



38th European Immunogenetics & Histocompatibility Conference

*Immunogenetics → Science and Clinical
Applications → **The Way Ahead***

14-17 May 2025, Prague, Czech Republic
Prague Congress Centre



FINAL PROGRAM

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WELCOME ADDRESS

Dear colleagues, dear friends,

We are pleased and honoured to welcome you to Prague for the 38th European Immunogenetics and Histocompatibility Conference. Since the last EFI Conference in Prague in 2011, our field has changed immensely, not only in diagnostic procedures, but also in the interpretation of complex laboratory data. For this reason, the motto of the congress “Immunogenetics: Science and Clinical Applications – The Way Ahead” emphasizes the perspectives and new developments in immunogenetics as a science.

We are grateful to the leading experts who have agreed to present their scientific achievements at the conference. Their talks will showcase future advances in our field and related areas, highlighting implications for transplant patient care and basic research development.

We extend our sincere gratitude to the EFI Executive, Scientific, Education and Bioinformatics Committees. These committees have supported us with the planning of the Scientific Program, the Teaching Sessions and the evaluation of the abstracts. We would like to thank our EFI president Marco Andreani for his fantastic support and advice during the preparations of the meeting. Furthermore, we are grateful to Steven Marsh, head editor of the journal HLA and Wiley for the possibility to publish the abstracts of the conference and for the excellent mutual collaboration. The help of Thomas Turner, Alicia Sanchez-Mazas and José de Abreu Nunes in the final preparation of the abstracts for publishing has been indispensable.

Last, but not least, this conference would not have been possible without the generous support from our sponsors, who have also contributed to the Scientific program by organizing intriguing and stimulating symposia.

We are happy to host you again in our beautiful city and we hope that you find the conference to be fruitful and inspiring.

On behalf of the Local Organizing Committee

Antonij Slavcev and Gottfried Fischer



PARTNERS

We would like to thank the following partners for their support

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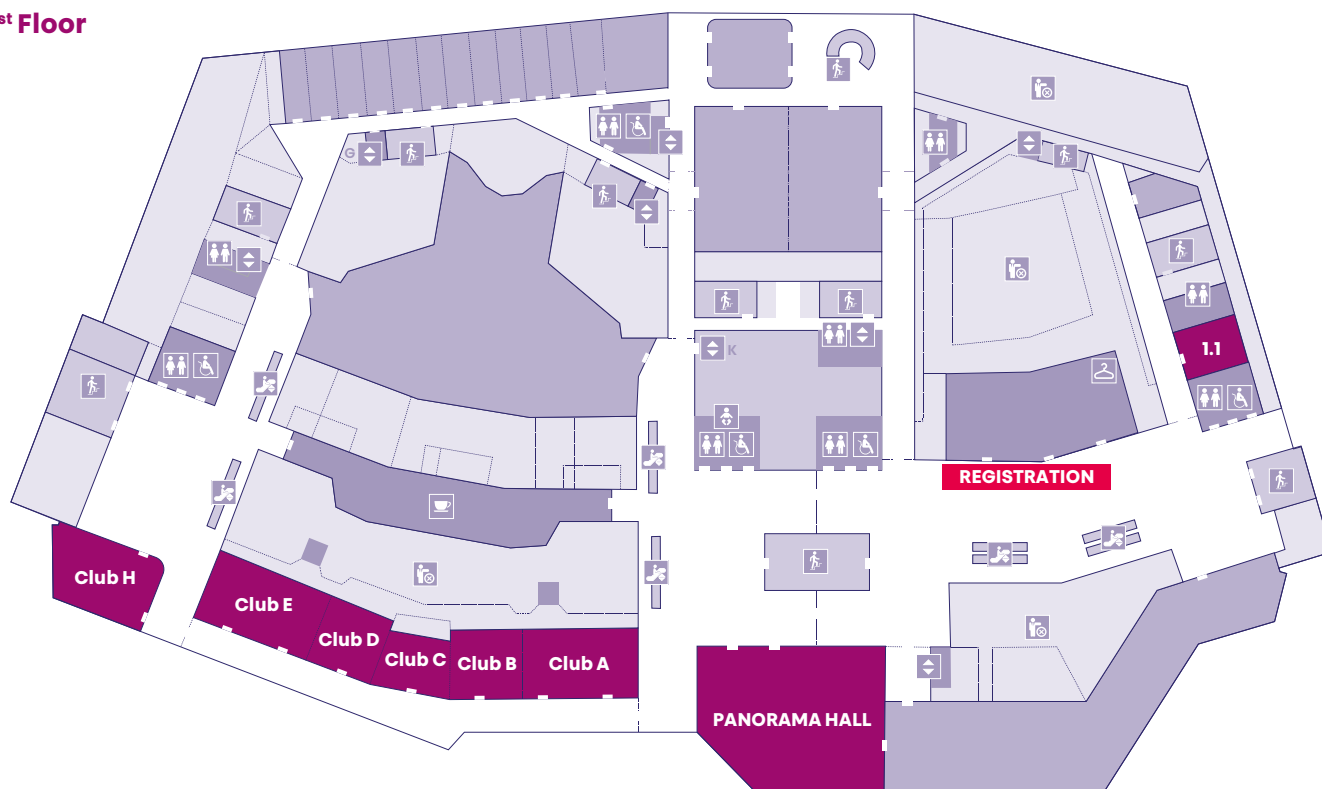
CONFERENCE INFORMATION

CONFERENCE VENUE

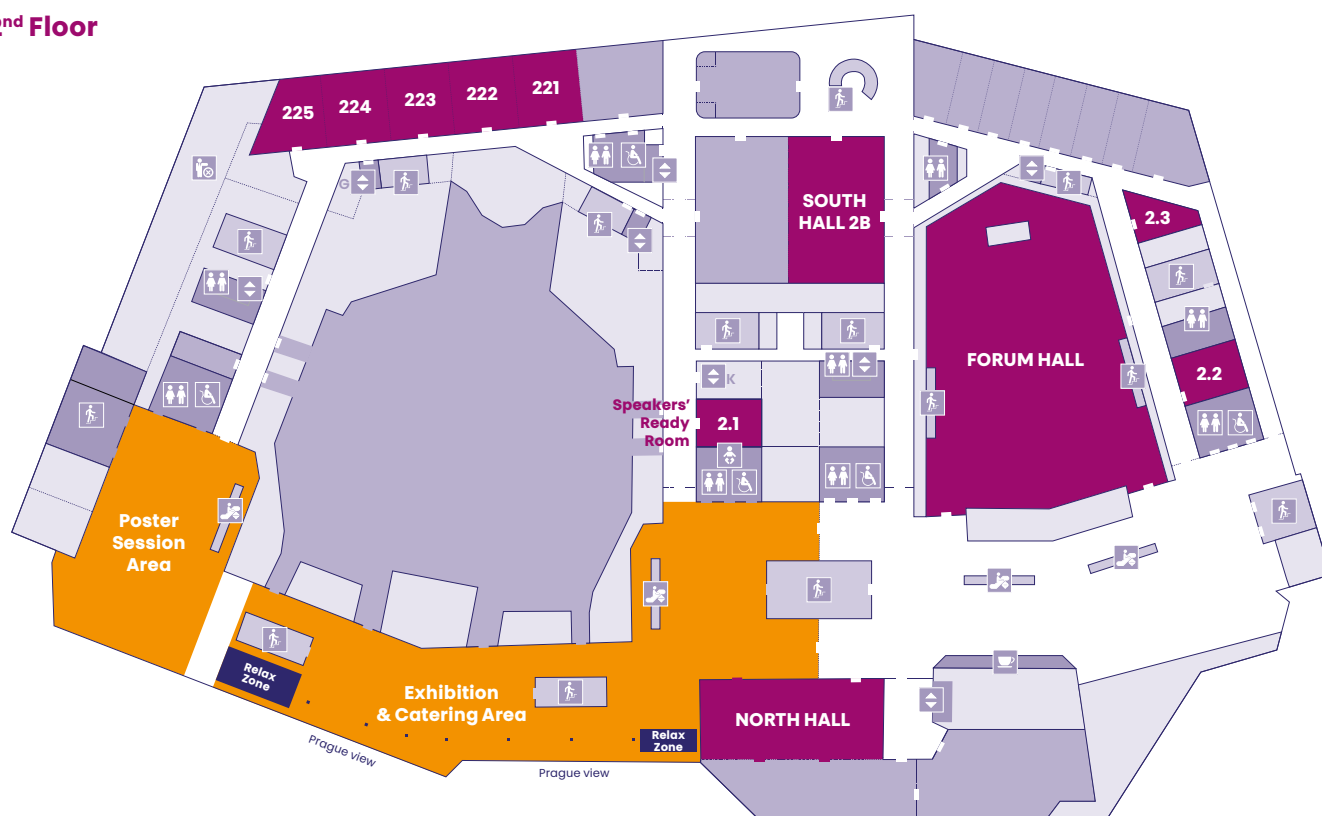
Prague Congress Centre

<https://www.praguecc.cz/en/homepage>

1st Floor



2nd Floor



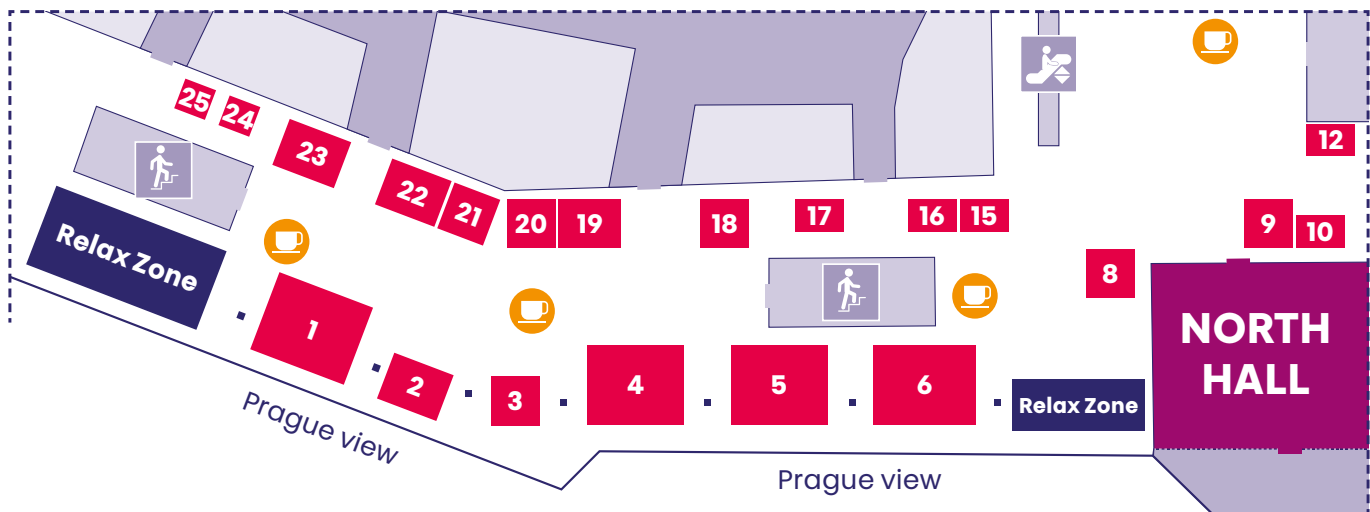
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EXHIBITION PLAN



Exhibition

- | | | |
|------------------------------|--|------------------------------------|
| 1 Care Dx | 12 Histogenetics | 20 STEMCELL Technologies |
| 2 BAG Diagnostics GmbH | 15 Protrans Medizinische diagnostische Produkte GmbH | 21 ROSE Genomics Corp. Ltd Beijing |
| 3 JETA Molecular | 16 GPI SPA | 22 Devyser |
| 4 Werfen | 17 Clinisys nv/sa | 23 Pirche AG |
| 5 Thermo Fisher Scientific | 18 EFI | 24 Silho |
| 6 GenDx | 19 DKMS Life Science Lab GmbH | 25 TxMiller Foundation |
| 8 inno-train Diagnostik GmbH | | |
| 9 Oncocyte | | |
| 10 SCC Soft Computer | | |

FREE WI-FI

SSID: EFI2025

Password: Prague2025

EFI 2025 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/EFI2025>

<https://www.linkedin.com/company/efi-conference-2025/>

As for EFI conference 2025 use #EFI2025.

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 15/16)	530 EUR
One-day fee (May 17)	430 EUR
Distributor	450 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

Wednesday, May 14, 2025	08:00–20:00
Thursday, May 15, 2025	07:30–18:30
Friday, May 16, 2025	07:30–18:15
Saturday, May 17, 2025	08:00–14:00

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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

PARTNER / EXHIBITOR

ONE-DAY REGISTRATION 15

ACCOMPANYING PERSON

ONE-DAY REGISTRATION 16

GUEST

ONE-DAY REGISTRATION 17

SPEAKER

ORGANIZER

DISTRIBUTOR

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" (Room 2.1 located on the second 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:

Wednesday, May 14, 2025	15:30–20:00
Thursday, May 15, 2025	07:30–18:00
Friday, May 16, 2025	08:00–18:30
Saturday, May 17, 2025	07:30–12:30

INSTRUCTIONS FOR POSTER PRESENTERS

The poster section is located in the foyer of the 2nd floor.

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 23th, from 12:00.

Poster mounting time:

Wednesday, May 14, 2025	16:00–19:30
Thursday, May 15, 2025	07:30–10:00

Poster removal time:

Friday, May 16, 2025	16:30–18:30
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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

A. Slavčev, *Czech Republic*

G. Fischer, *Austria*

Scientific Committee

L. Vago, *Italy, Chair*

J. Trowsdale, *United Kingdom*

P. Crivello, *Germany*

R. Carapito, *France*

A. Sanchez-Mazas, *Switzerland*

K. Fleischhauer, *Germany*

E. Spierings, *the Netherlands*

G. Karahan, *the Netherlands*

N. de Groot, *the Netherlands*

J. Lucas, *United Kingdom*

EFI Executive Committee

M. Andreani, *Italy, President*

D. Roelen, *the Netherlands, Secretary*

K. Poulton, *United Kingdom, Deputy-Secretary*

J. Villard, *Switzerland, Treasurer*

N. Vince, *France, Deputy-Treasurer*

Councillors

N. Mayor, *United Kingdom*

A. Slavcev, *Czech Republic*

L. Vago, *Italy*

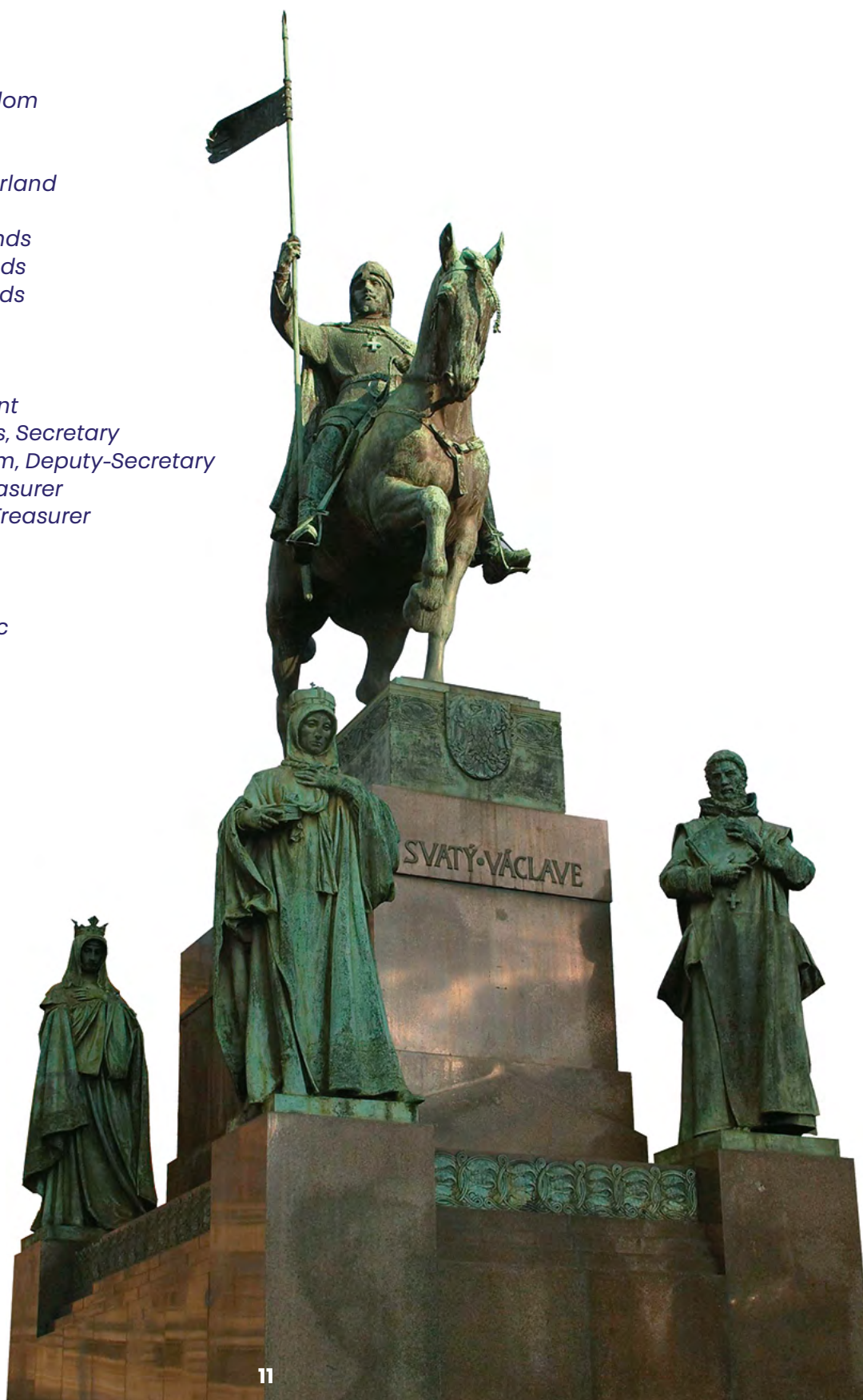
D. Turner, *United Kingdom*

S. Heidt, *the Netherlands*

F. Heinemann, *Germany*

S. Tafulo, *Portugal*

K. Tarassi, *Greece*





SPEAKERS

Plenary 1: Organ Transplantation

Matthew Brook, Oxford University Hospital, Oxford, UK

Robert Liwski, Dalhousie University, Halifax, Canada

Carmen Lefaucheur, Saint-Louis Hospital, Paris, France

Plenary 2: Hematopoietic stem cell transplantation

Renata Formánková, University Hospital Motol, Prague, Czech Republic

Pietro Crivello, Essen University Hospital, Essen, Germany

Raffaella Greco, San Raffaele Hospital, Milan, Italy

Plenary 3: New Developments – The cutting edge of transplantation

Gerard Socie, Saint-Louis Hospital, Paris, France

Lukas T Jeker, University of Basel, Basel, the Switzerland

Brendan J Keating, University of Pennsylvania, Philadelphia, USA

Plenary 4: Evolutionary genetics

Sebastien Gagneux, Associated Institute of the University of Basel, Allschwil, the Switzerland

Luisa Pereira, Institute of Research and Innovation in Health, University of Porto, Porto, Portugal

Zuzana Hofmanová, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

Plenary 5: The helping hand of Artificial Intelligence

Andrea Sottoriva, Computational Biology Research Centre, Milan, Italy

Abhishek D Garg, Catholic University in Leuven, Leuven, Belgium

Chenqu Suo, University of Cambridge, Cambridge, UK

Joint Session with the Czech Society for Organ Transplantation

Ondřej Viklický, Institute for Clinical and Experimental Medicine, Prague, Czech Republic

Georg Böhmig, Medical University of Vienna, Vienna, Austria

Jan Havlín, University Hospital Motol, Prague, Czech Republic

Teaching session 1: Bioinformatics and its use in the laboratory

Eric Spierings, University Medical Center, Utrecht, the Netherlands

James Robinson, Anthony Nolan Research Institute, London, UK

Nico Vince, University of Nantes, Nantes, France

Marco Punta, IRCCS San Raffaele Scientific Institute, Milan, Italy

Special session: Tolerance

Korneel Grauwet, Harvard Medical School, Boston, USA

Dimitrios Mougialakos, University Hospital, Magdeburg, Germany

Silvia Gregori, IRCCS San Raffaele Scientific Institute, Milan, Italy

Teaching session 2: Choose the donor!

Deborah Sage, NHS Blood and Transplant, London, UK

Eduard Palou, Hospital Clinic of Barcelona, Barcelona, Spain

Sandra Tafulo, Blood and Transplantation Centre, Porto, Portugal

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Teaching session 3: National and international allocation systems

Elena Longhi, IRCCS Foundation, Milan, Italy

Dave Turner, Royal Infirmary, Edinburgh, UK

Antonij Slacev, Institute for Clinical and Experimental Medicine, Prague, Czech Republic

Dana Vasickova, Coordinating Center for Transplantation, Prague, Czech Republic

Gonca Karahan, Leiden University Medical Center, Leiden, the Netherlands

Teaching session 4: Chimerism

Lucie Stefflová, Institute of Hematology and Blood Transfusion, Prague, Czech Republic

Valerie Dubois, EFS in Auvergne-Rhône-Alpes, Lyon, France

Esteban Arrieta-Bolanos, University Hospital, Essen, Germany

Young EFI Professionals Session: How to Tell and Sell Your Story

Michaela Agapiou, University of Leeds, Leeds, UK

Jonathan Lucas, Anthony Nolan Research Institute, London, UK

Karolina Pstross, Charles University, Prague, Czech Republic

Pat Smith, Anthony Nolan Research Institute, London, UK

Special Session: Progress in Disease associations, various

Milena Vraná, Institute of Hematology and Blood Transfusion, Prague, Czech Republic

Elissaveta Naumova, University Hospital "Alexandrowska", Sofia, Bulgaria

Uma Kanga, All India Institute of Medical Sciences, New Delhi, India

Frantisek Mrazek, Faculty Hospital, Olomouc, Czech Republic

Closing ceremony

Chairs: Marco Andreani, Antonij Slavcev, Gottfried Fischer





PROGRAM OVERVIEW

ASSOCIATED MEETINGS, WORKSHOPS

MONDAY, MAY 12, 2025

09:00–17:00**Club A**
DASH Meeting

TUESDAY, MAY 13, 2025

09:00–17:00**Panorama Hall**
EFI Inspectors Workshop**09:00–16:00****Room 221–224**
ESHI Diploma examination**09:00–17:00****Club A**
DASH Meeting

WEDNESDAY, MAY 14, 2025

08:30–17:30**Room 221–225, Club A, Club D, Room 2.3**
EFI Committee meetings**10:00–12:30****Club E**
Workshop on Flow Cytometry Crossmatch, analysis of complex patient based cases

THURSDAY, MAY 15, 2025

09:00–17:00**Club D**
19th International HLA and Immunogenetics Workshop

FRIDAY, MAY 16, 2025

09:00–17:00**Club D**
19th International HLA and Immunogenetics Workshop**10:30–11:00****Club D**
Overview and updates of 19th IHIWS Projects



SCIENTIFIC PROGRAM

WEDNESDAY, MAY 14, 2025	
17:30	Forum Hall Opening Ceremony
19:45	Welcome Drink

THURSDAY, MAY 15, 2025				
08:30	Forum Hall Plenary Session I: Organ Transplantation			
10:00	Coffee Break			
	PARALLEL SESSIONS			
10:30	Forum Hall Joint Session with the Czech Society for Organ Transplantation	South Hall 2B Teaching session 1: Bioinformatics and its use in the laboratory	North Hall Abstract session 1: Immunogenetics of Infection and Autoimmune Diseases	Panorama Hall Abstract session 2: New Technologies, Cancer Immunogenetics and Reproduction
12:00	Panorama Hall Industry symposium GenDx			
13:00	Panorama Hall Industry symposium Werfen			
13:30	Room 221 Education Affairs Session			
14:00	Forum Hall Plenary Session II: HSCT			
15:30	Coffee Break			
16:00	Panorama Hall Teaching session 2: Choose the donor! (interactively)	Forum Hall Special session: Tolerance	South Hall 2B Abstract session 3: Solid Organ Transplantation	North Hall Industry symposium Werfen
17:30	Poster Area Wine & Cheese Poster Viewing Session			

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FRIDAY, MAY 16, 2025				
08:30	Forum Hall Plenary Session III: New Developments – The cutting edge of transplantation			
10:00	Coffee Break			
	PARALLEL SESSIONS			
10:30	Forum Hall Teaching session 3: National and international allocation systems	Panorama Hall Teaching session 4: Chimerism	South Hall 2B Young EFI Professionals Session: How to tell and sell your story	North Hall Industry symposium CareDx
12:00	North Hall Industry symposium Thermo Fisher Scientific			
13:00	Panorama Hall Industry symposium CareDx			
	Club A Meet the expert session Bioinformatics			
14:00	Forum Hall Plenary Session IV: Evolutionary genetics			
15:30	Coffee Break			
16:00	Forum Hall Special Session: Progress in Disease associations, various	Panorama Hall Abstract session 4: Haematopoietic Stem Cell Transplantation (HSCT)	South Hall 2B Abstract session 5: Bioinformatics	North Hall Abstract session 6: MHC Evolution, Anthropology & Population Genetics
17:30	Forum Hall EFI Medals Ceremony			
18:00	Forum Hall EFI General Assembly			

SATURDAY, MAY 17, 2025	
09:00	Panorama Hall Best abstracts session
10:30	Panorama Hall Plenary Session V: The helping hand of Artificial Intelligence
12:00	Panorama Hall Closing Ceremony



FINAL PROGRAM

ASSOCIATED MEETINGS

MONDAY, MAY 12, 2025

09:00–17:00 **DASH Meeting** **Club A**

TUESDAY, MAY 13, 2025

09:00–17:00 **EFI Inspectors Workshop** **Panorama Hall**

09:00–16:00 **ESHI Diploma examination** **Room 221, 222, 223, 224**

09:00–17:00 **DASH Meeting** **Club A**

WEDNESDAY, MAY 14, 2025

08:30–17:00 **Executive committee meeting** **Room 221**

08:30–17:00 **Accreditation committee meeting** **Club D**

08:30–17:00 **Standards committee meeting** **Room 223**

10:00–14:00 **EPT committee meeting** **Room 222**

11:00–13:30 **IT & Bioinformatics committee meeting** **Room 2.3**

13:30–17:00 **Education committee meeting** **Room 224**

13:30–16:00 **Scientific committee meeting** **Room 225**

16:00–17:30 **Open Meeting of the EFI Population Genetics Working Group** **Club A**
16:00–16:45 **Oral presentations on population genetics related topics**
16:45–17:30 **Update on the 19th IHIW Component "Population Genetics, Anthropology and Evolution (PGAE)" (Japan 2026), discussion.**

10:00–12:30 **Workshop on Flow Cytometry Crossmatch, analysis of complex patient based cases** **Club E**
Chair: Robert Liwski

THURSDAY, MAY 15, 2025

09:00–17:00 **19th International HLA and Immunogenetics Workshop** **Club D**

FRIDAY, MAY 16, 2025

09:00–17:00 **19th International HLA and Immunogenetics Workshop** **Club D**
10:30–11:00 **Overview and updates of 19th IHIWS Projects** **Club D**



SCIENTIFIC PROGRAM

WEDNESDAY, MAY 14, 2025

17:30–19:30	Opening Ceremony	Forum Hall
17:30–17:50	Welcome addresses <i>Chairs: Marco Andreani, Antonij Slavcev, Gottfried Fischer</i>	
17:50–18:00	Tribute to Frans Claas <i>Chair: Ronald Bontrop</i>	
18:00–18:15	HLA award <i>Chair: Steven Marsh</i>	
18:15–18:45	Julia Bodmer award <i>Chair: Luca Vago</i>	
18:45–19:30	Cepellini Lecture <i>Chair: Marco Andreani</i>	
19:45–22:00	Welcome Drink	

THURSDAY, MAY 15, 2025

08:30–10:00	Plenary Session I: Organ Transplantation <i>Chairs: Caner Süsal, Stefan Schaub</i>	Forum Hall
08:30–09:00	Regulatory T cell therapy in transplantation <i>Matthew Brook</i>	
09:00–09:30	Complex situations in antibody diagnostics <i>Robert Liwski</i>	
09:30–10:00	Antibody-Mediated Rejection of Solid-Organ Allografts <i>Carmen Lefaucheur</i>	
10:00–10:30	Coffee Break	
10:30–12:00	Parallel Sessions Joint Session with the Czech Society for Organ Transplantation <i>Chairs: Ondrej Viklicky, Georg Böhmig</i>	Forum Hall
10:30–11:00	HLA incompatible transplantation: current possibilities <i>Ondrej Viklicky</i>	
11:00–11:30	The development of anti-CD38 therapy in organ transplantation <i>Georg Böhmig</i>	
11:30–12:00	Cell free DNA in the diagnostics of lung transplant rejection <i>Jan Havlín</i>	
10:30–12:00	Teaching session 1: Bioinformatics and its use in the laboratory <i>Chairs: Eric Spierings, James Robinson, Nico Vince, Marco Punta</i>	



10:30–12:00

Abstract session 1:

North Hall

Immunogenetics of Infection and Autoimmune Diseases

Chairs: Sonia Bourguiba-Hachemi, Katerina Tarassi

O|11 Identification of Genetic Susceptibility to Develop Invasive Pneumococcal Disease in Children by Whole-exome Sequencing

Claire Leman, Martin Morin, Axelle Durand, Olivia Rousseau, Christèle Gras-Leguen, Fleur Lorton, Julie Toubiana, Caroline Thomas, Jérôme C. Martin, Sophie Limou, Nicolas Vince, Elise Launay

O|9 Multi-omics Analysis of T Cells in Narcolepsy

Mihoko Shimada, Taku Miyagawa, Makoto Honda, Katsushi Tokunaga

O|10 COVID-19 Vaccine Side Effects Are Associated With HLA-A*03:01 Carriage and Fewer Breakthrough Infections in a T-cell Independent Manner

Anshika Srivastava, Demetra S. M. Chatzileontiadou, Rayo Suseno, Sean Lin, Tasneem Yusufali, Noah D. Peyser, Ticiana D.J. Farias, Katherine M Kichula, Katerina Tarassi, Elissavet Kontou, Kleio Ampelakiotou, Alexandra Tsirogianni, Dimitrios Zoulas, Paul J. Norman, Gregory M. Marcus, Jeffrey E. Olgin, Mark J. Pletcher, Martin Maier, Stephanie Gras, Jill A. Hollenbach

O|12 HLA Genotype Combinations Impact Allele Association with Multiple Sclerosis Risk

Anna Serova-Erard, Igor Faddeenkov, Stanislas Demuth, Sonia Bourguiba-Hachemi, Pierre-Antoine Gourraud, Nicolas Vince, François Cornélis

O|13 Autoantibody Repertoires in Healthy People Vary According to HLA and May Explain Risk for Autoimmune Disease

Rayo Suseno, Juliano Boquett, Ravi Dandekar, Tom Ituarte, Bonny Alvarenga, Cynthia Vierra-Green, Stephen Spellman, Michael Wilson, Martin Maier, Jill A. Hollenbach

O|14 T-cell Receptor Repertoire Sequencing at Single-cell Resolution in Endemic Pemphigus Foliaceus

Verónica Calonga-Solís, Ticiana D. J. Farias, Ivan R Wolf, Gabriel A. Cipolla, Danielle Malheiros, Maria Luiza Petzl-Erler, Danillo G. Augusto

O|15 HLA in the Genetic Landscape of Multiple Sclerosis Patients from the French National OFSEP-HD Cohort

Julien Paris, Nayane Dos Santos Brito Silva, Igor Faddeenkov, Martin Morin, Leo Boussamet, Mitra Barzine, Stanislas Demuth, Anna Serova-Erard, Sonia Bourguiba-Hachemi, François Cornélis, Sophie Limou, Romain Casey, Sandra Vukusic, Laureline Berthelot, David Laplaud, Nicolas Vince, Pierre-Antoine Gourraud

O|16 HLA-C Amino Acid Level Analysis Suggests a Role for Innate Immunity in Type 1 Diabetes Susceptibility

Janelle Noble, Steven Mack



10:30–12:00

Abstract session 2

Panorama Hall

New Technologies, Cancer Immunogenetics and Reproduction

Chairs: Moshe Israeli, Katarzyna Bogunia Kubik

O|17 Generation and Expansion of Low Immunogenic Human Limbal Stem Cells for Clinical Application

Suganya Annadurai, Alice Rovai, Rabea Dettmer, Martin Boergel, Rainer Blasczyk, Constanca Figueiredo

O|18 Allele Frequency and Novel Genetic Variation Uncovered by Full-length MICA and MICB Genotyping Using PacBio SMRT Sequencing in 1,733 UK HCT Samples

Jonathan A. M. Lucas, Sebastian J. F. Hopper, Thomas R. Turner, Steven G. E. Marsh, James Robinson, Neema P. Mayor

O|19 Single-cell Long-read Sequencing Analysis in Endemic Pemphigus Foliaceus

Ticiana D. J. Farias, Verónica Calonga-Solís, Ivan R. Wolf, Gabriel A. Cipolla, Danielle Malheiros, Maria Luiza Petzl-Erler, Danillo G. Augusto

O|20 Exploring the Germline Diversity of Immunoglobulin Regions in Rhesus Macaques

Susan E. Ott, Ngoc Giang Le, Jesse W. Mittertreiner, Sayed J. Mohammadi, Nanine de Groot, Marit K. H. van der Wiel, Natasja G. de Groot, Ronald E. Bontrop, Jesse Bruijnesteijn

O|21 Refining HLA Divergence Metrics Through TCR–Peptide Interaction Hotspots to Calculate Functional HLA Divergence

Cédric Usureau, Véronique Letort, Jean-Luc Taupin

O|22 Impact of anti-PD-1 Treatment on DSA Generation in Cancer Patients

Séverine Planel, Guillaume Vayssière, Claude Vichier, Carole Puget, Marie Gérard, Béatrice Devos, Frédérique Cantero, Anne Sibille, Ingel Demedts, Elvire Pons-Tostivint, Charlotte Van de Kerkhove, Sofie Derijcke, Willemijn Theelen, Bonne Biesma, Franck Borm, Els Wauters, Benoit Colinet, Denis Moro-Sibilot, Maurice Perol, Eva-Lotte Buchmeier, Marcin Skrzypski, Kristof Cuppens, Johan Vansteenkiste, Channa Debruyne, Béatrice Bardy, Gianni Maggipinto, Joël Plumas

O|23 HLA-B*21M/T Dimorphism as a Biomarker for Stratifying Bladder Cancer Immunotherapy

Inmaculada Ruiz Lorente, Lourdes Gimeno, Alicia López-Abad, Pedro López Cubillana, María Victoria Martínez-Sánchez, Eduardo Pons-Fuster, Alfredo Minguela

O|24 KIR Genes and NK Subset Associations May Predict Reproduction Failures

Snezhina Kandilarova, Tsvetelin Lukanov, Antoneta Nedyalkova, Alexandar Kalchev, Anastasiya Mihaylova, Elissaveta Naumova

12:00–14:00

Lunch Break

12:00–13:00

Industry symposium – GenDx

Panorama Hall

13:00–14:00

Industry symposium – Werfen

Panorama Hall

38th European Immunogenetics & Histocompatibility Conference

Immunogenetics → Science and Clinical Applications → **The Way Ahead**

14–17 May 2025, Prague, Czech Republic, Prague Congress Centre



13:30–14:30	Education Affairs Session	Room 221
14:00–15:30	Plenary Session II: HSCT <i>Chairs: Jean Villard, Milena Vraná</i>	Forum Hall
14:00–14:30	Haematopoietic stem cell transplantation in children with primary immunodeficiency – thirty years experience in the Czech Republic <i>Renata Formánková</i>	
14:30–15:00	Immunoepitomes in allogeneic HSCT: where do we stand? <i>Pietro Crivello</i>	
15:00–15:30	New frontiers in cellular therapies for autoimmune disease <i>Raffaella Greco</i>	
15:30–16:00	Coffee Break	
16:00–17:30	Teaching session 2: Choose the donor! <i>Chairs: Deborah Sage, Eduard Palou, Sandra Tafalo</i> Kidney HSCT Heart/Lung	Panorama Hall
16:00–17:30	Special session: Tolerance <i>Chairs: Gottfried Fischer, Sylvie Ferrari-Lacraz</i> Stealth transgenes enable CAR-T cells to evade host immune response <i>Korneel Grauwet</i> CAR-T cell immunotherapy <i>Dimitrios Mougiakakos</i> Engineered IL-10-producing dendritic cells for cell-based approaches to restore tolerance <i>Silvia Gregori</i>	Forum Hall

16:00–17:30

Abstract session 3

South Hall 2B

Solid Organ Transplantation

Chairs: Sebastiaan Heidt, Ron Löwenthal

O|25 A Novel Machine Learning Algorithm Discovers High Risk HLA-A Amino Acid Mismatches that Distinguish Divergent HLA-A Allele Families in Kidney Transplant Recipients

Malek Kamoun, Harsh Bandhey, Loren Gragert, Keith McCullough, Nicholas Brown, Brian Ling, Ryan Urbanowicz

O|26 Preformed Anti-HLA Donor-specific Antibodies in Liver Transplantation: A Multicentric Study Nested in the Swiss Transplant Cohort Study (STCS)

Julien Vionnet, Sylvie Ferrari-Lacraz, Yannick Muller, Antonio Mancarella, Stefan Schaub, Jakob Nilsson, Urs Wirthmueller, Linard Hoessly, Susanne Stampf, Michael Koller, Nicolas Mueller, Myriam Amrari, Oriol Manuel, Dela Golshayan, Montserrat Fraga, Darius Moradpour, Nicolas Goossens, Giulia Magini, Valérie McLin, Philippe Compagnon, Barbara Wildhaber, Andreas Kremer, Jose Oberholzer, Annalisa Berzigotti, Vanessa Banz, Christine Bernsmeier, Philipp Dutokowski, David Semela, Giuseppe Pantaleo, Manuel Pascual, Jean Villard

O|27 Matchability in Eurotransplant

Hans de Ferrante

O|28 HLA-EP-RESOLVER: A Novel Web-based Bioinformatic Tool to Determine the Presence or Absence of DSA against Rare HLA Alleles in the Era of Rapid High-resolution Deceased Donor HLA Genotyping

Linh Truong, Fredrick Mobegi, Babette Vogels, Dianne De Santis, Jonathan Downing, Lloyd D'Orsogna

O|29 Exploitation of Two Cohorts of Patients Treated with the Same Allogenic Cell-Based Vaccine to Study the Immunogenicity of HLA-DRB1 Eplets

Marie Gérard, Carole Puget, Claude Vichier, Ornella Senoussi, Guillaume Vayssière, Gianni Maggipinto, Joël Plumas, Séverine Planel, Béatrice Bardy

O|30 Transplant Assessment and Relative Opportunity Tool (TAROT)

Readings – 2-year Outcomes

Adrienne Seitz, Katherine Mounsey, Pamela Hughes, Matthew Welberry Smith, Sunil Daga, Richard Baker, Brendan Clark

O|31 M.A.R.Co: An Interactive Platform for HLA Allele MFI Correlation and Serotype Validation

Renato de Marco, Alberto Cardoso Martins Lima, João Henrique Campos, Gustavo Alves, Maria Gerbase-DeLima

O|32 Immunogenomic Exploration in a Large Kidney Transplantation Genetic Cohort Reveals Associations with BKPyV and EBV Infections

Nicolas Vince, Sonia Bourguiba-Hachemi, Romain Gautier, Vincent Mauduit, Céline Bressollette-Bodin, Sophie Limou

16:00–17:00

Industry symposium – Werfen

North Hall

17:30–19:00

Poster viewing session

Poster Area

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FRIDAY, MAY 16, 2025

08:30–10:00	Plenary Session III: New Developments – The cutting edge of transplantation <i>Chairs: Rainer Blasczyk, Brendan Keating</i>	Forum Hall
08:30–09:00	Translational research in allogeneic HSCT <i>Gerard Socie</i>	
09:00–09:30	Modified Stem cells for Transplantation <i>Lukas T Jeker</i>	
09:30–10:00	Outcomes of Xenotransplantation <i>Brendan J Keating</i>	
10:00–10:30	Coffee Break	
10:30–12:00	Parallel Sessions Teaching session 3: National and international allocation systems <i>Chairs: Gonca Karahan, Dave Turner, Elena Longhi</i>	Forum Hall
10:30–10:50	Italy <i>Elena Longhi</i>	
10:50–11:10	UK <i>Dave Turner</i>	
11:10–11:30	Czech Republic <i>Antonij Slavcev & Dana Vasickova</i>	
11:30–12:00	Eurotransplant <i>Gonca Karahan</i>	
10:30–12:00	Teaching session 4: Chimerism <i>Chairs: Valerie Dubois, Esteban Arrieta-Bolanos</i>	Panorama Hall
10:30–11:00	STR and qPCR methods, EPT experience <i>Lucie Stefflová</i>	
11:00–11:30	dPCR and NGS methods, cell subsets analysis <i>Valerie Dubois</i>	
11:30–12:00	Chimerism and HLA Loss <i>Esteban Arrieta-Bolanos</i>	
10:30–11:30	Industry symposium – CareDx	North Hall
10:30–12:00	Young EFI Professionals Session: How to tell and sell your story <i>Chairs: Michaela Agapiou, Jonathan Lucas</i> Part 1: Beginner's Guide to Science Communication Karolina Pstross, Pat Smith Part 2: Tips for Science Writing Karolina Pstross, Pat Smith	South Hall 2B
12:00–14:00	Lunch Break	
12:00–13:00	Industry symposium – Thermo Fisher Scientific	North Hall
13:00–14:00	Industry symposium – CareDx	Panorama Hall

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12:30–13:30	Meet the expert session Bioinformatics	Club A
14:00–15:30	Plenary Session IV: Evolutionary genetics <i>Chairs: Alicia Sanchez-Mazas, Zorana Grubic</i>	Forum Hall
14:00–14:30	The ecology and evolution of Mycobacterium tuberculosis in the context of host genetic variation Sebastien Gagneux	
14:30–15:00	Genetic Adaptation Luisa Pereira	
15:00–15:30	Anthropology of the Avar communities Zuzana Hofmanová	
15:30–16:00	Coffee Break	
16:00–17:30	Special Session: Progress in Disease associations, various <i>Chairs: Frantisek Mrázek, Elissaveta Naumova</i> Harmonization of HLA tests for diagnostics of Celiac Disease Milena Vraná Development of stem cell transplantation in Bulgaria and the Bulgarian Stem cell Registry Elissaveta Naumova Organ transplantation, immunogenetics and immune monitoring in India Uma Kanga Update on mechanisms of HLA association with diseases – trimolecular complex and beyond Frantisek Mrazek	Forum Hall



16:00–17:30

Abstract session 4

Panorama Hall

Haematopoietic Stem Cell Transplantation (HSCT)

Chairs: Ann-Margaret Little, Milena Ivanova

O|33 Alloreactive NK Cells in Leukaemia Relapse: Single-Cell Transcriptomics Unveils Inflammation-Driven Dysfunctions and Metabolic Reprogramming

Giorgio Orofino, Pier Edoardo Rovatti, Marco Punta, Matteo Maria Naldini, Matteo Giovanni Carrabba, Massimo Bernardi, Bernhard Gentner, Fabio Ciceri, Luca Vago, Cristina Toffalori

O|34 HLA mismatching in Unrelated HCT: Different Landscapes Across Loci Underlie Clinical Associations in Contemporary Transplantation

Esteban Arrieta-Bolaños, Edouard F. Bonneville, Pietro Crivello, Tobias Gedde-Dahl, Régis Peffault de Latour, Urvu Salmenniemi, Nicolaus Kröger, Ibrahim Yakoub-Agha, Marco Zecca, Goda Choi, Charles Crawley, Eleni Tholouli, Valérie Dubois, Juha Peräsaari, Lotte Wieten, Steven G. E. Marsh, Mats Bengtsson, Jorinde D. Hoogenboom, Jürgen Kuball, Florent Malard, Annalisa Ruggeri, Katharina Fleischhauer, The Cellular Therapy and Immunobiology Working Party of the EBMT

O|35 Increasing Immunoepitope Divergence between Mismatched HLA Haplotypes Improves Survival after Contemporary Haploidentical HCT

Pietro Crivello, Meilun He, Tao Wang, Shahinaz M. Gadalla, Esteban Arrieta-Bolaños, Steven G. E. Marsh, Stephanie J. Lee, Yung-Tsi Bolon, Katharina Fleischhauer

O|36 Peptide Binding Motif Mismatches and Outcome in ex vivo T-cell Depleted Haploidentical Hematopoietic Cell Transplantation in Paediatric Patients Affected by Acute Leukaemia

Pietro Crivello, Pietro Merli, Maria Troiano, Franco Locatelli, Katharina Fleischhauer, Marco Andreani

O|37 Report on the Largest Analysis of 5-locus HLA Haplotype Frequencies in India Based on 550,000 Individuals on the DATRI Register Across 18 Indian Regions

Michaela Agapiou, Nezih Cereb, Claudia Rutt, Steven G. E. Marsh, James Robinson

O|38 Genetically Modified T-cells for Therapy of Human Cytomegalovirus Reactivation Following Hematopoietic Stem Cell Transplantation

Marie Vallo, Jan Musil, Klára Labská, Kateřina Roubalová, Kamila Alexová Žůrková, Pavel Gabriel, Jitka Kryštofová, Šárka Němečková

O|39 Study of Telomere Length Kinetics and Telomerase Reverse Transcriptase Gene Polymorphism in Children Undergoing Allogeneic Haematopoietic Stem Cell Transplantation

Marta Dratwa-Kuzmin, Katharina Häusler, Marek Ussowicz, Barbara Wysoczańska, Blanka Rybka, Renata Ryczan-Krawczyk, Krzysztof Kałwak, Katarzyna Bogunia-Kubik

O|40 HLA-DQ8 Heterodimer and Relapse Risk After Allogeneic Stem Cell Transplantation: Impact on Graft-versus-Leukaemia Effect in a 400-Patient Study

Carmen Tania Prezioso, Giulia Losi, Annamaria Pasi, Valentina Da Prat, Antonio Bianchessi, Caterina Zerbi, Irene Defrancesco, Ilaria Sbarsi, Rosalia Cacciatore, Paola Bergamaschi, Francesco Romano, Alessia Taurino, Valentina Zoboli, Luca Arcaini, Cesare Giuseppe Perotti, Riccardo Caccialanza, Nicola Polverelli



16:00–17:30

Abstract session 5

South Hall 2B

Bioinformatics

Chairs: Claudia Lehmann, Jean-Luc Taupin

O|41 Automated Algorithm for Quantitative Eplet Interpretation of Single Antigen Profiles in Anti-HLA Sensitized Patients

Romain Lhotte, Ilaria Carelli, Magali Devriese, Cédric Usureau, Dave Lowe, Peter Diep, Jérémy Siemowski, Véronique Letort, Jean-Luc Taupin

O|42 HLA Proteins Influence the Composition of T-cell Receptor Complementarity Determining Region 3 Through Loci Associated with Autoimmunity and Response to Common Infections

Evgeniya Lokes, Gabriele Mayr, Andre Franke, Hesham Elabd

O|43 Decoding the Restriction of T-cell Receptors Beta Chain Clonotypes to HLA Alleles Using Statistical Learning

Hesham Elabd, Aya Mahdy, Andre Franke

O|44 SAgA, a High Throughput Automated Algorithm to Optimize and Standardize the Interpretation of Anti-HLA Antibody Single Antigen Profiles

Romain Lhotte, Jérémy Siemowski, Cédric Usureau, Magali Devriese, Isabelle Jollet, Melchior Le Mene, Véronique Letort, Jean-Luc Taupin

O|45 TCR-GENIE – T Cell Receptor (TCR)- Generative Engine for Novel Immunological Exploration – Full peptide-specific TCR Generation

Sapir Israeli, Yoram Louzoun

O|46 Computational Statistical Methods for the Generation of Synthetic HLA Twins Under the Balance Between Representability and Privacy for Open Data-sharing

Igor Faddeenkov, Anna Serova-Erard, Julien Paris, Sonia Bourguiba-Hachemi, François Cornélis, Sophie Limou, Nicolas Vince, Pierre-Antoine Gourraud

O|47 A Density Based Approach to Interpreting Luminex Data: Decomposing Camel Humps

Thomas Schacker, Ramona Landgraf, Ilias Doxiadis, Henry Loeffler-Wirth, Claudia Lehmann

O|48 PONG 2.0: Allele Imputation for the Killer-cell Immunoglobulin-like Receptors

Suraju Sadeeq, Laura Ann Leaton, Erick C. Castelli, Paul J. Norman



16:00–17:30

Abstract session 6

North Hall

MHC Evolution, Anthropology & Population Genetics

Chairs: Ronald Bontrop, Fatma Ogüz

O|49 Multigenic Selection on HLA-DP Haplotypes: The Interplay Between Dimer Stability and Binding Diversity

Rushi Dai, José Manuel Nunes, Alicia Sanchez-Mazas, Sandra Tafulo, Marco Andreani, Xiangjun Liu, Da Di

O|50 A Quantitative Characterisation of the Extent of Homopolymer and Repeat Region Polymorphism Within the HLA Gene System

Richard H.L. Natarajan, Thomas R. Turner, Dominic J. Barker, Neema P. Mayor, James Robinson

O|51 Visualizing Global HLA Amino-Acid, Allele and Haplotype Frequencies – At Work and On the Go

Livia Tran, Steven Mack

O|52 HLA-DRB region Haplotype Sequence Alignments Identify New DRB Pseudogenes and the Need for an Update to the HLA-DRB Map

Nickolai Alexandrov, Lindley Blair, Brian Nadon, Ting Wang, Dave Lowe, David Sayer

O|53 Haplotype Associations and Structure of 2 Previously Undescribed HLA-DRB Loci, HLA-DRBTF1 and DRBTF2

Lindley Blair, Nickolai Alexandrov, Ting Wang, Brian Nadon, Dave Lowe, David Sayer

O|54 A Multi-focal View of the HLA-DRB Region from an Informed Population Genetic Perspective

Ndeye Faye, Thomas Goeury, Pascale Gerbault, Viktor Černý, Hiba Babiker, Hacene Brouk, Eric Crubézy, Youssef Idaghdour, Mohammed Melhaoui, Harilanto Razafindrazaka, Audrey Sabbagh, Carina Schlebusch, Paul Verdu, Amélie Chimènes, Stéphane Buhler, Marco Andreani, José Manuel Nunes, Alicia Sanchez-Mazas

O|55 Characterizing Non-coding Sequences in the MHC and KIR Regions to Understand Mechanisms of Diversification

Marit K.H. van der Wiel, Nanine de Groot, Ngoc Giang Le, Ronald E. Bontrop, Natasja G. de Groot, Jesse Bruijnesteijn

O|56 LILRB1 and LILRB2 Polymorphism in Old World Monkey Species Across Two Continents: A Comparison with Human Data

Natasja G. de Groot, Nanine de Groot, Marit K. H. van der Wiel, Annemiek J. M. de Vos-Rouweler, Lisanne Storm, Nel Otting, Roja F. Acar, Ronald E. Bontrop, Jesse Bruijnesteijn

17:30–18:00

EFI medals ceremony

Forum Hall

Chair: Marco Andreani

18:00–19:00

EFI General Assembly

Forum Hall

20:30–23:00

Networking Event

SATURDAY, MAY 17, 2025

09:00–10:30

Best abstracts session

Panorama Hall

Chairs: Marco Andreani, Luca Vago

O|1 HLA Loss Relapses after Transplantation: Time of Origin and Facilitation from Exposure to Ganciclovir

Cristina Toffalori, Riccardo Bergamin, Alice Antonello, Anna Francesca Tortorelli, Giorgio Orofino, Fatemeh Kordovani, Matteo Cristante, Hengwei Wu, Yanmin Zhao, Mi Kwon, Elena Lo Furno, Salvatore Milite, Nicola Calonaci, Giorgia Gandolfi, Aurora Maurizio, Raffaella Greco, Gabriele Bucci, Dejan Lazarevic, Raffaella Di Micco, Leonardo Egidi, Federica Cugnata, Marco Punta, Clelia Di Serio, Martin S. Taylor, Giovanni Tonon, Fabio Ciceri, Giulio Caravagna, Luca Vago

O|2 Characterization of a hematopoietic tissue-specific T-cell receptor alloreactive to HLA-DPB1

Thuja Arrieta Bolaños, Luisa Betke, Isabel Adorf, Theresa Pietz, Pietro Crivello, Monika Lindemann, Peter A. Horn, J.H. Frederik Falkenburg, Esteban Arrieta-Bolaños, Katharina Fleischhauer

O|3 HLA-E*01:03/Sars-Cov2-Nsp13 complexes mediate loss of NKG2 receptors

Lara-Marie Behrens, Eline Gall, Zoe Maria Hartmann, Wiebke Hiemisch, Aleksandra Gazikalovic, Rainer Blasczyk, Christina Bade-Doeding

O|4 ERAP1 controls NK-cell anti-tumor immunity via the KIR-HLA-A/B/C and NKG2A-HLA-E inhibitory checkpoints

Kamila Krol, Maria Troiano, Martha Nikopaschou, Martina Samiotaki, George Panayotou, Sara Lai, Michela E. Falco, Efstratios Stratikos, Marco Andreani, Franco Locatelli, Doriana Fruci

O|5 Phenome-Wide Association Study in 70,724 Individuals Uncovers Novel HLA Influences on Health and Disease

Juliano Boquett, Sean Yu-Tseng Li, Karoline Guthrie, Martin Maier, Jill A. Hollenbach

O|6 An overview of HLA diversity in ancient Europe

Onur Özer, Nicolas Antonio da Silva, Magdalena Haller, Joanna H. Bonczarowska, Daniel Kolbe, Almut Nebel, Ben Krause-Kyora

O|7 Discovering rules governing the restriction of T cell receptor alpha chains to human leukocyte antigen alleles using co-occurrence analysis

Aya Mahdy, Hesham Elabd, Andre Franke

O|8 HLA-B leader peptide dimorphism affects kidney transplant outcome

Emma Peereboom, Jip Jonker, Kirsten Geneugelijk, Arjan van Zuilen, Jan-Stephan Sanders, Stephan Bakker, Eric Spierings

10:30–11:00

Coffee Break

11:00–12:30

Plenary Session V: The helping hand of Artificial Intelligence

Panorama Hall

Chairs: Eric Spierings, Ilias Doxiadis

Measuring immune-mediated negative selection in cancer

Andrea Sottoriva

Interfacing HLA immunogenetics with clinical tumor-rejecting immunity via artificial intelligence

Abhishek D Garg

Recombination dynamics in T and B cells and artificial thymic organoids

Chenqu Suo

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12:30–13:30

Closing Ceremony

Chairs: Marco Andreani, Steven Marsh

Jon Van Rood award & Best abstracts award

Best poster award

Closing Lecture

Jakub Vícha: The Most Energetic Cosmic Particles

19th IHIW presentation

Welcome to Edinburgh and final remarks

Panorama Hall



LIST OF POSTERS

Bioinformatics

P1 Impact of Epitope Mismatches on Clinical Outcomes in Living-Donor Kidney Transplants: Insights from Matchmaker and Emma Analysis

Antonio Giuseppe Bianculli¹, Paola Giustiniani¹, Maria Troiano¹, Francesca Besi¹, Andrea Di Luzio¹, Luca Antonucci², Raffaella Labbadia², Isabella Guzzo², Marco Andreani¹

¹Laboratory of Transplant Immunogenetics, IRCCS Pediatric Hospital Bambino Gesù, Rome, Italy; ²Division of Nephrology and Dialysis, Department of Pediatrics, Bambino Gesù Children's Hospital, Rome, Italy

P2 Combined population based on ancestry-specific 2007 NMDP haplotype frequencies facilitates accurate HLA genotype imputation and molecular matching in absence of ancestry information

Benedict Matern¹, Eric Spierings², Selle Bandstra¹, Abeer Madbouly³, Stefan Schaub⁴, Eric Weimer⁵, Matthias Niemann¹

¹PIRCHE AG, Netherlands, Germany; ²Center for Translational Immunology and Central Diagnostics Laboratory, University Medical Center, Utrecht, Netherlands; ³Center for International Blood and Marrow Transplant Research, United States; ⁴Clinic for Transplantation Immunology and Nephrology, University Hospital Basel, Switzerland; ⁵Department of Pathology & Laboratory Medicine, University of North Carolina at Chapel Hill School of Medicine, United States

P3 Data type conversions and misinterpretations in HLA typing data: Impact of spreadsheet software formatting on HLA genotype integrity

Selle Bandstra¹, Benedict Matern¹, Eric Spierings², Matthias Niemann¹

¹Pirche AG, Germany, Netherlands; ²Center for Translational Immunology and Central Diagnostics Laboratory, University Medical Center, Netherlands

P4 Application of Westgard Rules with an R and Shiny-Based Interface to monitor Quality Control in SSO HLA Typing

Besma Sifi, Fethi Meçabih, Nabila Attal

Pasteur Institute of Algeria, Algeria

P5 A phased de novo assembly of the leukocyte receptor complex using hybrid capture targeted long-read sequencing

Jonathan Beaumont¹, Javier Avalos¹, Ivan R. Wolf¹, Savannah Poston¹, Cynthia Vierra-Green², Martin Maiers², Danillo G. Augusto¹

¹Department of Biological Sciences, Charlotte, University of North Carolina Charlotte, United States; ²CIBMTR, National Marrow Donor Program/Be The Match, Minneapolis, United States

P6 Fine-mapping of human leukocyte antigen alleles associated with French anti-aquaporin-4 antibodies seropositive Neuromyelitis Optica Spectrum Disorder patients

Mitra Barzine¹, Irène Charles¹, Sonia Bourguiba-Hachemi¹, Sandra Vukusic², Lakhdar Benyahya³, Françoise Durand-Dubief⁴, François Cotton⁵, Hélène Zephir⁶, Elisabeth Maillart⁷, Caroline Papeix⁸, Bertrand Audoin⁹, Xavier Ayrignac¹⁰, Bertrand Bourre¹¹, Jonathan Ciron¹², Mikael Cohen¹³, Nicolas Collongues¹⁴, Romain Deschamps¹⁵, Aurélie Ruet¹⁶, Eric Thouvenot¹⁷, Romain Marignier², Sophie Limou¹, Pierre-Antoine Gourraud¹, David Laplaud¹⁸, Nicolas Vince¹

¹Nantes Université, Centre de Recherche en Transplantation et Immunologie, UMR 1064, Nantes, France; ²Hospices Civils de Lyon, Hôpital Neurologique Pierre Wertheimer, Bron, MIRCEN, OFSEP, UCBL, Lyon, France; ³Hospices Civils de Lyon, Hôpital Neurologique Pierre Wertheimer, MIRCEN, Bron, Lyon, France; ⁴Hospices Civils de Lyon, Hôpital Neurologique Pierre Wertheimer, MIRCEN, Bron, Lyon, France; ⁵Centre Hospitalier Lyon-Sud, Hospices Civils de Lyon, Pierre-Bénite, Lyon, CREATIS, INSERM U1044, Villeurbanne, France; ⁶Univ. Lille, Inserm, CHU Lille, U1172, CRC SEP, Lille, France; ⁷Neurology Dpt, MIRCEN, Pitié-Salpêtrière Hospital, AP-HP, Paris, France; ⁸MIRCEN, Pitié-Salpêtrière Hospital, AP-HP, Hôpital Fondation A. De Rothschild, Paris, France; ⁹Aix Marseille Univ, APHM, Hôpital de La Timone, Marseille, France; ¹⁰Univ Montpellier, Institute of Neurosciences of Montpellier, CHU Montpellier, Montpellier, France; ¹¹Rouen University Hospital, Rouen, France; ¹²Department of Neurology, CRC-SEP, Toulouse University Hospital, Toulouse, France; ¹³UR2CA-URRIS, Université Nice Côte d'Azur, CRCSEP Neurologie CHU Pasteur2, Nice, France; ¹⁴Department of Neurology and Clinical Investigation Center INSERM 1434, Strasbourg University Hospital, Strasbourg, France; ¹⁵Department of Neurology, Hôpital Fondation A. De Rothschild, Paris, France; ¹⁶Service de neurologie, CHU de Bordeaux, Université de Bordeaux, INSERM, Neurocentre Magendie, U1215, Bordeaux, France; ¹⁷CHU de Nîmes, Université de Montpellier, INSERM U1191, UMR 5203, Institut de Génomique Fonctionnelle, Montpellier, France; ¹⁸Nantes Université, Centre de Recherche en Transplantation et Immunologie, CHU Nantes, UMR 1064, Nantes, France



P7 AminoAcid3D: an algorithm for designing HLA single antigen panel and predicting essential region of an epitope based on antibody specificity profile

Tina Meng, Zhifang Wang, James Jones, Dave Lowe

Thermo Fisher Scientific Transplant Diagnostics, United States

P8 The new and improved IPD-IMGT/HLA Database HLA Submission Tool

Dominic J. Barker^{1,2}, Richard H.L. Natarajan¹, Michael Cooper¹, Sebastian J.F. Hopper¹, Steven G.E. Marsh², James Robinson^{1,2}

¹Anthony Nolan Research Institute, Royal Free Hospital, London, United Kingdom; ²UCL Cancer Institute, Royal Free Campus, London, United Kingdom

P9 LRS-Assembler: a genome assembly pipeline that accurately phases and annotates complex immune regions

Giang Le, Sayed J. Mohammadi, Susan E. Ott, Nanine de Groot, Marit K.H. van der Wiel, Ronald E. Bontrop, Natasja G. de Groot, Jesse Bruijnesteijn

Biomedical Primate Research Centre, Netherlands

P10 Towards assumption free disease association studies including covariates

José Manuel Nunes¹, Enrique Alanis Dominguez², Da Di³

¹Department of Genetics and Evolution, University of Geneva, Switzerland; ²Andalusian Center for developmental Biology (CABD-CSIC), Seville, Spain; ³Department of Health Technologies and Informatics, the Polytechnic University of Hong Kong, Hong Kong

P11 Family-based analysis improves HLA haplotype characterization

Jose Samuel Silva, Gustavo Alves, João Henrique Campos, Gisele F. Rampim, Tuila Mourão, Renato de Marco, Maria Gerbase-DeLima

Immunogenetics Institute – IGEN, Associação Fundo de Incentivo à Pesquisa, São Paulo, SP, Brazil

P12 Fast Graph Matching for real-time detection of matched and mismatched donors

Martin Maiers¹, Ofek Kirshenboim², Sapir Israeli², Amit Kabya², Pradeep Bashyal¹, Yoram Louzoun²

¹CIBMTR (Center for International Blood and Marrow Transplant Research), NMDP, United States; ²Department of Mathematics, Bar Ilan University, Ramat Gan Israel, Israel

P13 Implementation of directional core/non-core HLA-DPB1 T-Cell Epitope matching through the IPD-IMGT/HLA DPB1 TCE tool version 3.

Dominic J. Barker¹, Esteban Arrieta-Bolaños², Pietro Crivello³, Katharina Fleischhauer², Steven G.E. Marsh⁴, James Robinson¹

¹Anthony Nolan Research Institute and UCL Cancer Institute, Royal Free Hospital, London, United Kingdom; ²Institute for Experimental Cellular Therapy, University Hospital Essen and German Cancer Consortium, Germany; ³Institute for Experimental Cellular Therapy, University Hospital Essen, Essen, Germany; ⁴UCL Cancer Institute, Royal Free Hospital, London, United Kingdom

P14 A novel integrated pipeline for analyzing unusually complex genomic regions encoding NK cell receptors reveals strong genetic associations in breast cancer

Ivan R Wolf¹, Verónica Calonga-Solís¹, Ticiana D.J. Farias¹, Solomon M. Adams², Liza Huijse², Solomon Endlich², Daniela F. Gradia³, Enilze M. S. F. Ribeiro³, Jill A. Hollenbach⁴, Danillo G. Augusto¹

¹Department of Biological Sciences, the University of North Carolina at Charlotte, Charlotte, United States; ²Base5 genomics, United States; ³Department of Genetics, Federal University of Paraná, Curitiba, Brazil; ⁴University of California, San Francisco, United States

P15 An end-to-end Next Generation Sequencing workflow for absolute quantification of MRD in ALL

Vineeth Surendranath¹, Ulf-Peter Guenther¹, Thomas Lingl¹, Claudia Pahlke¹, Madlen Pahlke¹, Pritha Dasgupta², Cornelia Eckert³, Vaskar Saha², Gerhard Schoefl¹, Vinzenz Lange¹

¹DKMS Life Science Lab, Germany; ²TTCRC, Kolkata, India; ³Charité, Berlin, Germany

P16 HLA-A Genotyping in Admixed Brazilian Exomes Using hla-mapper and Multiethnic Reference Panel Imputation

Rafaela M. Barbosa¹, Erick C. Castelli², Leandro M. Colli¹, Diogo Meyer¹, Michel S. Naslavsky³, Nicolas Vince⁴, Eduardo A. Donadi¹

¹University of São Paulo, Brazil; ²University Estadual Paulista, Brazil; ³Hospital Israelita Albert Einstein, Brazil; ⁴University of São Paulo, Brazil; ⁵Nantes Université, France

P17 NGS-Capto-HLA: Long-Fragment Hybrid Capture Based HLA-Typing Using Long Read Sequencing Technologies

Mattijs Punt¹, Sjoerd Creutzburg¹, Anna Hill¹, Johan Crins¹, Juliette de Vries¹, Marcel van de Streek¹, Joris Albers¹, Jos Drabbels², Dave Roelen², Maaïke Rijkers¹, Pascal van der Weele¹

¹GenDx, Netherlands; ²LUMC, Netherlands

P18 AI-Driven Evaluation of Genetic Biomarkers for Predicting Acute Kidney Transplant Rejection Using Small Datasets

Yaroslav Tolstyak¹, Ivan Izonin², Kyrylo Yemets², Ulyana Kurnat³

¹Lviv National Medical University after named Danylo Halytskyi, Ukraine; ²Lviv Polytechnic National University; ³Lviv Regional Clinical Hospital, Ukraine

P19 Immunogenomic exploration in a large lung transplantation genetic cohort reveals a chronic lung allograft dysfunction association with HLA-DQB1*03:01

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P20 Optimizing iPSC Haplobanking for Europe: A Federated Approach to Enhance Patient HLA Coverage

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P21 Automatic clustering of self-defined groups to minimize false disease associations and maximize within-group genetic similarity.

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P22 Efficient test for deviation from Hardy Weinberg Equilibrium with known or ambiguous typing in highly polymorphic loci

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P23 Use of machine learning algorithms to estimate the geographical origin of bone marrow donors in the North of Greece on the basis of HLA typing

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P24 Automation of NGS protocols for HLA typings

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P25 From Samples to Stories: Building a Patient-Centric Laboratory Information System for Transplant Immunogenetics

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P26 Serum Revolution: Transforming Patient Empowerment in Renal Transplants in Argentina

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P27 Shared eplets between donor antigens and patient antibodies or mismatched eplets between donor antigens and patient antigens: a comparison of the two algorithms for predicting donor-specific antibodies

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Cancer Immunogenetics

P28 Tracking HLA-I Alterations in Bladder Cancer: From Tumor Tissue to Liquid Biopsy

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P29 Prognostic value of HLA evolutionary divergence in patients affected by acute leukemia treated with venetoclax and hypomethylating drugs

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P30 Study of HLA-A*03 as a negative predictive factor of response to treatment with immune control inhibitors in metastatic melanoma.

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P31 HLA-F antigen expression and possible therapeutic implications in renal cell carcinoma

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P32 The possible relevance of NKG2D receptor polymorphism in Oral Squamous Cell Carcinoma

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P33 Expression of miR-216a-5p, miR-223-3p, and miR-490-3p in Acute Myeloid Leukemia Patients: Insights from Bone Marrow and Blood Samples

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P34 Human leukocyte antigen-G in Hepatocellular carcinoma driven by Chronic Viral Hepatitis or Steatotic Liver Disease

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P35 Allelic polymorphism of KIRs in JAK2V617F and CALR mutation driven myeloproliferative neoplasms.

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P36 Contribution of targeted next generation sequencing to clinical diagnosis in Myeloid Malignancies: A Single Center Experience

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HLA antigen processing and presentation

P37 Preliminary study of genetic polymorphisms of co-stimulatory molecules and their impact on renal transplantation outcomes

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P38 The Effect of Anti-HLA Antibodies on Graft Rejection after Renal Transplantation: A Retrospective Study

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P39 COVID: what else is to be discovered?

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P40 An HLA-DRB1*07:101N allele present in a patient receiving a lung transplantation

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P41 Investigation of HLA-DR, CD21 Expression B Cell and IL-40 Level Changes in the Presence of Donor-Specific Antibodies

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P42 Effect of Steroids on CD4+ICOS+ Expression in Follicular T Helper Cells and CD19+HLA-DR Expression in Follicular B Cells

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P43 Role of the noncoding variant rs2844575 in regulating HLA-B expression

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P44 Association of human leukocyte antigen genes with early onset and adult systemic lupus erythematosus disease in Turkish population

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P45 Association between epitope mismatch score and graft rejection in heart transplanted patients – a single center retrospective study.

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Haematopoietic Stem Cell Transplantation

P46 Analysis of the Frequency of Single Nucleotide Variants (SNVs) in Class III HLA Genes through Exome Sequencing from TRIPLE Homozygosity of the HLA-A, -C, -B, -DRB1, -DQB1, and -DPB1 Loci

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P47 Cost-effective and highly scalable typing of Human Leukocyte Antigen class I and II genes of up to 96 individuals using Nanopore sequencing.

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P48 Chimerism analysis after allogeneic hematopoietic stem cell transplantation: clinical relevance and methodology

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P49 Cytomegalovirus monitoring after unrelated hematopoietic stem cell transplantation in North Macedonia – first results

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P50 Rare HLA alleles, observations at the Kazakh conference among HSC donors

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P51 A non-interventional clinical study on the performance of NGStrack

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P52 Splice site mutations in HLA-A resulted in a novel null allele.

James Peat¹, Sandra Frater¹, Franco Tavarozzi¹, Raymond Fernando², Dario Merlo¹, Zdenka Edwards¹, Elizabeth De Mendonca¹, Jonathan A.M. Lucas¹, Sharon Vivers¹, Lisa Walsh¹

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P53 Influence of the Major Histocompatibility Complex class I chain-related molecule A gene-129 dimorphism on Graft versus Host Disease after Hematopoietic Stem Cell Transplantation

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P54 Clinical implications of patient HLA profile in hematopoietic stem cell transplantation

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P55 Evaluation of the GenDx NGStrack® Kit for Chimerism Monitoring Post-Hematopoietic Stem Cell Transplantation

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P56 Influence of Killer-cell Immunoglobulin-like receptors and Human leukocyte antigen –C (C1/C2) in allogeneic Hematopoietic stem cell transplant

Gaurav Sharma, Disha Agarwal, Alka Khadwal, Pankaj Malhotra

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P57 Identification of a Potential Hybrid HLA-DRB1* / DRB3* Allele in a 17-year-old Female Requiring Haematopoietic Progenitor Cell Transplant for Sickle Cell Anaemia

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P58 Donor Related Factors in Posttransplant Cyclophosphamide Based Haploidentical Haematopoietic Transplantation: Single Center Experience

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P59 Impact of Next-Generation Sequencing on Donor Typing and Haematopoietic Stem Cell Transplant Accessibility: A Case Study of Extremadura, Spain

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P60 A laboratory perspective of HLA testing requirements in the era of haploidentical stem cell transplants for patients with donor specific HLA antibodies

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P61 Chimerism Monitoring with Next-Generation Sequencing: Identification of Microchimerism Beyond STR

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P62 Performance characteristics of Devyser NGS system för detection of loss of Human Leukocyte Antigen genes

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P63 Determination of HLA-loss in eight adult patients undergoing hematopoietic stem cell transplantation from a haploidentical HLA donor.

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P64 HLA DR4/7/9 False-Positive Antibody Profile is Frequent in Wiskott-Aldrich Syndrome

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P65 The effects of molecular HLA matching on haploidentical haematopoietic stem cell transplantation: A single-centre experience based on PTCy strategies.

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P66 Haematopoietic stem cell transplantation in children with primary immunodeficiency – a thirty years experience in the Czech Republic

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P67 Prognostic significance of HLA-B leader dimorphism in haploidentical hematopoietic stem cell transplantation

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P68 Evaluation of the relevance of HLA-compatible platelet transfusion in preventing alloimmunization against selected donor for patients awaiting haploidentical hematopoietic stem cell transplantation

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P69 The significance of microchimerism detection in post hematopoietic stem cell transplant monitoring – A single centre comparative study

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P70 A Donor Genetic Determinant of Thymopoiesis Predicts Acute Graft-versus-Host Disease Risk in Allogeneic Stem Cell Transplantation

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P71 MIF polymorphisms in GVHD

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P72 The impact of SARS-CoV-2 messenger RNA vaccination on anti-HLA antibodies in sensitized patients with lymphoid malignancies

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P73 Dynamics of microchimerism and alloimmunisation after Hematopoietic stem cell microtransplantation

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P74 Cell-free DNA methylation profiling as an innovative method to monitor graft-versus-host disease in allogeneic hematopoietic stem cell transplantation

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P75 Pathogenicity evaluation of HLA-DRB1 by AlphaMissense informs prognostic risk for AML patient undergoing haploidentical allogeneic hematopoietic stem cell transplantation

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P76 User experience: Nanopore sequencing as a tool for hematopoietic stem cells donor searching

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P77 The significance of HLA class I and II immunogenetics in organizing an Advanced National Donor Registry Program: The Implication of Novel Alleles in Transplantation

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P78 Comparing flow cytometry crossmatch with complement-dependent cytotoxicity crossmatch

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P79 MICA129 frequency distribution in Bashkirs living in the Chelyabinsk region

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P80 Combined chemical and genetic factors predict Donor Sensitized Antibodies against DQ in kidney donations

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P81 Identification of the novel null allele, HLA-DPB1*1728:01N, by next generation sequencing.

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P82 Identification of four new HLA-DQA1 alleles by Next Generation Sequencing, HLA-DQA1*05:119, 05:01:16, 03:01:10 and *03:01:17

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P83 Adaptive sequencing in transplantation: identifying immune-genomic risk profiles

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P84 Challenges in Detecting HLA Loss of Heterozygosity Using Routine HLA Typing Methods in Haploidentical Transplantation

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P85 Role of conditioning regimens on hematopoietic mixed chimerism: preliminary data from a systematic review about a potential platform of combined organ-stem cell transplantation

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P86 Population analysis of the prevalence of rare HLA antigens in the National Belarusian Register of voluntary bone marrow and hematopoietic stem cell donors

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P87 Catalogue of common and well-documented HLA-A, -B, -C, -DRB1, -DQB1 alleles in the Russians (version of the National Medical Research Center for Hematology)

Ekaterina Khamaganova, Elena Kuzminova, Evgeniy Leonov, Stanislav Khizhinskiy, Tatiana Gaponova, Elena Parovichnikova

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P88 Comparison of HLA-E and HLA-F Allele Frequencies And Mismatch Rate Between A Han Chinese and A USA-Based Hematopoietic Cell Transplant Programs

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P89 New Insights into HLA-KIR Impact on Outcomes of Haploidentical HSCT in Refractory/Relapsed ALL and AML

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P90 Role of natural cytotoxicity receptors 1 and 3 in natural killer cell function and their impact on cytomegalovirus infection after hematopoietic stem cell transplantation

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P91 The Evaluation of GenDx NGSTrack® HLA Loss Kits to Aid in the Diagnosis of Relapse with HLA Loss Post Haploidentical Progenitor Cell Transplantation

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P92 Single-Tube Full-Gene Multiplex PCR for High-Resolution HLA Typing Using Oxford Nanopore Long-Read Sequencing

Ruifeng Zhang, Tom Browne, Clare Nevin, Vrushank Makwana, Varsini Kamala Kannan, Rohan Raval, W Martin Howell, Kate Downes

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P93 High-resolution HLA typing using Nanopore technologies at the Laboratorio Nacional de Inmunogenética-INCUCAI in Argentina for early donor identification in hematopoietic stem cell transplantation

Pablo Galarza, Maria Fernanda Yaunguzian, María Laura Roverso, Maria Paula Rodriguez, Laura Aguerre, Richard Malan, Carlos Soratti

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P94 HLA typing by Next Generation Sequencing (NGS) using the equipment MGI DNBSEQ-E25

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P95 Automated NGS-Turbo workflow using the Integra Miro Canvas for rapid HLA typing during solid organ transplantation

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P96 Multi-Center Evaluation of the HybriType™ HLA Plus Typing Flex Kit on the Illumina-MiSeq

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P97 Pre Transplant Flow Cross-match in Rituximab desensitized patients: Pronase and anti CD20 treatment protocol validation

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Immunogenetics and Infections

P98 Functional changes in surface receptor profile of gamma delta T cells during anti-TNF therapy in rheumatoid arthritis

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P99 Deciphering the interference of the anti-integrin $\alpha 4\beta 7$ vedolizumab with cell crossmatch

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P100 Revision of the Italian Recommendations for HLA typing and disease association studies

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P101 Human Leukocyte Antigen Complex Influence Susceptibility of Idiopathic pulmonary in Sardinian Population

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P102 Associations of Human Leukocyte Antigens (HLA) class II and Interstitial Lung Disease (ILD) in patients with Systemic Autoimmune Rheumatic Disorders (SARDs). A prospective study.

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P103 The Effect of Cytokine Gene Polymorphism in Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS)

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P104 HLA evolutionary distance and Spike antigen load calculation among two cohorts of healthcare workers receiving mRNA vaccine for SARS-CoV-2 in 2021

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P105 HIV epitope characterization restricted by the Amerindian HLA-B*35 subtypes using synthetic peptides that encompass described HLA-associated polymorphisms

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P106 DOTIL: A Novel Biomarker and Target for Modulating Natural Killer Cell Activity in Kidney Transplant Rejection

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P107 IL17F T7488C polymorphism in COVID-19 Russian patients of the Chelyabinsk region

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P108 HLA-DRB1*15:01 and Other HLA Allelic Associations in Albanian Individuals with Multiple Sclerosis: A Preliminary Study

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P109 NK Cell Regulation in COVID-19: Influence of KIR-HLA Interactions on Disease Severity

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P110 NFκB-associated HLA may be involved in the pathogenesis of autism in children

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P111 HLA antigen frequency in patients with primary focal segmental glomerulosclerosis

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P112 Frequency distributions of MICA and MICB alleles in the Croatian population

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P113 Is there a relationship between the R202Q MEFV mutation and HLA antigens?

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P114 Allelic frequencies of HLA tissue groups in Central Anatolia, Türkiye

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P115 HLA-A, HLA-B and HLA-C high resolution allele frequencies in Romanian hematopoietic stem cell donors

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P116 Allele and haplotype frequencies in the Russians of Southern Region of Russia by next-generation sequencing

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P117 Frequency of HLA B*73:01 in residents of Russian cities

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P118 HLA allele and haplotype frequencies of bone marrow donors from East Jerusalem Palestinians

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P119 HLA allele associations with frequent skin diseases in population of southern Croatia

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P120 Differences in Allele Frequencies in the MICA and MICB genes between Sardinian and the other Italian Populations

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P121 Highly frequent malaria-protective HLA alleles are observed in Côte d'Ivoire (Ivory Coast), West Africa

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P122 Population genetic profiling: Mhc-DRB haplotyping and parentage identification using microsatellite markers.

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P123 The future is in the past: What can we learn from archaeoimmunogenetics

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P124 Genetic analysis of eight clinically relevant human platelet antigen systems in blood donors from Eastern Croatia led toward the identification of the rare HPA-9b allele

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P125 Non-common HLA alleles in donors from the Slovenia Donor Registry

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P126 Investigating the Recombination Breakpoint in a Rare HLA DR15-DQ2 Haplotype

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P127 Redistributed allele frequencies for CIWD 3.0.0

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P128 HLA and KIR diversity of the Tsimane forager-farmers of the Bolivian Amazon

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P129 Characterization of Over 400 Novel MICA Alleles and Their Impact on MICA Allele Frequencies in the German Population

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P130 HLA Variability and Amerindian Ancestry Influence on COVID-19 Severity in Latin American Populations

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P131 Great apes: exploring the Orangutan Mhc class I repertoire at the genomic level

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P132 Origin of the Colombian People According to HLA Genes

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P133 HLA-DRB4*03:01N: absent or well hidden? Genotyping an allele lacking exon 2

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P134 Characterization of novel HLA-DQA1 and -DQB1 alleles in a Spanish bone marrow donor: DQA1*05:05:23 and DQB1*03:562

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P135 Relation between HLA C*02 and DQB1*05 and follicular lymphoma prognosis

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NK cells and KIR

P136 All the Tools in the Toolbox: Optimizing a Method for High-Throughput, Short-Read Sequencing for the LILR Genes

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P137 Investigation of Killer Cell Immunoglobulin-like Receptor and Ligand Relationship in Acute Myeloid Leukaemia Patients and Donors

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P138 KIR2DS4 and KIR2DS1 alleles and copy numbers in the Brazilian SABE cohort

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P139 Influence of KIR2DL2 and KIR3DL1 frequencies on viral and alcohol-associated clinical profiles in hepatocellular carcinoma

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P140 Implementation of a population-based algorithm for segregating extended KIR haplotypes

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P141 Investigation of KIR polymorphism variations in elderly and healthy young controls across three Eastern European populations

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P142 Imputing KIR3DL2 alleles and copy numbers using HIBAG and ancestry-specific reference panels

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New Technologies, Various

P143 Donor-Derived Cell-Free DNA and Fragmentomics as novel non-Invasive biomarkers for rejection monitoring in uterus transplantation

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P144 MagSort HLA beads facilitate a simplified determination of HLA antibody eplet-specificity and support eplet verification

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P145 Streamlined HLA Genotyping Across Sequencing Platforms: High Data Quality and Flexibility with HLA-SuBiTo NGType® and MGI Sequencers

Jan Konietzka, Kai Carsten Pfannebecker, Anke Otto

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P146 Description of twenty novel HLA alleles by Next-Generation Sequencing in Spanish population during last year

Amalia Tejeda Velarde, Jairo Eduardo Niño Ramirez, Daniel Arroyo-Sánchez, Isabel Jiménez Hernaz, Pilar Terradillos Sánchez, Ariadna Vicente Parra, Nuria Calzada Nieto, Francisco Javier Gil-Etayo

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P147 An Improved MIA FORA MFlex XP NGS-Based Multiplex HLA Typing Assay with Enhanced Exon Coverage, Optimized Primers, and Advanced Software V6.0.0

Sujatha Krishnakumar, Raquel Kuehn, Marilyn Fukushima, Jing Liu, Tommy Liu, Xiaoshan Yue, Farbod Babrzadeh

Werfen, United States

P148 A Highly Sensitive and Simple NGS-Based Chimerism Assay Utilizing Spacer Multiplex Amplification Technology

Sujatha Krishnakumar, Kiril Kniazev, Chaya Krishna, Jing Liu, Jie Hu

Werfen, United States

P149 From Slow to Lightning: HLA Typing Using NanoTYPE for High Throughput Laboratories and Registries

Gregory Werner, Agnes Bitskey, Krisztina Rigó, Nina Lauterbach

Omixon / Werfen, Switzerland, Hungary, Netherlands

P150 Assessing the clinical utility of HISTO SPOT HLA AB antibody detection system in clinical histocompatibility laboratories

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P151 Prolonging the shelf life of single antigen ExPLEX kit though aliquot refreezing

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P152 Screening of immobilized, recombinant HLA class I / II single antigens with human monoclonal antibodies indicates high structural integrity of the investigated eplets on HISTO SPOT[®] microarrays

Daniel Hofmann, Maite Amelie Becker, Kristin Launhardt

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P153 Validation of an in-house TaqMan real time PCR for the detection of Torque Teno Virus

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P154 Validation of sequencing part of GenDx HLA next generation sequencing kit procedure at the SURFSeq 5000 platform-based core unit

Nikola Mojtkova, Jana Onderkova, Jirina Manakova, Jakub Savara, Veronika Sidova, Eva Kriegova, Frantisek Mrazek

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P155 Short-Read Sequencing for HLA Typing using MGI and Illumina Platforms

Jose Samuel Silva, Tuila Mourão, Marina Navarro, Gisele F. Rampim, Renato de Marco, Maria Gerbase-DeLima

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P156 Identification and characterization of fifty two novel HLA alleles. Evaluation of their role in optimal donor selection in Hematopoietic Stem Cell Transplantation

Diamanto Kouniaki, Theofilos Athanassiades, Georgia Galaziou, Aikaterini Gkizori, Christina Salamaliki, Vassiliki Kitsiou, Katerina Tarassi, Alexandra Tsirogianni

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P157 Assessing the Role of Third-Generation Sequencing in Routine HLA Typing

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P158 Nanopore adaptive sampling identifies a novel HLA-DPB1*01:01 allele containing ~2kb insertion in intron 1

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P159 Pipedreams – LRC haplotyping

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P160 Application of HLA Typing Using Cell-Free DNA for Accurate Non-Invasive Prenatal Diagnosis

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P161 The Role of MicroRNA-192-5p in the Pathogenesis of Crohn's Disease

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P162 Advancing MHC characterization through long-read sequencing

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P163 Discovering the LILRB1 and LILRB2 genetic diversity

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P164 Replacements at structural or functional dimorphisms 103, 109 and 167 distinguish HLA class I serologically defined antigens

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P165 Characterization of the novel DQA1*05:118 allele in a Spanish bone marrow donor

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P166 First year of French flow cytometry External Proficiency Testing : a feedback

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P167 Innovative Biomarker Strategies: a preliminary study of the Role of Donor-Derived Cell-Free DNA in heart transplanted patients

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P168 Luminex evaluation of the impact of de novo non-anti HLA antibodies in a population of Lung transplanted patients

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P169 Adopting Donor-Derived Cell-Free DNA Biomarker for Lung Transplant Surveillance in India: Insights from Serial Testing of the Recipient Population

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P170 Minimizing False-Positive Results from Anti-CD20 Antibody Interference in Crossmatch Testing

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P171 Two cases of hyperacute rejection after ABO-incompatible kidney transplantation: What lurks behind the titre?

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P172 Unmasking the Hidden Threat: The Impact of gDNA Contamination on Donor-Derived cfDNA Testing in Transplantation

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P173 A Strategy for Safe Transplantation of Disadvantaged HLA-B46 Homozygous Kidney Candidates

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Other

P174 Detection of Clinically Relevant Low-Level HLA Antibodies in Multiparous Females: A Comparative Analysis of Screening Assays

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P175 Expression of human leukocyte antigen-G in Wharton's jelly-derived mesenchymal stem cells

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P176 Validation of an NGS-based HLA typing assay for Companion Diagnostics

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P177 Identification of HLA-B27 subtypes in patients with suspected spondyloarthritis in Tissue Typing Laboratory Rijeka

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P178 HLA-DRB1 and HLA-DQB1 alleles as predictors of risk for autoimmune diseases in Hamadan province, West-Iran.

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P179 Polymorphism of MIC-A and MIC-B Genes and Its Potential Link to Type 1 Diabetes Susceptibility

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P180 The IL-17F~TNFA haplotype – the protector from rheumatoid arthritis in Russians living in the Chelyabinsk region

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P181 NFκB p65 expression at the RNA and protein levels as a factor of neuroimmune dysregulation in autism

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P182 Polymorphism of the tumor necrosis factor gene at point G-238A as a biomarker of rheumatoid arthritis in the Russian population of the Chelyabinsk region

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P183 Evaluating Next Generation Sequencing HLA typing efficiency following process change utilising Laboratory Information Management System data

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P184 Frequency of Human Platelet Antigen alloantibodies in South African patient samples

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P185 UK NEQAS for H&I Schemes to Support Platelet Investigations – An Analysis of Errors in HPA Genotyping and HPA Antibody Detection / Specification over the Past 5 Years (2019–2023)

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P186 The Allele A*68:26 assigned to A-6801 SEROTYPE does not react with A68 specific sera of a commercial typing kit- a case report

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P187 Investigating the Siglec-7 effect in Regulating Mitochondrial Function to Promote Megakaryocytic Differentiation

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P188 Maternal Anti-HLA Class I Antibodies as Predictive Biomarkers for Preterm Birth: A Study in the Thai Population

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P189 The Evolution and Accuracy of HLA Typing: The Perspective of an External Proficiency Testing Provider

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P190 Anti-HLA alloimmunisation after granulocyte transfusion in patients with chronic granulomatosis

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P191 Characterization of LILR haplotypes in rhesus macaques: insights into haplotype diversity

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P192 Eplet 73ID Reactivity: A False-Positive Artifact in HLA Antibody Detection

Isau Henrique Noronha, Renato de Marco, Alberto Cardoso Martins Lima, Luiza Bottino, Renata Fantini, Maria Gerbase-DeLima

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P193 Monitoring apoptosis of pathological cells in clonal diseases after hematopoietic stem cell transplantation using flow cytometry Annexin V combined with CD24 cross-linking and cell starvation

Jacek Nowak, Urszula Szlendak, Beata Krzymieniewska, Agnieszka Krzywdzińska, Agnieszka Witkowska, Robert Ziętek, Agnieszka Malinowska, Elżbieta Graczyk-Pol, Joanna Włodarska, Ewa Mendek-Czajkowska, Anna Flaga, Agnieszka Gawron, Magdalena Ołdak, Ewa Sztangierska, Magdalena Brzezińska, Iwona Wrzosek, Beata Ilarska

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P194 Low Risk of Recipient HLA Alloimmunization Following Cold-Stored Saphenous Vein Allografts in Vascular Surgery

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Reproductive immunity

P195 Pro- and anti-inflammatory cytokines and growth factors in women with endometriosis

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P196 KIR gene polymorphisms and their target impact on cervical carcinoma susceptibility

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P197 The role of HLA class I alleles in endometriosis

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Solid Organ Transplantation

P198 Association of HLA-G Allele Distribution with Rejection in Heart Transplant Patients

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P199 HLA-A and -DR mismatches are associated with a longer renal transplant lifespan in Tunisian patients

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P200 Organ donation: A reflection on the possibility of a paired donation in Tunisia

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P201 Peculiarities of HLA-antigen distribution in patients on the Kidney Transplant Waiting List of the Republic of Kazakhstan

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P202 Donor specific HLA-DP antibody in kidney transplantation: a case report

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P203 Discrepancies in Anti-HLA Antibody Screening and Typing with multiplex bead essay

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P204 Donor HLA Typing From Kidney Biopsy: A Proof of Concept

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P205 Aberrant flowcytometry crossmatch results

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P206 Performance Evaluation of Promegas Automated Maxwell RSC Rapid ccfDNA Kit for Extracting Cell-free DNA

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P207 Acute kidney allograft dysfunction is associated with increased number of non-HLA antibodies in absence of donor specific HLA antibodies

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P208 Guidelines from the French-speaking Society of Histocompatibility and Immunogenetics for virtual crossmatching for deceased donor kidney transplantation and positioning of wet crossmatch in the decision-making process.

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P209 Unexpected HLA-DRB1-DRB3 association in a deceased organ donor

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P210 Virtual Match Gaps: The shortcomings of automatic filters in Argentina's kidney transplants

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P211 Association study between the HLA system and the recurrence of glomerular nephropathy after kidney transplantation

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P212 Detection of cell-free DNA in recipient urine after xenotransplantation of pig kidney in a case

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P213 Humanized Mouse Monoclonal IgG Antibodies for Detection of Human Leukocyte Antigens (HLA) Captured on Polystyrene Microspheres

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P214 Verification of the HLA-C Eplet IC Specificity by Flow Cytometry evaluation

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P215 Dynamic Analysis of Anti-HLA Antibodies and Eplets in a Kidney Transplant Candidate Following Blood Transfusion: A Case Study

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P216 “Influence of CYP3A5 Polymorphisms on the Pharmacokinetic Monitoring of Tacrolimus in Adult Kidney Transplant Recipients in Guatemala”

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P217 Virtual Crossmatch in Kidney Transplantation

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P218 Unacceptable Antigens Under the Scope: Reviewing Argentina’s Transplant Practices

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P219 Predictive Value of Positive Flow Cytometry Crossmatch for Short-Term Mortality in Heart Transplant Recipients – a Single Center Study

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P220 Impact of in vitro Imlifidase on Flow Cytometric Crossmatch and single antigen testing in serum samples from highly sensitized renal transplant patients

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P221 Significant reduction of HLA class I and II antibodies at early days after liver transplantation: A single center experience

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P222 Impact of HLA Mismatches and Eplet Load on the Development of Donor-Specific Antibodies in Post-Transplantation

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P223 Living kidney transplantation from an identical donor: reassessment after 46 years

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P224 Identification of Human Leukocyte Antigen mismatches from an in-situ renal allograft biopsy in a patient re-entering the kidney transplant waitlist

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P225 A Quick and Cost-Effective Method for Apolipoprotein L1 (APOL1) Genotyping to aid Live Kidney Donor Selection and Diagnosis of Chronic Kidney Disease

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P226 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

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P227 Donor derived cell free DNA as an early marker of tissue damage in kidney transplantation

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P228 Early acute humoral rejection mediated by anti-HLA-DP antibodies following second kidney transplantation

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P229 HLA Typing Complexity: A Case Study of Triple Allelic Presence in Class II Loci

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P230 Could a single HLA-DQA1 epitope be detected by Flow Cytometry CrossMatch?

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P231 Pre-transplant non-HLA antibodies are associated with Baseline Lung Allograft Dysfunction following lung transplantation

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P232 Prevalence of antibodies against Human neutrophil antigens in the Greek population

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P233 Elucidation of false positive reactivity amidst true antibodies in highly sensitized patients with adsorption using single antigen magnetic beads

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P234 Introduction of LabScreen Multi assay for identification of patients with HNA-3a antibodies

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P235 The influence of antibodies against angiotensin II type-1 receptor to kidney allograft function and their association to alloimmune sensitization

Margarita Samali¹, Georgios Lioulis², Soumela Panagilidou¹, Theodolinda Testa¹, Artemis Maria Iosifidou³, Marianthi Papachristou¹, Anna Boukla¹, Aspasia Papagiannopoulou¹, Maria Stangou⁴, Asimina Fylaktou¹

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P236 Factors Associated with Donor-Specific Antibodies in Patients Receiving Skin Grafts: Results of a Single-Centre Study

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P237 New conformational HLA-DP $\alpha\beta$ in a patient in the waiting list for heart transplantation

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P238 The impact of non-HLA antibodies on antibody-mediated rejection after kidney transplantation: A multicenter study

Di Guan¹, Xiaobo Li¹, Longshan Liu², Mingjun Wang³, Lei Liu⁴, Shaoyong Zhuang⁵, Xiaodong Yuan⁵, Xiaoming Zhang⁶, Jinghong Tan², Junbo He¹, Ming Zhang⁵, Ning Li³, Wenjun Shang⁴, Changxi Wang², Xiangjun Liu¹

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P239 Evaluation of the complement-binding properties of multiple non-HLA antibodies in patients on the kidney transplant waiting list

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P240 Using Peptides to Distinguish Between Antibody Reactivity to DQA1*01 and DQB1*05/06

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P241 Anti-HLA-DRB1 antibodies in 48 French pediatric patients without « classical » HLA immunization events, cause and consequences

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P242 The Missing Bead: Shortcoming of HLA Epitope Representation in Luminex Bead Assays for Kidney Transplantation in Malaysia

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P243 Evaluation of the frequency of allele-specific HLA antibodies in a cohort of UK solid organ transplant patients

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P244 FCtox: A Flow Cytometry Crossmatch Assay for Simultaneous Detection of Cytotoxicity and Antibody Binding – 10 Years in Clinical Use

Mats Alheim, Torsten Eich

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P245 The immune cellular profile of kidney transplant recipients is predominantly influenced by the recipient age rather than the donor age

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P246 Impact of Tacrolimus-to-Belatacept conversion on Donor-Specific Antibodies in kidney transplant recipients with renal function decline: a study of a french cohort

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P247 Establishing a delisting strategy for highly sensitised renal patients considered as potential Imlifidase candidates.

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P248 Evaluation of Desensitizing Therapies for Donor-Specific An-tibodies in Confirmed Humoral Allograft Rejection in Kidney Transplantation: Experience of a Center for 10 Years

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P249 Evaluation of de novo donor specific antibodies after kidney transplantation in the era of donor-derived cell-free DNA

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P250 Incremental Clinical Benefit (ICB) and Cost Effectiveness Ratio (ICER) of Routine Flow Cytometric Crossmatch (FCXM) Prior To Kidney Transplantation

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P251 Validation of a Simple, Rapid, and NGS Method for Acute Rejection Monitoring in Pediatric Heart Transplant Recipients: A Single-center Experience

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P252 52R: a new antibody-verified HLA-DQ alpha eplet evidencing the role of the surrounding/full epitope on antibody affinity.

Magali Devriese¹, Jonathan Visentin², Hsiao-Min Chang³, Tina Meng³, Diego Amaya-Ramirez¹, Hiroko Miyadera⁴, Cédric Usureau¹, Olivier Toutirais⁵, Dave Lowe³, Jean-Luc Taupin¹

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P253 Association between HLA-DRB1 serotype and HLA-DQB1 allele mismatches and acute rejection in kidney transplantation

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P254 Verification of predicted essential and ancillary amino acid residues for antibody binding on HLA-DQ2 and HLA-DQ5 antigens with engineered HLA variants

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P255 Impact of omitting anti-HLA-C and -DP antibodies on access to kidney transplantation in a French cohort

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P256 What is the Future of the Physical Crossmatch in the Era of Virtual Crossmatching?

Katrin Hacke, Theresa Kinard, Ruby Siegel, Marcelo Pando, Jill Adamski, Andrés Jaramillo

Department of Laboratory Medicine and Pathology, Mayo Clinic, Phoenix, Arizona, United States

P257 Imlifidase in Highly Sensitized Kidney Transplant Recipients with a Positive Crossmatch Against a Deceased Donor: Real-World Results from the First 30 Cases in France

Gwendaline Guidicelli¹, Nicolas Congy-Jolivet², Daniele Pievani³, Dominique Bertrand⁴, Jacques Dantal⁵, Marie Matignon⁶, Francois Provot⁷, Sophie Caillard⁸, Bertrand Chauveau⁹, Magali Colombat¹⁰, Carmen Lefaucheur¹¹, Fabienne Farce¹², Cédric Usureau¹³, Marie-Joëlle Apithy¹⁴, Jean-Luc Taupin¹⁵, Arnaud Francois¹⁶, Alexandre Walencik¹⁶, Vincent Elsermans¹⁷, Gilles Blancho¹⁸, Jerome Olagne¹⁹, Nassim Kamar²⁰, Lionel Couzi²¹

¹Bordeaux University Hospital, Laboratory of Immunology and Immunogenetics, Hôpital Pellegrin, Bordeaux, France; ²Laboratoire HLA, Toulouse University Hospital, Toulouse, France; ³Department of Nephrology and Renal Transplantation, Saint-Louis Hospital, AP-HP, Paris, France;

⁴Department of Nephrology, Dialysis and Kidney Transplantation, CHU Rouen, Rouen, France; ⁵Institut de Transplantation Urologie Nephrologie, CHU Nantes, France; ⁶Chenevier Mondor, Nephrology and Renal Transplantation Department, APHP, Creteil, France; ⁷Department of Nephrology, CHU Lille, University of Lille, Lille, France; ⁸Department of Nephrology, Dialysis and Transplantation, Strasbourg University Hospital, Strasbourg, France; ⁹Bordeaux University Hospital, Service de Pathologie, Bordeaux, France; ¹⁰Department of Pathology, University Hospital of Toulouse, University Cancer Institute of Toulouse, France; ¹¹Department of Kidney Transplantation, Saint-Louis Hospital, AP-HP, Paris, France; ¹²Laboratory of Immunology and Immunogenetics, Etablissement Français du Sang, Rouen, France; ¹³Laboratory of Immunology and Immunogenetics, Hôpital Saint-Louis, AP-HP, Paris, France; ¹⁴Laboratoire HLA, Grand Est Blood Center, Strasbourg, France; ¹⁵Department of Pathology, University of Rouen, Rouen, France; ¹⁶Laboratoire HLA, Etablissement Français du Sang Centre-Pays de la Loire, Nantes, France; ¹⁷CHU Lille, Laboratoire d'Immunologie, Lille, France; ¹⁸Institut de Transplantation-Urologie-Nephrologie, Nantes University Hospital, Nantes, France; ¹⁹Department of Pathology, Strasbourg University Hospital, Strasbourg, France; ²⁰Department of Nephrology and Organ Transplantation, Toulouse University Hospital, Toulouse, France; ²¹Bordeaux University Hospital, Department of Nephrology, Transplantation, Dialysis and Apheresis, Bordeaux, France

P258 Evaluating cPRA-Based Delisting Strategies and MFI Threshold Adjustments to Expand Access to Kidney Transplantation for Highly Sensitized Patient Recipients

Cédric Usureau, Jean-Luc Taupin

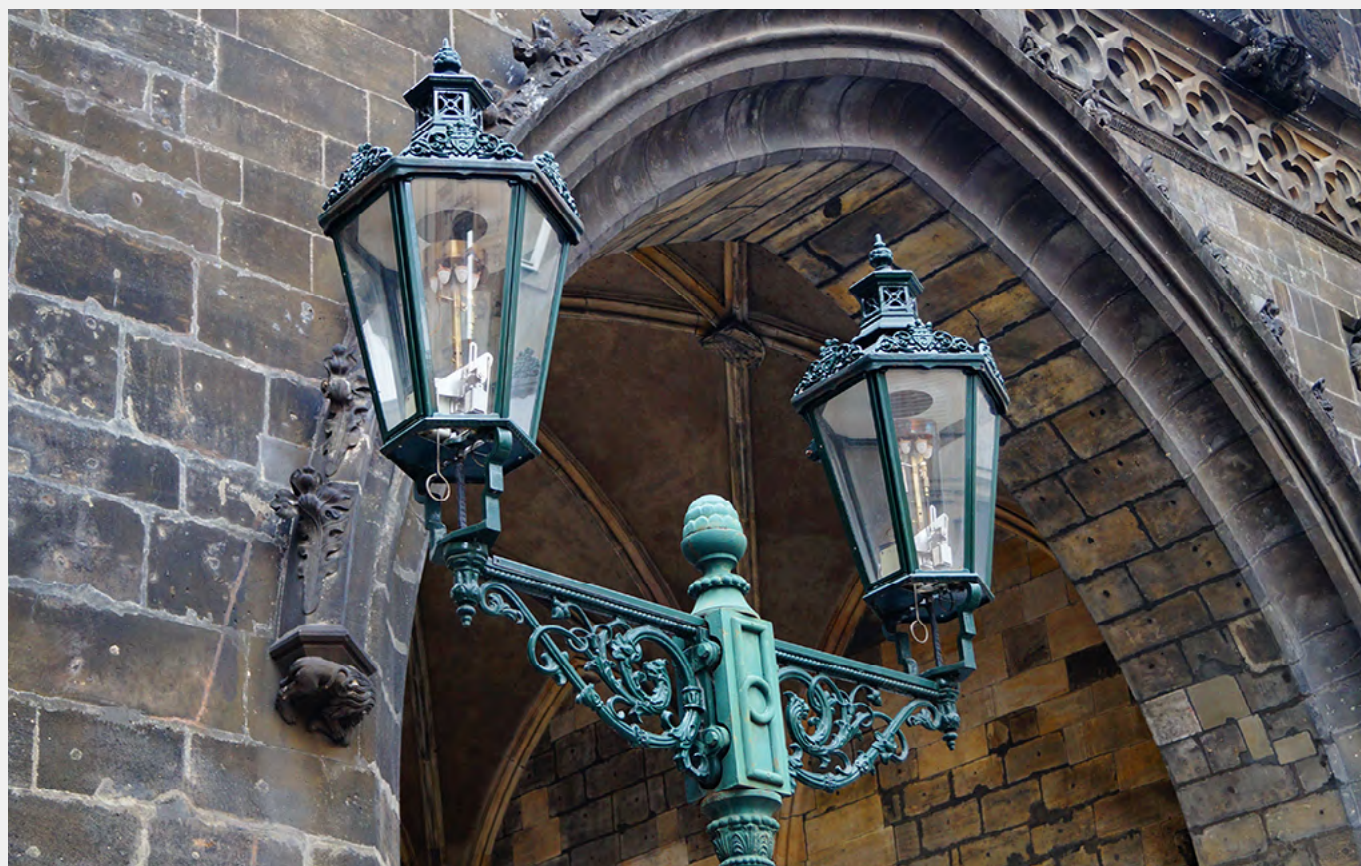
Laboratoire d'immunologie et Histocompatibilité Hopital Saint Louis Paris, France

P259 Clinical relevance of donor-derived cell free DNA quantification and fragmentome study for the identification of events 3 months after lung transplantation

Pascal Pedini¹, Alizée Sebastian², Benjamin Coiffard³, Audrey Boutonnet⁴, Agnès Basire¹, Jacques Chiaroni¹, Martine Reynaud-Gaubert³, Christophe Picard²

¹Immunogenetics Laboratory, Etablissement Français du Sang PACA Corse, Marseille, France; ²ADES UMR 7268, Aix Marseille Univ, Marseille, France;

³Lung transplant department, APHM, Marseille, France; ⁴ADELIS Tech, Labège, France



SATELLITE SYMPOSIA

GenDx, May 15, 2025, 12:00–13:00, Panorama Hall

Title: Celebrating 20 years of innovation: NGS-Pronto and the future of transplant diagnostics



eurobio gendx

GenDx new developments

Pascal van der Weele PhD, *Associate Director R&D at GenDx*

NGS-Pronto User Experience

Karen Sherwood PhD, *Clinical Professor & HLA Laboratory Director at Vancouver General Hospital*

Werfen, May 15, 2025, 13:00–14:00, Panorama Hall

Title: Frontiers in Transplantation: Exploring Cutting-Edge Innovations and Future Directions

werfen

Pre-transplant non-HLA antibodies: Not rare at all, just rarely considered until they interfere

Marko Lilic, *University of Mostar, Bosnia & Herzegovina*

Nanotyping for Next-Generation Diagnostics: Experiences and Challenges

Mirjam Andri Papaloizou, *Karaïskakio Foundation, Cyprus*

Werfen, May 15, 2025, 16:00–17:00, North Hall

Title: Pioneering Progress in Transplant Testing: Unveiling Innovative Insights and Advances

werfen

Pirche and Snow in prediction of de novo DSA

Andrej Čereš, *University Hospital Martin, Slovakia*

Memory B cell-derived HLA antibodies: The Basel experience

Caroline Wehmeier & Gideon Hönger, *University Hospital Basel, Switzerland*

From Slow to Lightning: HLA Typing Using NanoTYPE for High Throughput Laboratories and Registries

Greg Werner, *VP Product Innovation, Werfen*

CareDx, May 16, 2025, 10:30–11:30, North Hall

Title: Revolutionizing Transplant Matching – The Future of HLA Haplotyping

Moderator: Thierry Viard, PhD, *Director R&D, CareDx*



Identifying HLA Risk Alleles in Pediatric Nephrotic Syndrome

Annette M Jackson, PhD, F(ACHI), *Associate Professor, Departments of Surgery & Immunology Chief, Clinical Transplantation Immunology Research Director, Clinical Transplantation Immunology Laboratory Duke University Durham, NC*

Haplotyping in 3D

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

Thermo Fisher Scientific, May 16, 2025, 12:00–13:00, North Hall

Title: Unlocking the Complete Transplant Journey: Comprehensive Approaches to Diagnostics from Pre to Post-Transplant

Moderator: Ann-Margaret Little, PhD, FRCPath, *Gartnavel General Hospital, Glasgow*



One Lambda™ HybriType™: Advancing hybrid capture NGS genotyping

David Sayer, PhD, *Thermo Fisher Scientific*

Pre-transplant risk assessment: Molecular HLA-matching, virtual X-Matching and determination of DSA eplet specificities

Gideon Hönger, PhD, *University of Basel*

Practical aspects of dd-cfDNA monitoring

Jakob Nilsson, MD, PhD, *University Hospital Zurich*

CareDx, May 16, 2025, 13:00–14:00, Panorama Hall

Title: Innovating the Transplant Patient Journey: Real-World Improvements with AlloSeq Solutions

Moderator: Paul Tausch, VP; *Head of Global Lab Products, CareDx, USA*



AlloSeq HCT to Follow up Chimerism after HSCT in Clinical Practice

Prof. Jean Villard, MD, PhD, *Head of the Platform of Cell Therapy and Transplantation Laboratories, University Hospitals of Geneva, Geneva, Switzerland*

Clinical Utility of dd-cfDNA: Beyond Simply Diagnosing Allograft or Kidney Rejection

Prof. Carmen Lefaucheur, MD, PhD, *Head of Department, Transplant Nephrology, Saint-Louis Hospital, Paris, France*

The Most Recent Experience with AlloSeq cfDNA for Non-invasive Heart Transplant Surveillance

Timea Teszak, MD, *Transplant Cardiologist, Heart and Vascular Center, Semmelweis University, Budapest, Hungary*

SOCIAL NETWORKING EVENTS

Welcome Cocktail

Wednesday, May 14, 2025, 19:45–22:00

Place: Exhibition area, 2nd floor, Congress Foyer A + C
The Welcome Cocktail is open to all conference participants.

Networking Event

Friday, May 16, 2025, 20:30–02:00

Place: The National House Vinohrady, Namesti Miru 9, 120 53 Prague 2

Price: 105 € / per person

Transportation: Transportation will not be provided

Dress code: Business casual/smart casual

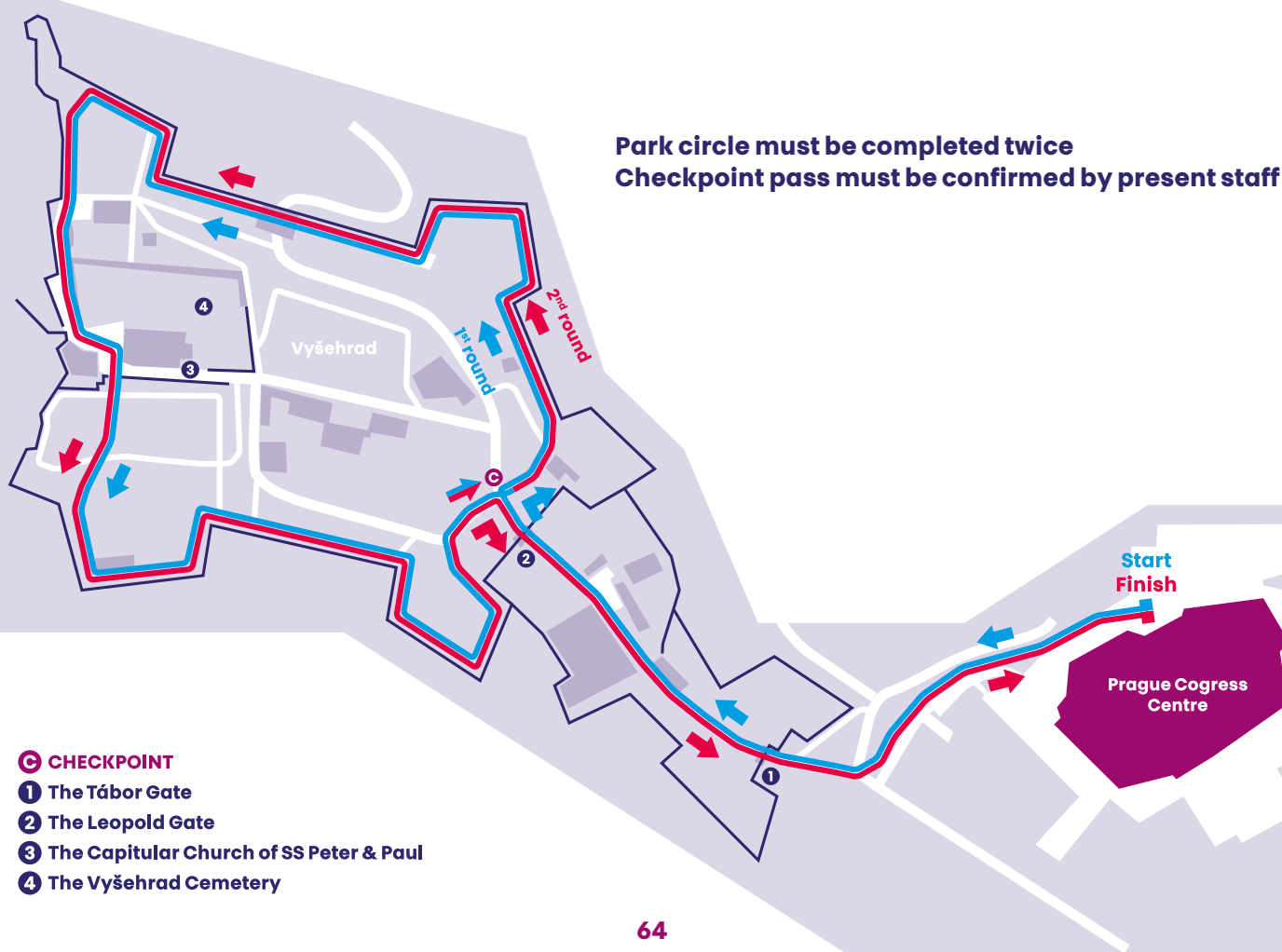
GenDx Tulip run (4-5 km)

Friday, May 16, 2025, from 06:40

Meeting point: the main entrance of the Prague Congress Centre at 6:35

Price: 25 € / per person

Detailed schedule: 06:40 – Warm up
07:00 – Start run
08:00 – Tulip run awards & heading back to the hotel



AlloSeq HCT

Revolutionizing Chimerism Monitoring by NGS

STREAMLINED WORKFLOW | AUTOMATED ANALYSIS
COMPREHENSIVE SOFTWARE | QUALITY METRICS

Jen R, Stem Cell and Double
Lung Transplant Recipient

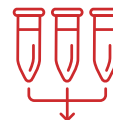
**ALLOSEQ HCT IS THE MOST BROADLY ADOPTED HIGH-SENSITIVITY
CHIMERISM TEST BY NGS FOR SURVEILLANCE MONITORING**



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applications in a single run
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Featured Benefits of Alloseq HCT

ASSAY

- 1-step, single, multiplexed PCR reaction
- 202 unique SNP targets to maximize identifying informative markers, especially related and multiple donor(s)
- Test up to 48 samples/run
- 0.22% Limit of Detection

SOFTWARE

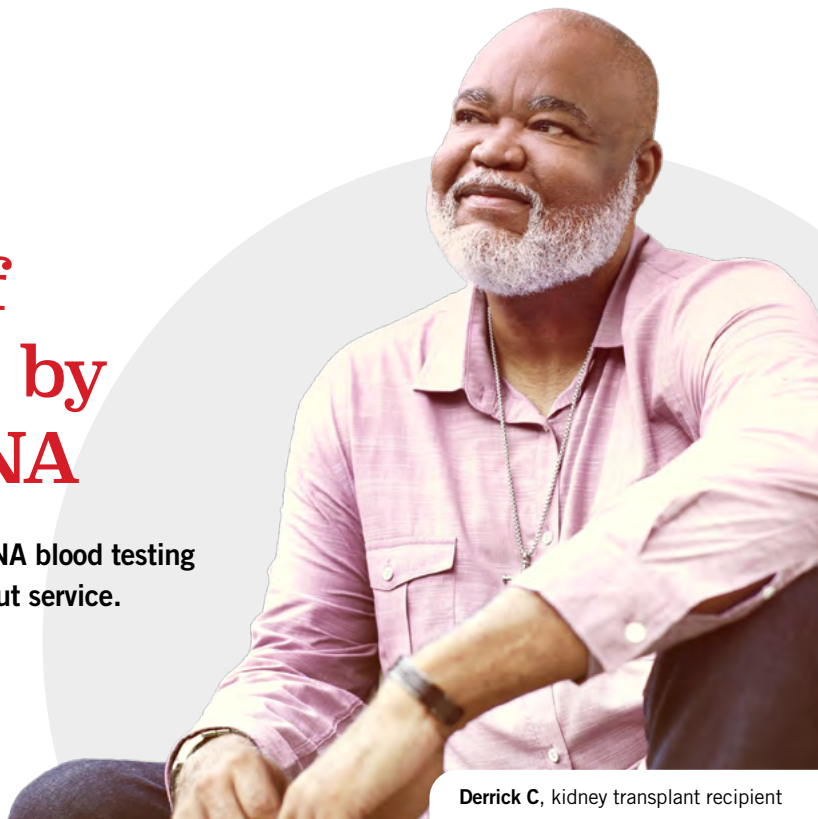
- Fast analysis
- Quality metrics & contamination detection for high confidence results
- Compare up to 3 genomes
- N-1 analysis capability
- Sample to Report in less than 24 hrs

For more information visit caredx.com/alloseq-hct or contact your CareDx representative.



Risk Assessment of Allograft Rejection by Measuring dd-cfDNA

The only SNP-based NGS solution that enables dd-cfDNA blood testing as a CE-IVD kit for laboratory implementation or send out service.



Derrick C, kidney transplant recipient

SNP-based NGS CE-IVD Kit

- + Targets 202 bi-allelic SNPs across 22 autosomes
- + Escalate testing up to 24 samples/run
- + From cfDNA sample to sequencing < 1.5 hrs hand-on time
- + Validated on Illumina MiniSeq and MiSeq (MiSeq i100* available soon)
- + Combinable with other AlloSeq protocols in one sequencing run
- + 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**
- + Analytically and clinically validated by multi centric studies

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

AlloSeq cfDNA is available as CE/IVD or Research Use Only. For local regulatory status, please contact CareDx. The CareDx Testing Services Laboratory in Stockholm, Sweden is accredited for AlloSeq cfDNA Testing Services according to ISO/IEC 17025. Research Use Only products are not to be used for diagnostic procedures. AlloSeq cfDNA is only available outside the United States. AlloSeq is a trademark or registered trademark of CareDx Inc. or its subsidiaries in the US or other countries. AlloSeq is a registered trademark with the US Patent and Trademark Office. © 2025 CareDx, Inc. All service marks or trademarks are owned or licensed by CareDx, Inc. or its affiliates. All rights reserved.

* Except for liver surveillance testing

** Would require recipient genotyping

AlloSeq cfDNA Publications

Risk Assessment of Allograft Rejection by Measuring dd-cfDNA



Derrick C., Kidney transplant recipient

January 2025 - Review Multi-Organ Transplant Publications to Date

Publication (DOI)	First Author	Journal	Year
Kidney			
Normalization dynamics of donor-derived cell-free DNA predicts future kidney transplant rejection	Cucchiari D.	Nephrology Dialysis Transplantation	in-press
Implementation of the in-house technique for the determination of donor-derived cell-free DNA in daily clinical practice: experience from the Hospital Clinic of Barcelona [Article in Spanish]	Cuadrado-Payán E.	Nefrología	in-press
Evaluation of a Decentralized Donor-Derived Cell-Free DNA Assay for Kidney Allograft Rejection Monitoring	Loupy A.	Transplant International	2024
Multi-centre analytical performance verification of an IVD assay to quantify donor-derived cell-free DNA in solid organ transplant recipients	Casas S.	HLA	2024
Donor-derived cell-free DNA predicted allograft rejection and severe microvascular inflammation in kidney transplant recipients	Kim H.D.	Frontiers in Immunology	2024
Donor-Derived Cell-Free DNA (dd-cfDNA) in Kidney Transplant Recipients With Indication Biopsy-Results of a Prospective Single-Center Trial	Benning L.	Transplant International	2023
Cell-free DNA measurement of three genomes after allogeneic MSC therapy in kidney transplant recipients indicates early cell death of infused MSC	Dreyer J. Geertje	Frontiers in Immunology	2023
Assessment of Donor Derived Cell Free DNA (dd-cfDNA) at Surveillance and at Clinical Suspicion of Acute Rejection in Renal Transplantation	Mantios E.	Transplant International	2023
Donor-Derived Cell-Free DNA at 1 Month after Kidney Transplantation Relates to HLA Class II Eplet Mismatch Load	González-López E.	Biomedicines	2023
Early kinetics of donor-derived cell-free DNA after transplantation predicts renal graft recovery and long-term function	Cucchiari D.	Nephrology Dialysis Transplantation	2023
Immune Response to COVID-19 mRNA Vaccination in Previous Nonresponder Kidney Transplant Recipients After Short-term Withdrawal of Mycophenolic Acid 1 and 3 Months After an Additional Vaccine Dose	Kühn T.	Transplantation	2023
Humoral response to SARS-CoV-2 mRNA vaccination in previous non-responder kidney transplant recipients after short-term withdrawal of mycophenolic acid	Benning L.	Frontiers in Medicine	2022
Levels of donor-derived cell-free DNA and chemokines in BK polyomavirus-associated nephropathy	Mayer A. K.	Clinical Transplantation	2022
Anti-interleukin-6 Antibody Clazakizumab in Antibody-mediated Kidney Transplant Rejection: Effect on Donor-derived Cell-free DNA and C-X-C Motif Chemokine Ligand 10	Mayer A. K.	Transplant Direct	2022
A comparison of two different analytical methods for donor-derived cell-free DNA quantification	Verhoeven J.G.H.P.	Clinical Biochemistry	2021
Diagnostic value of donor-derived cell-free DNA to predict antibody-mediated rejection in donor-specific antibody-positive renal allograft recipients	Mayer A. K.	Transplant International	2021
Liver			
Monitoring of Donor-Derived Cell-Free DNA by Short Tandem Repeats: Concentration of Total Cell-Free DNA and Fragment Size for Acute Rejection Risk Assessment in Liver Transplantation	Fernández-Galán E.	Liver Transplantation	2022
Kidney, Liver			
Comparison of methods for donor-derived cell-free DNA quantification in plasma and urine from solid organ transplant recipients	Kueng N.	Frontiers in Genetics	2023
Lung			
Donor-derived cell-free DNA in chronic lung allograft dysfunction phenotypes: a pilot study	Beeckmans H.	Frontiers in Transplantation	2024
Clinical relevance of cell-free DNA quantification and qualification during the first month after lung transplantation	Pedini P.	Frontiers in Immunology	2023
Heart			
Noninvasive rejection surveillance after solid organ transplantations: analysis of the donor-derived cell-free DNA [Article in Hungarian]	Teszák T.	Orvosi Hetilap	2024
Local laboratory-run donor-derived cell-free DNA assay for rejection surveillance in heart transplantation - First six months of clinical experience.	Teszák T.	Clinical Transplantation	2023

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Celebrating 20 years of innovation: NGS-Pronto and the future of transplant diagnostics



GenDx new developments

Pascal van der Weele PhD

Associate Director R&D at GenDx



NGS-Pronto User Experience

Karen Sherwood PhD

Clinical Professor & HLA Laboratory
Director at Vancouver General Hospital

HLA Typing Assay

One Lambda HybriType NGS Hybrid Capture Assay

Now Available

We're thrilled to announce the introduction of the One Lambda™ HybriType™ NGS Hybrid Capture Assay to our NGS sequencing portfolio for HLA genotyping. Designed to support evolving laboratory needs, the

streamlined workflow, modular content for HLA, non-classical, and ABO genotyping from both blood and buccal samples, enables next-day results.

Learn more at thermofisher.com/hybriType





Join us at booth #5

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

 Learn more at thermofisher.com/transplant-solutions



Join us at our EFI industry symposia

Friday, 16th May

12:00 - 13:00

North Hall



Unlocking the Complete Transplant Journey: Comprehensive Approaches to Diagnostics from Pre to Post-Transplant

Harnessing the full spectrum of transplant diagnostics as your trusted companion for every step across the transplant continuum from high-resolution molecular typing through antibody screening to post-transplant monitoring.

Moderator

Ann-Margaret Little, PhD, FRCPath, Gartnavel General Hospital, Glasgow

Speakers

One Lambda™ HybriType™: Advancing hybrid capture NGS genotyping

David Sayer, PhD, Thermo Fisher Scientific

Outlining hybrid capture technology and how HybriType's simple workflow, product design and comprehensive gene coverage can potentially reduce ambiguity, provide balanced reads and reduce turnaround and hands on time.

Pre-transplant risk assessment: Molecular HLA-matching, virtual X-Matching and determination of DSA eplet specificities

Gideon Hönger, PhD, University of Basel

Dr. Hönger's presentation will demonstrate the application of high-resolution HLA typing data for molecular (Eplet-based) HLA matching and the importance of accurately interpreting Single Antigen Bead results for virtual crossmatching. He will also explain how to determine the eplet specificity of DSA and discuss the use of One Lambda™ MagSort™ Beads.

Practical aspects of dd-cfDNA monitoring

Jakob Nilsson, MD, PhD, University Hospital Zurich

Donor derived cell free DNA (dd-cfDNA) analysis is being introduced into the routine post-transplant monitoring in the setting of solid organ transplantation at many centers around the world. This talk focuses on practical aspects of dd-cfDNA monitoring such as pre-analytical problems, relevant organ cut-offs and the integration of dd-cfDNA with other post-transplant diagnostics.



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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."



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>> Frontiers in Transplantation: Exploring Cutting-Edge Innovations and Future Directions

Date/Time: Thursday 15 May, 1:00-2:00pm

Location: 1st Floor, Panorama Hall, Prague Congress Centre

>> Pioneering Progress in Transplant Testing: Unveiling Insights and Advances

Date/Time: Thursday 15 May, 4:00-5:00pm

Location: 2nd Floor, North Hall, Prague Congress Centre



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- Experience next-gen HLA Typing software firsthand and share your feedback during 1:1 interviews. Your insights will directly influence its development.
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