stefania Tringali², Roberta Fedele¹, Luca Castagna² and Valentina Cappuzzo¹

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P66 | The impact of donor-specific antibodies presence on the outcome post-allogeneic hematopoietic stem cell transplantation: a survey from a single center

Sabrina Giammarco¹, Patrizia Chiusolo², Filippo Frioni¹, Elisabetta Metafuni¹, Maria Assunta Limongiello³, Eugenio Galli³, Federica Sorá², Andrea Bacigalupo², Elvira Poggi⁴, Mariano Antonio Feccia⁵, Annarita Manfreda⁵ and Simona Sica²

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P67 | Impact of HLA mismatches at the molecular level on the clinical evolution of haploidentical hematopoietic stem cell transplantation with post-transplant cyclophosphamide

Francisco Javier Gil-Etayo¹, Jairo Eduardo Niño-Ramírez², Marta Fonseca¹, Pilar Terradillos-Sánchez², Isabel Jiménez Hernaz³, Ariadna Vicente Parra³, Ana Balanzategui³, Daniel Arroyo-Sánchez¹, Beatriz García Martín¹, Yasmín Roldán⁴, Francisco Boix⁵, Miguel Alcoceba⁶, Estefanía Pérez¹, Mónica Cabrero¹, Almudena Navarro-Bailón¹, Fermín Sánchez-Guijo¹, Ramón García Sanz³, Lucía López-Corral¹ and Amalia Tejeda³

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P68 | Inferior survival is observed among adult HSCT recipients having pre-transplant anti-HLA antibodies even though they are not directed against the donor

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P69 | Management of ABO-incompatible HSCT: 2021-2023 data analysis

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P70 | Maternal uniparental disomy of chromosome 6 (upd(6) mat) in a patient affected by acute myelogenous leukemia awaiting HSC transplant

Franco Papola¹, Alessandra Zoli², Attilio Olivieri³, Raffaella Azzarone¹, Olaida Valdez¹, Maria Grazia Tupone¹, Stefano Agolini², Ilaria Scortechini³, Elia Trinchini¹, Stefano Scipione¹, Simona Scacchi¹, Giovanni Rombolà⁴ and Carla Cervelli¹

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P71 | Post-Transplant Chimerism Monitoring – Real-Time qPCR or STR?

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P72 | Donor telomere length and telomerase reverse transcriptase gene polymorphism may affect the outcome of allogeneic hematopoietic stem cell transplantation in children – a preliminary study

Marta Dratwa¹, Barbara Wysoczanska¹, Marek Ussowicz², Blanka Rybka², Renata Ryczan-Krawczyk², Krzysztof Kalwak² and Katarzyna Bogunia-Kubik³

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P73 | Genetic predisposition to hematologic malignancies in patients undergoing allogeneic hematopoietic stem cell transplantation: case reports

Alice Brogi¹, Sara Iozzi¹, Beatrice Boschi¹, Luisa Candita¹, Giulia Carignani¹, Giulio Capecci², Francesco Mannelli², Paola Guglielmelli², Chiara Nozzoli³, Simona Palchetti¹, Mauro Leucio Mattei¹, Martina Betti¹, Elisabetta Pelo¹ and Irene Donnini³

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P74 | Standardization of evaluation of cytokine gene polymorphisms by next generation sequencing

Selma Zenia D'Silva¹, Manisha Tambe¹, Shreya Kupekar¹ and Meenakshi Singh¹

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P75 | Improved haploidentical donor matching including low expression HLA loci in the immunogenetic analysis using Next-Generation Sequencing

Wiktoria Wypych¹, Dominika Moskalik-Kierat¹, Martyna Brzoza¹, Anna Wasilewska¹, Mateusz Mrozowski¹, Agnieszka Jałbrzykowska¹, Ewa Karakulska-Prystupiak², Piotr Kacprzyk², Agnieszka Tomaszewska², Grzegorz Basak² and Marcelina Grabowska¹

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P76 | Detection and monitoring of donor-specific antibodies in a haploidentical stem cell transplant recipient: a case report

Małgorzata Kamińska¹, Wanda Niepiekło-Minińska¹, Katarzyna Kościńska², Anna Rybińska¹, Monika Mordak-Domagala², Jarosław Dybko² and Katarzyna Bogunia-Kubik¹

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P77 | Analysis of the significance of donor chimerism at +14 days after haploidentical hematopoietic stem cell transplantation

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P78 | Changes of the immunogenic profile of an acute myeloid leukemia relapsed patient with partial loss of heterozygosity in HLA genes after haploidentical transplantation of hematopoietic stem cells

Anna Mazanova¹, Anastasiia Maksymchuk¹, Iryna Tubaltseva¹, Nataliia Tsokolenko¹, Olena Zemlianska¹, Yana Muratova¹, Anna Sheikina¹, Yevhen Hrohul¹ and Natalia Olkhovych¹

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P79 | Partial loss of heterozygosity in HLA genes in patient with relapsed acute lymphoblastic leukemia

Yevhen Hrohul¹, Anastasiia Maksymchuk¹, Iryna Tubaltseva¹, Nataliia Tsokolenko¹, Olena Zemlianska¹, Yana Muratova¹, Anna Sheikina¹, Anna Mazanova¹ and Natalia Olkhovych¹

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P80 | Mismatched unrelated donors for hematopoietic stem cell transplantation in children with inborn errors of immunity: selection criteria and the Newcastle experience

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IMMUNOGENETICS IN ORGAN TRANSPLANTATION

P81 | On the road to epitope matches and mismatches – with epiTOol

Claudia Lehmann¹, Nils Lachmann², Ilias Doxiadis¹ and Henry Loeffler-Wirth³

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Following kidney transplantation although up to 40 epitope mismatches were present. In contrast, recipients with only nine EMM had produced antibodies towards the donor. Defining epitopes is helpful for understanding the humoral response but it is not a matter of numbers but a matter of quality and could be a useful tool for donor selection in the future.

P82 | Clinical relevance of isolated preformed HLA-DP donor specific antibodies on the outcome of kidney transplantation

Alba Expósito Bey¹, Beatriz Rodriguez Bayona¹ and María Francisca González Escribano¹

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P83 | Interference of cold agglutinins and/or cryoglobulins in antibody diagnostics for kidney transplantation: a case study

Steven Koetzier¹, Joyce van Beers², Jan Damoiseaux², Christina Voorter¹ and Lotte Wieten¹

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P84 | High levels of BCMA transcript expression prior to transplantation, increased plasmablast, lymphocyte B cell class-switched levels and viral loading are associated with early CMV reactivation in renal recipients

Marina Fernandez¹, Rafael Alfaro¹, Maria Jose Alegria-Marcos¹, Jose Antonio Galian¹, Helios Martinez-Banaclocha¹, Carmen Botella¹, Alfredo Minguella¹, Maria Rosa Moya-Quiles¹, Santiago Llorente¹, Isabel Legaz² and Manuel Muro¹

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P85 | Imlifidase for Kidney Transplantation of Highly Sensitized Patients with a Positive Crossmatch: The French Consensus Guidelines

Gwendaline Guidicelli¹, Paolo Malvezzi², Lucile Amrouche³, Dany Anglicheau³, Gilles Blanco⁴, Sophie Caillard⁵, Marine Freist⁶, Nassim Kamar⁷, Carmen Lefaucheur⁸, Christophe Mariat⁹, Alice Koenig¹⁰, Johan Noble², Olivier Thaumat¹⁰, Antoine Thierry¹¹, Jean-Luc Taupin⁸, Dominique Bertrand¹² and Lionel Couzi¹

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P86 | Effect of peri-transplantation circumstances on the amelioration of cellular immunity following kidney transplantation

Lambros Vagiotas¹, Georgios Lioulios¹, Efstratios Kasimatis¹, Aliki Xochelli¹, Anna Boukla¹, Georgia Chatzika¹, Despoina Asouchidou¹, Margarita Samali¹, Nikolaos Antoniadis¹, Georgios Tsoulfas¹, Maria Stangou¹ and Asimina Fylaktou¹

¹Hippokration Hospital of Thessaloniki, Greece

P87 | Detection of donor-derived cell-free DNA in sequential kidney transplanted patients

Linnéa Pettersson¹, Lukas Frischknecht², Sofia Westerling¹, Hamid Ramezanali¹, Lukas Weidmann³, Kai Castrezana Lopez³, Thomas Schachtner³ and Jakob Nilsson³

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P88 | Role of HLA matching and donor specific antibody development in long-term survival, acute rejection and cardiac allograft vasculopathy

Dario Costa¹, Antonietta Picascia¹, Vincenzo Grimaldi¹, Cristiano Amarelli², Andrea Petraio², Anna Levi¹, Mario Di Donato¹, Anna Virginia Adriana Pirozzi¹, Carmela Fiorito¹, Giusi Moccia¹, Aurora Gallo¹, Claudio Marra², Marisa De Feo², Francesco Cacciatore³, Ciro Maiello² and Claudio Napoli¹

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P89 | Correlation between anti-angiotensin II receptor 1 and anti-endothelin type A receptor 1 in kidney transplanted pediatric patients

Antonio Giuseppe Bianculli¹, Paola Giustiniani¹, Annalisa Guagnano¹, Andrea Di Luzio¹, Francesca Besi¹, Raffaella Labbadia², Luca Antonucci², Andrea Cappoli², Isabella Guzzo² and Marco Andreani¹

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P90 | Acute allograft dysfunction and glomerular microangiopathy in kidney transplant recipients in absence of donor specific anti-HLA antibodies: a case series

Nabigha Baki¹, Ana Farfan Ruiz¹, Tambi Jarmi¹ and Mohamed Elrefaei¹

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P91 | Biomarkers of Innate Immunity and Immunological Susceptibility to Viral Infection in Patients with Alcoholic Cirrhosis

Isabel Legaz¹, Elena Navarro-Noguera¹, Aurelia Collados-Ros¹, Rosana Gonzalez-Lopez², Jose Miguel Bolarin¹ and Manuel Muro²

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P92 | Non-HLA antibodies in highly sensitized recipients on the kidney waiting list

Marija Burek Kamenaric¹, Lucija Jukic², Katarina Stingl Jankovic¹, Marija Maskalan¹, Zorana Grubic², Natalija Martinez¹ and Renata Zunec²

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P93 | Deceased kidney donor virtual crossmatch introduction in north Italian transplant program (NITp) area

Elena Longhi¹, Loretta Crespiatico¹, Viviana Sioli¹, Vittoria Caporale¹, Alessia Comino¹, Francesca Drago¹, Alejandro Espadas de Arias¹, Miriam Ramondetta¹, Augusto Tagliamacco¹, Marco Guarene¹, Denise Bertola¹, Caterina Brambilla¹, Nicoletta Cagni¹, Sara Capogreco¹, Ludovica Chidichimo¹, Michela Grassi¹, Annalisa Innocente¹, Mario Macchiagodena¹, Barbara Speringo¹, Nemanja Suvajac¹, Mara Tivelli¹ and Tullia Maria De Feo¹

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P94 | A personalized delisting strategy enables successful kidney transplantation in highly sensitized patients with preformed donor-specific anti-HLA antibodies.

Sandra García Jiménez¹, Estela Paz-Artal¹, Hernando Trujillo¹, Natalia Polanco¹, Maria J Castro¹, Manuel J Del Rey¹, Angel Alfocea¹, Enrique Morales¹, Esther Gonzalez¹, Amado Andres¹ and Esther Mancebo¹

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P95 | Imlifidase desensitization in highly-HLA sensitized patients with positive Cross-Match: first experience in Parma

Silvia Giuliadori¹, Madga Benecchi¹, Pamela Berni¹, Chiara Foroni¹, Claudia Labate¹, Roberta Merli¹, Valentina Sgobba¹, Stefania Bardini¹, Francesca Lobascio¹, Elisa Magni¹, Joseph Manduca¹, Jessica Parrotta¹, Irene Pezzani¹, Elena Russello¹, Raffaele Troiano¹, Umberto Maggiore² and Paola Zanelli¹

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P96 | Case report: simultaneous combined liver-kidney transplant. Focus on immunological assessment

Paola Zanelli¹, Silvia Giuliadori¹, Giorgia Comai², Matteo Ravaioli³, Irene Pezzani¹, Giovanni Rombolà¹ and Gaetano La Manna²

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P97 | Desensitization-Resistant Eplet-Specific HLA Antibodies

Sebahat Usta Akgul¹, Umit Aslanhan¹, Reza Kazamzadeh¹, Yaren Alan¹, Erol Demir¹, Deniz Ece Salli¹, Amir Tabatabaei¹, Talin Catalbasyan¹, Demir Kaan Demir¹, Mehmet Kanbay², Burak Kocak³ and Caner Susal¹

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P98 | Differences of the subpopulations of T-lymphocytes between long-term and recent kidney transplant recipients

Evangelos Memmos¹, Georgios Lioulios², Efstratios Kasimatis³, Aliko Xochelli⁴, Lambros Vagiotas⁵, Vasiliki Nikolaidou⁴, Nikolaos Antoniadis⁵, Georgios Tsoulfas⁵, Maria Stangou³ and Asimina Fylaktou⁴

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P99 | The reduction of T and B regulatory lymphocytes in long-term kidney transplant recipients

Evangelos Memmos¹, Efstratios Kasimatis², Georgios Lioulios³, Aliko Xochelli⁴, Lambros Vagiotas⁵, Vasiliki Nikolaidou⁴, Nikolaos Antoniadis⁵, Georgios Tsoulfas⁵, Maria Stangou² and Asimina Fylaktou⁴

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P100 | Pre-transplant flow cytometric crossmatch in patients undergoing Rituximab treatment: employment of Pronase and anti-CD20

Mario Macchiagodena¹, Barbara Speringo¹, Miriam Ramondetta¹, Viviana Sioli¹, Augusto Tagliamacco¹, Alessia Comino¹, Caterina Brambilla¹, Nicoletta Cagni¹, Annalisa Innocente¹, Sara Capogreco¹, Loretta Crespiatico¹ and Elena Longhi¹

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P101 | Deciphering HLA Antibody Reactivity Patterns: A Cluster-Based Analysis of SAB Assay Data

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P102 | Can Molecular HLA Mismatch Scores Predict Antibody-Mediated Rejection in Desensitized Kidney Transplant Recipients?

Sebahat Usta Akgul¹, Yaren Alan¹, Erol Demir¹, Neslihan Celik¹, Umit Aslanhan¹, Talin Catalbasyan¹, Demir Kaan Demir¹, Deniz Ece Salli¹, Mehmet Kanbay², Dilek Ertoy Baydar³, Caner Susal¹ and Burak Kocak⁴

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P103 | Clinical utility of 1:16 serum dilution as a predictor of response to therapeutic plasma exchange for HLA antibody-mediated rejection treatment and overall survival in lung transplant recipients: A two center study
Mohamed Elrefaei¹, Tathagat Narula¹, Francisco Alvarez¹, Elizabeth Godbey¹, Gerard Criner², Francis Cordova², Norihisa Shigemura³, Yoshiya Toyoda³ and Olga Timofeeva⁴

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P104 | Characterization of sHLA-AlexaFluor647-conjugates for accurate determination of serum HLA antibody concentration and affinity

Matthias Reist¹, Rico Buchli², Sean R. A. Devenish³, Dominik Meinel⁴, Sebastiaan Heidt⁵, Canthia S.M. Kramer⁵, Suzanne Bezstarosti⁵, Rosa G.M. Lammerts⁶, Stefan Schaub⁷ and Gideon Hönger¹

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P105 | High Levels of Complement-Binding Donor-Specific Anti-HLA Antibodies: Are They Always Pathogenic?

Katrin Hacke¹, Firas Marayati², Sami Alasfar², Hasan A. Khamash², Lavanya Kodali², Pooja Budhiraja², Girish K. Mour², Bassam G. Abu Jawdeh² and Andrés Jaramillo¹

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P106 | Effect of HLA-B *21 dimorphism on cellular response after COVID-19 vaccination in patients with renal disorders

Wanda Niepiekło-Miniewska¹, Małgorzata Kamińska¹, Katarzyna Kościelska-Kasprzak², Dorota Bartoszek², Marcelina Żabińska², Dorota Kamińska², Magdalena Krajewska² and Katarzyna Bogunia-Kubik¹

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P107 | Could donor-derived cell-free DNA level be considered a potential biomarker of subclinical graft rejection or early organ damage in kidney transplant recipients?

Marina Fernandez-Gonzalez¹, Victor Jimenez-Coll¹, Carmen Botella¹, Rosana Gonzalez-Lopez¹, Maria Jose Alegria-Marcos¹, Carlos Sanchez-Rodriguez¹, Maria Rosa Moya-Quiles¹, Jose Antonio Galian¹, Santiago Llorente-Viñas¹, Isabel Saura-Luján¹, Francisco Morales-Caravaca¹, Gloria Martinez-Gomez¹ and Manuel Muro¹

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P108 | A critical retrospective analysis of Flow Cytometry Crossmatch in the emergency context in order to optimize the available resources

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P109 | Positive crossmatch in ABO-incompatible neonatal heart transplant due to transplacental transfer of maternal HLA antibodies

Cristiana Caorsi¹, Gabriele Maria Togliatto¹, Claudia Maria Rosso¹, Sara Tontoni², Rossella Chidichimo², Enrico Aidala³, Carlo Pace Napoleone³ and Silvia Deaglio²

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P110 | Comparison of results of crossmatch tests from peripheral blood cells with crossmatch tests from secondary lymphoid organs cells in kidney transplantation

Aggeliki Vittoraki¹, Georgios Lioulis², Alexandra Siorenta¹, Margarita Samali³, Chrysanthi Tsirligkani¹, Aliki Xochelli³, Aikaterini Anastasiou³, Vasiliki Nikolaidou³, Athina Aikaterini Nikolaou¹, Georgios Paterakis¹ and Asimina Fylaktou³

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P111 | Donor derived cell-free DNA: clinical utility in surveillance strategy for heart transplant

Elvira Poggi¹, Vincenzo Dinallo², Sabina Maria Bruno², Silvia Sinopoli², Giada Distefano³, Fabio Sbaraglia³, Giulio Cacioli³, Federico Ranocchi³, Rachele Adorisio⁴, Antonio Amodeo⁵ and Mariano Antonio Feccia⁶

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P112 | Diagnosis and treatment of humoral rejection in heart-transplant patients: single center experience

Elvira Poggi¹, Annarita Manfreda², Silvia Sinopoli², Ivan Gabrielli², Vincenzo Dinallo², Simona Caporali², Sabina Maria Bruno², Federico Ranocchi³, Giada Distefano³, Fabio Sbaraglia³ and Mariano Antonio Feccia³

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P113 | Correlation between DSA and kidney transplant prognosis

Hyun-Ji Lee¹, Shingyeop Hwang², Hanbin Jeong², Soohyun Lee², Junhyun Gu² and Kyunghwa Shin²

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P114 | Luminex single antigen assay on 1:10 diluted serum predicts the drop in anti-HLA antibodies before desensitization

Dominique Bertrand¹, Charlotte Laurent¹, Fabienne Farce² and Rangolie Kaveri²

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P115 | A comprehensive comparative assessment of mean fluorescence intensity of Luminex single antigen bead tests between laboratories and commercial platforms; a report from the Italian histocompatibility network

Antonina Piazza¹, Giovanni Rombolà², Dario Ciappi³, Maria Chiara de Stefano⁴, Umberto Maggiore⁵, Sara Iozzi⁶, Andrea Ricci⁴, Franco Papola⁷ and Massimo Cardillo⁴

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P116 | Exploring false positive reactions in Anti-HLA antibody identification via Single Antigen testing

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P117 | Urine Biomarker CXCL10 Bead-Based Detection Assay for Monitoring Clinical Transplant Rejection

Julie Nguyen¹, Michael Trinh¹, Elizeh Hasan¹, Chien-Yu Chen¹, Rui Pei¹ and Dave Lowe¹

¹Thermo Fisher Scientific, United States

P118 | Evaluation of serotype representation in different Luminex single antigen kits regarding the serotype frequencies in 2,021 deceased donors

Renato de Marco¹, Alberto Cardoso Martins Lima¹, João Henrique Campos¹ and Maria Gerbase-DeLima¹

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P119 | Strategy for delisting prohibited HLA antigens to increase the possibilities of kidney transplantation of hypersensitized patients

Juanfran Luchoro-Cerda¹, José Luis Caro¹, David Cucchiari¹, Juan Torres¹, Esther Mancebo², María José Pérez-Saez³, Marta Crespo³, Amado Andrés-Belmonte², Francesc Moreso⁴, Oriol Bestard⁴, Fritz Diekmann¹ and Eduard Palou¹

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P120 | Immunogenetic Profiling in Living Donor Kidney Transplantation: Insights from DSAs and Pronase-Treated Flow Cytometry Crossmatch

Luís Ramalheite¹, Ana Teixeira², Cristiana Teixeira², Maria Isabel Silva², Paula Almeida², Alice Lima² and Ruben Araujo³

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P121 | Optimizing Kidney Re-transplantation Outcomes: Validation of a Highly Sensitive Assay for Monitoring of Donor-Derived Cell-Free DNA

Sofia Westerling¹, Natasa Sikanic¹, Venkat Talla¹ and Linnéa Pettersson¹

¹Devyser, Sweden;

P122 | HLA-DQA1*03:02-DQB1*03:03 is the dominant immunogenic heterodimer for post-transplant HLA-DQ de novo DSA development in a cohort of Chinese kidney transplant patients

Xiangjun Liu¹, Zhaoru Huang² and Wenjun Shang²

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P123 | Cross-platform optimization of (d)PCR assays intended for donor-derived cell-free DNA monitoring

Bram Luiken¹, Lara van der Klugt¹, Bo Rood¹, Bart Valkenburg¹, Frek Manders¹, Eleni Draina¹ and Sake van Wageningen¹

¹GenDx, Netherlands

P124 | Playing Hide and Seek with HLA-DRB3/4/5 Data in Kidney Transplantation Reports in Argentina

Manuel Quirno Costa¹

¹Hospital General de Agudos "Carlos G. Durand", Argentina

P125 | Analysis of the influence of IgM on the results of CDC-XM in patients with chronic kidney disease

Aida Turganbekova¹, Didara Khamitova¹, Zhuldus Zhanzakova¹, Dana Baimukasheva¹, Zhazira Saduakas¹ and Sanya Abdrakhmanova¹

¹Republican Scientific and Production Center for Transfusiology, Astana, Kazakhstan

P126 | Kinetics of donor-derived cell-free DNA in the early kidney post-transplantation phase

Mauro Leucio Mattei¹, Serena Rossinelli¹, Marilù Bartiromo², Martina Betti¹, Sara Iozzi¹, Eleonora Pizzo², Glenda Cancila², Alice Brogi¹, Elisabetta Pelo¹, Lino Cirami², Sergio Serni³ and Simona Palchetti¹

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P127 | HLA mismatch and circulating donor-specific antibodies predict long term graft loss after kidney transplantation: a retrospective study from Campania region, Italy

Mariagrazia Strozzi¹, Dario Costa¹, Giuditta Benincasa¹, Vincenzo Grimaldi¹, Paride De Rosa², Giovanni Valeriani², Michele Santangelo³, Rosa Carrano³, Sara Pacilio⁴, Francesco Cacciatore⁴ and Claudio Napoli¹

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P128 | Performance of Devyser's NGS-based Assay for Monitoring donor-derived cell-free DNA in Kidney Allografted Patients

Annette Plesner¹, Soeren Schwartz Soerensen¹ and Helle Bruunsgaard¹

¹Copenhagen University Hospital, Rigshospitalet, Denmark

P129 | Effect of serum dilution in the patient with antibody-mediated rejection undergoing therapeutic plasma exchange

Olaida Valdez¹, Maria Grazia Tupone¹, Cervelli Carla¹, Alessandra Panarese², Anna Ruggetti³, Carla Battistoni¹, Daniela Pulcinelli¹, Vittoriano Torrelli¹, Ivana Abruscio¹ and Franco Papola¹

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³Immunohematology and Transfusion Medicine Service – ASL1 Abruzzo, L'Aquila, Italy

P130 | The interpretation of the anti-HLA-A3 appearance after treatment with anti-thymocyte globulin

Jelena Dmitrovic¹, Tatjana Dukic¹ and Zorana Andric¹

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P131 | CDC vs Luminex in HLA class I antibody detection – 12 years' experience in Tissue Typing Laboratory, Rijeka

Tajana Crnić Marčetić¹, Nataša Katalinić², Aida Mujić Franić¹, Helena Kurtović¹, Ines Šimac Sušan¹, Hrvoje Rimac¹ and Sanja Balen²

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P132 | Optimizing a protocol for diluting patient serum with EDTA as a pre-treatment step toward suppressing the prozone effect in the detection of anti-HLA antibodies

Daniel Iguasnia Portilla¹, Ricardo Cuesta², Rocío Navarro³, Manuel Rodríguez³, Luisa Mas³, Rafaela Sánchez³, Isabel Terrón³, Rosa Granell³, Estefanía Solaz³, Dolores Planelles³, Luis-Hidalgo Mar³, Castro Emma³, Luis Larrea³, Cristina Arbona³ and Francisco Boix³

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P133 | Comparison of Two Single Antigen Bead Assays for Detection of Anti-HLA Antibodies and assessment of their complement-binding capacity

Asimina Fylaktou¹, Georgios Lioulis², Georgios Petasis¹, Marianthi Papachristou¹, Margarita Samali¹, Artemis Maria Iosifidou³, Myrto Aikaterini Iosifidou³, Aikaterini Anastasiou¹, Maria Stangou⁴ and Ioannis Theodorou⁵

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P134 | First experiences with detection of dd-cfDNA in heart transplant patients in North Macedonia

Meri Kirijas¹, Marija Gjerakarovska Radovikj², Kristina Stamatovska¹, Boban Dobrevski¹, Gorjan Milanovski¹, Teodora Brnjarchevska Blazevska¹, Tamara Savevska¹ and Aleksandar Petlichkovski¹

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P135 | MicroRNAs as Potential Graft Rejection or Tolerance Biomarkers and Their Dilemma in Clinical Routines Behaving like Devilish, Angelic, or Frightening Elements

Marina Fernandez-Gonzalez¹, Maria Jose Alegria-Marcos¹, Santiago Llorente¹, Rosana Gonzalez-Lopez¹, Jose Antonio Galian¹, Helios Martinez-Banaclocha¹, Carmen Botella¹, Maria Rosa Moya-Quiles¹, Alfredo Minguela¹, Isabel Legaz¹ and Manuel Muro¹

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P136 | Validation of the Flow cytometry crossmatch technique with the BD FACSLyric and calculation of new cut-off values

Cláudia Silva¹, Paula Aires¹, Paula Santo¹, Pedro Ramoa¹ and Paula Xavier¹

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P137 | Challenges in Immunological evaluation of Four Sensitized Patients

Mahendra Mishra¹ and Aarti Nagpal¹

¹Pathkind Diagnostics Pvt. Ltd. National Reference Laboratory, India

P138 | Analysis of HLA-A, -B and -DRB1 genes in living donor kidney transplantation in Montenegro

Marko Grubač¹, Marina Ratković² and Renata Zunec³

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P139 | HLA-antibodies in solid organ transplantation: Eplet analysis of a paired kidney cohort

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IMMUNOTHERAPY, GENE THERAPY & NK CELLS

P140 | NK Cell-Based Adoptive Immunotherapy for Controlling HLA class II Antibody-Mediated Rejection in Transplantation

Carolt Arana¹, Ainhoa Garcia-Busquets², Sergi Betriu³, Eduard Palou³, Fritz Diekmann¹ and Jordi Rovira²

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P141 | Genetic engineering of limbs during ex vivo machine perfusion to overcome the unsolved hurdle of rejection
Suganya Annadurai¹, Seval Besli¹, Tamina Rother¹, Yuliia Yuzefovych¹, Nicco Krezdorn¹, Rainer Blasczyk¹
and Constanca Figueiredo¹

¹Hannover Medical School, Germany;

P142 | Elucidating the sequence features driving KIR diversification

Jesse Bruijnesteijn¹, Marit van der Wiel¹, Nanine de Groot¹, Ngoc Giang Le¹, Natasja de Groot¹
and Ronald E. Bontrop¹

¹Biomedical Primate Research Centre, Netherlands

P143 | Cytomegalovirus (CMV) Intra-uterine transmission: involvement of KIR receptors-HLA ligand interactions

Rosalia Cacciatore¹, Annamaria Pasi¹, Chiara Fornara², Ilaria Sbarsi¹, Paola Bergamaschi¹, Carmen Tania Prezioso¹,
Carolina Radaelli¹, Chiara Bottazzi¹, Enrica Paudice¹, Milena Furione¹, Alessia Arossa¹, Piera D'Angelo¹,
Fausto Baldanti¹, Arsenio Spinillo³, Cesare Perotti¹ and Daniele Lillero¹

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P144 | Post-injection monitoring of CAR-T cells targeting CD19 in the treatment of hematologic malignancies: quantitative PCR versus flow cytometry

Judith Desoutter¹, Lucie Thirache¹, Cécilia Da Costa¹, Magalie Joris², Lavinia Merlusca², Lina Mustapha³,
Christele Ossart⁴, Julien Lion¹ and Nicolas Guillaume¹

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P145 | Short Term Follow up of Soluble Immune Checkpoints in Renal Transplantation

Cemil Pehlivanoglu¹, Başak Aru¹, Ali Osman Gürol² and Gülderen Yanikkaya Demirel¹

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P146 | Analysis of HLA matching between deceased donors and cord blood units from a national bank network as a basis for potential platforms for chimerism-based immune tolerance after solid organ transplantation

Roberto Crocchiolo¹, Letizia Lombardini², Nicoletta Sacchi³, Ilaria Lombardi², John Blake⁴, David Allan⁴,
Mohamad Sobh⁴, Francesca Puoti², Silvia Trapani², Anna Maria Gallina³, Marco Sacchi⁵, Simonetta Pupella⁶,
Paola Bergamaschi⁷, Silvano Rossini¹ and Massimo Cardillo²

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P147 | Possible Role of KIR3DL2/HLA-A*11:01 Interaction in SARS-CoV-2 Infection Severity

Maria Grazia Tupone¹, Vincenza Cofini², Carla Cervelli¹, Raffaella Azzarone¹, Olaida Valdez¹, Maria Scimitarra¹,
Barbara Spaziani¹, Stefano Necozone¹, Antonia Petrucci³, Stefania Melena⁴, Michela Falco⁵ and Franco Papola¹

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P148 | Potential co-partnership in predisposition to Covid-19: KIR-HLA class I pairs control NK cells activity and T cells discriminate between HLA-C C1 and C2 groups in Antiviral Immunity

Carmen Tania Prezioso¹, Annamaria Pasi², Rosalia Cacciatore², Ilaria Sbarsi¹, Carolina Radaelli¹,
Paola Bergamaschi¹, Chiara Bottazzi¹, Enrica Paudice¹, Federica Zavaglio¹, Sara Bozzini¹, Federica Meloni¹,
Lorenzo Cavagna¹, Fausto Baldanti³, Daniele Lillero¹ and Cesare Perotti¹

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P149 | KIR haplotyping using allele-level KIR typing results from NGSengine

Max Diekman¹, Sam Stokman¹, Freek Manders¹, Sake van Wageningen¹, Bram Luiken¹ and Loes van de Pasch¹

¹GenDx, Netherlands

P150 | TLR1 gene polymorphism in SARS-CoV-2 bilateral pneumonia

Alexander Evdokimov¹, Ekaterina Peredelskaya¹, Daria Stashkevich¹, Svetlana Belyaeva², Mikhail N. Vavilov²
and Tatiana Suslova²

¹Chelyabinsk State University, Russia; ²Chelyabinsk Regional Hemotransfusion Station, Russia

P151 | Allele-level characterization of KIR gene polymorphism in healthy elderly populations from Bulgaria, Romania and Turkey

Bushra Al Hadra¹, Tsvetelin Lukanov¹, Ileana Constantinescu², Fatma Oguz³, Dimitri Apostol², Yeliz Ogret³, Anastasiya Mihaylova¹ and Elissaveta Naumova¹

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P152 | Distribution of KIR genes in a Romanian cohort

Andreea Mirela Caragea¹, Radu Ioan Ursu¹, Alexandra Elena Constantinescu¹, Ion Maruntelu¹, Adriana Talangescu¹, Mirela Maria Iacob², Maria Tizu¹, Alexandra Cojocaru¹, Radu Alexandru Truica¹, Larisa Denisa Visan², Mariana Steluta Surugiu², Corina Rotarescu² and Constantinescu Ileana²

¹Carol Davila University of Medicine and Pharmacy, Bucharest, Romania; ²Centre for Immunogenetics and Virology, Fundeni Clinical Institute, Bucharest, Romania

P153 | Killer cell immunoglobulin-like receptor genes and their HLA ligands in southern Tunisia

Sirine Louati¹, Aida Charfi¹, Imen Daoud¹, Lilia Gaddour¹, Faiza Hakim¹, Ines Kammoun¹, Bakhta Mallek¹, Fadia Oualha¹, Arwa Kamoun² and Nadia Mahfoudh¹

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P154 | KIR/HLA Pairs in Southern Tunisia

Sirine Louati¹, Aida Charfi¹, Imen Daoud¹, Lilia Gaddour¹, Faiza Hakim¹, Ines Kammoun¹, Bakhta Mallek¹, Fadia Oualha¹, Arwa Kamoun² and Nadia Mahfoudh¹

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MHC EVOLUTION, POPULATION GENETICS

P155 | Conserved extended 8.1 ancestral haplotype – the polymorphism beyond it

Marija Maskalan¹, Danijela Svilicic¹, Katarina Stingl Jankovic¹, Marija Burek Kamenaric¹, Zorana Grubic¹ and Renata Zunec¹

¹University Hospital Centre Zagreb, Croatia

P156 | The strength of the humoral immune response to mRNA SARS-CoV-2 vaccination is influenced by HLA type of the vaccinee

Sendi Montanic¹, Sabina Kunilo Jamnik¹, Sonja Vuletić¹, Urška Rahne Potokar¹ and Blanka Vidan Jeras¹

¹Blood Transfusion Center of Slovenia, Slovenia

P157 | Allelic HLA-DPA1 ~ DPB1 haplotype analysis in a large Chinese population of 584 families

Xiangjun Liu¹, Yanling Zhang² and Junbo He³

¹BFR Diagnostics, China; ²Department of Hematology, Hebei Yanda Lu Daopei Hospital, Langfang, Hebei, China; ³The First Affiliated Hospital of Zhengzhou University, Zhengzhou, China

P158 | Complement MHC Bf alleles show trans species evolution between man and chimpanzee

Antonio Arnaiz-Villena¹, Ignacio Juarez¹, Christian Vaquero-Yuste¹, Tomas Lledo¹, Jose Manuel Martin-Villa¹ and Fabio Suarez-Trujillo¹

¹Dept Immunology, University Complutense, Medical School, Madrid, Spain

P159 | Genotypic Frequencies of Mutations Associated with Alpha-1 Anti-trypsin Deficiency in Unrelated Bone Marrow Donors from the Murcia Region Donor Registry in the Southeast of Spain

Irene Cuenca¹, Carmen Botella¹, Maria Rosa Moya-Quiles¹, Jose Antonio Galian¹, Helios Martinez-Banaclocha¹, Marina Fernandez¹, Alfredo Minguella¹, Isabel Legaz² and Manuel Muro¹

¹Immunology Service, University Clinical Hospital "Virgen de la Arrixaca". Murcia, Spain, Spain; ²Department of Legal and Forensic Medicine, University of Murcia (UMU), Murcia, Spain

P160 | High-throughput genotyping of HLA-E, HLA-F and HLA-G and analysis of allele frequency distributions in Croatia

Lucija Jukic¹, Marija Maskalan¹, Marija Burek Kamenaric¹, Katarina Stingl Jankovic¹, Zorana Grubic¹, Sanja Salamunovic¹ and Renata Zunec¹

¹University Hospital Centre Zagreb, Tissue Typing Centre Zagreb, Croatia

P161 | HLA association study with bipolar disorder in South Tunisian population

Nadia Khelif¹, Fatma Guermazi², Aida Charfi¹, Rihab Ouali², Arwa Kamoun¹, Ines Feki², Faiza Hakim¹, Lilia Gaddour¹, Ines Kammoun¹, Fedya Walha¹, Jawaher Masmoudi² and Nadia Mahfoudh¹

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P162 | HLA-B, -C, -DRB1, -DQA1, and -DQB1 alleles involved in genetic predisposition to psoriasis, and psoriasis associated with psoriatic arthritis in East Croatian patients

Saška Marczi¹, Mirjana Suver Stević¹, Anđelka Bugarin¹, Elizabeta Knezović¹ and Marina Samardžija¹

¹University Hospital Osijek, Croatia

P163 | Genetic and Anthropological Relationships between Canary Islands and Azores Islands: The Saharo-Canarian Circle

Antonio Arnaiz-Villena¹, Ignacio Juarez¹, Christian Vaquero-Yuste¹, Tomas Lledo¹ and Fabio Suarez-Trujillo¹

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P164 | The influence of HLA-DRB1 and HLA-DQB1 on post-transfusion alloimmunization with red blood cell antigens in Polish population

Agnieszka Rzeszutarska¹, Anna Piotrowska¹ and Jolanta Korsak¹

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blood cells (multi-responders). Additionally, a more frequent combined occurrence of HLA-DRB1*07:01 and DRB1*15:01 alleles was found in the group of people producing multi-specific antibodies to red blood cells (multi-responders).

P165 | HLA-G 3' UTR 14bp indel polymorphism in Southern Tunisian Bipolar Disorder patients

Aida Charfi¹, Nadia Khelif¹, Fatma Guermazi², Imen Daoud¹, Rihab Ouali², Ines Feki², Lilia Gaddour¹, Faiza Hakim¹, Fedya Walha¹, Ines Kammoun¹, Jawaher Masmoudi², Arwa Kamoun¹ and Nadia Mahfoudh¹

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P166 | Managing Possible New Alleles in Immunogenetics Laboratory of the Portuguese Institute of Blood and Transplantation, Porto

Maria Peixoto¹, Susana Oliveira¹, Filomena Mendes¹, Vasco Guerra¹, Rita Ferreira¹, Manuel Dias¹ and Fátima Freitas¹

¹Portuguese Institute of Blood and Transplantation of Porto, Portugal

P167 | Linkage disequilibrium between MICA-129Met/Val and HLA-C1/C2 in the Russian population of the Chelyabinsk region of the Russian South Urals

Mikhail N. Vavilov¹, Tatiana Suslova¹ and Alexandra L. Burmistrova¹

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P168 | HLA alleles and haplotypes in a Sudanese population and their relationship with Mediterraneans and East to West demic diffusion

Fabio Suarez-Trujillo¹, Sayda El-Safi², Christian Vaquero-Yuste¹, Tomas Lledo¹, Ignacio Juarez¹, Jose Manuel Martin-Villa¹ and Antonio Arnaiz-Villena¹

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P169 | Autonomic Study and Influence of UV Radiation on Evolution

Carlos Parga-Lozano¹

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P170 | Identification of HLA alleles involved in immune thrombotic thrombocytopenic purpura patients from Turkey

Cevat Ilteris Kikili¹, Demet Kivanc Izgi², Damla Ortaboz³, Hayriye Senturk Ciftci², Mustafa Nuri Yenerel⁴, Meliha Nalcaci⁴, Muhlis Cem Ar³, Fatma Savran Oguz² and Sevgi Kalayoglu Besisik⁴

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P171 | The frequency of HLA-B*78:01 allele in the southern Tunisian population

Aida Charfi¹, Arwa Kamoun¹, Imen Daoud¹, Faiza Hakim¹, Ines Kammoun¹, Bakhta Mallek¹, Lilia Gaddour¹ and Nadia Mahfoudh¹

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P172 | Distribution of HLA antigens among patients with acute myeloid leukemia in the Republic of Kazakhstan
Aida Turganbekova¹, Zhulduz Zhanzakova¹, Dana Baimukasheva¹, Zhazira Saduakas¹, Didara Khamitova¹ and Sanya Abdrakhmanova¹

¹Republican Scientific and Production Center for Transfusiology, Astana, Kazakhstan

P173 | HLA-A, -B, -C, -DRB1, and -DQB1 allele and haplotype frequencies: An analysis of umbilical cord blood units at the Sichuan Cord Blood Bank

Qiang Chen¹, Xingjie Li² and Jue Wang³

¹Institute of Blood Transfusion, CAMS & PUMC and Sichuan Cord Blood Bank, China; ²Sichuan Cord Blood Bank, China; ³Institute of Blood Transfusion, CAMS & PUMC, China

P174 | Identification of three novel HLA class I alleles, A*24:556N, B*55:129, and C*01:02:87, found in Chinese cord blood units

Qiang Chen¹, Xingjie Li² and Jue Wang³

¹Institute of Blood Transfusion, CAMS & PUMC and Sichuan Cord Blood Bank, China; ²Sichuan Cord Blood Bank, China; ³Institute of Blood Transfusion, CAMS & PUMC, China

P175 | Detection of the HLA A*02:275 allele, which was included in the HLA nomenclature in September 2022, in only one patient scheduled for hematopoietic stem cell transplantation: a single center experience.

Sevim Gönen¹, Cemre Demir², Zühre Kaya³ and Oğuz Söylemezoğlu³

¹Gazi University Faculty of Medicine Tissue Typing (HLA) Laboratory, Turkey; ²Diagnoseq Tissue Typing (HLA) Laboratory, Turkey; ³Gazi University Faculty of Medicine Department of Pediatric Hematology, Turkey

NEW TECHNOLOGIES IN IMMUNOGENETICS

P176 | Revolutionizing high resolution HLA genotyping for transplantation assessment: validation, implementation and challenges of Oxford Nanopore Technologies' Q20+ sequencing

Dianne De Santis¹, Naser El-Lagta¹, Linh Truong¹, Fredrick Mobegi¹, Laila Gizzarelli¹, Irena Vukovic¹, Scott Bazley¹, Wong Zo Ee¹, Jess Rao¹, Nichola Hugo¹, Jacqueline Dey¹, Doddi Venkat¹ and Lloyd D'Orsogna¹

¹Department of Clinical Immunology, PathWest, Fiona Stanley Hospital, Australia

P177 | The development of full gene multiplex PCR based assay for the non-classical HLA-E, HLA-F, HLA-G, HLA-H, MICA, and MICB genes.

Dianne De Santis¹, Naser El-Lagta¹ and Lloyd D'Orsogna¹

¹Department of Clinical Immunology, PathWest, Fiona Stanley Hospital, University of Western Australia, Australia

P178 | Exploring ABO-histocompatibility: Luminex assay allows detection and characterization of endothelial-targeted ABO antibodies

Anne Halpin¹, Francis Leier¹, Bruce Motyka¹, Caishun Li¹, Simon Urschel¹, Jean Pearcey¹, Esme Dijke¹ and Lori West¹

¹University of Alberta, Alberta Precision Laboratories, Alberta Transplant Institute, Canada;

P179 | Comparative assessment of cytometry by time-of-flight and full spectral flow cytometry based on a 33-color antibody panel

Antonia Schäfer¹, Senan D'Almeida², Julien Dorier³, Nicolas Guex³, Jean Villard¹ and Miguel Garcia³

¹Geneva University Hospital, Switzerland; ²Viollier AG, Switzerland; ³EPFL, Switzerland

P180 | Rapid HLA High-Resolution Genotyping Utilizing Nanopore DNA Sequencing Technology for Allocation of Organs from Deceased Donors

Diamanto Kouniaki¹, Katerina Tarassi¹, Vasiliki Kitsiou¹, Theofilos Athanassiades¹, Aikaterini Gkizori¹, Georgia Galaziou¹ and Alexandra Tsirogianni¹

¹Immunology and Histocompatibility Department, Evangelismos General Hospital, Greece

P181 | NGS-Pronto: High throughput, high resolution HLA typing using nanopore sequencing

Eline der Steege¹, Sjoerd Creutzburg¹, Bart Valkenburg¹, Anna Hill¹, Sake van Wageningen¹, Marcel van de Streek¹, Joris Albers¹, Loes van de Pasch¹ and Pascal van der Weele¹

¹GenDx, Netherlands

P182 | Validation of NGSTurbo typing with Nanopore sequencing for rapid and accurate HLA typing in deceased donor organ transplantation

Timo Olieslagers¹, Carmen de Voijis¹, Simone van der Linden¹, Mathijs Groeneweg¹, Christina Voorter¹ and Lotte Wieten¹

¹Maastricht University Medical Center, Netherlands

P183 | High-resolution HLA genotyping using nanopores – a multicenter study

Stéphane Buhler¹, Maja Nørgaard², Rudi Steffensen³, Kirstine Kløve-Mogensen⁴, Bjarne Kuno Møller², Rebecca Grossmann⁵, Sylvie Ferrari-Lacraz¹ and Claudia Lehmann⁵

¹Transplantation Immunology Unit and National Reference Laboratory for Histocompatibility, Dep. of Diagnostic, Geneva, Switzerland; ²Department of Clinical Immunology, Aarhus University Hospital, Denmark; ³Department of Clinical Immunology, Aalborg University Hospital, Aalborg, Denmark; ⁴Dep. of Clinical Immunology, Aalborg University Hospital, Dep. of Clinical Medicine, Aalborg University, Denmark; ⁵Laboratory for Transplantation Immunology, University Hospital Leipzig, Leipzig, Germany;

P184 | Contribution of circulating donor-derived DNA in the prediction of kidney transplant rejection

Thibault Pajot¹, Isabelle Top¹ and Vincent Elsermans¹

¹CHU de Lille, France

P185 | Overcoming Challenges in KIR Gene Typing: A Third Generation Nanopore Sequencing Approach

Laia Closa¹, Cristina Ambrós¹, Claudia Uildemolins², Francisco Vidal³ and María José Herrero¹

¹Histocompatibility and Immunogenetics Laboratory, Blood and Tissue Bank, Barcelona, Spain; ²Department of Immunology, Hospital Clínic, Barcelona, Spain; ³Congenital Coagulopathy Laboratory, Blood and Tissue Bank, Barcelona, Spain

P186 | HLA class I (HLA-A, -B, -C) Single Reaction, Full Gene, Unambiguous Genotyping by Technology Oxford Nanopore Sequencing

Vrushank Makwana¹, Clare Nevin¹, Ruifeng Zhang¹, Rohan Raval¹, Tom Browne¹ and Martin Howell¹

¹Service Development Laboratory, NHS Blood and Transplant, Colindale, United Kingdom

P187 | Assessing the Performance of NG-Mix, a Novel Next Generation Sequencing Option developed by the Reagent Production Unit of the French Blood Center

Fabien Francois¹, Béatrice Bardy¹, Philippe Moskvitchenko¹, Margot Lepage¹, Dan-Adrian Luscalov¹, Catherine Giannoli¹, Xavier Fournel¹, Celine Dard¹, Pierre Fournier¹ and Valérie Dubois¹

¹French Blood Center (Etablissement Français du Sang, EFS), France

P188 | Assessment of HLA Typing and Post-Transplant Monitoring Combined on a Single NGS Run

Amanda Willis¹, Curt Lind¹, Thomas Morris¹, Andrea Zimmerman¹, Thomas Hsiao¹ and Beata Kmiec²

¹CareDx, United States; ²CareDx, Sweden

P189 | Validation of AlloSeq cfDNA to detect Donor Derived Cell-Free DNA (dd-cfDNA) from renal transplant recipient (RTR) blood samples extracted using the Promega-Maxwell® RSC ccfDNA LV Plasma Kit

Selda Duman¹, Nicola Thal², Madalina Pinzaru¹, Sharon Vivers³, Sandra Frater¹, Lisa Walsh¹, Franco Tavarozzi¹ and Raymond Fernando²

¹Anthony Nolan Laboratories, London, United Kingdom; ²Anthony Nolan Laboratories, London, UK and Solid Organ Group, Royal Free Hospital, London, United Kingdom; ³Anthony Nolan Laboratories, London, UK and UCL Cancer Institute, UCL Campus, London UK, United Kingdom;

P190 | High-Resolution full gene HLA-DRB1 genotyping using Oxford Nanopore long read sequencing technology

Ruifeng Zhang¹, Rohan Raval¹, Clare Nevin¹, Vrushank Makawana¹, Tom Browne¹ and Martin Howell¹

¹NHS Blood and Transplant, United Kingdom

P191 | MICA & MICB – Are your samples up to the challenge?

Nicola Brosnan¹, Evelien Little¹, Selda Duman¹, Jade Kally¹, Sharon Vivers², Reetinder Grewal¹, Raymond Fernando³, Lisa Walsh¹ and Franco Tavarozzi¹

¹Anthony Nolan Histocompatibility Laboratories, London, United Kingdom; ²Anthony Nolan Histocompatibility Laboratories, London, UK; UCL Cancer Institute, UCL Campus, London UK, United Kingdom; ³Anthony Nolan Histocompatibility Laboratories, London, UK; Solid Organ Group, Royal Free Hospital, London, United Kingdom

P192 | High Resolution HLA Typing Comparative Analysis of Blood Stem Cell and Solid Organ Donors and Recipients with Next Generation Sequencing and Real Time PCR

Chryso Pierides¹, Andri Papaloizou¹, Georgios Kallis¹, Maria Kyriakou¹, Efi Streppa¹ and Paul Costeas¹

¹The Karaiskakis Foundation, The Center for the Study of Haematological Malignancies, Cyprus;

P193 | Nanopore kit for the detection of new alleles

Pascal Pedini¹, Coralie Frassati¹, Agnès Basire¹, Maxime Raz², Jacques Chiaroni¹ and Christophe Picard¹

¹Immunogenetics Laboratory, Etablissement Français du Sang, Marseille, France; ²Service de Transfusion Sanguine, Centre Hospitalier de Nouméa, Noumea, New Caledonia

P194 | Nanotype and nanopore sequencing – a rapid and reliable technology for routine HLA typing

Ana Moise¹, Ruxandra Caisan¹ and Irina Monica Dutescu¹

¹National HLA Laboratory, National Institute of Blood Transfusion Prof dr. C. T Nicolau, Bucharest, Romania

P195 | Deceased Donor HLA typing by Next Generation Sequencing – Ready for Prime time!

Cathi Murphey¹, Fernando Garcia¹, Ellie Saunders¹, Cody Murray¹ and Shannon Mesa¹

¹Southwest Immunodiagnostics, Inc., United States;

P196 | Comparing MFI and MCI in single antigen HLA antibody detection on alternative platforms (Luminex vs HISTO SPOT microarrays)

Murielle Verboom¹ and Kristin Launhardt²

¹Institute of Transfusion Medicine and Transplant Engineering, Hannover Medical School, Hannover, Germany; ²BAG Diagnostics GmbH, Germany

P197 | Utilization of PreSorb beads in removing nonspecific reactivities in HLA antibody test by Luminex solid phase single antigen beads assay: a single center experience

Zeying Du¹, Charles Williams¹, Rachel Bosai¹ and Mohamed Elrefaei¹

¹Mayo Clinic Florida, United States

P198 | Rapid and accurate monolocus HLA typing using Oxford Nanopore Technology: new routine for the “HLA and disease” activity at Bordeaux University Hospital

Mamy Ralazamahaleo¹, Océane Tenchon², Elodie Wojciechowski¹, Marine Cargou¹, Jonathan Visentin² and Gwendaline Guidicelli¹

¹Laboratoire d'Immunologie et Immunogénétique, Groupe Hospitalier Pellegrin, CHU de Bordeaux, France; ²Laboratoire d'Immunologie et Immunogénétique, CHU de Bordeaux et CNRS, ImmunoConcEpT, Université de Bordeaux, France

P199 | Genotyping of six HLA-G SNPs by oligonucleotide ligation assay: optimization of the technique

Imen Daoud¹, Sirine Louati², Aida Charfi², Lilia Gaddour², Faiza Hakim², Ines Kammoun², Fadia Oualha², Bakhta Mallek², Arwa Kamoun³ and Nadia Mahfoudh²

¹Hedi Chaker Hospital of Sfax, Tunisia; ²Immunology and Histocompatibility Department, University Hedi Chaker Hospital, Sfax, Tunisia;

³Histocompatibility Department, Renal Pathology Research Laboratory LR19ES11, Hedi Chaker Hospital, Sfax, Tunisia;

P200 | Assessment of automated cell-free DNA extraction utilizing Promega Maxwell

Amanda Willis¹, Thomas Morris¹, Curt Lind¹ and Thomas Hsiao¹

¹CareDx, United States

P201 | Analytical and clinical validation of the One Lambda™ Devyser Accept cfDNA kit

Pascal Pedini¹, Nisem Cherouat¹, Alizée Sebastian¹, Benjamin Coiffard², Agnès Basire¹, Jacques Chiaroni¹, Martine Reynaud-Gaubert², Coralie Frassati¹ and Christophe Picard¹

¹Immunogenetics Laboratory, Etablissement Français du Sang, Marseille, France; ²Lung Transplant Department, APHM, Marseille, France

P202 | Validation of NGS and intermediate resolution methods for HLA typing at the Laboratorio Nacional de Inmunogenética – INCUCAI of Argentina

Pablo Galarza¹, Maria Fernanda Yaunguzian¹, Lucas Monzon¹, Maria Belén Balekjian¹, Laura Aguerre¹, Cecilia Delfino¹, Richard Malan¹ and Carlos Soratti¹

¹INCUCAI, Argentina

P203 | NanoTYPE – From single locus testing to High Throughput Multiplexing in 96 format

Celine Dard¹, Gregory Werner² and Mathieu Dewez³

¹EFS Auvergne Rhône Alpes, France; ²Omixon Biocomputing Ltd, Switzerland; ³Omixon Biocomputing Ltd, France

P204 | Evaluation of LabScreen PreSorb to proficiently remove pan-reactive DR antibody reactivity

Aisling O'Brien¹, Catherine Owens¹, Patricia Mullany¹, Joseph Kelly¹ and Mary Keogan¹

¹National Histocompatibility & Immunogenetics Service for Solid Organ Transplant, Beaumont Hospital, Dublin, Ireland

P205 | Detection and characterization of six novel HLA alleles by next-generation sequencing in a Spanish population during the last year

Amalia Tejada¹, Jairo Eduardo Niño-Ramírez¹, Daniel Arroyo-Sánchez¹, Antonio Balas², Isabel Jiménez Hernaz¹, Pilar Terradillos-Sánchez¹, Ariadna Vicente Parra¹, Beatriz García Martín¹, Yasmín Roldán¹, Ana Balanzategui¹, Miguel Alcoceba¹, Ramón García Sanz¹ and Francisco Javier Gil-Etayo¹

¹Laboratorio de HLA-Biología Molecular, Servicio de Hematología, Hospital Universitario de Salamanca, Spain; ²Histocompatibilidad, Centro de Transfusión de la Comunidad de Madrid, Spain;

P206 | Deciphering alloreactivity: an educational website tailored to teach and learn alloreactivity.

Adèle Dhuyser¹, Cassandra Michel² and Alice Aarnink¹

¹HLA and Histocompatibility Laboratory, CHRU de Nancy & IMoPA6, UMR7365 CNRS, Université de Lorraine, Nancy, France; ²Université de Lorraine, Vandoeuvre-les-Nancy, France

SATELLITE SYMPOSIA

WERFEN, MAY 21, 2024, 12:10–12:50, HALL A

Title: Virtual crossmatch in Eurotransplant: A one-year experience

werfen

Cynthia Kramer, PhD

Post-doc, Transplantation Immunology group, Eurotransplant Reference Laboratory, Dept. of Immunology, Leiden University Medical Center, The Netherlands

CAREDX, MAY 21, 2024, 13:10–13:50, HALL B

Title: Transplantation Excellence: Innovative Solutions for Enhanced Patient Care



Implementation of NGS-Based HLA typing, AlloSeq Tx Assay, for Donor Registry in Saudi Arabia

Abdullah N. Alsuwaidan, MD FCAP

Dept. of Pathology & Laboratory Medicine, King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia

Long-Term Integrity of Transplanted Stem Cells in Human Recipients

Mirjam Belderbos, MD, PhD

Princess Máxima Center for Pediatric Oncology, Utrecht, The Netherlands

Putting dd-cfDNA into Practise: Clinical Experience from the Hospital Clínic of Barcelona

David Cucchiari, MD, PhD

Renal Transplant Unit, Hospital Clínic, Barcelona, Spain

OMIXON, MAY 21, 2024, 17:30–18:10, HALL A



BIG STEP TOWARDS DIAGNOSTICS WITH NANOPORE SEQUENCING

Dr. Claudia Lehmann

University Hospital Leipzig, Germany, Laboratory for Transplantation

DONOR-DERIVED cfDNA AS DIAGNOSTIC TOOL IN KIDNEY TRANSPLANTATION

Karin Boer, PhD

Erasmus MC Transplant Institute, University Medical Center Rotterdam, Rotterdam, The Netherlands

INTRODUCTION OF NANOTYPE IN THE HLA TYPING ROUTINE ACTIVITY OF A FRENCH HISTOCOMPATIBILITY IMMUNOGENETICS LABORATORY

Romain FERRU-CLEMENT, PhD

Immunogenetics Laboratory, French Blood Centre, Site of Poitiers, France

HANSA BIOPHARMA, MAY 21, 2024, 17:30–18:10, HALL C

Title: From delisting to organ acceptance for HLAi kidney transplantation – with or without desensitisation



Chair: Dr. Fadi Haidar

Hopitaux Universitaires Geneve, Geneva, Switzerland

Speaker: Dr. Dave Roelen

Leiden University Medical Centre (LUMC), Leiden, The Netherlands

Speaker: Dr. Jean Mihes

Hopital Purpan – CHU de Toulouse, Toulouse, France

THERMO FISHER SCIENTIFIC, MAY 22, 2024, 12:10–12:50, HALL A

Title: Post-transplant monitoring in the era of dd-cfDNA and single antigen bead analysis

ThermoFisher
SCIENTIFIC

Jakob Nilsson M.D., Ph.D.

Consultant Physician, Director Transplant Immunology, University Hospital Zurich, Switzerland

GENDX, MAY 22, 2024, 13:10–13:50, HALL A

Title: Timeless Expertise: Innovations in HLA Typing

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T. Olieslagers

Biomedical Scientist at Maastricht University Medical Center

M. Rijkers, PhD

Project Manager R & D GenDx

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CareDx

CareDx, Inc., headquartered in South San Francisco, California, is a leading precision medicine solutions company focused on the discovery, development, and commercialization of clinically differentiated, high-value healthcare solutions for transplant patients and caregivers. CareDx offers testing services, products, and digital healthcare solutions along the pre-and post-transplant patient journey and is the leading provider of genomics-based information for transplant patients. With over 20 years of leadership in 4 areas of transplant innovation, our understanding of transplant patients and care teams allows us to develop solutions to extend graft life. With two decades of commitment to transplant care, we have developed close partnerships across the transplant ecosystem that grow stronger every day. CareDx is a global, 100% transplant focused company, demonstrating leadership in serving laboratories, researchers, and clinicians with its state-of-the-art product portfolio of next-generation sequencing (NGS) based AlloSeq products, which serve as pre- and post-transplantation solutions. For pre-transplant application, CareDx offers HLA typing solutions QTYPE and AlloSeq Tx. For post-transplantation monitoring, CareDx offers AlloSeq HCT chimerism testing and AlloSeq cfDNA for labs to measure the relative amount of donor derived cfDNA (dd-cfDNA) in solid organ transplant recipients. All products are CE marked. For research purposes, CareDx also provides AlloSeq Tx and AlloSeq cfDNA testing as services for customers who prefer to use the CareDx service lab in Stockholm, Sweden. Learn more about CareDx transplant lab products: <https://caredx.com/products-and-services/transplant-lab-products/>

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Werfen is a growing, family-owned, innovative company founded in 1966 in Barcelona, Spain. We are a worldwide leader in specialized diagnostics in the areas of Hemostasis, Acute Care Diagnostics, Transfusion, Autoimmunity, and Transplant. Through our Original Equipment Manufacturing (OEM) business line, we research, develop, and manufacture customized assays and biomaterials. We operate directly in 30 countries and in more than 100 territories through distributors. Our Headquarters and Technology Centers are located in the US and Europe, and our workforce is more than 7,000 strong.

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Omixon is a global transplantation diagnostic company with a mission to provide histocompatibility laboratories with innovative technologies to improve transplant outcomes. Omixon is headquartered in Budapest, Hungary, with operations in the United States, Brazil and the Netherlands serving more than 100 laboratories worldwide. Building on multidisciplinary competences in bioinformatics, software engineering, molecular biology and regulatory science, Omixon transforms molecular biology innovations into state-of-the-art products in transplant diagnostics. Omixon was the first to successfully introduce a next generation sequencing (NGS) based HLA genotyping kit and software in 2014 by bringing Hologtype HLA product and HLA Twin software to market. HLA Twin delivers a leading software in high-resolution HLA genotyping and is used in more than 100 laboratories worldwide. Omixon was the first to release a high resolution HLA genotyping product NanoTYPE HLA with less than 5 hours turnaround time on the Oxford Nanopore sequencing platform complemented by NanoTYPER analysis software. In 2024 Omixon introduces HoloGRAFT ONE RUO with a promise of frequent and affordable testing of donor-derived cell-free DNA (dd-cfDNA) levels.



Hansa Biopharma

Hansa Company short description – Mar 2024 Hansa Biopharma is based in Lund, Sweden with operations in other European countries and the U.S. Hansa leverages its proprietary antibody-cleaving enzyme technology platform to target pathogenic and disease causing antibodies. Hansa's lead product, imlifidase, is an antibody-cleaving enzyme which enables kidney transplantation in highly sensitized patients. The European Commission conditionally approved Idefix (imlifidase) for the desensitization of highly sensitized adult kidney transplant patients with a positive crossmatch against an available deceased donor with use reserved for patients unlikely to be transplanted under available kidney allocation systems including prioritisation programmes for highly sensitised patients.



DiagnoSeq

DiagnoSeq Genetic Diseases Evaluation Center (GDEC) as one of the largest „Genomic Service Provider“ in Turkey and one of the largest „HLA Tissue Typing“ laboratories in Europe offers extensive services either as raw data or as clinical report to its customers. DiagnoSeq adopts medical ethics, good laboratory practices, information security and confidentiality as its basic principles. DiagnoSeq Tissue Typing Laboratory received EFI (European Federation of Immunogenetics) accreditation in 2018, ISO 27001 certification in 2022 and has also successfully completed the CAP Accreditation (College of American Pathologists) in 2023. DiagnoSeq with its advanced technology infrastructure provides short turnaround times to deliver the results in as short as 5 days for NGS based HLA Typing and 10 days for Whole Exome Sequencing (WES) and Clinical Exome Sequencing (CES).

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SOCIAL NETWORKING EVENTS

WELCOME COCKTAIL

Monday, May 20, 2024, 19:30–21:30

Place: Exhibition Hall

The Welcome Cocktail is open to all conference participants.

NETWORKING EVENT

Wednesday, May 22, 2024, 19:45–01:00

Price: 105 € / per person

Place: Domain Du Grand Malagny, 48-50 Route de Malagny, 1294 Genthod

Transportation: Transportation from the venue and vice versa will be provided by shuttle buses

Dress code: Business casual/smart casual. Comfortable shoes are recommended

GENDX TULIP RUN (5 KM)

Wednesday, May 22, 2024, from 06:40

Price: 25 € / per person

Meeting point: the main entrance of the Palexpo Geneva at 6:15

Detailed schedule: 06:40 – Warm-up

07:00 – Start run

08:00 – Tulip run awards & heading back to the hotel



Join us at our EFI 2024 Symposium



Margot D., Stem Cell Transplant Recipient

Transplantation Excellence: Innovative Solutions for Enhanced Patient Care

Tuesday 21 May, 2024

Time: 13.10 - 13.50

Hall: B

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Moderator



Curtis Lind - VP, Head of R&D Products
CareDx

Guest Speakers



Implementation of NGS-Based HLA typing, AlloSeq Tx Assay, for Donor Registry in Saudi Arabia
Abdullah N. Alsuwaidan, MD, FCAP
Department of Pathology & Laboratory Medicine King Faisal Specialist Hospital & Research Center
Riyadh, Saudi Arabia



Long-Term Integrity of Transplanted Stem Cells in Human Recipients
Mirjam Belderbos, MD, PhD
Princess Máxima Center for Pediatric Oncology
Utrecht, the Netherlands



Putting dd-cfDNA into Practice: Clinical Experience from the Hospital Clínic of Barcelona
David Cucchiari, MD, PhD
Renal Transplant Unit, Hospital Clínic
Barcelona, Spain

 AlloSeq Tx

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Stem cell transplant recipient

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No Long-range PCR =
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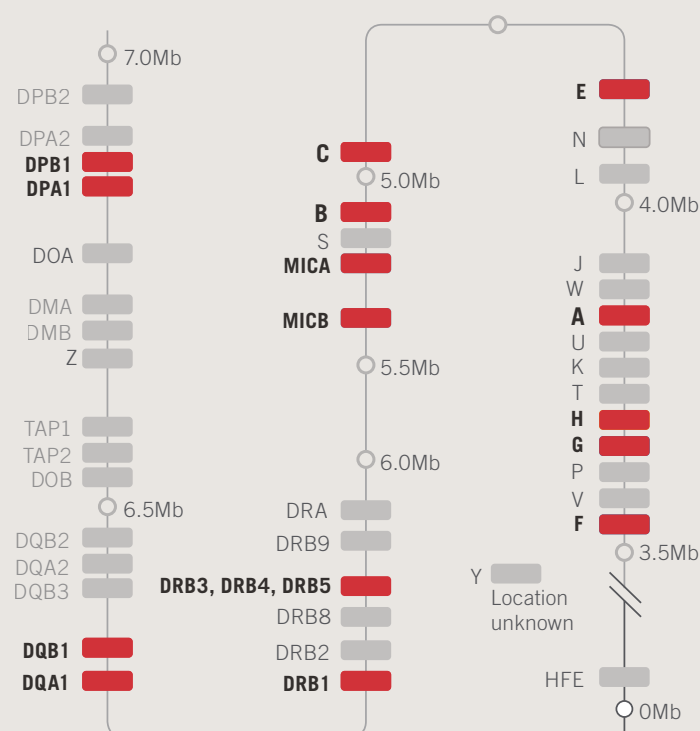
Fast Software Analysis
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*as per internal testing

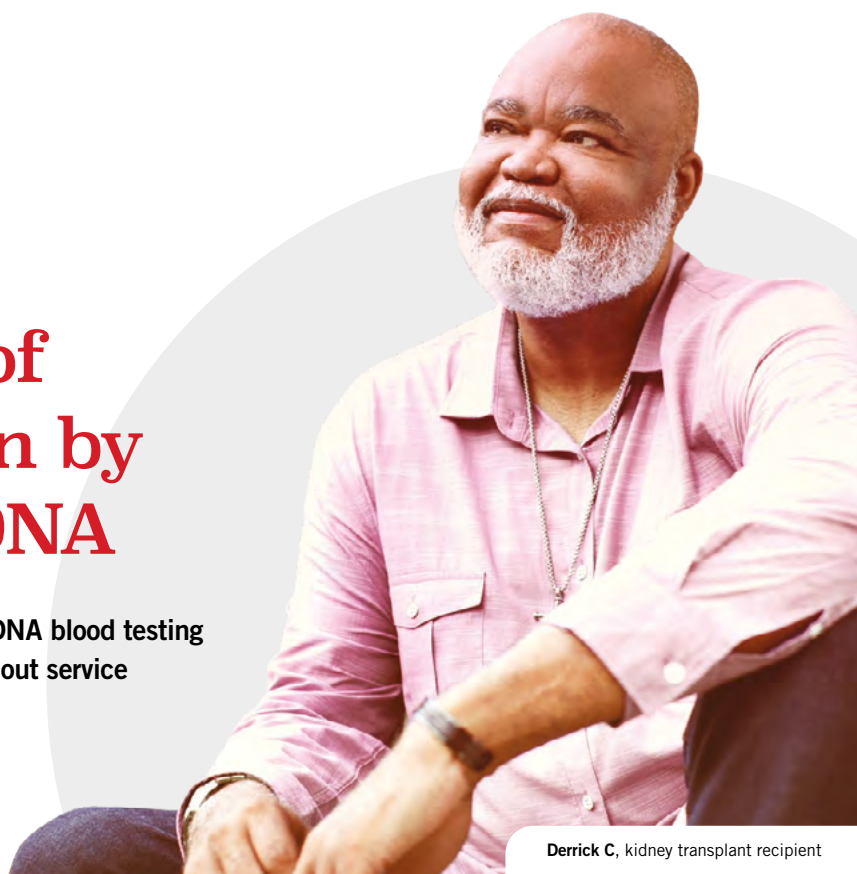
Availability

AlloSeq Tx9 (HLA-A, -B, -C, -DRB1/3/4/5, DQB1, DPB1) covers classical HLA loci

AlloSeq Tx17 (HLA-A, -B, -C, -E, -F, -G, -H, DRB1/3/4/5, DQA1, DQB1, DPA1, DPB1) moves beyond the traditional transplant related loci to consider more transplant associated genes



For more information visit <https://CareDx.com/AlloSeqTx> or reach out to your local CareDx representative.



Derrick C., kidney transplant recipient

Risk Assessment of Allograft Rejection by Measuring dd-cfDNA

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NGS Based CE-IVD Kit

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- + Escalate testing up to 24 samples/run
- + From cfDNA sample to sequencing < 1.5 hrs hand-on time
- + Validated on Illumina MiniSeq and MiSeq
- + No prior genotyping required
- + Multiplexed amplification of targets & sample indexing/barcoding into one single reaction
- + Low cfDNA input of 10ng
- + Ability to monitor more than one donor cfDNA contributor*

Send Out Service

- + Get your results through our high-quality send out service with short turn around time



Collect blood samples
in your lab



Send to
CareDx



Easy to interpret reports
delivered to you

Easy sample collection process | Technical expertise | Full logistics support
No lab setup or NGS equipment required | Cost and resource effective

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* Would require recipient genotyping

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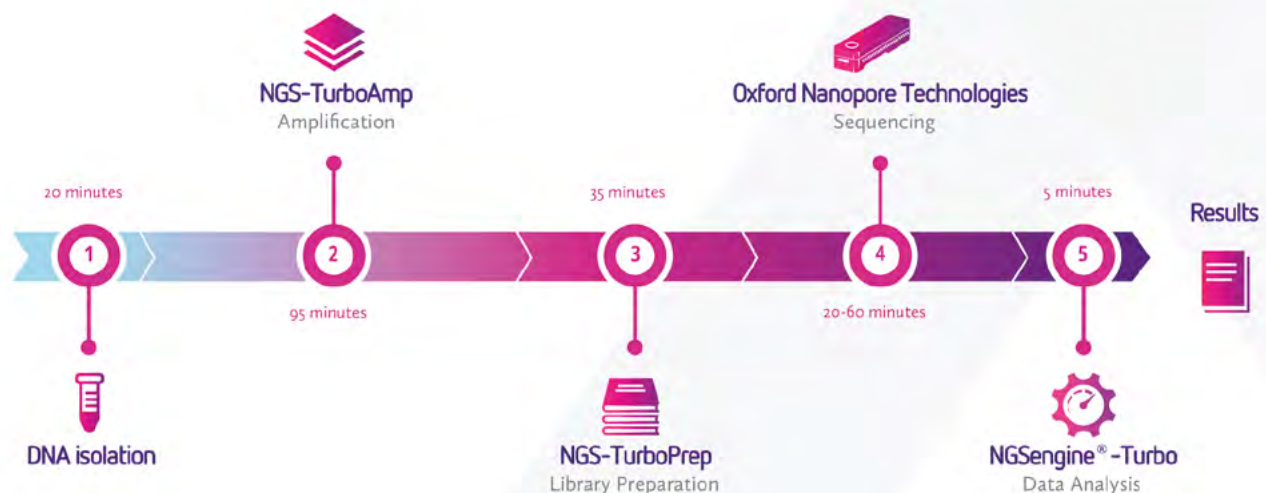
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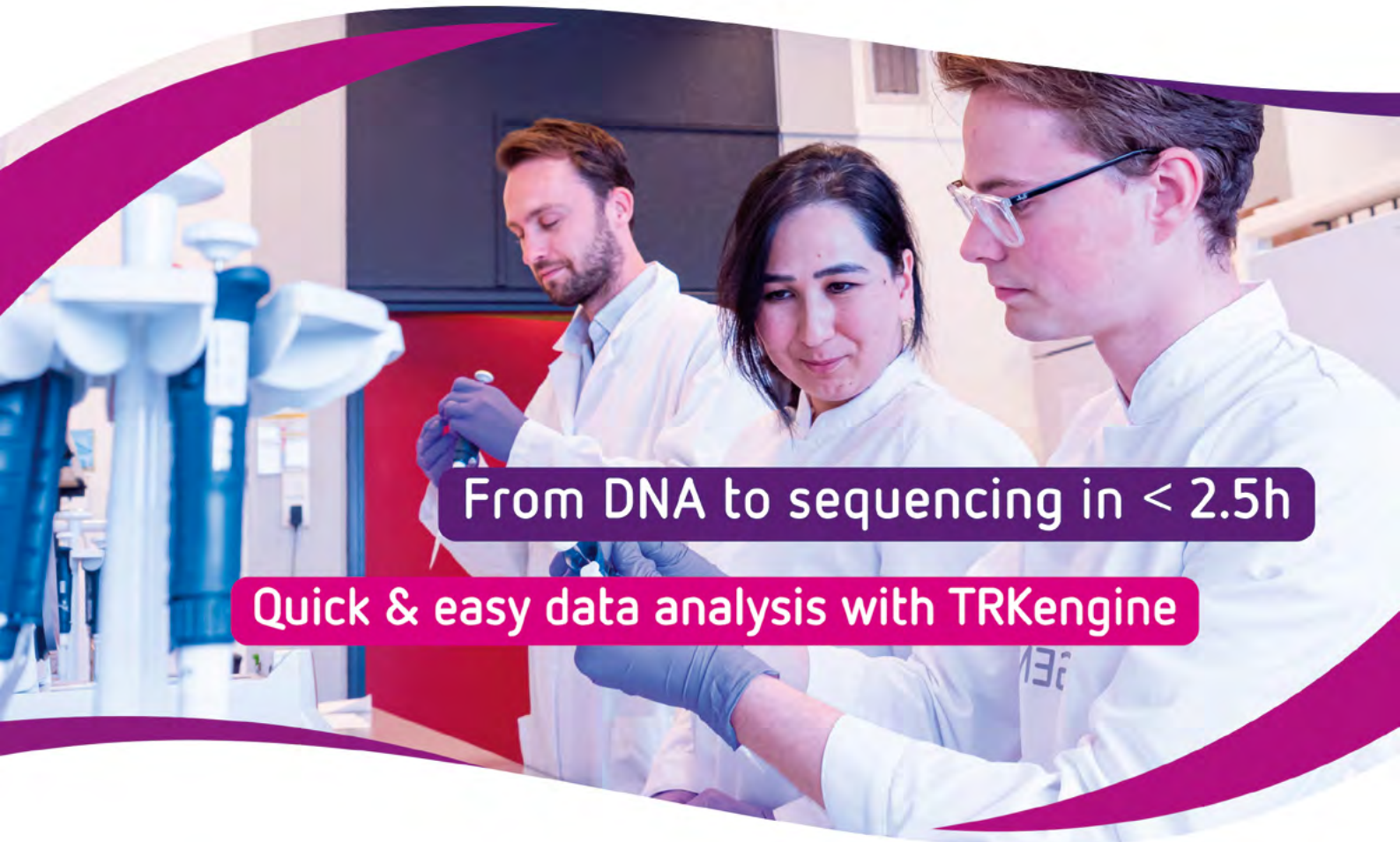
Workflow simplicity

The NGS-TurboAMP kit offers 11 HLA loci using a whole-gene approach. The extremely quick 1-tube library preparation with NGS-TurboPrep requires no fragmentation and can be safely paused at any time. After nanopore sequencing the data can be directly analyzed with NGSengine®-Turbo.



Chimerism monitoring by NGS

NGStrack[®] & TRKengine[®]



From DNA to sequencing in < 2.5h

Quick & easy data analysis with TRKengine

- ✓ Reliable at all chimerism %
- ✓ Up to 0.1% sensitivity
- ✓ Only 60 ng DNA needed per sample



Interested?

Contact us for more information at support@gendx.com
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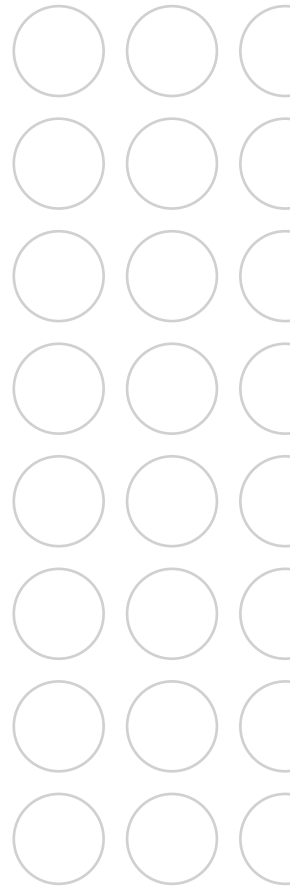


Join us at booth #3

We'll be showcasing our assays, protocols and software as our advancements continue to reshape the landscape of HLA genotyping and antibody detection technologies.



Join the Community



Join us at our industry symposia

Wednesday, 22nd May 12.10 – 12.50 | Hall A

Post-transplant monitoring in the era of dd-cfDNA and single antigen bead analysis

Jakob Nilsson M.D., Ph.D.

Consultant Physician, Director Transplant Immunology
University Hospital Zurich



One Lambda MagSort

Redefining HLA antibody isolation, bead by bead

This innovative assay isolates individual HLA antibodies from human serum in a targeted manner using adsorption and elution via antigen-coated magnetic beads.

One Lambda™ MagSort™ utilizes a comprehensive panel of 59 HLA antigens across 6 loci, individually coupled to magnetic beads. The ability to elute specific antigens of interest provides a more focused dataset and provides users with a robust and standardized approach.

Capabilities

Targeted technology

- Individual antigen-coated magnetic beads
- Elute antibodies that bind to a specific antigen
- Results in a more focused HLA antibody assessment

Customizable panels

- 59 antigens across 6 locus specific kits
- Flexibility to focus only on antigens of interest
- Coverage across well-documented antigens

Efficient workflow

- Up to 45 minutes of hands-on time and as little as 4 hours to workflow completion
- Uses equipment already found in most laboratories
- Immediate antigen availability.

 For more information on this new product, visit the Thermo Fisher Scientific booth

For Research Use Only. Not for use in diagnostic procedures.





ADAPT.

Are you ready to make a change?

Change can be intimidating, but without change there is limited growth. Differences in MFI values between vendors can be challenging to explain, but they should not be seen as a deterrent. There are many ways to help overcome MFI differences between vendors and with the right partner and tools you can overcome this barrier. As Darwin said, "It is not the strongest that survive, nor the most intelligent, but the ones that are most adaptable to change."

[CLICK HERE](#) to find out what your peers experienced by adapting to change.

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GROWTH.

Looking for ways to advance your HLA antibody analysis knowledge?

Antibody analysis can be complex and overwhelming. With staff turnover it can be difficult to train new employees on analysis creating a greater burden on existing staff. Immucor's MATCH IT!® Antibody software is specifically designed for simplifying the complexities of HLA analysis. Adaptive, effective and powerful, MATCH IT!® Antibody software will turn any tech into an antibody analysis expert.

[CLICK HERE](#) to see how you can become an expert.

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EVOLVE.

Looking for more solutions to help
aid in your decision making process?



How could more tools in your toolbox better aid you in your decision making process for critical transplant patients? When you have more information at your disposal, you can optimize your decision making process for better efficiency and delivery of results. Make the best use of your valuable time by adding LIFECODES Single Antigen Class I and Class II to your workflow.

[CLICK HERE](#) to see how a fellow member
of the HLA community has accomplished this.

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ABOUT US

Diagnoseq Genetic Diseases Evaluation Center (GDEC), one of the largest "Genomic Service Provider" in Turkey and one of the largest "HLA Tissue Typing" laboratories in Europe offers extensive services, as raw data or as clinical report to its customers.

SERVICES

We provide the highest quality HLA Typing and Genomic services. Our mission, as a high throughput NGS laboratory is to provide the most efficient solutions to our customers for Tissue Typing and other genomics services (WES, WGS, Molecular Karyotyping, Oncology)

We welcome opportunities to cooperate in the areas where you can benefit from our services.

CERTIFICATES



EFI ACCREDITATION

The European Federation for Immunogenetics (EFI) awards the EFI certificate to laboratories that the quality requirements set by EFI (Standards). EFI is a European organisation that focuses on immunogenetics, tissue typing and transplantation. The EFI certificate is required by a number of organisations operating in the field of stem cell and solid organ transplantation including JACIE, NMDP and the Eurotransplant foundation.



CAP ACCREDITATION

The CAP accredits laboratories performing testing on specimens from human beings or animals, using methodologies and clinical application within the expertise of the program. CAP Laboratory Accreditation helps laboratories: Maintain accuracy of test results and ensure accurate patient diagnosis. Meet required standards from CLIA, FDA and OSHA. CAP requirements commonly exceed the standards, bolstering patient care and safety.



ISO 15189

ISO 15189 standard; Based on ISO/IEC 17025 and ISO 9001, it aims to ensure safety in medical laboratories, the accuracy and required by patients and clinical staff directly responsible for treatment.



ISO 27001

Internationally recognized ISO/IEC 27001 is an excellent framework for managing and protecting our information assets to keep them safe and secure. In order to protect personal data and sensitive information, ISO/IEC 27001 standard enables implementation of a robust approach to manage information security in our organization.

REFERENCES



We are proud to provide services to the Donor Registry of Türkiye (TURKOK) and performed more than 1 million HLA Typing.

CONTACT US

DiagnoSeq Genetic Diseases Assessment Center

www.diagnoseq.com.tr info@diagnoseq.com.tr

[in](#) [f](#) [@](#) DiagnoSeq





Only
1 in ~300,000
donors meet
her needs¹

She needs a new kidney, but with high anti-HLA antibodies and a cPRA of 99.999% she would need ~300,000 match runs to give a 95% probability of finding an acceptably matched donor.^{1,2}

You're committed to making the transplant happen, we're committed to helping you have the option.



Please
visit booth #4
for more
information

1. Keith DS, et al. Clin J Am Soc Nephrol. 2016;11(4):684–693.

2. Kuppachi S, Axelrod DA. Transpl Int. 2020;33(3):251–259.

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HANSA-PR.GLO.24.001-001 | April 2024

LIVE

NANOTYPE DEMO AT BOOTH #9



CHECK THE DEMO SCHEDULE
AT THE OMIXON BOOTH



OMIXON SYMPOSIUM

MAY 21, 2024, 17:30 | HALL A



*Big step towards diagnostics
with Nanopore Sequencing*

Dr. Claudia Lehmann

University Hospital Leipzig, Germany
Laboratory for Transplantation
Immunology



*Donor-derived cfDNA as
diagnostic tool in kidney
transplantation*

Karin Boer, PhD

Erasmus MC Transplant Institute
University Medical Center Rotterdam
Rotterdam, the Netherlands



*Introduction of NanoTYPE in the
HLA typing routine activity of a
French Histocompatibility and
Immunogenetics Laboratory*

Romain FERRU-CLEMENT, PhD

Histocompatibility and
Immunogenetics Laboratory
French Blood Centre, Site of Poitiers



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Be a maestro as you orchestrate your antibody identification, using HISTO SPOT® HLA AB. From diluted serum to results generation, all steps are performed in a **fully automated** instrument; always finely tuned. No need for extra calibration protocols, **saving time, money and reagents**. HISTO MATCH software delivers **simple analysis** and **highly specific results** in a virtuoso performance.

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HLA AB



-  HIGHLY REPRODUCIBLE
-  FLEXIBLE THROUGHPUT (1-96 SAMPLES)
-  OPTIMIZED SAMPLE BUFFER REDUCES UNSPECIFIC REACTIONS TO A MINIMUM
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