



EFI 2023



36TH EUROPEAN IMMUNOGENETICS AND HISTOCOMPATIBILITY CONFERENCE

April 26–29, 2023, Nantes, France

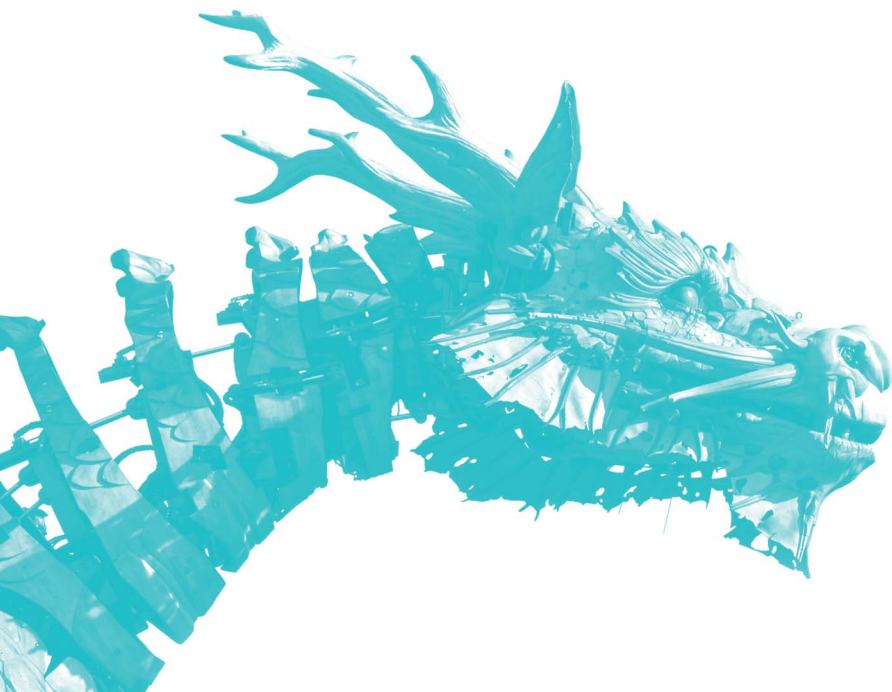
**Big Data in Immunogenetics at the Crossroads of Care,
Tools and Research**

FINAL PROGRAM



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WELCOME ADDRESS

Dear scientists, dear EFI members,

On behalf of the Local Organizing Committee, we are happy to welcome you to Nantes on April 26–29, 2023, for the 36th European Immunogenetics and Histocompatibility Conference. Nearly 15 years after the last EFI meeting in the south-west of France, in Toulouse, in 2008.

A generation of immunogeneticists has taken over from their mentors, but our field remains more than ever at the crossroads of clinical applications in transplantation, technological tools that have evolved with the ability to crunch large amounts of data, and basic science that is changing our understanding of the immune system and its genetic determinants. Our field is a perfect example of the “Pasteur quadrant”, the type of science named after one of France’s most inspirational scientists, Louis Pasteur: At heart, immunogenetics is a sum of basic research inspired by use.

The theme for this year’s conference is “Big Data in Immunogenetics at the Crossroads of Care, Tools, and Research” shedding the light on new challenges of immunogenetics. For example, the development of new tools to inform the decision-making process in health will come from the integration of population-based immunogenomics data with modern machine learning applications.

The conference will stimulate scientists, clinicians, students, and industry from around the world to present innovative and significant research and clinical innovations in the field of immunogenetics and histocompatibility.

We would like to express our gratitude to EFI for giving us the honor to host this meeting, the EFI Executive Committee, the EFI Scientific Committee, the EFI Education Committee and Members of the Local Organizing Committee. They have all provided us with precious help and support in preparation of the Scientific Program, teaching sessions.

Without the generous support provided by our sponsors and GUARANT Int. the newly appointed professional conference organizer of EFI, this conference would not have been possible at this scale.

Together with all the LOC members and our CR2TI research group, we welcome you all to Nantes in April 2023, to participate in what we hope will be an inspiring meeting both scientifically and socially!

Prof. Pierre-Antoine Gourraud

Chair, On behalf of the 36th EFI Conference Local Organizing Committee



PARTNERS AND EXHIBITORS

WE WOULD LIKE TO THANK THE FOLLOWING PARTNERS FOR THEIR SUPPORT

Platinum Partners



Gold Partner



Silver Partner



Bronze Partners



Special thanks to:



Navigation System Partner
& Lanyards Partner



The Wine and Cheese
Poster Session Partner



Tulip Run Partner



City Support



Welcome Cocktail Partner

Exhibitors



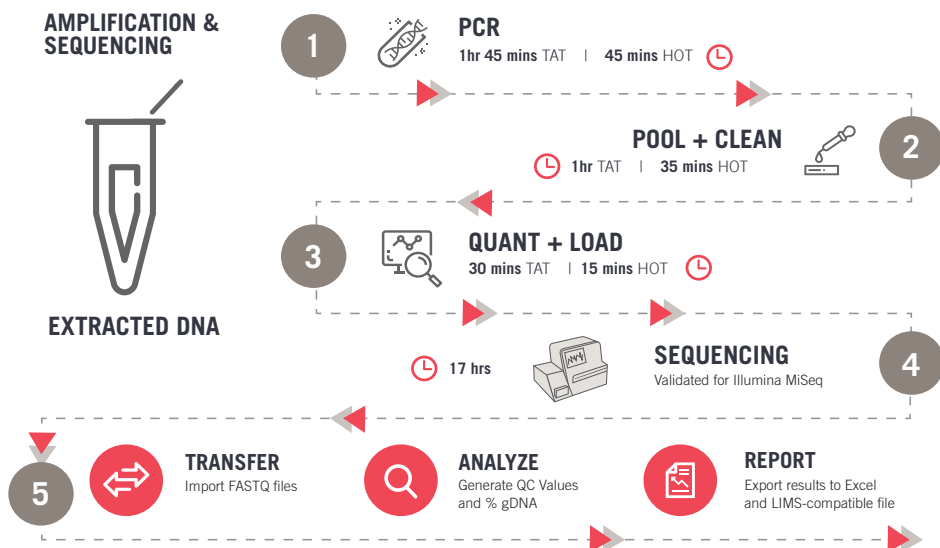
AlloSeq HCT

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Jen R.,
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*References for early rejection • Rashef et al BBMT 2014;20:1758-66 • Tang et al BBMT 2014;20:1139:1144

*HOT: Hand-on Time (based on 48 samples) *TAT: Turn around time

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

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Seeing Beyond Limits



Visit Immucor Booth #3 at EFI 2023

26th - 29th April 2023, Nantes, France

Schedule a live
in booth demo of our
MIA FORA® NGS EXPRESS
software or
NEW MATCH IT!®
Antibody v1.5

CLICK HERE

to find out more information
on all of these exciting events!

**HAVE YOUR
SAY!**

Participate in an
interview to shape
our Next Gen
software

Wednesday 26th April

Join us for a **MATCH IT!®** Antibody
software workshop!

Thursday 27th April

Immucor's Sponsored Symposium

Exploring New Frontiers
in Transplantation Testing

Room 300 Lower Foyer
1:30pm - 2:30pm

**IMMUCOR**



Head over to immucor.com/efi2023 and follow
us on social media for the latest news.

20

LABScreen Single Antigen Bead

A Revolution in Transplant Diagnostics

20th Anniversary of the One Lambda LABScreen Single Antigen Bead

Twenty years ago, the One Lambda™ LABScreen™ Single Antigen Bead assay was introduced and quickly became the standard for antibody screening and monitoring. Since then, our collaboration with the Transplant Community has resulted in the introduction of new practices that've helped improve patient transplantation.

The Single Antigen Bead Technology has enabled groundbreaking work in transplantation and has been critical to the understanding of *de novo* DSA post-transplant. This year is not just about celebrating a 20th Anniversary, it's about celebrating our global collaborations and the impact we've all had in improving the quality of life for transplant patients worldwide.

Visit us at EFI at booth #4

Dr. Paul Terasaki
Transplant Pioneer

MEET OMIXON AT EFI 2023

SEE YOU AT BOOTH #5

April 26-29, 2023

Cité des congrès de Nantes
Nantes, France

OMIXON EVENTS AT EFI 2023

Experience the Future of HLA Typing - Omixon User Group Meeting

PRIVATE EVENT

WHEN?

Wednesday 26th April

Please subscribe at
sales@omixon.com

New horizons in HLA Typing - Omixon's Symposium

WHEN?

Friday 28th April,
14:30-15:30

WHERE?

Lower Foyer,
Room 150



Wim Adriaensen, PhD

Clinical Immunology
Institute of Tropical Medicine



**Dr. rer. nat. Claudia
Lehmann**

Transplantation Immunology
University Hospital Leipzig



**Prof., Dr. rer. nat., Dipl.
Biol. Ilias Doxiadis**

Transplantation Immunology
University Hospital Leipzig

CONFERENCE INFORMATION

CONFERENCE VENUE

La Cité des Congrès de Nantes

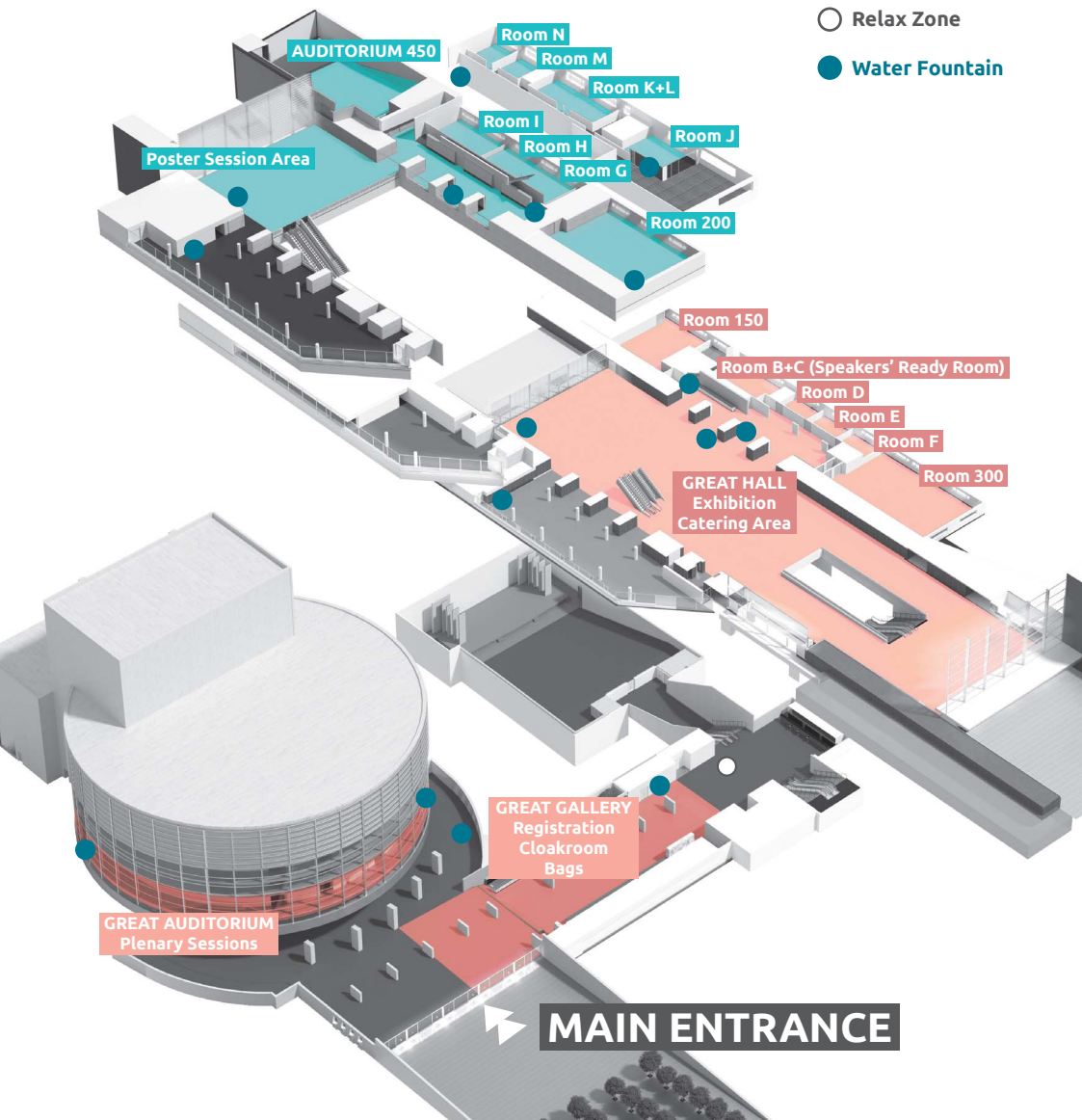
Nantes Events Center

5 rue de Valmy

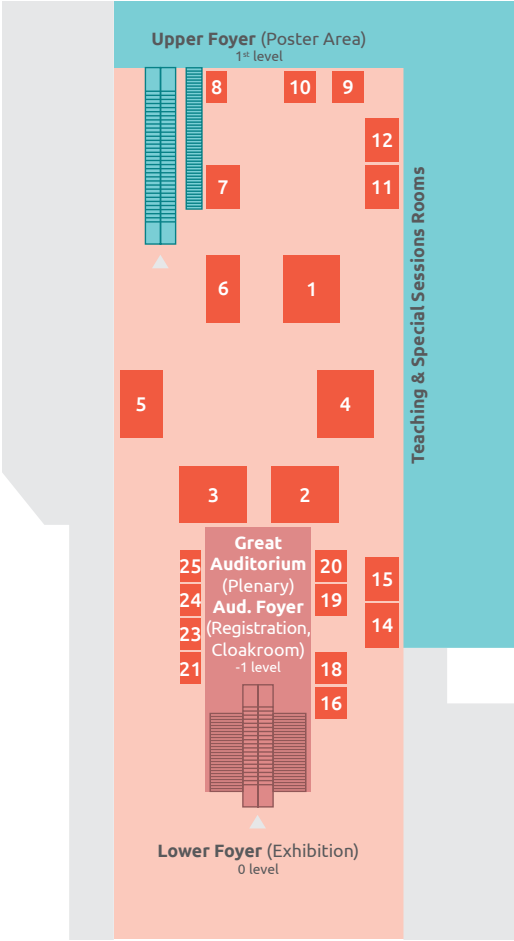
BP 24102

44041 Nantes cedex 1

www.lacite-nantes.com/



EXHIBITION PLAN



List of Exhibitors

- 1 CareDx
- 2 GenDx
- 3 Immucor Inc.
- 4 One Lambda a Thermo Fisher Brand
- 5 Omixon Ltd.
- 6 Devyser
- 7 Hansa Biopharma
- 8 EFI 2024
- 9 ATC Genomics
- 10 EFI
- 11 DKMS Life Science Lab gGmbH
- 12 STEMCELL Technologies
- 14 BAG Diagnostics GmbH
- 15 Histogenetics
- 16 inno-train Diagnostik GmbH
- 18 SAS médiane diagnostics
- 19 JETA Molecular BV
- 20 Bionobis
- 21 TBG Biotechnology Corp.
- 23 UK NEQAS for H&I
- 24 PROTRANS
- 25 PIRCHE



You are more than welcome to visit the EFI booth in stand number 10 at April 27 from 8:30–17:00 and April 28 from 8:30–16:30.

FREE WI-FI

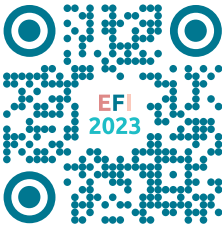
SSID: 0-la Cite Guests

Password: cite2023

EFI 2023 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

Facebook <https://www.facebook.com/EFI2023>

Twitter <https://twitter.com/ConferenceEfi?s=20>

LinkedIn [linkedin.com/company/efi-conference-2023/](https://www.linkedin.com/company/efi-conference-2023/)

As for EFI conference 2023 use #EFI2023.

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	720 EUR
Non-member	820 EUR
Technician	490 EUR
Student	490 EUR
Retired	490 EUR
One-day fee (April 27/28)	510 EUR
One-day fee (April 29)	410 EUR
Distributors	250 EUR
Accompanying Person	150 EUR

Registration fee include 20 % 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, April 26, 2023	08:00–18:00
Thursday, April 27, 2023	07:00–18:30
Friday, April 28, 2023	08:00–18:00
Saturday, April 29, 2023	08:00–14:00

NAME BADGE

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

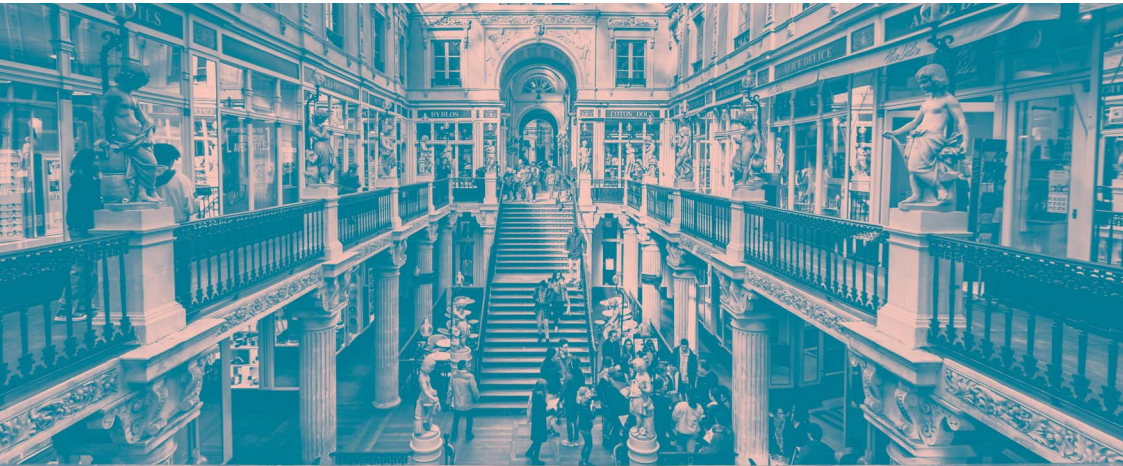
DELEGATE
ONE-DAY FEE 27/28/29
SPEAKER
PARTNER / EXHIBITOR
ORGANIZER
ACCOMPANYING PERSON
GUEST
VOLUNTEER

CERTIFICATE OF ATTENDANCE

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

BOOK OF ABSTRACTS

If you are an EFI member, you can view this year’s Book of Abstracts after logging in on the [official page of EFI](#).



INSTRUCTIONS FOR SPEAKERS

INSTRUCTIONS FOR ORAL PRESENTATION

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 BC, located in the lower foyer at 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.

Save the file according to the following format:

<day of presentation>_<A. Session #>_<presenters name>_<title of presentation>

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.

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

SPEAKERS READY ROOM

Opening hours:

Wednesday, April 26, 2023	15:30–20:00
Thursday, April 27, 2023	07:00–18:00
Friday, April 28, 2023	08:00–17:30
Saturday, April 29, 2023	08:00–13:00

INSTRUCTIONS FOR POSTER PRESENTERS

All posters will be displayed on poster boards (printed posters) and will be available during all sessions of the conference.

Posters must be in a portrait-oriented A0 format (width x height) (841 × 1189 mm / 33.1 × 46.8 in) which will be displayed on the boards in the Poster Hall (Mezzanine, Upper Foyer at the venue).

The presentation number assigned to your poster should not be placed on your poster. Please check the poster list carefully to make sure you hang the poster on the correct poster board.



ORGANISERS AND COMMITTEES

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Raphael Carapito (France)
John Trowsdale (United Kingdom)
Lotte Wieten (The Netherlands)
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Gilles Blanco (France)
Magali Giral (France)
Jean Luc Taupin (France)
Christelle Retière (France)
Valérie Dubois (France)
Patrice Chevalier (France)
Régis Josien (France)
Philippe Moreau (France)

SPEAKERS

PLENARY SESSION SPEAKERS

Florent Malard

Sorbonne Université, Hôpital Saint-Antoine, AP-HP, Paris, France

Robert Zeiser

Hematology and Oncology, University Medical Center Freiburg, Germany

Carole Guillonnet

Nantes Université, CR2TI, UMR 1064, Nantes, France

Julian Knight

Wellcome Centre for Human Genetics, Nuffield Department of Medicine, University of Oxford, UK

Patrick Sulem

deCODE genetics, Reykjavik, Iceland



Corey T Watson

Department of Biochemistry and Molecular Genetics, University of Louisville School of Medicine

Seiamak Barham

INSERM U1109, Molecular ImmunoRheumatology Unit, University of Strasbourg, France

Anat Tambur

Northwestern University, Feinberg School of Medicine, Chicago, IL, USA

Olga Timofeeva

MedStar Georgetown University Hospital, Washington D.C, USA

Soumya Raychaudhuri

(1) Brigham and Women's Hospital, (2) Harvard Medical School, and (3) Broad Institute (USA)

Marta Alarcon Riquelme

Centre for Genomics and Oncological Research: Pfizer, University of Granada, Andalusian Regional Government, Spain

Patrick Deelen

Department of Genetics, University Medical Center Groningen, Groningen, the Netherlands

Marco Salvetti

Department of Neurosciences, Mental Health and Sensory Organs (NESMOS), Neurology Residency Program, Sapienza University, Italy

Hedda Wardemann

Division of B Cell Immunology, German Cancer Research Center, Heidelberg, Germany

Darragh Duffy

Institut Pasteur, Laboratory of Dendritic Cell Immunobiology, INSERM U1223, Department of Immunology, Paris, France

EDUCATIONAL SESSION SPEAKERS**Martijn van den Hoogen**

Department of Pulmonary Medicine, Division of Lung Transplantation & Erasmus MC Transplant Institute, Rotterdam, The Netherlands

Begoña Aran

Barcelona Stem Cell Bank, Regenerative Medicine Programme, Bellvitge Biomedical Research Institute (IDIBELL), Barcelona, Spain

Paul Olivier Rouzaine

Department of Histocompatibility & Immunogenetics, Clermont Auvergne University, France

Emmanuelle Génin

INSERM UMR1078, UFR Médecine, Université de Bretagne Occidentale, France

Erick Castelli

Department of Pathology, School of Medicine, São Paulo State University (Unesp), Botucatu, State of São Paulo, Brazil



Christelle Retière

Nantes Université, EFS, INSERM, CNRS, CRCI2NA, Nantes, France

Eric Spierings

Division Laboratories, Pharmacy and Biomedical Genetics, Central Diagnostics Laboratory, Center of Translational Immunology, HLA and Tissue Typing, University Medical Center Utrecht, Netherlands

Yang Luo

The Kennedy Institute of Rheumatology, University of Oxford, Oxford, UK

Jean-Baptiste Woillard

Service de Pharmacologie, Toxicologie et Pharmacovigilance, CBRS CHU Limoges, INSERMU1248, Faculté de Médecine de Limoges, Université de Limoges, France

JOINT EFI-ESOT SESSION SPEAKERS**Gabriel Oniscu**

Karolinska Institutet Stockholm, Sweden

Sophie Limou

Nantes Université, Center for Research in Transplantation and Translational Immunology, UMR 1064, Nantes, France

Jasper Callemeyn

Nephrology and Renal Transplantation Research Group, KU Leuven, Belgium

JOINT EFI-NAT SESSION SPEAKERS**Alberto Sanchez Fuego**

The Institute of Liver Studies at King's College London, UK

Mübeccel Akdis

Swiss Institute of Allergy and Asthma Research (SIAF), University of Zurich, Switzerland

Sophie Hillion

U1227, LBAl, University of Brest, Inserm, and CHU Brest, Brest, France

JOINT EFI-SIP SESSION SPEAKERS**Ami Bhatt**

Departments of Medicine (Hematology & BMT) and Genetics, Stanford University, USA

Becca Asquith

Imperial college London, UK

Effie Petersdorf

Madeline Dabney Adams Endowed Chair in AML Research, Fred Hutchinson Cancer Center, Seattle, USA

MEET THE EXPERTS & YOUNG EFI GROUP SESSION**Dominique Charron****Steven Marsh****Katharina Fleischhauer****Ronald Bontrop**

PROGRAM AT GLANCE

ASSOCIATED MEETINGS

TUESDAY, April 25, 2023	
<i>Room 150 (Lower Foyer)</i>	
09:00–17:15	Inspectors Workshop
<i>Rooms E & F (Lower Foyer)</i>	
08:30–17:30	ESHI Diploma Examination
WEDNESDAY, April 26, 2023	
<i>Room D (Lower Foyer)</i>	
08:30–16:30	Executive Committee meeting
<i>Room E (Lower Foyer)</i>	
08:30–16:30	External Proficiency Testing Committee meeting
<i>Room F (Lower Foyer)</i>	
09:00–12:00	IT & Bioinformatics Committee meeting
<i>Room H (Upper Foyer)</i>	
08:30–17:00	Accreditation Committee meeting
<i>Room M (Upper Foyer)</i>	
08:30–16:30	Standards Committee meeting
<i>Room I (Upper Foyer)</i>	
13:30–17:00	Education Committee meeting
<i>Room K+L (Upper Foyer)</i>	
12:15–13:45	Open Meeting of the Population Genetics Working Group
14:00–17:00	Scientific Committee meeting
<i>Room G (Upper Foyer)</i>	
14:30–16:30	Young EFI Working Group
Journée scientifique de la Société Francophone d’Histocompatibilité et d’Immunogénétique (SFHI)	
<i>Auditorium 450 (Upper Foyer)</i>	
13:30–16:30	SFHI Associated EFI meeting



SCIENTIFIC PROGRAM

WEDNESDAY, April 26, 2023

Great Auditorium

17:30–19:20 OPENING CEREMONY

Great Auditorium + Great Gallery foyers

19:30–21:00 Welcome Cocktail

THURSDAY, April 27, 2023

Great Auditorium

08:30–10:00 PLENARY SESSION I

Cell Therapies & Hematopoietic stem-cell transplantation

PARALLEL SESSIONS

Great Auditorium

10:30–12:00 Special Joint EFI-ESOT Session

The use of AI to Assist Decision Making in Transplantation

Room 300 (Lower Foyer)

10:30–12:00 Teaching Session 1

Innovation in Transplantation

Auditorium 450 (Upper Foyer)

10:30–12:00 Abstract Session 1: MHC Evolution, Population Genetics (O9-O16)

Room 200 (Upper Foyer)

10:30–12:00 Abstract Session 2: New Technologies & New Approaches in Immunogenetics (O17-O24)

Room 300 (Lower Foyer)

12:10–13:10 Industry Symposium: CareDx

13:20–14:20 Industry Symposium: Immucor

Room G (Upper Foyer)

12:00–14:30 EFI Executive Committee and Coordinators meeting

Room I (Upper Foyer)

13:30–14:30 ETHIQ Diploma meeting

Room J (Upper Foyer)

12:00–14:00 SHLARC Consortium meeting

Great Auditorium

14:30–16:00 Special Joint EFI-NAT Session

Control of The Immune System in Transplantation

Room 300 (Lower Foyer)

14:30–16:00 Teaching Session 2

Anthropology & Population Genetics: Immunogenetic diversity of the HLA system

Auditorium 450 (Upper Foyer)

14:30–16:00 Abstract Session 3: NK Cells & KIR (O25-O32)



Room 200 (Upper Foyer)

14:30–16:00 Abstract Session 4: Immunogenetics in Organ Transplantation (O33-O40)

Great Auditorium

16:30–18:00 PLENARY SESSION II

HLA Immunogenetics, Population genetics & Evolution

Mezzanine (Upper Foyer)

18:00–20:00 Poster Viewing Session

FRIDAY, April 28, 2023

Great Auditorium

08:30–10:00 PLENARY SESSION III

HLA in Solid Organ Transplantation

PARALLEL SESSIONS

Great Auditorium

10:30–12:00 Special Joint EFI-SIP Session

Society for Immune Polymorphism: Advances in Clinical Immunogenomics

Room 300 (Lower Foyer)

10:30–12:00 Teaching Session 3

KIR immunogenetics & HLA epitopes: Mapping approaches & prediction methods

Auditorium 450 (Upper Foyer)

10:30–12:00 Abstract Session 5: Bioinformatics, Data Analysis in Immunogenetics (O41-O48)

Room 200 (Upper Foyer)

10:30–12:00 Abstract Session 6: Immunotherapy, Gene Therapy, Cellular Therapy (O49-O56)

Room 300 (Lower Foyer)

12:10–13:10 Industry Symposium: GenDx

13:20–14:20 Industry Symposium: One Lambda Inc. a Thermo Fisher Scientific Brand

Room J (Upper Foyer)

12:00–14:00 SIP Board meeting

Room G (Upper Foyer)

13:30–14:30 EBTI GA

Room 150 (Lower Foyer)

14:30–15:30 Industry symposium: Omixon

Auditorium 450 (Upper Foyer)

14:30–16:00 Abstract Session 7: Hematopoietic Stem Cell Transplantation HSCT (O57-O64)

Room 200 (Upper Foyer)

14:30–16:00 Abstract Session 8: Autoimmunity, Infection, Reproduction & Cancer (O65-O72)

Room 300 (Lower Foyer)

14:30–16:00 Teaching Session 4

Bioinformatics for Research Application



Great Auditorium

14:30–16:00 Meet the Experts & Young EFI Group

Great Auditorium

16:30–18:00 PLENARY SESSION IV

AI & Big data transforming medical research

Great Auditorium

18:00–19:30 EFI GENERAL ASSEMBLY

Les Machines de l'île

21:00–23:00 Networking Event 1 / Conference Gala Dinner

Stereolux Club

23:00–02:00 Networking Event 2 / After party

SATURDAY, April 29, 2023

Great Auditorium

08:30–10:00 Best Abstract Session (O1–O9)

10:30–12:00 PLENARY SESSION V

Autoimmune diseases & Infections

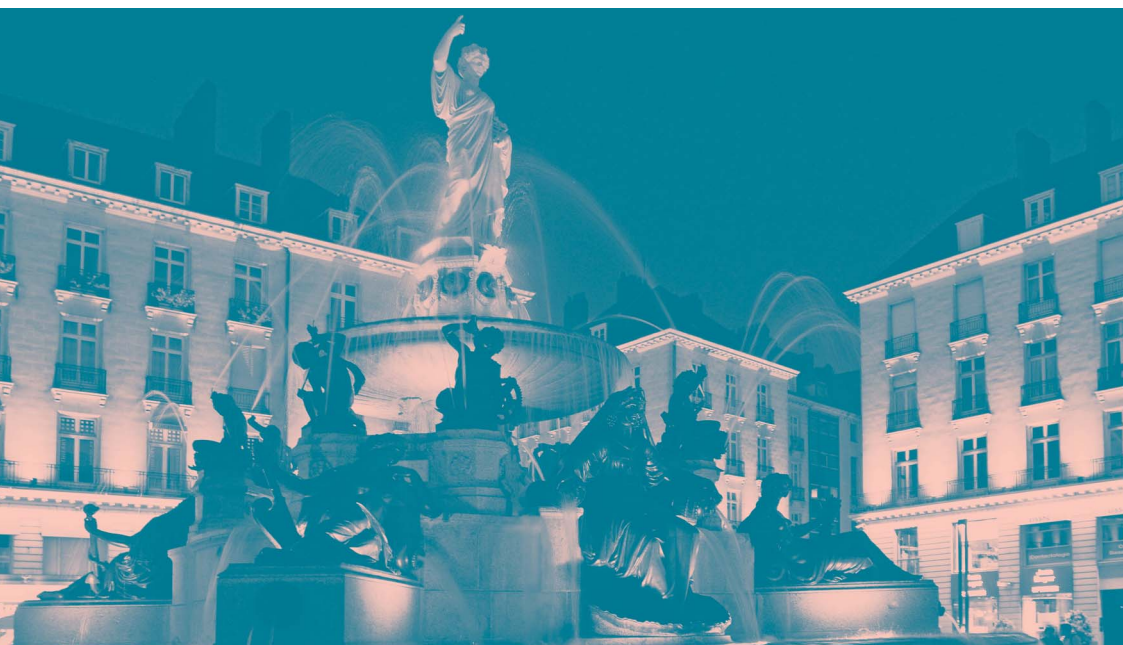
12:00–13:30 CLOSING CEREMONY

Closing Lecture

IHIWS

Best Abstract Awards

Best Poster Awards



DETAILED PROGRAM

ASSOCIATED MEETINGS

TUESDAY, April 25, 2023

Room 150 (Lower Foyer)

09:00–17:15 **Inspectors Workshop**

Chairperson *Blanka Vidan-Jeras*

Rooms E & F (Lower Foyer)

08:30–17:30 **ESHI Diploma Examination**

Chairperson *David Turner*

WEDNESDAY, April 26, 2023

Room D (Lower Foyer)

08:30–16:30 **Executive Committee meeting**

Chairperson *Ann-Margaret Little*

Room E (Lower Foyer)

08:30–16:30 **External Proficiency Testing Committee meeting**

Chairperson *Helle Bruunsgaard*

Room F (Lower Foyer)

09:00–12:00 **IT & Bioinformatics Committee meeting**

Chairperson *Eric Spierings*

Room H (Upper Foyer)

08:30–17:00 **Accreditation Committee meeting**

Chairperson *Blanka Vidan-Jeras*

Room M (Upper Foyer)

08:30–16:30 **Standards Committee meeting**

Chairperson *Katy Latham*

Room I (Upper Foyer)

13:30–17:00 **Education Committee meeting**

Chairperson *Deborah Sage*



Room KL (Upper Foyer)

12:15–13:45 **Open Meeting of the Population Genetics Working Group**

Chairperson *Alicia Sanchez-Mazas*

14:00–17:00 **Scientific Committee meeting**

Chairperson *Luca Vago*

Room G (Upper Foyer)

14:30–16:30 **Young EFI Working Group**

Chairpersons *Timo Olieslagers, Arianne Brandsma*

Journée scientifique de la Société Francophone d'Histocompatibilité et d'Immunogénétique (SFHI)

Auditorium 450 (Upper Foyer)

Chairperson *SFHI Associated EFI Meeting*

13:30–14:15 **Quantification of allelic expression of HLA genes: methods, regulation, and implication in allograft**

Jean Villard

14:15–15:00 **HLA and single-nucleotide polymorphisms: implication in diseases**

Nicolas Vince

15:15–16:00 **B-lymphocytes function in chronic graft versus host disease**

Jonathan Visentin

16:00–16:45 **Role of the transcriptional regulator BOB1 in immune tolerance and transplantation**

Nataliya Yeremenko



SCIENTIFIC PROGRAM

WEDNESDAY, April 26, 2023

Great Auditorium

OPENING CEREMONY

- 17:30–18:00** **Welcome Addresses**
Pierre-Antoine Gourraud, Ann-Margaret Little
- 18:00–18:20** **Julia Bodmer Award**
Luca Vago
- 18:20–18:30** **HLA Award**
Steven Marsh
- 18:30–19:00** **Ceppellini Lecture**
Ann-Margaret Little
- 19:00–19:20** **Music by Conservatoire De Nantes – Special Opening**

Great Auditorium Foyer

- 19:30–21:00** **Welcome Cocktail**

THURSDAY, April 27, 2023

Great Auditorium

PLENARY SESSION I

Cell Therapies & Hematopoietic stem-cell transplantation

- Chairpersons* *Katharina Fleischhauer, Alexandre Walencik*
- 08:30–09:00** **How cell therapy has been implemented in Europe, evolution from classical to new therapies**
Florent Malard
- 09:00–09:30** **The graft-versus-host disease (GVHD): Novel developments in GVHD therapy**
Robert Zeiser
- 09:30–10:00** **Advancing T cell therapies (CAR T-cell immunotherapies)**
Carole Guillonnet

PARALLEL SESSIONS

Great Auditorium

Special Joint EFI-ESOT Session

The use of AI to Assist Decision Making in Transplantation

- Chairpersons* *Gilles Blanche, Kay Poulton*
- 10:30–11:00** **The ESOT initiative to build pan-European registries in SOT: why? how? where are we standing?**
Gabriel Oniscu
- 11:00–11:30** **The use of genomic to assist decision-making in transplantation**
Sophie Limou
- 11:30–12:00** **Refining the diagnosis of rejection by artificial intelligence**
Jasper Callemeyn



Room 300 (Lower Foyer)

Teaching Session 1

Innovation in Transplantation

Chairpersons Martijn van den Hoogen, Begoña Aran, Paul-Olivier Rouzaire

10:30–11:00 **Telemedicine in renal transplantation: Innovations for 2023 and beyond**
Martijn van den Hoogen

11:00–11:30 **Generation Of Human Induced Pluripotent Stem Cells From Haplo-Selected Cord Blood Samples (HAPLO-iPS)**
Begoña Aran

11:30–12:00 **Temporal regulation of transgene expression controlled by amino acid availability in human T cells**
Paul-Olivier Rouzaire

Auditorium 450 (Upper Foyer)

10:30–12:00 **Abstract Session 1: MHC Evolution, Population Genetics (O9-O16)**

Chairpersons Alicia Sanches-Mazas, Emmanuelle Génin

Room 200 (Upper Foyer)

10:30–12:00 **Abstract Session 2: New Technologies & New Approaches in Immunogenetics (O17-O24)**

Chairpersons Florent Delbos, Silvia Gregori

Room 300 (Lower Foyer)

12:10–13:10 **Industry Symposium: CareDx**

13:20–14:20 **Industry Symposium: Immucor**

Room G (Upper Foyer)

12:00–14:30 **EFI Executive Committee and Coordinators meeting**

Chairperson Ann-Margaret Little

Room I (Upper Foyer)

13:30–14:30 **ETHIQ Diploma meeting**

Chairperson Deborah Sage

Room J (Upper Foyer)

12:00–14:00 **SHLARC Consortium meeting**

Chairpersons Nicolas Vince, Pierre-Antoine Gourraud



Great Auditorium

Special Joint EFI-NAT Session

Control of The Immune System in Transplantation

Chairpersons *Magali Giral, Jean Villard*

14:30–15:00 **Regulatory T cells, translation to the clinic**
Alberto Sanchez Fuego

15:00–15:30 **Regulatory B cells, where are we?**
Mübeccel Akdis

15:30–16:00 **Regulatory B cells: A focus in Transplantation**
Sophie Hillion

Room 300 (Lower Foyer)

Teaching Session 2

Anthropology & Population Genetics: Immunogenetic diversity of the HLA system

Chairpersons *Emmanuelle Génin, Erick Castelli*

14:30–15:15 **Genetic diversity in metropolitan France at the beginning of the 20th century: the POPGEN project**
Emmanuelle Génin

15:15–16:00 **HLA genetic diversity and the challenges for analyzing highly polymorphic and repetitive genes**
Erick Castelli

Auditorium 450 (Upper Foyer)

14:30–16:00 **Abstract Session 3: NK Cells & KIR (O25-O32)**

Chairpersons *Danillo Augusto, Christelle Retière*

Room 200 (Upper Foyer)

14:30–16:00 **Abstract Session 4: Immunogenetics in Organ Transplantation (O33-O40)**

Chairpersons *Anat Tambur, Carole Guillonnet*

Great Auditorium

PLENARY SESSION II

HLA Immunogenetics, Population genetics & Evolution

Chairpersons *Lotte Wieten, Pierre-Antoine Gourraud*

16:30–17:00 **HLA and individual response to infection and vaccination**
Julian Knight

17:00–17:30 **Gene, transcript and proteins to understand immune diseases**
Patrick Sulem

17:30–18:00 **Illuminating the dark corners of the immune system: novel approaches for characterizing haplotype diversity in the T cell receptor and immunoglobulin loci**
Corey T Watson



Mezzanine (Upper Foyer)

18:00–20:00 Poster Viewing Session

P1–P21	Autoimmunity, Infection, Reproduction & Cancer
P22–P43	Bioinformatics, Data Analysis in Immunogenetics
P44–P67	Hematopoietic Stem Cell Transplantation (HSCT)
P68–P82	Immunogenetics in Organ Transplantation
P83–P109	MHC Evolution, Population Genetics
P110–P117	NK cells & KIR
P118–P130	New Technologies & New Approaches in Immunogenetics

FRIDAY, April 28, 2023

Great Auditorium

PLENARY SESSION III

HLA in Solid Organ Transplantation

Chairpersons *Sebastian Heidt, Gwendaline Guidicelli*

08:30–09:00 From HLA to MICA

Seiamak Barham

09:00–09:30 HLA molecular matching to improve transplant outcomes

Anat Tambur

09:30–10:00 Guiding pre-transplant desensitization and post-transplant DSA treatment

Olga Timofeeva

PARALLEL SESSIONS

Great Auditorium

Special Joint EFI–SIP Session

Society for Immune Polymorphism: Advances in Clinical Immunogenomics

Chairpersons *Martin Maiers, Steven Mack*

10:30–11:00 From Precision Microbial Genomics to Precision Medicine

Ami Bhatt

11:00–11:30 KIRs, T cell dynamics, control of chronic virus infection and autoimmunity

Becca Asquith

11:30–12:00 Immunogenetics of Hematopoietic Cell Transplantation

Effie Petersdorf

Room 300 (Lower Foyer)

Teaching Session 3

KIR immunogenetics & HLA epitopes: Mapping approaches & prediction methods

Chairpersons *Christelle Retière, Eric Spierings*

10:30–11:15 KIR immunogenetics and NK cell diversity

Christelle Retière

11:15–12:00 HLA epitopes and matching from a big data perspective

Eric Spierings



Auditorium 450 (Upper Foyer)**10:30–12:00** **Abstract Session 5: Bioinformatics, Data Analysis in Immunogenetics (O41-O48)**Chairpersons *Neema Mayor, Raphael Carapito***Room 200** (Upper Foyer)**10:30–12:00** **Abstract Session 6: Immunotherapy, Gene Therapy, Cellular Therapy (O49-O56)**Chairpersons *Pietro Crivello, Katia Gagne***Room 300** (Lower Foyer)**12:10–13:10** **Industry Symposium: GenDx****13:20–14:20** **Industry Symposium: One Lambda Inc. A Thermo Fisher Scientific Brand****Room J** (Upper Foyer)**12:00–14:00** **SIP Board meeting**Chairpersons *Martin Maier, Steven Mack***Room G** (Upper Foyer)**13:30–14:30** **EBTI GA**Chairperson *David Turner***Room 150** (Lower Foyer)**14:30–15:30** **Industry symposium: Omixon****Auditorium 450** (Upper Foyer)**14:30–16:00** **Abstract Session 7: Hematopoietic Stem Cell Transplantation HSCT (O57-O64)**Chairpersons *Valérie Dubois, Stephane Buhler***Room 200** (Upper Foyer)**14:30–16:00** **Abstract Session 8: Autoimmunity, Infection, Reproduction & Cancer (O65-O72)**Chairpersons *Régis Josien, Jill Hollenbach***Room 300** (Lower Foyer)**Teaching Session 4****Bioinformatics for Research Application**Chairpersons *Yang Luo, Jean-Baptiste Woillard, Mathijs Groenewegen, Olivier Aubert***14:30–15:00** **Pinpointing HLA selection signal in admixed populations***Yang Luo***15:00–15:30** **Application of machine learning to prediction of immunosuppressant exposure, the example of Tacrolimus***Jean-Baptiste Woillard***15:30–16:00** **Biomarkers and population stratification in Transplantation***Olivier Aubert*

Great Auditorium

14:30–16:00 **Meet the Experts & Young EFI Group**

Dominique Charron, Steven Marsh, Katharina Fleischhauer, Ronald Bontrop

Chairpersons *Timo Olieslagers, Arianne Brandsma*

Great Auditorium

PLENARY SESSION IV

AI & Big data transforming medical research

Chairpersons *Sophie Limou, James Robinson*

16:30–17:00 **Fine-mapping complex loci for autoimmune diseases**

Soumya Raychaudhuri

17:00–17:30 **Using transcriptome data to stratify and predict treatment responses in lupus and other systemic autoimmune diseases**

Marta Alarcón-Riquelme

17:30–18:00 **Using tissue and cell type-specific gene regulatory networks to predict driver genes of common diseases**

Patrick Deelen

Great Auditorium

18:00–19:30 **EFI GENERAL ASSEMBLY**

Agenda:

- 1. Opening**
- 2. Minutes of the General Assembly May 19, 2022 Amsterdam**
(EFI Newsletter October 2022 Issue 98)
- 3. Report of the EFI President**
- 4. Report of the EFI Secretary**
- 5. Report of the EFI Treasurer**
- 6. Report of the EFI Committees**
 - a) Accreditation
 - b) Education
 - c) External Proficiency Testing
 - d) Scientific
 - e) Standards and Quality Assurance
 - f) IT & Bioinformatics Committee
- 7. Next EFI Conference – Jerusalem, Israel 2024**
- 8. EFI Medal**
- 9. Installation of new EC members**



Great Auditorium

08:30–10:00 Best Abstract Session (O1-O9)

Chairpersons Luca Vago, Ann-Margaret Little

PLENARY SESSION V

Autoimmune diseases & Infections

Chairpersons Nicolas Vince, John Trowsdale

10:30–11:00 Infectious cause & Immunology of MS

Marco Salvetti

11:00–11:30 Repertoire profiling of adaptive immune responses against the human malaria parasite *Plasmodium falciparum*

Hedda Wardemann

11:30–12:00 Understanding immune diversity in health and disease

Darragh Duffy

CLOSING CEREMONY

Chairpersons Pierre-Antoine Gourraud, Ann-Margaret Little

12:00–12:30 Towards systems immunology? A philosophical perspective on the challenges of integrating Big Data and modeling

Fridolin Gross

12:30–13:00 IHIWS +365 Report

Chairpersons Sebastiaan Heidt, Eric Spierings

Announcement about 19th IHIWS

Katsushi TOKUNAGA

13:00–13:15 Jon Van Rood Award & Best Abstract Awards

Committee Chair Steven Marsh

13:15–13:30 Best Poster Awards

Committee Chair Nicolas Vince

CLOSING REMARKS





Better Matching. Better Method.

THE NEXT GENERATION IN GENETIC MATCHING
WITH INNOVATIVE HYBRID-CAPTURE TECHNOLOGY

Margot D.,
Stem cell transplant recipient

Expandable Gene Content
without Affecting Lab Workflow

Easy Single Tube Workflow
with Early Indexing Step

No Long-range PCR =
No Amplification Inefficiencies

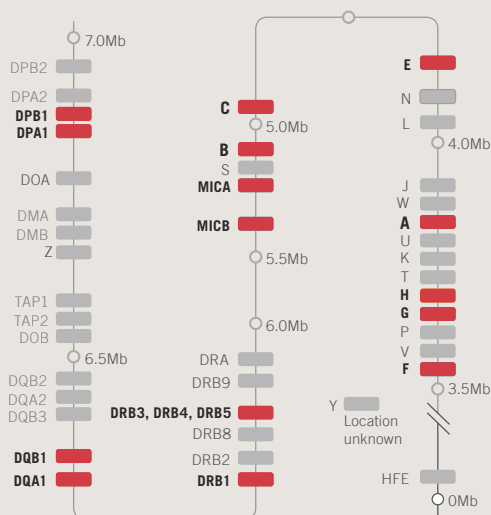
Fast Software Analysis
with Data Upload at 1 min/sample*

*as per internal testing

Availability

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

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

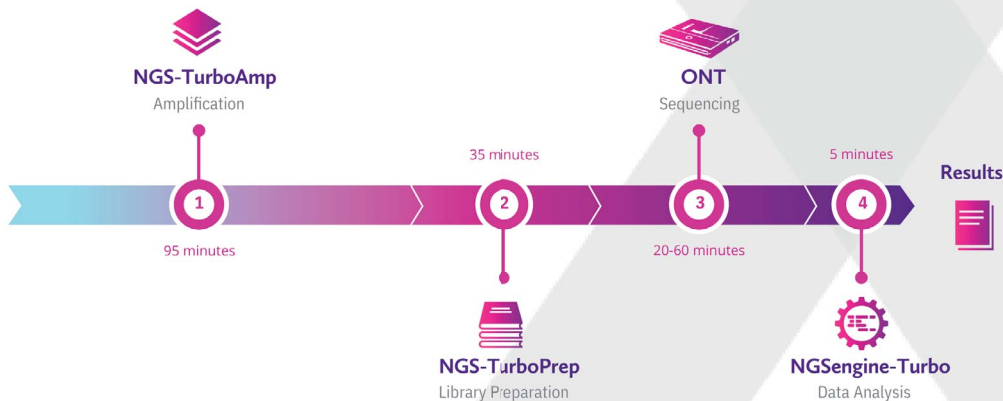


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How could more tools in your toolbox better aid you in your decision making process for critical transplant patients? When you have more information at your disposal, you can optimise your decision making process for better efficiency and delivery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



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HistoTrac™ Software

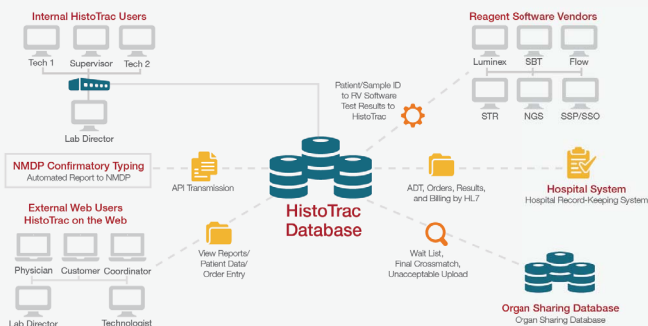
A comprehensive data management system for your HLA Laboratory

HistoTrac is a Laboratory Information Management System offered in modules to facilitate the building of a system that accommodates the testing services provided by your laboratory. The Core Package is the center of the software, providing for all the basic functions of the laboratory. Add modules, now or later, depending on your needs.

HistoTrac Software Configuration

HistoTrac software effectively manages HLA Laboratory workflow by:

- Sharing information with Reagent Vendor analysis software to complete test results.
- Sending automatic email transmission of NMDP donor confirmatory typings directly to the NMDP database.
- Managing the UNOS Wait List as well as updating unacceptable specificities via the UNET-specific API.
- Allowing remote access to patient data.



Information

- Patient/Donor Database
- Sample Registration
- Workflow Management
- Reporting



Innovation

- HistoTrac on the Web
- Paired Kidney Exchange
- DSA Analysis
- Virtual Crossmatch Assessment
- Eurotransplant Data Exchange



Integration

- HL7 Interfaces
 - ADT, Orders, Results, Billing
- Reagent Vendor Interfaces
 - Vendors for all methodologies are supported: Flow, Luminex, SSO, SSP, SBT, NGS, qPCR, STR
- HistoScope
- Organ Sharing Databases
- Bone Marrow Donor Databases



Services

- Data Conversion
- Custom Development and Reporting
- Training and Implementation Support

Visit us at EFI at booth #4

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LIST OF ORAL PRESENTATIONS

Abstract Session: MHC Evolution, Population Genetics (O9–O16)

Thursday, April 27, 10:30–12:00

Auditorium 450

O9/ID 5422

From global population genetic profiles to detailed individual molecular variation in humans and chimpanzees: a new turn in our understanding of MHC diversity and evolution

Alicia Sanchez-Mazas

O10/ID 3097

Creating fully representative MHC reference haplotypes

Nicholas R. Pollock

O11/ID 8033

MICA Copy Number Variations are the Result of Numerous Independent Non-Allelic Homologous Recombination Events

Anja Klussmeier

O12/ID 1551

Telomeres and ageing and their relation with HLA – results from the project “Immunogenetics of Ageing” within 18th IHIWS

Katarzyna Bogunia-Kubik

O13/ID 1600

Classical HLA alleles and long-range haplotypes are under rapid selection among admixed populations

Yang Luo

O14/ID 9773

Human Leukocyte Antigens (HLA) evolutionary divergence (HED) calculator

Bruno Lima

O15/ID 3186

A high-throughput approach to the MHC assembly challenge in disease association

Kristen J. Wade

O16/ID 6913

High Frequency of MICA Gene Deletion Haplotypes in Several Non-European Populations

Anja Klussmeier

New technologies & New Approaches in Immunogenetics (O17–O24)

Thursday, April 27, 10:30–12:00

Room 200

O17/ID 6210

The beneficial impact of HLA-E mismatching for patients receiving a less than 10/10 HLA matched hematopoietic cell transplant

Jonathan A.M. Lucas



O18/ID 4650

Clinical relevance of cell-free DNA quantification and qualification during the first month after lung transplantation

Pascal Pedini

O19/ID 685

Full-gene sequence characterization of HLA-DMA, -DMB, -DOA, and -DOB in a panel of International HLA and Immunogenetics Workshop cell lines

Matilda C. Tierney

O20/ID 5097

A randomized trial to assess the clinical utility of renal allograft monitoring by urine CXCL10 chemokine

Stefan Schaub

O21/ID 8439

Characterization of chimpanzee KIR haplotype organizations using Cas9 enrichment and Oxford Nanopore sequencing

Corrine Heijmans

O22/ID 757

TXMatching – a novel software for kidney paired donations

Matěj Röder

O23/ID 4379

HLA loss detection by NGS using STR markers within the MHC region on chromosome 6

Loes van de Pasch

O24/ID 4986

Assessment of a Universal Blood Donor Genotyping Platform

Colin Brown

Abstract Session: NK Cells & KIR (O25-O32)

Thursday, April 27, 14:30–16:00

Auditorium 450

O25/ID 3713

Chromosomal rearrangements in the KIR gene cluster as evolutionary strategy to protect against evading pathogens

Jesse Bruijnesteijn

O26/ID 7004

Variegated expression of KIR regulated by conserved and diverged promoter regions in humans and macaques

Marit van der Wiel

O27/ID 5716

Polymorphism of HLA and KIR affects severity of COVID-19 by shaping innate and adaptive immunity to SARS-CoV-2

Ticiana Dj Farias



O28/ID 9468

The role of natural killer cells in recurrent pregnancy loss: evaluation of natural killer cell education

Amber Lombardi

O29/ID 1207

KIR2DL2/C1: a potential predictive immunogenetic marker to COVID-19 severity in Spanish patients

Jairo Eduardo Niño Ramirez

O30/ID 9298

Nanopores may replace SMRT reads for dual redundant reference sequencing (DR2S): Characterization of more than 600 novel KIR alleles

Kathrin Putke

O31/ID 9873

Natural killer cell receptor variation is associated with more aggressive subtypes of breast cancer

Danillo Augusto

O32/ID 4161

HLA class I epitope and KIR diversities in multiple myeloma

Nicky Beelen

Abstract Session: Immunogenetics in Organ Transplantation (O33–O40)

Thursday, April 27, 14:30–16:00

Room 200

O33/ID 1424

Immunogenomic exploration in a large kidney transplantation genetic cohort reveals a kidney graft failure association with HLA-B*40:01 and KIRD2L2/HLA-C2 combination

Nicolas Vince

O34/ID 3470

In the era of precision medicine: lncRNAs as probable biomarkers to predict allograft rejection

Uma Kanga

O35/ID 1948

Gene expression profiles in 3-month biopsies associate with progression to kidney transplant rejection before detection of histological changes

Mathijs Groeneweg

O36/ID 2989

Precision medicine in liver transplant recipients: donor cell-free DNA as an early marker of post-transplant hepatic injury

Monica Sorbini

O37/ID 9184

Acute and chronic rejection monitoring of pediatric heart transplant recipients through a ddPCR assay based on HLA-DRB1 polymorphism

Monica Sorbini



O38/ID 6616

A genome-wide survival study identifies a novel association between donor genotype and antibody-mediated kidney graft rejection

Vincent Mauduit

O39/ID 4579

The number of donor HLA-derived T-cell epitopes available for indirect antigen presentation determines the risk for vascular rejection after kidney transplantation

Emma Peereboom

O40/ID 9981

Impact of HLA diversity on humoral response to SARS-CoV-2 and HBV vaccines in liver transplant recipients

Jean-Luc Taupin

Abstract Session: Bioinformatics, data analysis in Immunogenetics (O41–O48)

Friday, April 28, 10:30–12:00

Auditorium 450

O41/ID 848

Unexposed individuals are fully equipped at the genetic level in terms of peptide coverage and T-cell repertoire against SARS-CoV-2: analysis in a cohort of healthy donors and alloHSCT recipients

Stephane Buhler

O42/ID 1862

A new hla-mapper algorithm for alignment optimization of HLA sequences from RNA-seq

Erick Castelli

O43/ID 8886

HLA-3Diff: redefining donor-recipient HLA matching based on three dimensional structure prediction

Léo Boussamet

O44/ID 4733

Human Leucocyte Antigen variation is associated with Cytomegalovirus seropositivity

Juliano Boquett

O45/ID 4099

A large, improved and ancestry-diverse reference panel to impute HLA classical and non-classical class I alleles

Nayane S. B. Silva

O46/ID 8088

Possible Biological Mechanisms Underlying the Association between COVID-19 Severity and HLA- C*04:01

Frieda Jordan

O47/ID 9168

The expanded role of microRNAs in controlling the HLA class I phenotype: Relationship between the 3' UTR and post-transcriptional Gene Regulation

Panagiotis Mallis



O48/ID 3787

Analysis of “Big Data” reveals a new MHC Class I sequence, HLA-OLI, and the location of HLA-Y
Lindley Blair

Abstract Session: Immunotherapy, Gene Therapy, Cellular Therapy (O49–O56)

Friday, April 28, 10:30–12:00

Room 200

O49/ID 3892

Polymorphic KIR3DL3 expression modulates tissue-resident and innate-like T cells

Paul Norman

O50/ID 7750

Memory CD4+ T cells efficiently recognize divergent HLA-DP immunopeptidomes relevant in allogeneic hematopoietic cell transplantation

Kulvara Kittissares

O51/ID 2944

Discovery of the human cytomegalovirus-specific peptide repertoire naturally processed and presented by infected human antigen presenting cells

Maria Michela Santamarena

O52/ID 4032

Exploring the cryptic HLA-DP immunopeptidome for new targets of T cell immunotherapy in acute myeloid leukemia

Pietro Crivello

O53/ID 5389

Generation and Characterization of third party donor derived AdV, CMV and EBV multivirus specific T cells for therapeutic intervention in patients undergoing Hematopoietic Stem Cell Transplantation

Meenakshi Singh

O54/ID 8869

Optimal population coverage for cellular therapies

Yoram Louzoun

O55/ID 5677

The stimulation of memory B cells for the identification of unacceptable antigens in solid organ transplantation

Linh Truong

O56/ID 8779

New regulatory dimensions for transplantation, genetics and stem cell research in the French bioethics law. Consequences for European collaborations

Anne Cambon-Thomsen



Abstract Session: Hematopoietic Stem Cell Transplantation (O57–O64)

Friday, April 28, 14:30–16:00

Auditorium 450

O57/ID 6533

HLA-DP permissive mismatch subsets confer reduced aGvHD risks and improved disease control after hematopoietic cell transplantation for acute leukemia and myelodysplastic syndromes

Esteban Arrieta Bolaños

O58/ID 873

T cells can be activated by epitopes presented on HLA-C*04:09N

Carlotta Welters

O59/ID 8963

Longitudinal tracking of T-cell receptor repertoire reconstitution after allogeneic hematopoietic stem cell transplantation

Antonia Schäfer

O60/ID 3205

Associations between HLA Evolutionary Divergence and clinical outcome of matched related or unrelated stem cell transplantation: a study from the EBMT Cellular Therapy and Immunobiology Working Party

Pietro Crivello

O61/ID 736

The role of Recipient Specific Antibodies (RSA) in transplant outcome. Analysis of a group of family donors selected for patients undergoing haploidentical transplantation

Annamaria Pasi

O62/ID 9591

HLA evolutionary divergence (HED) influences the outcome of haploidentical hematopoietic stem cell transplantation in adult patients with hematological malignancies

Debora Jorge Cordeiro

O63/ID 798

Combined imputation of HLA genotype and race leads to better donor-recipient matching

Yoram Louzoun

O64/ID 5359

Genetic variation in HLA genes: impact on transplant compatibility in a Brazilian admixed population

Heloísa S Andrade

Abstract Session: Autoimmunity, Infection, Reproduction & Cancer (O64–O72)

Friday, April 28, 14:30–16:00

Room 200

O65/ID 7848

A Protective HLA Extended Haplotype Outweighs the Major COVID-19 Risk Factor Inherited from Neanderthals in the Sardinian Population

Stefano Mocci



O66/ID 1174

HLA-A*03:01 significantly predicts strong humoral response at six months after mRNA vaccination: results from the observational prospective cohort study RENAISSANCE

Roberto Crotchiolo

O67/ID 7087

NEGR1 genetic variants and risk for virological failure in the HIV-positive Botswanan population

Martin Morin

O68/ID 2751

Copy number variation of the C4L gene isoform is associated with risk for multiple sclerosis

Jacqueline Williams

O69/ID 8515

HLA-E expression in HPV infected Cervical Carcinoma

Ritu Aggarwal

O70/ID 5590

HLA binding-groove motifs are associated with myocarditis induction after Pfizer-BioNTech BNT162b2 vaccination

Gil Benedek

O71/ID 7952

HLA-Bw4 is Associated with Pediatric Acute-Onset Neuropsychiatric Syndrome (PANS)

Kerry Kizer

O72/ID 7171

Fight against COVID-19: functional and structural study of the T cell response

Stephanie Gras

Best Abstract Session (O1–O9)

Saturday, April 29, 08:30–10:00

Great Auditorium

O1/ID 4927

Forward or reversed binding of peptides within the HLA-DP peptidome is mainly determined by the HLA-DPB1 allele but with a key role for the HLA-DPA1 chain

Michel Kester

O2/ID 941

Single cell transcriptomics to identify leukemia-intrinsic and -extrinsic bone marrow correlates of immune escape and post-transplantation relapse

Marco Punta

O3/ID 6126

Highly specific Latent Membrane Protein 2A-targeting T-Cell Receptor-engineered T cells with inducible Interleukin-18 expression as promising tool to treat Epstein-Barr

Virus-associated malignancies

Philip Mausberg



O4/ID 7583

Proteome analysis of drug susceptible HLA-B*57:01+ cells reveals the pivotal mechanisms of HLA-mediated Carbamazepine hypersensitivity

Funmilola Josephine Haukamp

O5/ID 2276

The evolution of MHC class I loss in a newly emerged transmissible cancer in Tasmanian devils

Kathryn Hussey

O6/ID 1570

Bw4 ligand and direct T-cell receptor binding induced selection on HLA-A and -B alleles

Yoram Louzoun

O7/ID 6775

The 18th International HLA and Immunogenetics Workshop (IHIWS) HLA immunogenic epitope project

Cynthia Kramer

O8/ID 9702

Spatial composition of decidual immune cells in oocyte donation pregnancies in relation to fetal-maternal HLA incompatibility

Xuezi Tian



LIST OF POSTERS

Autoimmunity, Infection, Reproduction & Cancer

P1/ID 2158

T cell receptor beta gene diversity identified by Next Generation Sequencing in Chronic Myeloid Leukemia patients

Gurvinder Kaur¹, Ayushi Jain¹, Kamaljeet Singh¹, Rahul Ahuja¹, Lingaraja Jena¹, Indresh K Singh¹, Pramod K Verma¹, Sangita Vashishtha¹, Vikas Bisht¹, Deepshi Thakral¹, Ranjit K Sahoo², Atul Sharma², Lalit Kumar² and Ritu Gupta¹

¹Laboratory Oncology, Dr BRAIRCH, All India Institute of Medical Sciences, New Delhi, India, ²Medical Oncology, Dr BRAIRCH, All India Institute of Medical Sciences, New Delhi, India

P2/ID 3723

HLA class I immune editing in JAK2 V617F and CALR exon 9 mutation driven myeloproliferative malignancies

Milena Ivanova¹, Gergana Tsvetkova², Iliana Micheva³, Spaska Lessichkova¹, Zaslina Petrova⁴, Anela Ivanova⁴, Galja Madjarova⁴, Evgeniy Hadjiev² and Velizar Shivarov⁵

¹Department of Clinical Immunology, University Hospital Alexandrovska, Medical University, Sofia, Bulgaria, ²Department of Clinical Hematology, University Hospital Alexandrovska, Medical University, Sofia, Bulgaria, ³Clinic of Hematology, University Hospital Sveta Marina, Medical University, Varna, Bulgaria, ⁴Department of Physical Chemistry, Faculty of Chemistry and Pharmacy, Sofia University "St. Kl. Ohridski", ⁵Department of Experimental Research, Medical University Pleven, Bulgaria

P3/ID 4664

Humoral response against SARS-CoV-2 and other endemic corona viruses

Karla Rottmayer¹, Ramona Landgraf¹, Nicole Lakowa², Thomas Grünewald², Ilias Doxiadis¹ and Claudia Lehmann¹

¹University Hospital Leipzig, Transfusion Medicine, Transplantation Immunology, Germany, ²Klinikum Chemnitz gGmbH, Infection and Tropical Medicine, Germany

P4/ID 7272

Diverse data in multiple sclerosis improves machine learning performance to predict the short-term evolution of disability: lessons from the EPIC cohort

Antoine Lizée¹, Stanislas Demuth², Adam Santaniello¹, Bruce Cree¹, Jorge Oksenberg¹, Stephen Hauser¹, Sergio Baranzini¹, Riley Bove¹ and Pierre-Antoine Gourraud²

¹Department of Neurology, UCSF Weill Institute for Neurosciences, San Francisco, CA, United States, ²Nantes Université, CHU Nantes, INSERM, Center for Research in Transplantation and Translational Immunology, UMR 1064, F-44000 Nantes, France

P5/ID 725

PRIMUS-Alpha: a clinical decision support system prototype for precision medicine in multiple sclerosis contextualizing patients' evolutions in multi-source reference data

Stanislas Demuth¹, Chadia Ed-Driouch¹, Olivia Rousseau¹, Romain Casey², Alexandra Auffret³, Marianne Payet⁴, Jérôme De Sèze⁵, David Laplaud¹, Gilles Edan⁶, Pierre-Antoine Gourraud¹ and Primus Consortium⁷

¹Nantes Université, CHU Nantes, INSERM, Center for Research in Transplantation and Translational Immunology, UMR 1064, F-44000 Nantes, France, ²French Multiple Sclerosis Observatory, Lyon university hospital, Lyon, France, ³Biogen France S.A.S., Paris, France, ⁴Neurology, Merck Santé S.A.S., Lyon, France, ⁵Department of neurology, Strasbourg university hospital, Strasbourg, France, ⁶Department of neurology, Rennes university hospital, Rennes, France, ⁷PRIMUS consortium



P6/ID 3182

HNA antibody association to HLA alleles and autoimmune neutropenia

Kirstine Kløve-Mogensen¹, Rudi Steffensen¹, Tania Nicole Masmus², Andreas Glenthøj², Thure Mors Haunstrup¹, Paul Ratcliffe³, Petter Höglund³, Henrik Hasle⁴ and Kaspar René Nielsen¹
¹Aalborg University Hospital, Denmark, ²Copenhagen University Hospital, Denmark, ³Karolinska Institute, Sweden, ⁴Aarhus University Hospital, Denmark

P7/ID 2013

Association between T regulatory cell genes and autoimmune neutropenia

Kirstine Kløve-Mogensen¹, Rudi Steffensen¹, Tania Nicole Masmus², Andreas Glenthøj², Thure Mors Haunstrup¹, Paul Ratcliffe³, Petter Höglund³, Henrik Hasle⁴ and Kaspar René Nielsen¹
¹Aalborg University Hospital, Denmark, ²Copenhagen University Hospital, Denmark, ³Karolinska Institute, Sweden, ⁴Aarhus University Hospital, Denmark

P8/ID 1143

Impact of HLA class U and class II on malignancies driven by BRCA1 mutation

Milena Ivanova¹, Anastasia Ormandjieva¹, Romyana Dodova², Radka Kaneva² and Velizar Shivarov³
¹Department of Clinical Immunology, University Hospital Alexandrovska, Medical University Sofia, Bulgaria, ²Molecular Medicine Center, Medical University Sofia, Bulgaria ³Department of Experimental Research, Medical University Pleven, Bulgaria

P9/ID 923

HLA allele association studies with the kinetics of SARS-CoV-2 spike protein-specific IgG antibody responses to BNT162b2 mRNA vaccine

Seik-Soon Khor¹, Yosuke Omae¹, Junko S. Takeuchi², Ami Fukunaga³, Shohei Yamamoto³, Akihito Tanaka⁴, Kouki Matsuda⁵, Moto Kimura², Kenji Maeda⁵, Gohzoh Ueda⁶, Tetsuya Mizoue³, Mugen Ujiie⁷, Hiroaki Mitsuya⁵, Norio Ohmagari⁷, Wataru Sugiura⁸ and Katsushi Tokunaga¹
¹Genome Medical Science Project, National Center for Global Health and Medicine, Tokyo, Japan, ²Department of Academic-Industrial Partnerships Promotion, Centre for Clinical Sciences, National Center for Global Health and Medicine, Tokyo, Japan ³Department of Epidemiology and Prevention, Centre for Clinical Sciences, National Center for Global Health and Medicine, Tokyo, Japan, ⁴Department of Laboratory Testing, Center Hospital of the National Center for the Global Health and Medicine, Tokyo, Japan, ⁵Department of Refractory Viral Infection, National Center for Global Health and Medicine, Tokyo, Japan, ⁶Division of Core Diagnostics, Abbott Japan LLC, Tokyo, Japan, ⁷Disease Control and Prevention Center, National Center for Global Health and Medicine, Tokyo, Japan, ⁸Center for Clinical Sciences, National Center for Global Health and Medicine, Tokyo, Japan

P10/ID 2921

Single Nucleotide Variation, associated Human Leukocyte Antigen and Cytokines as possible biomarkers in the diagnosis of Psoriasis patients in Tshwane, South Africa

Mkhize Nomzamo¹, Kgokolo Mahlatse¹, Steel Helen², Meyer Pieter^{2,3}, Kwofie Luyanda^{2,3}
¹Department of Dermatology, School of Medicine, Faculty of Health Sciences, University of Pretoria and Steve Biko Academic Hospital, Pretoria, South Africa, ²Department of Immunology, School of Medicine, Faculty of Health Sciences, University of Pretoria, Pretoria, South Africa, ³Tshwane Academic Division of the National Health Laboratory Service, Pretoria, South Africa

P11/ID 5558

Exploring genetic predisposition towards manifestation of Oral Submucous Fibrosis among tobacco consuming North Indians

Uma Kanga¹, Bharathi Purohit², Harsh Priya², Ritu Duggal³ and Shalini Gupta⁴
¹Dept of Transplant Immunology and Immunogenetics, All India Institute of Medical Sciences, New Delhi New Delhi, India, ²Division of Public Health Dentistry, CDER, AIIMS, New Delhi, India, ³Division of Orthodontics CDER AIIMS New Delhi, India, ⁴Division of Oral Medicine & Radiology CDER AIIMS New Delhi, India



P12/ID 4433**Analysis of Human Leukocyte Antigen HLA surface expression and the tumor microenvironment in Hodgkin lymphoma as a potential tumor immune escape mechanism in Egyptian patients**Mariam Ayoub¹¹German University in Cairo, Egypt**P13/ID 1325****HLA alleles and SNPs association study with HBV-related liver cirrhosis and hepatocellular carcinoma in a Greek population**Evangelia Myserli¹, Georgia Gioula¹, Grigorios Myserlis², Alikì Xochelli³, Anna Boukla³, Evangelia Sidira³, Ioannis Goulis⁴ and Asimina Fylaktou³¹Microbiology Department, Medical School, Aristotle University of Thessaloniki, Thessaloniki, Greece, ²Division of Transplantation, Department of Surgery, Aristotle University Medical School, Hippokration General Hospital of Thessaloniki, Thessaloniki, Greece, ³National Peripheral Histocompatibility Center, Immunology department, Hippokration General Hospital of Thessaloniki, Thessaloniki, Greece, ⁴Department of Internal Medicine, Medical school of Aristotle University, Hippokration General Hospital of Thessaloniki, Thessaloniki, Greece**P14/ID 9548****HLA variants associated with sarcoidosis and their tag single nucleotide polymorphisms in Czechs**Kateřina Sikorová¹, Martina Doubková², Adam Strnad¹, Lenka Kocourková¹, Jana Petřková¹, Kazutoyo Osoegawa³, Marcelo A. Fernández-Viña⁴ and Martin Petrek^{5,6}¹Department of Pathological Physiology, Faculty of Medicine and Dentistry, Palacky University, Olomouc, Czech Republic, ²Department of Pulmonary Diseases & Tuberculosis, University Hospital Brno, and Faculty of Medicine Masaryk University, Brno, Czech Republic, ³Histocompatibility & Immunogenetics Laboratory, Stanford Blood Center, Palo Alto, USA ⁴Histocompatibility, Immunogenetics, and Disease Profiling Laboratory, Stanford Blood Center and Department of Pathology, Stanford Blood Center, Palo Alto, USA, ⁵University Hospital Olomouc, Cardiogenomics LEM, Olomouc, Czech Republic, ⁶Department of Pathological Physiology and Institute of Molecular & Translational Medicine, Faculty of Medicine and Dentistry, Olomouc, Czech Republic**P15/ID 3395****Immunogenetics and SARS-CoV-2 infection**Claudia Lehmann¹, Henry Loeffler-Wirth², Vera Balz³, Juergen Enczmann³, Ramona Landgraf¹, Nicole Lakowa⁴, Thomas Grünwald⁴, Johannes Fischer³ and Ilias Doxiadis¹¹University Hospital Leipzig, Transfusion Medicine, Transplantation Immunology, Leipzig, Germany ²IZBI, Interdisciplinary Centre for Bioinformatics, Leipzig University, Leipzig, Germany ³University Hospital Duesseldorf, ITZ, HLA Laboratory, Duesseldorf, Germany ⁴Klinikum Chemnitz gGmbH, Infection and tropical medicine, Chemnitz, Germany**P16/ID 5914****Role of HLA polymorphism in COVID-19 progression in the Bulgarian population**Tsvetelin Lukanov¹, Bushra Al Hadra², Snezhina Kandilarova¹, Zulieta Hristova³, Yulia Proevska⁴, Evelina Shikova⁴, Spaska Lesichkova¹, Nedelcho Ivanov², Atanaska Georgieva², Daniela Lalova², Tsvetan Popov⁵, Dobrin Svinarov⁶, Anastasiya Mihaylova² and Elisaveta Naumova³¹Department of Clinical Immunology, Medical University Sofia, Sofia, Bulgaria, ²Clinic of Clinical Immunology and Stem Cell Bank, University Hospital Alexandrovska, Sofia, Bulgaria, ³Department of Clinical Laboratory, Medical University Sofia, Sofia, Bulgaria, ⁴Department of Microbiology, University Hospital Alexandrovska, Sofia, Bulgaria ⁵General Surgery, University Hospital Alexandrovska, Sofia, Bulgaria ⁶Clinical Pharmacology, University Hospital Alexandrovska, Sofia, Bulgaria**P17/ID 1675****Association of TLR10 single nucleotide polymorphisms with hidradenitis suppurativa in a Caucasian Spanish population cohort**Adriel Roa-Bautista¹, J. Gonzalo Ocejó-Vinyals¹, Elena González-López¹, Juan Irure-Ventura¹, Miguel Angel González-Gay², Ricardo Blanco² and Marcos Antonio González-López³¹Division of Immunology, Hospital Universitario Marqués de Valdecilla, Santander, University of Cantabria, IDIVAL, Cantabria, Spain, ²Division of Rheumatology, Hospital Universitario Marqués de Valdecilla, University of Cantabria, IDIVAL, Santander, Cantabria, Spain, ³Division of Dermatology, Hospital Universitario Marqués de Valdecilla, University of Cantabria, IDIVAL, Santander, Cantabria, Spain

P18/ID 7606

Haplotype frequencies and linkage disequilibrium between HLA*DRB1 and SNP -197 of IL-17 in Russian patients with rheumatoid arthritis living in Chelyabinsk region

Daria Stashkevich¹, Daria Shmelkova¹, Elena Khromova¹, Inessa Devald¹, Tatiana Suslova² and Alexandra Burmistrova¹

¹Chelyabinsk State University, Russia, ²Chelyabinsk State University, Chelyabinsk Blood Transfusion Station, Russia

P19/ID 5887

Distribution of HLA-B alleles among Human Immunodeficiency Virus-1 Infected Turkish Adults

Servet Uluer Biceroglu¹, Husnu Pullukcu², Semiha Ozgul³, Gulsen Mermut², Ayhan Donmez¹ and Deniz Gokengin²

¹Ege University Faculty of Medicine Tissue Typing Laboratory, Izmir, Turkey, ²Ege University Faculty of Medicine Department of Infectious Diseases and Clinical Microbiology, Izmir, Turkey, ³Ege University Faculty of Medicine Department of Biostatistics and Medical Informatics, Izmir, Turkey

P20/ID 3321

TNFRSF11B gene polymorphism in Russian patients with rheumatoid arthritis living in Chelyabinsk region

Julia Chumacheva¹, Daria Stashkevich¹, Tatiana Suslova¹ and Alexandra Burmistrova¹

¹Chelyabinsk State University, Chelyabinsk, Russia

P21/ID 3705

The Frequency of HLA-A, -B, -C, -DRB1 and -DQB1 alleles in Patients with Acute Lymphoblastic Leukemia and Acute Myeloid Leukemia

Bilkay Basturk^{1,2}, Miray Kavuzlu² and Mutlu Kasar³

¹Baskent University Faculty of Medicine, Department of Immunology, Adana, Turkey, ²Baskent University Dr Turgut Noyan Research and Medical Center Immunology and Tissue typing Lab, HLA Lab, Adana, Turkey, ³Baskent University Faculty of Medicine Department of Internal Medicine/Hematology Adana, Turkey

Bioinformatics, data analysis in Immunogenetics

P22/ID 1335

HLA-A*03:01 is associated with systemic side effects in COVID-19 vaccination

Anshika Srivastava¹, Tasneem Yusufali¹, Noah D. Peyser², Gregory M. Marcus², Jeffrey E. Olgin², Mark J. Pletcher³, Martin Maiers⁴ and Jill A. Hollenbach¹

¹Department of Neurology, University of California, San Francisco, CA, USA, ²Department of Medicine, University of California, San Francisco, CA, USA, ³Department of Epidemiology and Biostatistics, University of California, San Francisco, CA, USA,

⁴National Marrow Donor Program, Minneapolis, MN, USA

P23/ID 5340

Attention Based Immune Repertoire Classification

Ofek Akerman¹, Reut Levi¹ and Yoram Louzoun¹

¹Department of Mathematics, Bar Ilan University, Ramat Gan, Israel



P24/ID 3609

Statistical inference of immunogenetic parameters reveals an HLA allele associated with pediatric proteinuria

Axelle Durand¹, Cheryl A. Winkler², Nicolas Vince¹, Derek K NG³, Elizabeth Binns-Roemer², Pierre-Antoine Gourraud¹, Bradley Warady⁴, Kimberley Reidy⁵, Susan Furth⁶, Jeffrey B. Kopp⁷, Frederick J. Kaskel⁵ and Sophie Limou¹

¹Nantes Université, CHU Nantes, Ecole Centrale de Nantes, INSERM, CR2TI, Nantes, France, ²Basic Research Laboratory, Center for Cancer Research, NCI, Frederick National Laboratory, Frederick, MD, USA ³Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA, ⁴Children's Mercy Kansas City, Kansas City, MO, USA, ⁵Children's Hospital at Montefiore, Albert Einstein College of Medicine, Bronx, NY, USA ⁶NIDDK, NIH, Bethesda MD, USA, ⁷Children's Hospital of Pennsylvania, Philadelphia, PA, USA ⁸Kidney Disease Section NIDDK, NIH, Bethesda, MD, USA.

P25/ID 4818

SHLARC imputation server: HLA imputation from SNPs made easy with a new website and a large reference panel

Sonia Bourguiba-Hachemi¹, Nayane S. B. Silva¹, Venceslas Douillard¹, Pierre-Antoine Gourraud¹, Sophie Limou¹ and Nicolas Vince¹

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

P26/ID 3657

Nanopore sequencing data analysis using a cloud computing service

Linh Truong^{1,2}, Felipe Ayora³, Lloyd D'Orsogna^{1,2}, Patricia Martinez^{1,2} and Dianne De Santis^{1,2}

¹UWA Medical School, UWA, Perth, Australia, ²Clinical Immunology, PathWest, Fiona Stanley Hospital, Perth, Australia, ³BizData, Wellington, New Zealand

P27/ID 348

GRMA – Graph based HLA-matching with mismatches

Amit Kabbya¹, Sapir Israeli¹, Martin Maiers² and Yoram Louzoun¹

¹Department of Mathematics, Bar Ilan University, Ramat Gan, Israel, ²National Marrow Donor Program, Minneapolis, MN, USA

P28/ID 8982

Kidney transplantation follow-up: personalized patient contextualization with a nearest neighbor approach

Olivia Rousseau¹, Estelle Geffard¹, Axelle Durand¹, Magali Giral², Alexandre Loupy³, Sophie Brouard¹, Carmen Lefaucheur⁴, Emmanuel Morelon⁵, Lionel Couzi⁶, Nassim Kamar⁷, Moglie Le Quintrec⁸, Nicolas Vince¹, Sophie Limou¹, Pierre-Antoine Gourraud¹, RHU KTD-Innov Consortium⁹ and DIVAT Consortium¹⁰

¹Nantes Université, INSERM, Ecole Centrale Nantes, CHU Nantes, CR2TI, UMR 1064, Nantes, France, ²CHU de Nantes, Nantes, France, ³Paris Translational Research Center for Organ Transplantation, Paris, France, ⁴Assistance Publique-Hôpitaux de Paris, Paris, France, ⁵Université de Lyon Service de néphrologie, Lyon, France, ⁶CHU de Bordeaux, Bordeaux, France, ⁷CHU de Toulouse, Toulouse, France, ⁸CHU de Montpellier, Montpellier, France, ⁹RHU KTD-Innov consortium, ¹⁰DIVAT Consortium

P29/ID 6803

HLA-net interactive interface: making big data small and accessible

Enrique Alanis¹, David Roessli¹, Jose Manuel Nunes¹ and Da Di¹

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



P30/ID 3195

A large French genetic cohort to identify predictive molecular factors of chronic lung allograft dysfunction

Simon Brocard¹, Martin Morin¹, Axelle Durand¹, Pierre-Antoine Gourraud¹, Mario Sudholt^{2,3}, Adrien Tissot¹ and Sophie Limou¹

¹Nantes Université, CHU Nantes, Centrale Nantes, Inserm, CR2TI, UMR 1064, ITUN, Nantes, France, ²IMT Atlantique – DAPI – Département Automatique, Productique et Informatique, Nantes, France, ³LS2N – STACK – Software Stack for Massively Geo-Distributed Infrastructures, Nantes, France

P31/ID 5347

Protection of HLA-A and HLA-B epitopes in the context of platelet transfusions in haplo-identical hematopoietic stem cell allograft candidates

Gatien Durand¹, Corinne Lorriaux², Géraldine Poumaredes³, Judith Desoutter¹ and Nicolas Guillaume¹

¹Laboratory of Histocompatibility – Amiens University Medical Center, Amiens, France, ²Hemovigilance Department – Amiens, France, ³Etablissement Français du Sang (EFS) – Amiens, France

P32/ID 129

Defining and confirming novel HLA serological specificities from combinational analyses of single antigen bead and cell-based flow crossmatch assays

Kazutoyo Osoegawa¹, Lin Wang¹, Keteven Gendzekhadze², Cathi Murphey³ and Marcelo A. Fernández Viña⁴

¹Histocompatibility and Immunogenetics Laboratory, Stanford Blood Center, Palo Alto CA, USA, ²HLA Laboratory City of Hope, ³Histocompatibility and Immunogenetics Laboratory at Southwest Immunodiagnostics, Inc San Antonio, TX, USA, ⁴Department of Pathology, Stanford University School of Medicine, Palo Alto CA, USA

P33/ID 800

Significantly different HLA genotypes associations with multiple sclerosis suggest different pathophysiological underlying mechanisms

Anna Serova-Erard¹, Sonia Bourguiba-Hachemi¹, Pierre-Antoine Gourraud¹, Nicolas Vince¹ and François Cornelis¹

¹Nantes Université, CHU Nantes, Inserm, CR2TI, UMR 1064, Nantes, France

P34/ID 9693

Data sharing, research evaluation and Open Science

Mogens Thomsen¹, Florencia Grattarola², Hanna Shmagun³, Chris Erdmann⁴, Laurence Mabile⁵ and Anne Cambon-Thomsen⁶

¹CERPOP, INSERM and Université de Toulouse III Paul Sabatier, Toulouse, France, ²Biodiversidata, Uruguay, ³Korea Institute of Science and Technology Information, Korea, ⁴Michael J. Fox Foundation, New York, USA, ⁵INSERM and Université de Toulouse III Paul Sabatier, Toulouse, France, ⁶CNRS and Université de Toulouse III Paul Sabatier, Toulouse, France

P35/ID 7926

A retrospective study; Effect of sensitization events on anti-HLA antibody development

Rasime Derya Güleç¹ and Fatma Demet Arslan²

¹Tepecik Training and Research Hospital Tissue Typing Laboratory, Izmir, Turkey, ²Faculty of Medicine, Bakırçay University, Department of Medical Biochemistry, Izmir, Turkey

P36/ID 9410

A research tool to interrogate combined single antigen bead (SAB) files with donor and recipient HLA typing information to identify HLA mismatches and MFI levels of donor specific antibodies over time. Introducing the mismatch data aggregator (MDA) program

Rebecca Cope¹, Rhea McArdle², Afzal Chaudhry¹ and Sarah Peacock¹

¹Cambridge University Hospital NHS Foundation Trust, UK, ²University Hospitals Leicester, Leicester, UK



P37/ID 7674

Reshaping individuals' rights in Big Data research: the contribution of data altruism

Emmanuelle Rial-Sebbag¹, Noémie Dubruel², Lisa Fériol¹ and Gauthier Chassang¹

¹CERPOP, INSERM and Université de Toulouse III Paul Sabatier, Toulouse, France, ²INSERM and Université Toulouse Capitole, Toulouse, France

P38/ID 9159

A comprehensive statistical analysis to assess MFI values in HLA antibody screening by two commercial platforms

Giovanni Rombolà¹, Antonina Piazza², Maria Chiara De Stefano², Dario Ciappi¹, Sara Iozzi¹ and Elisabetta Pelo¹

¹Immunogenetica, SOD Diagnostica Genetica, AOU Careggi, Florence, Italy, ²Commissione Controlli Qualità, Centro Nazionale Trapianti, Rome, Italy

P39/ID 1744

Work smarter not harder! A clinical tool to combine single antigen bead (SAB) files for patients allowing for data to be easily viewed and analyzed in the clinical laboratory. Introducing the SAB Combiner (SC) program

Rebecca Cope¹, Rhea McArdle¹, Afzal Chaudhry¹ and Sarah Peacock¹

¹Cambridge University Hospital NHS Foundation Trust, Cambridge, UK

P40/ID 8919

Advyser solid organs software for accurate post transplantation monitoring

Julia Paschke¹ and Hamid Ramezanalli¹

¹Devys AB, Stockholm, Sweden

P41/ID 1061

HLA-A~B~DRB1-DQB1 homozygosity among the Brazilian Bone Marrow Registry living in Rio de Janeiro State, Brazil

Danielle Secco¹, Tais Kasai-Brunswick^{2,3,4}, Jeane de Souza¹, Juliana Pessanha¹, Danielli Cristina Oliveira⁵, Leandro Guimarães⁵, Marcio Lassance⁴, Antônio Carlos Campos de Carvalho^{2,3,4} and Luis Cristovao Porto¹

¹Laboratório de Histocompatibilidade e Criopreservação, Universidade Estadual do Rio de Janeiro- UERJ, Rio de Janeiro, Brasil,

²Centro Nacional de Biologia Estrutural e Bioimagem – CENABIO, Universidade Federal do Rio de Janeiro – UFRJ, Rio de Janeiro, Brasil, ³Instituto de Biofísica Carlos Chagas Filho – IBCCF, Universidade Federal do Rio de Janeiro – UFRJ, Rio de Janeiro, Brasil,

⁴Instituto Nacional de Cardiologia – INC, Rio de Janeiro, Brasil, ⁵Registro Brasileiro de Doadores de Medula Óssea – REDOME, Instituto Nacional do Câncer -INCA, Rio de Janeiro, Brasil

P42/1467

Comparison of Kit Use and Performance in UK NEQAS for H&I Scheme 3 – HLA Antibody Specificity Analysis

Amy De'Ath¹, Geraint Clarke¹, Deborah Pritchard¹ and Tracey Rees²

¹UK National External Quality Assessment Service for Histocompatibility and Immunogenetics, UK, ²Welsh Blood Service, UK

P43/3737

An HLA-DRB1*03:105 allele in a patient awaiting a kidney donor in Colombia

Juan Yunis¹, Mayorie Dakkak¹, Adriana Chamorro¹, Natalia Arias¹, Jhon Rodriguez¹ and Alexandra Cortez¹

¹Servicios Médicos Yunis Turbay y Cia SAS-Instituto de Genética, Bogotá, D.C. Colombia



P44/ID 412

NK cell licensing effect is independent of missing KIR ligand effect in T cell-replate unrelated hematopoietic stem cell transplantation for malignant diseases

Jacek Nowak¹, Agnieszka Witkowska¹, Marta Rogatko-Koroś¹, Agnieszka Malinowska¹, Elżbieta Graczyk-Pol¹, Anna Flaga¹, Urszula Szlendak¹, Anna Wnorowska¹ and Agnieszka Gawron¹

¹Department of Immunogenetics, Institute of Hematology and Transfusion Medicine, Warsaw, Poland

P45/ID 1781

Plasma cell-directed therapy and anti-HLA antibody synthesis: results from a prospective observational study

Martina Soldarini¹, Anna Maria Cafo¹, Paola Bertazzoni¹, Maria Luisa Pioltelli¹, Giorgia Cornacchini¹, Giuliana Lando¹, Elisabetta Sommaruga¹, Antonio Milano¹, Roberto Cairoli¹, Silvano Rossini¹ and Roberto Crotti¹

¹ASST Grande Ospedale Metropolitano Niguarda, Milan, Italy

P46/ID 7547

Microchimerism levels of recipient cells: frequency and impact on hematopoietic stem cell transplantation outcome

Katarina Stingl Jankovic¹, Marija Maskalan¹, Marija Burek Kamenaric¹, Mirta Mikulic², Lana Desnica², Nadira Durakovic², Ranka Serventi-Seiwerth², Radovan Vrhovac², Renata Zunec¹ and Zorana Grubic¹

¹Tissue Typing Centre, University Hospital Centre Zagreb, Zagreb, Croatia, ²Division of Hematology, University Hospital Center Zagreb, Zagreb, Croatia

P47/ID 8496

Facilitation of stem cell transplantation in a highly sensitized AML patient through Imlifidase treatment

Sharon Vivers^{1,2}, Raymond Fernando³, Sandra Frater¹, Maya Knox-Macaulay⁴, Franco Tavarozzi¹ and Lisa Walsh¹

¹Anthony Nolan Histocompatibility Laboratories, London, UK, ²UCL Cancer Institute, UCL Campus, London, UK, ³Solid Organ Group, Anthony Nolan, Royal Free Hospital, London, UK, ⁴Anthony Nolan, London, UK

P48/ID 6974

Comparison of two methodologies for monitoring chimerism after allogeneic stem-cell transplantation: Next-Generation Sequencing (NGS) vs. Short-Tandem Repeats (STR)

Jairo Niño-Ramírez¹, Alejandro Medina¹, Estrella Arnés-Moreta¹, Ana Balanzategui¹, Rocío Corral¹, Alicia Antón¹, María García-Álvarez¹, Rebeca Maldonado¹, Miguel Bastos-Boente¹, Igor de la Torre¹, Nerea H. Vidaña¹, Cristina Jiménez¹, María Eugenia Sarasquete¹, M. Carmen Chillón¹, Montserrat Hernández-Ruano¹, Sandra M. Lucas¹, Ana Isabel Sánchez-González¹, Inmaculada Sánchez-Villares¹, Verónica González-Calle¹, Almudena Navarro-Bailón¹, Francisco Boix¹, F. Javier Gil-Etayo¹, Amalia Tejeda-Velarde¹, Ramón García-Sanz¹ and Miguel Alcoceba¹

¹Department of Hematology, Hospital Universitario de Salamanca-IBSAL, CCIC-IBMCC (USAL-CSIC) and Centro de Investigación Biomédica en Red Cáncer (CIBERONC), Spain

P49/ID 6587

Loss of mismatched HLA haplotype after haplo-identical hematopoietic stem cell transplantation relapse

Dario Merlo¹, Sandra Frater¹, James Peat¹, Zdenka Edwards¹, Sharon Vivers¹ and Lisa Walsh¹

¹Anthony Nolan Research Institute, Royal Free Hospital, London UK



P50/ID 8003

Detection of HLA Antibodies in potential haploidentical HSC transplant recipients

Natalia Ivanova¹, Irina Pavlova², Vera Khvoshch¹, Anna Nasredinova¹, Veronika Ermolina¹, Svetlana Typushkina¹, Svetlana Merzlykova¹ and Alexander Kulagin¹

¹Raisa Gorbacheva Memorial Inst. for Pediatric Oncology, Hematology and Transplantation, Saint Petersburg, Russia, ²Russian Institute of Hematology, Raisa Gorbacheva Memorial Inst. for Pediatric Oncology, Hematology and Transplantation, Saint Petersburg, Russia

P51/ID 5022

Assessment of Chimerism by Next Generation Sequencing: A Comparison to STR-PCR method

Darren Brow¹, Jasmine Kendrick¹, David Viswanatha², Mohamed Kharfan Dabaja³ and Mohamed Elrefaei¹

¹Department of Laboratory Medicine and Pathology, Mayo Clinic, Jacksonville, FL, USA, ²Department of Laboratory Medicine and Pathology, Mayo Clinic Rochester, MN, USA, ³Department of Hematology Oncology, Mayo Clinic Jacksonville, FL, USA

P52/ID 3828

Chimerism analysis using next generation sequencing

Sara Iozzi¹, Dario Ciappi¹, Simona Palchetti¹, Ugo Ricci¹, Giovanni Rombolà¹ and Elisabetta Pelo¹

¹SOD Diagnostica Genetica, AOU Careggi, Florence, Italy

P53/ID 1995

Non-malignant hematological diseases treated by haploidentical hematopoietic stem cell transplantation: anti-HLA antibodies and graft failure

Paola Giustiniani¹, Federica Galaverna², Pietro Merli², Antonio Giuseppe Bianculli¹, Marco Becilli², Roberto Carta², Emilia Bocchieri², Maria Troiano¹, Rita Maria Pinto², Mariarosa Battarra¹, Marco Andreani¹ and Franco Locatelli^{2,3}

¹Laboratorio di Immunogenetica dei Trapianti, Ospedale Pediatrico Bambino Gesù, Roma, Italy, ²Dipartimento di Oncologia, Ematologia, Trapianto e Terapia Cellulare e Genica, Ospedale Pediatrico Bambino Gesù, Roma, Italy, ³Università degli Studi La Sapienza, Roma, Italy

P54/ID 447

KIR Genotyping of Hematopoietic Stem Cell haploidentical donors: a single center experience

Francesco Ingrassia^{1*}, Alice Pecoraro^{1*}, Maria Blando¹, Alessia Angela Corica¹, Floriana Di Paola¹, Rosalba Bavetta¹, Serena Mistretta¹, Floriana Bruno¹, Giuseppe Davi¹, Angela Lo Brutto¹, Valentina Cappuzzo¹ and Roberta Fedele¹

¹Laboratorio Regionale di Tipizzazione Tessutale ed Immunologia dei Trapianti – A.O.O.R. Villa Sofia-Cervello – Palermo, Italy.
*contributed equally

P55/ID 7887

Comparing accuracy of HLA typing from DNA extracted from blood and buccal samples for patients in remission from malignant hematological disease and healthy donors

Charlotte A. Cambridge¹, Gabriel J. Benitez¹, Jack Dishington¹, Neema P. Mayor² and Steven G.E. Marsh²

¹Anthony Nolan Research Institute, London, UK, ²Anthony Nolan Research Institute and UCL Cancer Institute, University College London, London, UK

P56/ID 7443

A novel HLA-DQA1*01 null allele identified in a Brazilian hematopoietic stem cell transplantation recipient affects the expression of HLA-DQ5 protein

Gisele F Rampim¹, Renata Fantini¹, Tuila B Mourão¹, Renato de Marco¹ and Maria Gerbase-DeLima¹

¹Immunogenetics Institute, Associação Fundo de Incentivo à Pesquisa, São Paulo, SP, Brazil



P57/ID 783

Haploidentical Stem Cell Transplantation in a patient sensitized with Donor Specific Antibodies

Serena Mistretta¹, Rosalba Bavetta¹, Floriana Bruno¹, Alessia Corica¹, Giuseppe Davì¹, Floriana Di Paola¹, Francesco Ingrassia¹, Alice Pecoraro¹, Maria Blando¹, Valentina Cappuzzo¹ and Roberta Fedele¹

¹Laboratorio Regionale di Tipizzazione Tessutale ed Immunologia dei Trapianti – A.O.O.R. Villa Sofia-Cervello – Palermo, Italy

P58/ID 1487

PCR-associated HLA-C allele drop-out in two related samples typed by next generation sequencing – a cautionary tale

Elizabeth De Mendonca¹, Thomas R. Turner^{2,3}, Ceylan Alushi¹, Jexray Sayno¹, Ravneet K. Bola¹, Reetinder Grewal¹, Michael Hoddinott¹, Raymond Fernando⁴, Neema P. Mayor^{2,3}, Sandra Frater¹, Sharon Vivers^{1,3}, Franco Tavarozzi¹ and Lisa Walsh¹

¹Anthony Nolan Laboratories, London, UK, ²Anthony Nolan Research Institute, London, UK, ³UCL Cancer Institute, UCL Campus, London UK, ⁴Solid Organ Group, Anthony Nolan, Royal Free Hospital, London, UK

P59/ID 1544

Two cases of HLA mistyping in patients with acute myeloid leukemia before transplantation

Sabine Wenda¹, Ingrid Faé¹, Cornelia Grill² and Gottfried Fischer¹

¹Medical+ University of Vienna, Vienna, Austria, ²General Hospital of Vienna, Vienna, Austria

P60/ID 1236

Transplanting across a donor specific HLA antibody in hematopoietic stem cell transplantation

Zdenka Edwards¹, Sandra Frater¹, James Peat¹, Raymond Fernando², Lisa Walsh¹ and Sharon Vivers³

¹Anthony Nolan, London, UK, ²Royal Free Hospital, London, UK, ³Anthony Nolan, UCL Cancer Institute, UCL Campus, London, UK

P61/ID 2703

Case report of a patient with acute myeloid leukemia complicated by recurrent hemophagocytic syndrome with pancytopenia and sepsis

Eva Miarkova¹ and Hana Cechova²

¹Department of Immunohematology, ²Department of Cell Chimerism, Institute of Hematology and Blood Transfusion, Prague, Czech Republic

P62/ID 6682

Activities of the Macedonian Bone Marrow Donor Registry in the search and match process

Meri Kirijas¹, Boban Dobrevski¹, Gorjan Milanovski¹, Teodora Brnjarchevska Blazhevska¹, Tamara Savevska¹ and Aleksandar Petlichkovski¹

¹Institute of Immunobiology and Human Genetics, Faculty of Medicine, University Ss Cyril and Methodius in Skopje, Skopje, Republic of North Macedonia

P63/ID 2838

HLA-A, -B, -C, -DRB1, -DRB3/DRB4/DRB5, -DQA1, -DQB1, -DPA1, -DPB1 haplotypes in families of patients awaiting allogeneic hematopoietic stem cell transplantation

Ekaterina Khamaganova¹, Stanislav Khizhinskiy¹, Aliona Abdrakhimova¹, Evgeniy Leonov¹, Elena Kuzminova¹, Larisa Kuzmina¹ and Elena Parovichnikova¹

¹National Research Center for Hematology, Moscow, Russia

P64/ID 289

HLA-DRB3/4/5 and HLA-DRB1 allele and haplotype frequencies in hematological patients planned for hematopoietic stem cell transplantation

Barbara Jovanovic¹, Nikola Kacaki¹, Zorana Andric¹, Glorija Blagojevic¹ and Zeljka Nenadovic¹

¹Blood Transfusion Institute of Serbia, Belgrade, Serbia



P65/ID 4428

High-resolution HLA allele frequencies in unrelated populations determined by next generation sequencing

Andreea Caragea¹, Radu Ioan Ursu¹, Larisa Denisa Ursu², Ion Maruntelu², Adriana Talangescu², Mirela Maria Iacob², Maria Tizu², Alexandra Gabriela Matei³, Alexandra Cojocaru³, Adelina Mariana Marin³, Alexandra Bianca Mocanu³, Simona Filimon¹, Anamaria Calin³, Radu Alexandru Truica³, Anisia Capitanu Reisler³, Bianca Andreea Catana³, Alex Stefan Calimente³ and Ileana Constantinescu³

¹Synevo, Bucharest, Romania, ²Fundeni Clinical Institute, Bucharest, Romania, ³Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

P66/ID 1739

The Automation of DNA Quantification and Normalization Workflow through the Introduction of the MaxPrep Liquid Handler

Fatima Moghnieh¹, Kyle Annette-Woodgate¹, Madalina Pinzaru¹ and Lisa Walsh¹

¹Anthony Nolan, London, UK

P67/ID 9790

External Proficiency Testing offered by the HLA Department of the Institute of Hematology and Blood Transfusion in Prague, Czech Republic: Detection of HLA Alleles Associated with Diseases

Nazarová S.¹, Zemánková L.¹, Půbalová Š.¹, Kinská B.¹, Vraná M.¹

¹Institute of Hematology and Blood Transfusion, Prague, Czech Republic

Immunogenetics in Organ Transplantation

P68 /ID 1886

Adsorption with X-match cells and Elution (AXE) protocol testing to clarify HLA antibody reactivity in a highly sensitized patient

Sandra Tafulo¹ and Robert Liwski²

¹Portuguese Institute for Blood and Transplantation, Lisbon, Portugal, ²Dalhousie University, Halifax, Canada

P69/ID 3995

Imlifidase desensitization in a highly-sensitized kidney transplant recipient

Angeliki Vittoraki¹, Stathis Tsiakas², Eleni Stergiopoulou¹, Sofia Ioannou¹, Alexandra Siofenta¹, Athina Aikaterini Nikolaou¹, Sofia Nikolaou¹, Eirini Karchilaki¹, Vasiliki Vrani¹, Dimitra Skoumi¹, Smaragdi Marinaki², Maria Darema², Georgios Paterakis¹ and John N. Boletis¹

¹Immunology Department & National Tissue Typing Center General Hospital of Athens "G.Gennimatas", Greece, ²Department of Nephrology and Renal Transplantation, Laiko Hospital, Athens, Greece

P70/ID 3527

Major histocompatibility class I chain-related gene A (MICA) mismatching and development of anti-MICA antibodies after heart transplantation

Marija Burek Kamenaric¹, Lucija Jukic¹, Marija Maskalan¹, Katarina Stingl Jankovic¹, Zorana Grubic¹, Bosko Skoric¹, Maja Cikes¹, Davor Milicic¹, Hrvoje Gasparovic¹ and Renata Zunec²

¹Tissue Typing Centre, Clinical Department of Transfusion Medicine and Transplantation Biology, University Hospital Centre Zagreb, Zagreb, Croatia, ²Department of Cardiovascular Diseases, University Hospital Centre Zagreb, Zagreb, Croatia



P71/ID 9737

Efficacy and limits of anti-Rituximab antibodies use in cross-matches for patients treated with Rituximab prior to kidney transplantation in Grenoble University Hospital

Johan Noble¹, Elodie Gautier-Veyret², Ornella Senoussi³, Clara Manoukian³, Dominique Masson³, Béatrice Bardy³, Thomas Jouve¹, Lionel Rostaing⁴, Paolo Malvezzi¹ and Céline Dard³

¹Nephrology, Hemodialysis, Apheresis and Kidney Transplantation Department, Grenoble Alpes University Hospital, France,

²Laboratory of Pharmacology-Pharmacogenetics-Toxicology, Grenoble Alpes University Hospital, France, ³Histocompatibility Laboratory, Etablissement Français du Sang Auvergne-Rhône-Alpes, Grenoble, France

P72/ID 2383

Quantification of plasma and urine Annexin-V positive microparticles as biomarkers in a Donor Specific Antibody positive kidney transplant population

Valentine Jacob¹, Quentin De Berny¹, François Brazier¹, Claire Presne¹ and Nicolas Guillaume¹

¹Amiens University Medical Center, Amiens, France

P73/ID 136

Antibody monitoring in highly sensitized kidney transplant candidate with preformed donor specific antibodies and desensitized with Imlifidase before kidney transplantation. First case in Italy

Elisa Trovato Salinaro¹ and Maria Paola Albergoni¹

¹Transfusion Unit, Padua University Hospital, Padua, Italy

P74/ID 9213

Donor specific HLA-DPw antibodies in a highly sensitized kidney transplant recipient – a case report

Dolores Hrusovar¹, Natalija Pisec¹, Miha Arnot^{2,3} and Blanka Vidan Jeras¹

¹Tissue Typing Center, Blood Transfusion Centre of Slovenia, Ljubljana, Slovenia, ²Department of Nephrology, University Medical Centre Ljubljana, Ljubljana, Slovenia, ³Medical Faculty, University of Ljubljana, Ljubljana, Slovenia

P75/ID 3365

High resolution HLA typing in kidney transplantation increases the access to transplant in highly sensitized patients

Franisco Javier Gil-Etayo^{1,2}, María Pilar Fraile-Gómez^{3,4}, Guadalupe Tabernero^{2,3,4}, Jairo Eduardo Niño Ramírez^{1,2,4}, Isabel Jiménez Hernaz¹, Pilar Terradillos Sánchez¹, Ana Balanzategui^{1,2}, Ariadna Vicente Parra¹, Ramón García Sanz^{1,2,4,5,6} and Amalia Tejeda-Velarde^{1,2}

¹Laboratorio de HLA-Biología Molecular, Servicio de Hematología, Hospital Universitario de Salamanca, Salamanca, Spain,

²(IBSAL) Instituto de Investigación Biomédica de Salamanca. Salamanca, Spain, ³Unidad de Trasplante Renal, Servicio de Nefrología, Hospital Universitario de Salamanca, Salamanca, Spain, ⁴Universidad de Salamanca (USAL), Salamanca, Spain,

⁵Centro de Investigación del Cáncer (CIC), Salamanca, Spain, ⁶Centro de Investigación Biomédica en Red Cáncer (CIBERONC), Spain

P76/ID 5429

HLA-Cw, -DQ and -DP relevance in cPRA calculation before and after kidney transplantation

Imen Daoud¹, Aida Charfi¹, Arwa Kamoun¹, Nadia Mahfoudh¹, Mondher Masmoudi², Soumaya Yaich², Lilia Gaddour¹, Faiza Hakim¹, Mohamed Ben Hmida² and Hafedh Makni¹

¹Histocompatibility and Immunology Laboratory, Hedi Chaker Hospital, Sfax, Tunisia, ²Nephrology Department, Hedi Chaker Hospital, Sfax, Tunisia

P77/ID 2991

Selection of blood collection tube is crucial for accurate quantification of dd-cfDNA following solid organ transplant

Sofia Carlén¹ and Linnéa Pettersson¹

¹Devyser, Stockholm, Sweden



P78/ID 8714

The prozone effect – solving discrepancies in antibody testing in two cases

Tatjana Dukic¹, Jelena Dmitrovic¹ and Zorana Andric¹

¹*Blood Transfusion Institute of Serbia, Belgrade, Serbia*

P79/ID 2647

Impact of SARS-CoV-2 on HLA serological phenotyping level in southern Portugal solid organ donors

Ana Teixeira¹, Paula Almeida¹, Maria Isabel Silva¹, Dulce Roldão¹, Olga Abade¹, Pedro Mendonça¹, Cristiana Teixeira¹, Raquel Ferreira¹ and Luís Ramalhet¹

¹*Centro Sangue e Transplantação de Lisboa- Area da Transplantação / Nova Medical School, Portugal*

P80/ID 939

HLA-A, -B and -DRB1 Distributions Among End Stage Renal Disease Patients in the Turkish Population

Servet Uluer Biceroglu¹, Semiha Ozgul², Olcay Seckin Genek¹, Salime Seda Altan¹, Aygül Celtik³, Ipek Kaplan Bulut³ and Ayhan Donmez¹

¹*Ege University Faculty of Medicine Tissue Typing Laboratory, İzmir, Turkey;* ²*Ege University Faculty of Medicine Department of Biostatistics and Medical Informatics, İzmir, Turkey;* ³*Ege University Faculty of Medicine Department of Nephrology, İzmir, Turkey*

P81/ID 6984

Sensitization of patients in need of kidney transplantation with HLA antibodies in the Republic of Kazakhstan

Aida Turganbekova¹, Zhulduz Zhanzakova¹, Zhazira Saduakas¹, Dana Baimukasheva¹, Didara Khamitova², Kuralay Zhangazieva¹ and Saniya Abdrakhmanova¹

¹*Research and Production Center of Transfusion, Kazakhstan Ministry of Health, Astana, Kazakhstan*

P82/1729

Transition from OneLambda to Immucor Single Antigen Bead assays for HLA Antibody Assessment Facilitates Access to Kidney Transplantation in Highly Sensitized Patients: a single-center experience

Corentin Streel¹, Arnaud Devresse¹, Yannick France¹, Valérie Dumont¹, Thibaut Gervais¹, Martine De Meyer¹, Tom Darius¹, Antoine Buemi¹, Michel Mourad¹, Eric Goffin¹, Véronique Deneys¹ and Nada Kanaan¹

¹*Cliniques Universitaires Saint-Luc, UCLouvain, Bruxelles, Belgium*

MHC Evolution, Population Genetics

P83/ID 195

Differences in Allele Frequencies in the MICA and MICB genes between Sardinian and Caucasian/European Population

Celeste Sanna¹, Stefano Mocci¹, Sara Lai¹, Roberto Littera¹, Roberta Stradoni¹, Alessia Mascia¹, Federica Cannas¹, Michela Lorrari¹, Caterina Mereu¹, Stefania Tranquilli¹, Stefania Rassu¹, Erika Giuressi¹, Rita Porcella¹, Francesco Alba¹, Nicola Orrù¹ and Sabrina Giglio¹

¹*Medical Genetics Unit, Department of Medical Sciences and Public Health, University of Cagliari, Cagliari, Italy*



P84/ID 343

Distribution of HLA-DRB3 alleles in Spanish population

Jairo Eduardo Niño Ramírez^{1,2,3}, Francisco Javier Gil-Etayo^{1,2}, Isabel Jiménez Hernaz^{1,2}, Pilar Terradillos Sánchez¹, Ariadna Vicente Parra¹, Ana Balanzategui^{1,2,4,5}, Miguel Bastos Boente^{1,2,3}, Miguel Alcoceba^{1,2,4,5}, Ramón García-Sanz^{1,2,3,4,5} and Amalia Tejeda Velarde^{1,2}

¹Laboratorio de HLA-Biología Molecular, Servicio de Hematología, Hospital Universitario de Salamanca, Salamanca, Spain,

²Instituto de Investigación Biomédica de Salamanca, Salamanca, Spain, ³Universidad de Salamanca, Salamanca, Spain, ⁴Centro de Investigación del Cáncer, Salamanca, Spain, ⁵Centro de Investigación Biomédica en Red Cáncer, Spain

P85/ID 1053

Aggressive behavior in Italian children with ADHD in the middle of COVID-19 pandemic: preliminary data on MAOA gene polymorphisms involvement

Ludovico Neri¹, Valentina Nanni¹, Pierluigi Sebastiani², Alessia Colanardi², Tiziana Del Beato² and Anna Aureli²

¹Child-adolescent Neuropsychiatry Unit, San Salvatore Hospital, L'Aquila, Italy, ²CNR Translational Pharmacology, L'Aquila, Italy

P86/ID 1100

Haplotypes MICA-129Met/Val and HLA-B in the Russians population of Chelyabinsk region of Russian South Urals

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

¹Chelyabinsk State University, Chelyabinsk, Russia

P87/ID 1135

Study of HLA-B51 and HLA-B27 antigen expression in non-infectious uveitis

Aymen Tezeghenti¹, Chaima Khadhraoui¹ and Najah Boussetta¹

¹Military Hospital of Tunis, Tunis, Tunisia

P88/ID 1139

Possibility of linkage disequilibrium between SNP-197 of IL17 and HLA class I and II in the Bashkir Chelyabinsk region

Daria Stashkevich¹ and Tatiana Suslova²

¹Chelyabinsk State University, Chelyabinsk State University, Chelyabinsk Blood Transfusion Station, Chelyabinsk, Russia

P89/ID 1168

Distribution of the MHC patterns of Mexican Mestizo populations from the states of Durango vs Oaxaca and Cdmx

Clara Gorodezky¹, Karen Rivera¹, Arlett Del Olmo¹, Alejandra Florentino¹, Ma. Dolores Ozuna¹, Miguel Carmona¹, Juan Antonio González¹ and Rafael Franco-Santillán²

¹Laboratory of Immunology and Immunogenetics, Fundacion Comparte Vida A.C., CDMX, Mexico, ²Instituto Nidiac Durango City, Durango, Mexico

P90/ID 2049

Recombination between HLA genes in two siblings

Ingrid Fae¹, Cornelia Grill², Sabine Wenda¹ and Gottfried Fischer¹

¹Medical University of Vienna, Vienna, Austria, ²General Hospital Vienna, Vienna, Austria

P91/ID 2354

Insertion/ deletion polymorphism of angiotensin-converting enzyme and susceptibility of psoriatic arthritis in a south Tunisian population

Mariem Maaloul¹, Aida Charfi¹, Arwa Kamoun¹, Afef Feki², Nadia Mahfoudh¹, Faiza Hakim¹, Lilia Gaddour¹, Sofiene Baklouti² and Hamed Makni¹

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



P92/ID 2401**Association between migraine and HLA-B and HLA-DRB1 gene polymorphisms in a southern Croatia population**

Sonja Jaman^{1,2}, Matea Tarabene¹, Barbara Stanić¹, Lucija Meštrović³ and Esma Čečuk-Jeličić^{1,2}

¹Tissue Typing Laboratory, Division of Blood Transfusion University Hospital of Split, Split, Croatia, ²University Department of Health Studies, University of Split, Split, Croatia ³Faculty of Medicine, Josip Juraj Strossmeyer University, Osijek, Croatia

P93/ID 2782**Next-generation sequencing reveals and validates HLA polymorphism among Croatians**

Marija Maskalan¹, Zorana Grubić¹, Katarina Stingl Janković¹, Marija Burek Kamenarić¹, Lucija Jukić¹ and Renata Zuneć¹

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

P94/ID 2875**DRB1*04:02 allele: the DR4 associated with DRB4*01:03:01:02N in the Spanish population**

Jairo Eduardo Niño Ramirez^{1,2,3}, Francisco Javier Gil-Etayo^{1,2}, Isabel Jiménez Hernanz¹, Pilar Terradillos Sánchez¹, Ariadna Vicente Parra¹, Ana Balanzategui^{1,2,4,5}, Miguel Bastos Boente^{1,2,3}, Miguel Alcoceba^{1,2,4,5}, Ramón García-Sanz^{1,2,3,4,5} and Amalia Tejeda-Velarde^{1,2}

¹Laboratorio de HLA-Biología Molecular, Servicio de Hematología, Hospital Universitario de Salamanca, Salamanca, Spain,

²Instituto de Investigación Biomédica de Salamanca, Salamanca, Spain, ³Universidad de Salamanca, Salamanca, Spain, ⁴Centro de Investigación del Cáncer, Salamanca, Spain, ⁵Centro de Investigación Biomédica en Red Cáncer, Spain

P95/ID 3318**Serological equivalents of rare HLA alleles in French population**

Dominique Masson¹, Mathilde Cherel², Isabelle Jollet³, Barbara Proust³, Jean-Luc Taupin⁴ and Alexandre Walencik⁵

¹Histocompatibility Laboratory, Etablissement Français du Sang Rhone Alpes – Grenoble, France, ²Histocompatibility Laboratory, Etablissement Français du Sang Bretagne, Rennes, France, ³Histocompatibility Laboratory, Etablissement Français du Sang Aquitaine, Poitiers, France, ⁴Histocompatibility Laboratory, Hôpital Saint-Louis, Paris, France, ⁵Histocompatibility Laboratory, Etablissement Français du Sang Centre-Pays de la Loire, Nantes

P96/ID 3576**Distribution of Mhc-C encoded C1 and C2 epitopes and inhibitory KIR repertoire potential in West-African chimpanzees and humans**

Natasja de Groot¹, Corrine Heijmans¹, Jesse Bruijnesteijn¹, Alicia Sanchez-Mazas² and Ronald E. Bontrop^{1,3}

¹Biomedical Primate Research Centre, ²University of Geneva, ³Comparative Genetics and Refinement, Biomedical Primate Research Centre, Rijswijk, Netherlands, ²Department of Genetics and Evolution – Anthropology Unit, University of Geneva and Institute of Genetics and Genomics of Geneva (IGE3), Geneva, Switzerland, ³Theoretical Biology and Bioinformatics, Utrecht University, Utrecht, Netherlands

P97/ID 3678**Identification of 8-Digit HLA-A, -B, -C, -DPA1, -DPB1, -DQA1, -DQB1 and -DRB1 allele and haplotype frequencies in a South Tunisian population**

Aida Charfi¹, Mariem Maaloul¹, Arwa Kamoun¹, Stéphane Buhler², Delphine Mouron², Jean Villard², Alicia Sanchez-Mazas³, Jose Manuel Nunes⁴, Faiza Hakim¹, Lilia Gaddour¹, Hafedh Makni¹ and Nadia Mahfoudh¹.

¹Immunology and Histocompatibility Laboratory, University Hospital Hedi Chaker, Sfax, Tunisia, ²University Hospital, Geneva, Switzerland, ³Department of Genetics and Evolution, Anthropology Unit, University of Geneva, Geneva, Switzerland, ⁴Institute of Genetics and Genomics, Geneva, Switzerland



P98/ID 3918

Endoplasmic reticulum aminopeptidase gene polymorphism and susceptibility of psoriatic arthritis in a south Tunisian population

Mariam Maaloul¹, Aida Charfi¹, Nadia Mahfoudh¹, Afef Feki², Arwa Kamoun¹, Lilia Gaddour¹, Faiza Hakim¹, Sofiene Baklouti² and Hafedh Makni²

¹Immunology and Histocompatibility Laboratory, University Hospital Hedi Chaker, Sfax, Tunisia, ²Rheumatology Department, University Hospital Hedi Chaker, Sfax, Tunisia

P99/ID 3997

Distribution of the HLA-DPA1 and -DPB1 alleles in a South Tunisian population

Aida Charfi¹, Mariem Maaloul¹, Arwa Kamoun¹, Stéphane Buhler², Delphine Mouron², Jean Villard², Alicia Sanchez-Mazas³, Jose Manuel Nunes⁴, Faiza Hakim¹, Lilia Gaddour¹, Hafedh Makni¹ and Nadia Mahfoudh¹

¹Immunology and Histocompatibility Laboratory, University Hospital Hedi Chaker, Sfax, Tunisia, ²University Hospital, Geneva, Switzerland, ³Department of Genetics and Evolution, Anthropology Unit, University of Geneva, Geneva, Switzerland, ⁴Institute of Genetics and Genomics, Geneva, Switzerland

P100/ID 4169

Detection of HLA-A and HLA-J haplotype diversity from next-generation sequencing data in commercially available samples

Jessica Edwards¹, Danial Shamsuddin¹, Christopher Newbound¹ and Curtis Lind¹

¹CareDx Pty Ltd, Australia

P101/ID 4547

Association between HLA and SARS-COV-2 infection in Mexican Mestizos

Karen Rivera¹, Ma. Dolores Ozuna¹, Ricardo Peral¹, Araceli Rodríguez^{1,2} and Clara Gorodezky¹.

¹Laboratory of Immunology and Immunogenetics, Fundacion Comparte Vida, A.C, CDMX, Mexico, ²Institute of Epidemiological Diagnosis and Reference, InDRE, CDMX, Mexico.

P102/ID 5029

HLA-C Allele-Sharing Associated with High Viral load (HIV-1 RNA) Increases the Risk of HIV-1 Transmission among Heterosexual Serodiscordant Couples in Nigeria

Ngozi Otuonye¹, Ma Luo², Maureen Aniedobe¹ and Nkiruka Odunukwe¹

¹Nigerian Institute of Medical Research, Central Research Laboratory, Yaba, Lagos, Nigeria, ²National Medical Laboratory, Canada

P103/ID 5660

Unravelling the architecture of Major Histocompatibility Complex class II regions in a primate species

Nanine de Groot¹, Jesse Bruijnesteijn¹, Marit van der Wiel¹, Natasja de Groot¹ and Ronald E. Bontrop^{1,2}

¹Comparative Genetics and Refinement, Biomedical Primate Research Centre, Rijswijk, Netherlands, ²Theoretical Biology and Bioinformatics, Utrecht University, Utrecht, Netherlands

P104/ID 6166

Identification of a rare association between DRB1*01:01 and DRB5 using an NGS method

Maria Troiano¹, Tiziana Galluccio¹, Annalisa Guagnano¹, Giuseppe Testa¹, Andrea Di Luzio¹ and Marco Andreani¹

¹Laboratorio di Immunogenetica dei Trapianti, Ospedale Pediatrico Bambino Gesù, Rome, Italy



P105/ID 6539

The genetic impact of changes in mating patterns driven by post-war relocation of population and economic development

Chryso Pieridou^{1,2}, Andri Papaloizou², Georgios Kallis², Marios Georgiou², Anita Koumouli² and Paul Costeas^{1,2}

¹The Karaïskakio Foundation, Nicosia, Cyprus, ²The Center for the Study of Hematological Malignancies, Nicosia, Cyprus

P106/ID 6771

New HLA alleles identified in the admixed Brazilian population

Tânia K. de Araujo^{1,2}, Douglas C. Rosa^{1,2}, Fábio R. Torres^{1,2}, Fernando Cendes^{2,3} and Iscia Lopes-Cendes^{1,2}

¹Department of Translational Medicine, School of Medical Sciences, University of Campinas (UNICAMP) Campinas, SP, Brazil,

²Brazilian Institute of Neuroscience and Neurotechnology (BRAINN), Campinas, SP Brazil, ³Department of Neurology, School of Medical Sciences, University of Campinas (UNICAMP), Campinas, SP, Brazil

P107/ID 7158

Comparison of two single antigen bead assays for detection of anti-HLA antibodies and evaluation of their reactivity with complement binding

Georgios Lioulis¹, Konstantinos Ouranos¹, Manolis Panteli¹, Marianthi Papachristou², Aliki Xochelli², Artemis Maria Iosifidou¹, Chatzika Georgia², George Petasis², Maria Stangou¹ and Asimina Fylaktou²

¹Department of Nephrology, Aristotle University of Thessaloniki, Hippokraton Hospital, Thessaloniki, Greece, ²Department of Immunology, National Peripheral Histocompatibility Center, Hippokraton Hospital, Thessaloniki, Greece

P108/ID 8479

Impact of TNF-alpha gene polymorphisms on the risk and clinical manifestations of Ulcerative Colitis

Olivia Mihaela Popa¹, Cristian Tieranu¹, Monica Dutescu², Mihai Bojinca¹ and Luis Popa³

¹University of Medicine and Pharmacy Carol Davila, Bucharest, Romania, ²Prof. Dr. C. T. Nicolau' National Institute of Blood Transfusion, Bucharest, Romania, ³"Grigore Antipa" National Museum of Natural History, Bucharest, Romania

P109/ID 9027

Comparative analysis of HLA-haplotype distributions in two Slavic populations

Elena Kuzmich¹, Irina Pavlova¹, Alena Hlaz², Tatyana Glazanova¹, Anastasia Pavlova¹, Anatoly Ihar Iskrou², Siarhei Liashchuk² and Ludmila Bubnova¹

¹Russian Research Institute of Hematology and Transfusiology, Saint-Petersburg, Russia, ²Minsk Scientific and Practical Center for Surgery, Transplantology and Hematology, Minsk, Belarus

NK cells & KIR

P110/ID 9581

Selective HLA haplotype loss and immunological escape of NPM1+ AML

Giovanni Rombolà¹, Beatrice Boschi¹, Irene Donnini², Giuseppina Marseglia¹, Clara Ballerini³, Sara Iozzi¹, Michela Falco⁴, Franco Papola⁵, Roberto Crocchiolo⁶, Sabrina Frusconi¹ and Elisabetta Pelo¹

¹SOD Diagnostica Genetica, AOU Careggi, Florence, Italy, ²Medicina Trasfusionale, AOU Careggi, Florence, Italy,

³Neuroimmunologia Università di Firenze, Florence, Italy, ⁴Laboratorio Immunologia IRCCS Gaslini, Genova, Italy, ⁵Centro Regionale Immunoematologia e Tipizzazione Tissutale, L'Aquila, Italy, ⁶Immunoematologia e Medicina Trasfusionale GOM Niguarda, Milan, Italy



P111/ID 1490

HLA-E and its NKG2 receptors in graft-versus-host disease

Jagoda Siemaszko¹, Anna Czyż², Agnieszka Szeremet², Maciej Majcherek², Małgorzata Sobczyk-Kruszelnicka³, Wojciech Fidyk³, Sebastian Giebel³, Barbara Nasiłowska-Adamska⁴, Iwona Solarska⁴, Agnieszka Tomaszewska⁵, Grzegorz W. Basak⁵, Maria Bieniaszewska⁶, Patrycja Skowrońska⁶, Tomasz Wróbel³ and Katarzyna Bogunia-Kubik¹

¹Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, Wrocław, Poland, ²Department of Hematology, Blood Neoplasms and Bone Marrow Transplantation, Wrocław Medical University, Wrocław, Poland, ³Department of Bone Marrow Transplantation and Hematology-Oncology, Institute of Oncology, Gliwice, Poland, ⁴Institute of Hematology and Blood Transfusion, Warsaw, Poland, ⁵Department of Hematology, Transplantation and Internal Medicine, Medical University of Warsaw, Warsaw, Poland, ⁶Department of Hematology and Transplantation, Medical University of Gdańsk, Gdańsk, Poland

P112/ID 2762

The extent of non-expressed KIR3DL1 alleles in a French population

Nolwenn Legrand¹, Enora Ferron¹, Perla Salameh¹, Gaelle David¹, Marie-Claire Devilder¹, Catherine Willem^{1,2}, Ketevan Gendzekhadze³, Peter Parham⁴, Christelle Retiere^{1,2,4} and Katia Gagne^{1,2,4,5}

¹Nantes Université, EFS, INSERM, CNRS, CRCI2NA, Nantes, ²LabEx IGO "Immunotherapy, Graft, Oncology", Nantes, France, ³HLA Laboratory, Department of Hematology and HSCT, City of Hope, Medical Center, CA, USA, ⁴Departments of Structural Biology and Microbiology and Immunology, Stanford University School of Medicine, Stanford, CA, USA, ⁵LabEx Transplantex, Université de Strasbourg, Strasbourg, France

P113/ID 1575

Allele frequencies for three framework Killer cell Immunoglobulin Like Receptor genes in the Western Australian population

Jonathan Downing¹, Fredrick Mobegi¹, Lloyd D'Orsogna¹, Patricia Martinez¹ and Dianne De Santis¹

¹Clinical Immunology, PathWest, Fiona Stanley Hospital, Perth, Australia

P114/ID 5332

Allele-level characterization of KIR gene polymorphism in healthy elderly from four populations – Bulgarian, Romanian, Polish and Turkish

Bushra Hadra¹, Tsvetelin Lukanov¹, Ileana Constantinescu², Fatma Oguz³, Dimitri Apostol², Yeliz Oğret³, Katarzyna Bogunia-Kubik⁴, Katarzyna Koscinska⁵, Marta Dratwa⁴, Adriana Talangescu², Alexandra-Elena Constantinescu², Ion Maruntelu², Anastasiya Mihaylova⁶ and Elissaveta Naumova¹

¹University Hospital Alexandrovska, Medical University, Sofia, Bulgaria, ²Carol Davila University of Medicine and Pharmacy, Bucharest, Romania, ³Istanbul Medical Faculty, Istanbul University, Istanbul, Turkey, ⁴Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, Wrocław, Poland, ⁵HLA Laboratory, Lower Silesian Oncology, Pulmonology and Hematology Center, Wrocław, Poland, ⁶Department of Clinical Immunology and Stem Cell Bank, University Hospital Alexandrovska, Sofia, Bulgaria

P115/ID 7447

Short and Long Read sequencing data analysis of co-located Killer-cell Immunoglobulin-like Receptor genes 2DS3 and 2DS5

Bram Luiken¹, Loes van de Pasch¹, Linda Ouwerkerk¹, Anne Manders¹, Erik Rozemuller¹ and Maarten Penning¹

¹GenDx, Utrecht, Netherlands

P116/ID 4691

KIR3DS1/HLA-Bw4 in Tunisian patients with chronic myeloid leukemia

Sirine Louati¹, Aida Charfi¹, Arwa Kammoun², Frikha Rim³, Nadia Mahfoudh¹, Faiza Hakim¹, Lilia Gaddour¹, Hassen Kamoun³ and Hafedh Makni¹

¹Histocompatibility and Immunology Laboratory, Hedi Chaker Hospital, Sfax, Tunisia, ²Histocompatibility and Immunology Laboratory, Renal Pathology Laboratory, Hedi Chaker Hospital, Sfax, Tunisia, ³Genetic Department, Hedi Chaker Hospital, Sfax, Tunisia



P117/ID 5940

KIR3DS1/HLA-Bw4 distribution in the Tunisian population

Sirine Louati¹, Aida Charfi¹, Arwa Kamoun¹, Nadia Mahfoudh¹ and Hafedh Makni¹

¹*Histocompatibility and Immunology Laboratory, Hedi Chaker Hospital, Sfax, Tunisia*

New technologies & New Approaches in Immunogenetics

P118/ID 3860

A Modern twist on Compatibility Assessment in the Histocompatibility and Immunogenetics Laboratory

Alison Logan¹, Kay Poulton¹ and Douglas Dyer²

¹*Transplantation Laboratory Manchester Royal Infirmary, Manchester, UK, ²University of Manchester, Manchester, UK*

P119/ID 2048

The NanoTYPE Experience: Nanopore Sequencing as a New Tool for HLA Laboratories Enabling Routine and Urgent High-Resolution Typing

Gregory Werner¹, Nina Lauterbach², Libor Kolesar³ and Krisztina Rigó⁴

¹*Omixon Biocomputing Ltd, Switzerland, ²Omixon Biocomputing Ltd, Netherlands, ³Omixon Biocomputing Ltd, Czech Republic,*

⁴*Omixon Biocomputing Ltd, Hungary*

P120/ID 500

Long read phased sequencing of HLA class I and II genes using MinION Sequencing

Dianne De Santis¹, Naser El-Lagta¹, Linh Truong¹, Felipe Ayora², Fredrick Mobegi¹

and Lloyd D'Orsogna¹

¹*Department of Clinical Immunology, PathWest, Fiona Stanley Hospital, Murdoch, WA, Australia, ²BizData, New Zealand*

P121/ID 9993

Results of the 6 Month Post-Transplant Surveillance in patients transplanted with preformed donor-specific anti-HLA antibodies (DSA) by Adding Donor-Derived Cell-Free DNA (ddcfdNA) Testing

Maria Lasa-Lazaro¹, Miriam Velasco-Sidro¹, Tamara Ruiz Merlo², Natalia Polanco³, Isabel Perez Flores⁴, María José Castro-Panete¹, Estela Paz-Artal¹ and Esther Mancebo¹

¹*Department of Immunology, University Hospital "12 de Octubre", Instituto de Investigación Sanitaria (imas12), Madrid, Spain,*

²*Unit of Infectious Diseases, Hospital Universitario "12 de Octubre", Madrid, Spain, ³Instituto de Investigación Sanitaria imas12,*

⁴*Department of Nephrology, Hospital Universitario 12 de Octubre, Madrid, Spain*

P122/ID 8430

Evaluating recent nanopore sequencing chemistries for rapid and conventional HLA typing

Pascal van der Weele¹, Marcel van de Streek¹, Sjoerd Creutzburg¹, Bart Valkenburg¹,

Ioannis Nemparis¹, Joris Albers¹, Loes van de Pasch¹ and Maarten Penning¹

¹*GenDx, Utrecht, Netherlands*

P123/ID 9319

Evaluation of the Nanotype™ assay for high-resolution hla typing

Gisele F Rampim¹, João H Campos¹, Tuila B Mourão¹, Valentina Proença¹, Eder F Sousa¹,

Renato de Marco¹ and Maria Gerbase-DeLima¹

¹*Immunogenetics Institute, Associação Fundo de Incentivo à Pesquisa, São Paulo, SP, Brazil*



P124/ID 6620

Evaluation of the Magelia for automated purification of Caredx® Alloseq HCT kit libraries in the context of post-hematopoietic stem cells transplantation chimerism assessment

Coralie Frassati¹, Pascal Pedini¹, Sandrine Fabre², Agnes Basire², Sophie Simon², Sebastian Aguilar Pierlé³, Joseph Santucci³, Camille Soucies³, Amel Bendali³, Arthur Sterin⁴, Gerard Michel⁴ and Christophe Picard¹

¹Etablissement Français du Sang, Marseille, France, ²ADES UMR 7268, Aix Marseille Univ, Marseille, France, ³Immunogenetics Laboratory, Etablissement Français du Sang PACA Corse, France, ⁴Inorevia, Paris, France, ⁵Department of Pediatric Hematology-Oncology, Hôpital Enfants la Timone, Marseille, France

P125/ID 4098

Evaluation of the HISTO TYPE Rainbow kit from BAG DIAGNOSTICS at the HLA EFS laboratory in Marseille

Coralie Frassati¹, Jean-Baptiste Baudey¹, Lucas Buson¹, Lucas Hubert¹, Sophie Simon¹, Agnès Basire¹, Pascal Pedini² and Christophe Picard¹

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

P126/ID 5592

Open Science in human immunogenetics; challenges and pathways

Anne Cambon-Thomsen¹

¹CNRS and Université Toulouse III Paul Sabatier, Toulouse, France

P127/ID 9012

Identification of the novel HLA-DPB1*02:01:68 allele in a Greek individual

Diamanto Kouniaki¹, Katerina Tarassi¹, Vassiliki Kitsiou¹, Theofilos Athanassiades¹, Konstantinos Fotopoulos¹ and Alexandra Tsirogianni¹

¹Immunology-Histocompatibility Dept., Evangelismos Hospital, Athens, Greece

P128/ID 6244

Identification and characterization of six novel HLA alleles by next generation sequencing in Spanish population during the last year

Amalia Tejeda Velarde¹, Francisco Javier Gil-Etayo¹, Jairo Eduardo Niño Ramírez¹, Antonio Balas², Alberto Torio³, Ariadna Vicente Parra¹, Isabel Jiménez Hernaz¹, Pilar Terradillos Sánchez¹, Ana Balanzategui¹, Miguel Alcoceba¹ and Ramón García Sanz¹

¹Laboratorio de HLA-Biología Molecular, Servicio de Hematología, Hospital Universitario de Salamanca, Salamanca, Spain

²Histocompatibilidad, Centro de Transfusión de la Comunidad de Madrid, Madrid, Spain, ³Sección de Inmunología, Hospital Regional Universitario de Málaga, IBIMA, Spain

P129/ID 5782

Identification of the novel HLA-A*01:426 allele in a Greek individual

Diamanto Kouniaki¹, Vasiliki Kitsiou¹, Theofilos Athanassiades¹, Katerina Tarassi¹, Konstantinos Fotopoulos¹ and Alexandra Tsirogianni¹

¹Immunology and Histocompatibility Department, Evangelismos General Hospital, Athens, Greece

P130/ID 1622

Identification of the novel HLA-A*02:09:01:04 allele in a Greek individual

Diamanto Kouniaki¹, Theofilos Athanassiades¹, Katerina Tarassi¹, Vassiliki Kitsiou¹, Konstantinos Fotopoulos¹ and Alexandra Tsirogianni¹

¹Immunology and Histocompatibility Department, Evangelismos General Hospital, Athens, Greece



SATELLITE SYMPOSIUM

THURSDAY, April 27, 2023

Room 300 (Lower Foyer)

12:10–13:10

CareDx

Breaking New Ground: Innovative Pre-and Post-Transplant Solutions to Improve Allograft Outcomes

Moderator: *Curtis Lind – VP, Head of R&D Products*



High Resolution HLA Typing with AlloSeq Tx – the Experience of National HLA Laboratory, Bucharest

Monica Irina Dutescu, MD, PhD

Comparison of Next-Generation Sequencing and Short-Tandem Repeats to Monitor Chimerism Analysis

Miguel Alcoceba, PhD

dd-cfDNA in Allograft Rejection and Risk Assessment

Olivier Aubert, MD, PhD

Room 300 (Lower Foyer)

13:20–14:20

Immucor

Exploring New Frontiers in Transplantation Testing



The role of HLA and non-HLA antibody burden in the outcome of pediatric kidney transplantation

Dr. Patrizia Comoli – Fondazione IRCCS Policlinico San Matteo di Pavia – Italy

A modelling approach for Mean Fluorescence Intensity value harmonization and cut-off prediction for Luminex Single Antigen Bead assays of two different vendors

Dr. Gonca Karahan – LUMC – Netherlands

FRIDAY, April 28, 2023

Room 300 (Lower Foyer)

12:10–13:10

GenDx

Exploring new worlds for HLA and Chimerism: Dare to discover innovative solutions

GENDX

Tsvetelin Lukanov – Assistant Professor at the Department of Clinical Immunology, Medical University Sofia

Lukas Frischknecht MD PhD – Co-director Transplant Immunology, University Hospital Zurich

Maaike Rijkers – PhD Project Manager R&D at GenDx



Room 300 (Lower Foyer)

13:20–14:20 **One Lambda Inc. a Thermo Fisher Scientific Brand**
Enhancing the Transplant Experience: The Journey Continues

Moderator: *Jean-Luc Taupin, PhD – Saint-Louis Hospital, Paris, France*



Evolution of HLA Typing by NGS – from Homemade Reagents to the AllType™ FASTplex™ Kit

Ioannis Theodorou, MD, PhD – Laboratory of Immunology, Hospital Robert Debre / Paris, France

To be or not to be a Donor Specific Antibody – the Importance of Widening the View with SAB Expanded Panels

Sandra Tafulo, PhD – HLA Alosensitization Laboratory, Instituto Portugues de Sangue e da Transplantacao, Porto, Portugal

Room 150 (Lower Foyer)

14:30–15:30 **Omixon**
New Horizons in HLA Typing



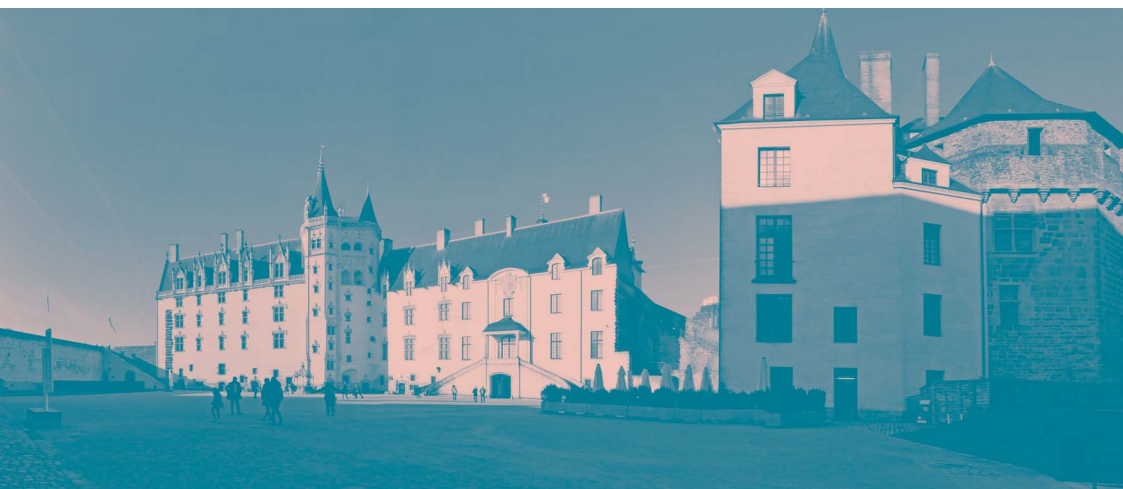
A new dawn in identifying protective immunity for Neglected Tropical Diseases
Wim Adriaensen – Clinical Immunology, Institute of Tropical Medicine

New Era of HLA Typing: Advantages and Chances of the NanoTYPE

Dr. rer. nat. Claudia Lehmann – Transplantation Immunology, University Hospital Leipzig

Epitope matching in renal transplantation, an Odyssey

Prof., Dr. rer. nat., Dipl. Biol. Ilias Doxiadis – Transplantation Immunology, University Hospital Leipzig





Join us at our CareDx
EFI 2023 Symposium

Patrick G., Kidney transplant recipient

Breaking New Ground: Innovative Pre- and Post-Transplant Solutions to Improve Allograft Outcomes

Thursday 27 April, 2023 | 12.10 - 13.10

Room: 300

Symposium sponsored by CareDx

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Save the date and join us to explore the latest perspectives of leaders in the pre- and post-transplant space.



Moderator

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

Speakers



High Resolution HLA Typing with AlloSeq Tx – the Experience of National HLA Laboratory, Bucharest
Monica Irina Dutescu, MD, PhD
National HLA Laboratory, National Institute of Blood Transfusion Prof. Dr. C.T. NICOLAU
Bucharest, Romania



Comparison of Next-Generation Sequencing and Short-Tandem Repeats to Monitor Chimerism Analysis
Miguel Alcoceba, PhD
Department of Haematology, University Hospital of Salamanca (HUS-IBSAL)
Salamanca, Spain



dd-cfDNA in Allograft Rejection and Risk Assessment
Olivier Aubert, MD, PhD
Necker-Enfants Malades Hospital - Paris Transplant Group
Paris, France



Event: Meet us in Person



Join us for Immucor's Sponsored Symposium

EXPLORING NEW FRONTIERS IN TRANSPLANTATION TESTING

Thursday 27th April 2023: 13:20 - 14:20

Room 300, Lower Foyer

La Cité des Congrès de Nantes, Nantes, France

**A modelling approach for Mean Fluorescence Intensity value
harmonization and cut-off prediction for Luminex Single Antigen
Bead assays of two different vendors**

Gonca Emel Karahan, PhD

*Leiden University Medical Center, Department of Immunology, Laboratory
for Transplantation Immunology, Leiden, the Netherlands*

**The role of HLA and non-HLA antibody burden in the outcome
of pediatric kidney transplantation**

Patrizia Comoli, MD

*Fondazione IRCCS Policlinico San Matteo, GMP Facility and Center
for Advanced Cellular Therapies, Pavia, Italy*

**Session Chaired by: Dr Christine Heylen, Senior Director,
International Commercial Scientific Affairs, Immucor**

JOIN & DISCOVER

GENDX SYMPOSIUM

Exploring new worlds for HLA and Chimerism:
Dare to discover innovative solutions

NGS-defined KIR polymorphism: novel insights and future prospects

Tsvetelin Lukanov PhD

New technologies for rapid HLA typing: first experiences
with NGS-Turbo®

Lukas Frischknecht MD PhD

A retrospective comparison study of chimerism
monitoring by NGS and qPCR

Maaïke Rijkers PhD

ROOM 300

FRIDAY APRIL 28, 12:10 - 13:10

experts in transplant diagnostics

GENDX

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EFI 2023

ONE LAMBDA SYMPOSIUM

Enhancing the Transplant Experience: The Journey Continues

Friday, April 28 | 13:20-14:20 | Room 300

Next Generation Sequencing (NGS) workflows have revolutionized transplant immunology by enabling more comprehensive HLA genotyping. Extended Single Antigen coverage, which includes additional HLA antibody specificities, allows for better matching between donors and recipients and may lead to improved graft survival and reduced risk of rejection. Join us to learn more from our guest speakers who will share their experiences with these technologies, their decision-making process for virtual crossmatching, as well as using epitope matching to help provide better outcomes for transplant patients.

MODERATOR

Jean-Luc Taupin, PhD | Saint-Louis Hospital | Paris, France

SPEAKERS

Evolution of HLA Typing by NGS - from Homemade Reagents to the AllType™ FASTplex™ Kit

Ioannis Theodorou, MD, PhD
Laboratory of Immunology
Hospital Robert Debre | Paris, France

To Be or Not to Be a Donor Specific Antibody – the Importance of Widening the View with SAB Expanded Panels

Sandra Tafulo, PhD
HLA Alosensitization Laboratory
Instituto Portugues de Sangue e da Transplantacao | Porto, Portugal

NEW HORIZONS IN HLA TYPING

WHEN? Fri 28 April 14:30-15:30

WHERE? Cité des congrès de Nantes
Lower Foyer, Room 150



Wim Adriaensen, PhD
Clinical Immunology
Institute of Tropical Medicine

A NEW DAWN IN IDENTIFYING PROTECTIVE IMMUNITY FOR NEGLECTED TROPICAL DISEASES

Vaccine development for many neglected tropical diseases (NTDs) is confronted with scientific challenges in target antigen identification and the lack of correlates of protection. Causes are unsuitable preclinical models, genomic complexity of the pathogens, and the remoteness of the affected and impoverished populations. Recent technological evolutions facilitate a new dawn in antigen discovery and defining protective immunity for complex diseases in remote settings. I will present the implementation of our novel pipeline in Ethiopia and how the NanoTYPE part of this platform facilitated our mission.



**Dr. rer. nat. Claudia
Lehmann**
Transplantation Immunology
University Hospital Leipzig

NEW ERA OF HLA TYPING: ADVANTAGES AND CHANCES OF THE NANOTYPE

High-resolution HLA-typing is done in a transplant immunology diagnostic laboratory. Time is always a limiting factor. Especially when urgent samples, as postmortem organ donors must be typed. Oxford-Nanopore-Sequencing brings new opportunities for high-resolution HLA-typing. Here, we present first experiences with Omixon NanoTYPE in our laboratory. The first validation results will be shown, the protocol including the NanoTYPE software is examined/evaluated from a diagnostic laboratory perspective. The advantages are the long reads, which means that e.g. DPB1 can be resolved without cis/trans ambiguities. New technologies are associated with challenges in the handling of large amounts of data and must be planned.



**Prof., Dr. rer. nat., Dipl.
Biol. Ilias Doxiadis**
Transplantation Immunology
University Hospital Leipzig

EPITOPE MATCHING IN RENAL TRANSPLANTATION, AN ODYSSEY

The goal in renal transplantation is to achieve long term patient and graft survival. Cell mediated rejections are thought to be treatable, while humoral rejections are on the long term deleterious. The antigens of the HLA system are in essence the main targets for the antibodies. Accurate HLA typings of organ recipients and donors and definition of the antibody specificity are the state of the art. Incompatible epitopes recognized by specific antibodies are defined. Avoiding them, graft survival rate will increase. Consequently, by predicting epitopes which might lead to antibody production will allow a better organ allocation.

PARTNERS

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CareDx

CareDx, Inc., headquartered in South San Francisco, California, is a leading precision medicine solutions company focused on the discovery, development, and commercialization of clinically differentiated, high-value healthcare solutions for transplant patients and caregivers.

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

GENDX

GenDx

For more than 15 years, GenDx is a global leader in molecular diagnostics for matching stem cell transplant patients with donors, and monitor success of transplantation. We combine our renowned software and reagents for high resolution HLA typing by Next Generation Sequencing and Chimerism monitoring with excellent customer support and education. We work closely with our partners and clients and share knowledge to advance the field of transplant typing and monitoring. With a highly educated and motivated team of almost 100 people and 40 distributors we contribute worldwide to the quality of life of transplant patients. **Board of Directors** – Per October 4, 2022, the Paris, France-based Eurobio Scientific acquired all outstanding shares of GenDx. The board of director currently consists of Wietse Mulder PhD (executive director), Denis Fortier and Hervé Duchesne de Lamotte (non-executive directors). **Our Mission & Vision** – Improve the quality of life and survival of transplant patients & advance the field of transplantation by offering excellent molecular diagnostic tools and sharing knowledge.





Immucor

Seeing Beyond Limits

New Frontiers in Transplant Diagnostics

Founded in 1982, Immucor® is a global leader of transfusion and transplantation diagnostics. Our transplant diagnostics portfolio provides molecular and antibody-based assays for compatibility between donors and recipients. Laboratories use our products as part of determining the best path forward for a solid organ and bone marrow transplant recipient and monitoring for possible post-transplant rejection. Our LIFECODES® products and MIA FORA™ deliver highly accurate testing solutions for donor-patient compatibility. We are also leading the way in post-transplant monitoring with our innovative antibody and molecular assays that detect early signs of rejection. Finally, our specialty diagnostic solutions for platelet transfusion testing and hemostasis provide important diagnostic information for today's modern laboratories. By providing clinicians with accurate test results, we can help change the practice of transplant medicine.



A Thermo Fisher Scientific Brand

One Lambda

As part of Thermo Fisher Scientific, we offer products and services to advance the science of transplant diagnostics. Our solutions help transplant labs and clinical teams provide personalized care across the patient experience. Dr. Paul Terasaki founded One Lambda™ in 1984 with the goal of developing tests to improve how laboratories match and monitor transplant recipients and donors. Since then, our HLA typing and antibody detection assays have been trusted by transplant laboratories worldwide. Clinicians also rely on data from our patient monitoring tests to make important decisions about post-transplant therapies. Transplantation is life-changing for recipients, and clinical diagnostics play a vital role in supporting all phases of treatment. Through our commitment to scientific innovation, product quality, patient advocacy, and excellent customer service, we are helping the transplant community raise the standard of care and improve outcomes for patients and their families.



GOLD PARTNER



OMIXON BIOCOMPUTING LTD.

Omixon is a global transplantation diagnostic company with a mission to provide histocompatibility laboratories with innovative technologies to improve transplant outcomes. Omixon is headquartered in Budapest, Hungary, with operations in the United States, Brazil and the Netherlands serving more than 60 laboratories worldwide. Building on multidisciplinary competences in bioinformatics, software engineering, molecular biology and regulatory science, Omixon transforms molecular biology innovations into state-of-the-art products in transplant diagnostics. Omixon was the first to successfully introduce a next generation sequencing (NGS) based HLA genotyping kit and software in 2014 by bringing HoloType HLA product and HLA Twin software to market. HLA Twin delivers the most accurate high-resolution HLA genotyping and is used in more than 60+ laboratories worldwide. Omixon was the first to release a high resolution HLA genotyping product NanoTYPE HLA with less than 5 hours turnaround time on the Oxford Nanopore sequencing platform complemented by NanoTYPER analysis software. Omixon is the first to bring to market a donor-derived cell-free DNA kit HoloGRAFT for laboratories with donor-informative genetic markers with primer and probe sequences that are absent in the patient genotype by design.

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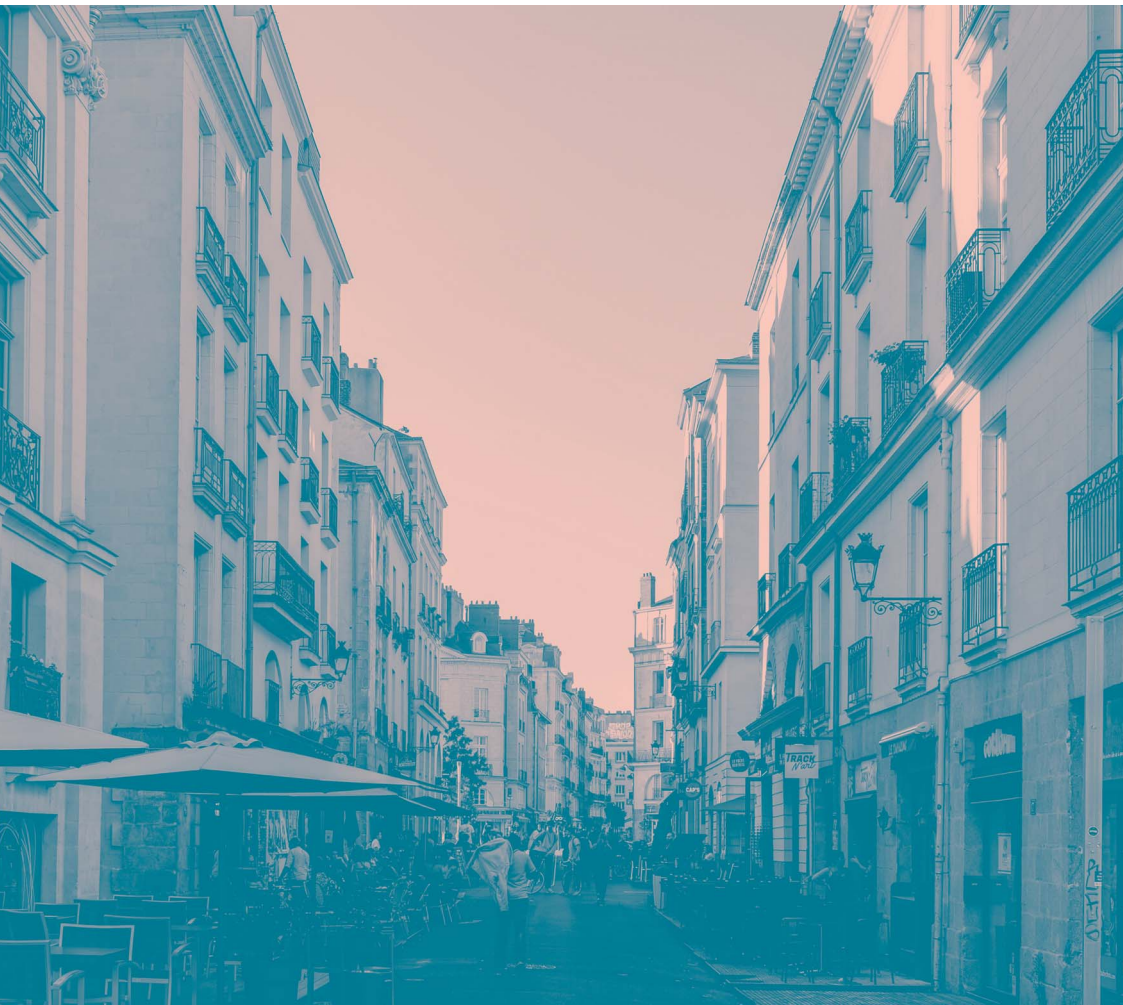
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We are pioneers in diagnostic kits and solutions for advanced DNA testing. Our goal is to eliminate tedious protocols and streamline laboratory workflows with simple, fast, and easy-to-use solutions. So all patients receive a correct diagnosis and faster treatment in the shortest time possible. **Our mission** – Be the pioneering leader of diagnostic solutions and provide fast, accurate, and easy-to-use solutions to labs worldwide. **Our vision** – A world where personalized medicine is universally available thanks to simplified and reliable genetic tests.



BRONZE PARTNERS



SOCIAL PROGRAM

WELCOME COCKTAIL

Date: Wednesday, April 26, 2023, 19:30–21:00
Place: Great Auditorium + Great Gallery foyers – Congress venue
The Welcome Cocktail is open to all conference participants.

NETWORKING EVENT 1 / CONFERENCE GALA DINNER

Date: Friday, April 28, 2023, 20:00–23:00
20:00–21:00 Visit of the mechanical sculpture gallery
21:00–23:00 Conference Dinner
Place: Les Machines de l'île
(address: Parc des Chantiers, Boulevard Léon Bureau, 44 200 Nantes)
Recommended dress code: Smart casual
Price: 95 € / per person

NETWORKING EVENT 2 / AFTER PARTY

Date: Friday, April 28, 2023, 23:00–02:00
Place: Stereolux Club
(address: Parc des Chantiers, 4 Boulevard Léon Bureau, 44 200 Nantes)
Recommended dress code: Smart casual
Price: 35 € / per person
Snacks and drinks are paid by each participant

GENDX TULIP RUN

Date: Friday, April 28, 7:00 am
Price: 25 € / per person
The tickets will be available for sale until April 27, 2023, 18:00.
Meeting point: At the main entrance of La Cité des Congrès de Nantes
Program: 06:40 am Warm-up
07:00 am Start Run
08:00 am Tulip run awards & heading back to the hotel

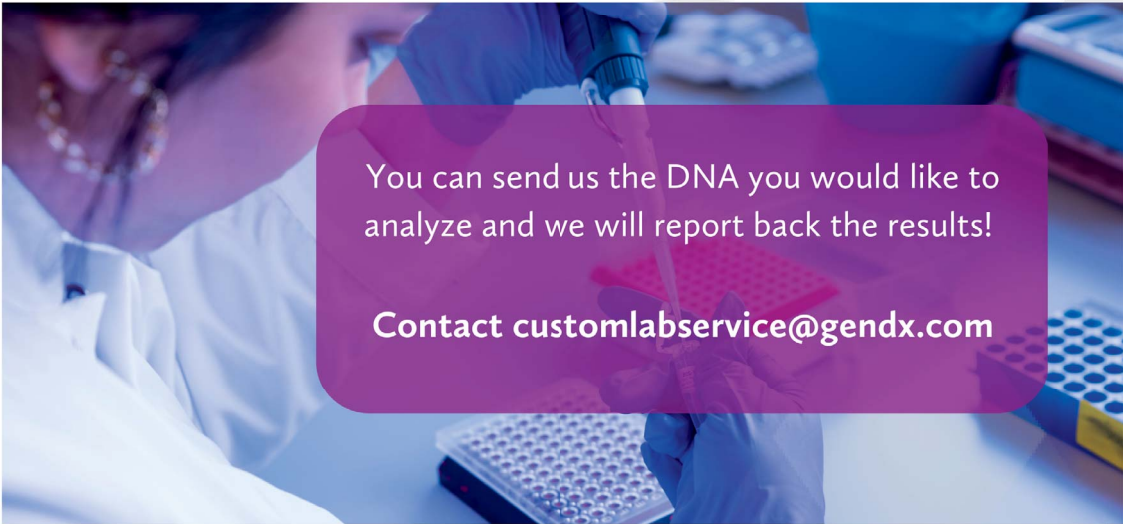


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Does Your DNA Purification Method for NGS Really Matter?

Learn about purification methods with Maureen,
an NGS Technical Training Specialist



Maureen Montgomery
Sr. Technical Training Specialist
Thermo Fisher Scientific

Tell us a bit about your job and journey in the field of HLA?

I am the Sr. Technical Training Specialist for our One Lambda branded NGS products. Before joining Thermo Fisher's Transplant Diagnostics business, I spent 20 years working in the HLA Clinical Laboratories at the University of North Carolina and LabCorp using a variety of One Lambda products. I worked mainly on the molecular side with the validation of NGS assays and some R&D work as well. [Read more online...](#)

Why is DNA Purification so important?

The quality of your DNA is critical to the results of your assay. If you have genomic DNA that is not intact (has small fragment sizes), it will greatly limit the quality of results and how successful they are. Ensuring a quality starting material is key to obtaining the best results possible. [Read more online...](#)

Are all DNA extraction methods the same?

No - all DNA extraction methods are not the same. There are several ways to extract DNA, such as magnetic beads, spin columns and filter plates, among several others. It is crucial to the success of molecular assays that the DNA does not contain PCR inhibitors. [Read more online...](#)

Visit our website to read the rest of Maureen's thoughts on DNA Purification for NGS.

“ it's imperative
to consider all
the downstream
applications when
incorporating
a new extraction
method ”



[Read more online](#)

 Visit us at EFI at booth #4

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A new method for dd-cfDNA detection **Booth #6**

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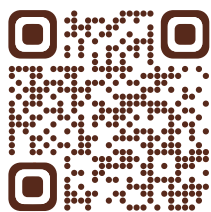
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International Convention Center
Jerusalem, Israel

Why Jerusalem?

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