



EFI 2023



36TH EUROPEAN IMMUNOGENETICS AND HISTOCOMPATIBILITY CONFERENCE

April 26–29, 2023, Nantes, France

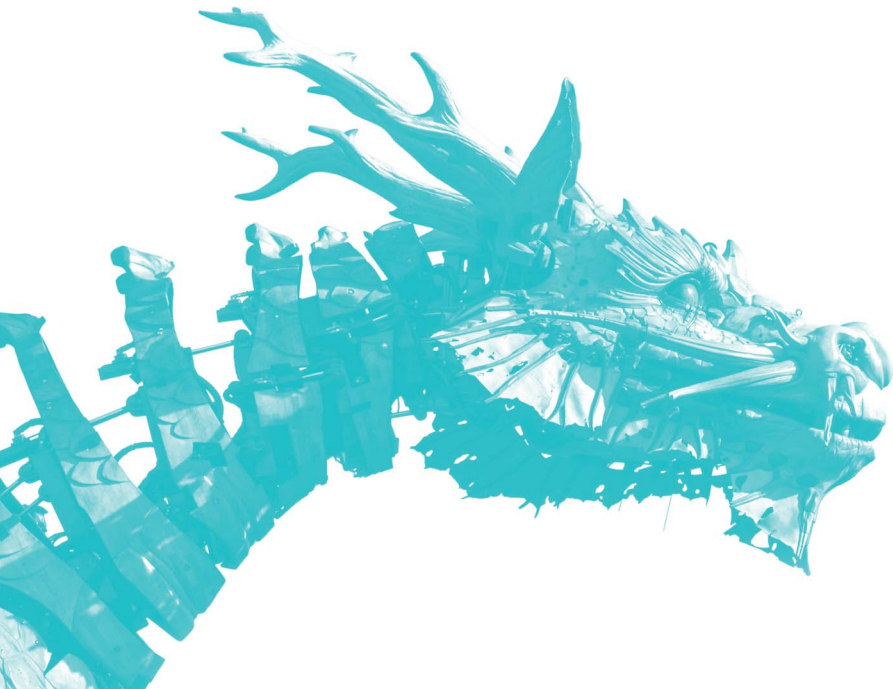
**Big Data in Immunogenetics at the Crossroads of Care,
Tools and Research**

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



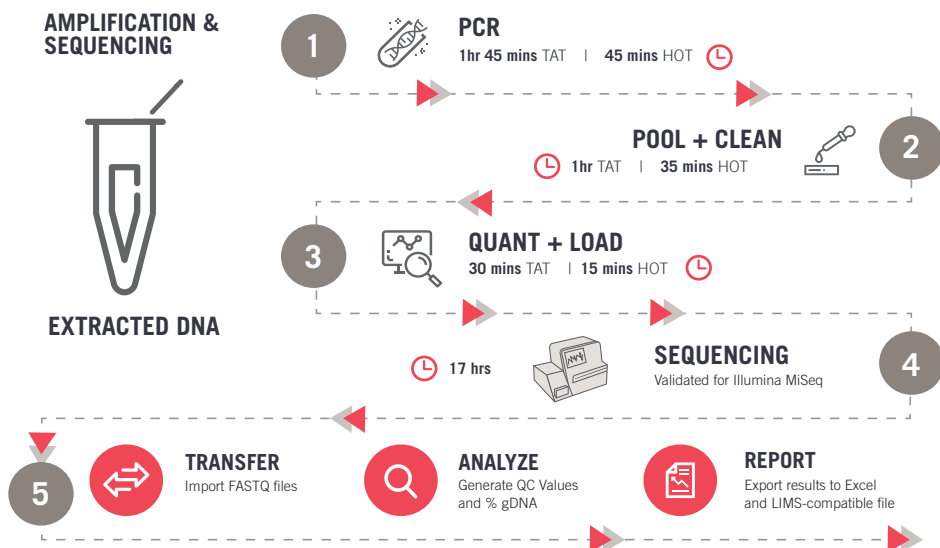
AlloSeq HCT

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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!®
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[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

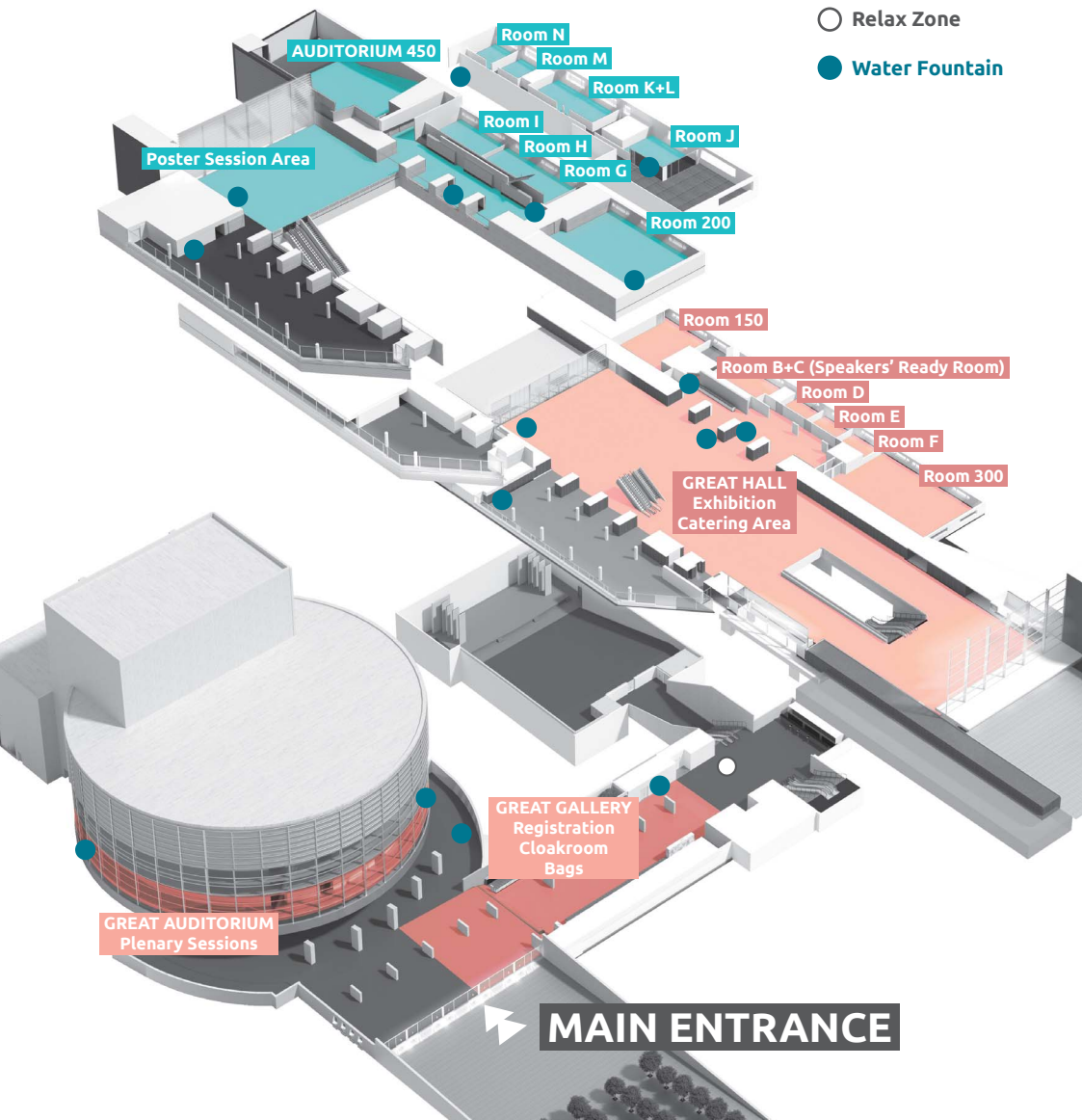
Nantes Events Center

5 rue de Valmy

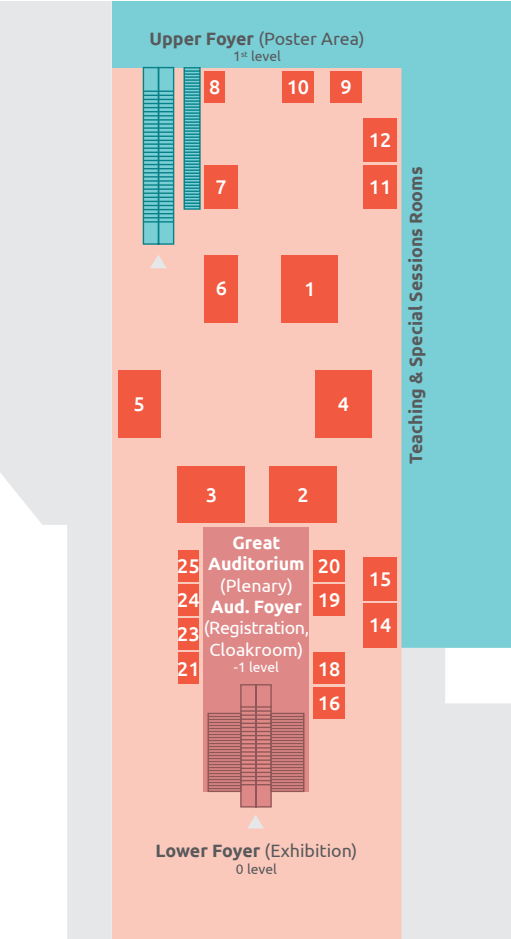
BP 24102

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

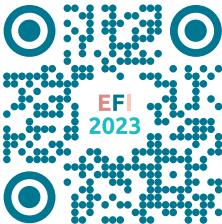
SSID: 0-la Cite Guests

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.

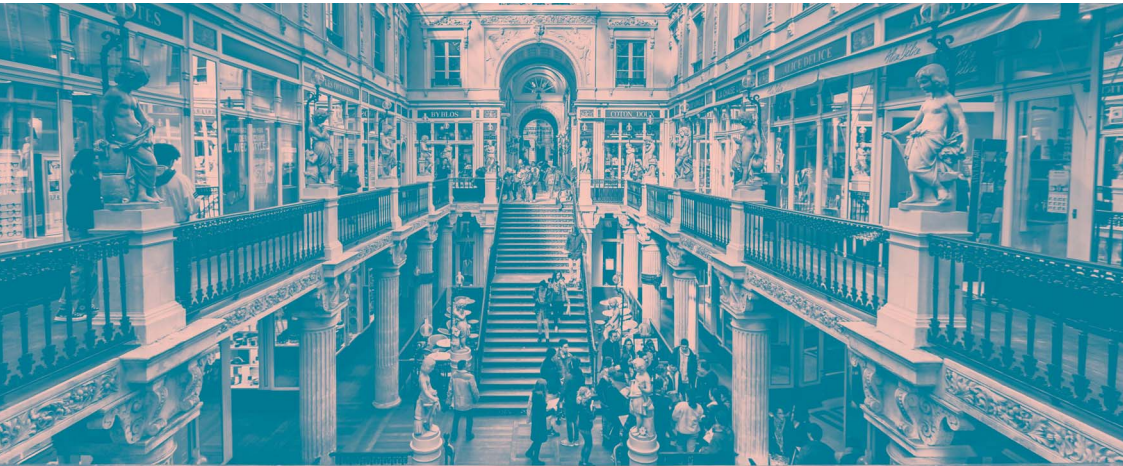
DELEGATE
ONE-DAY FEE 27/28/29
SPEAKER
PARTNER / EXHIBITOR
ORGANIZER
ACCOMPANYING PERSON
GUEST
VOLUNTEER

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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Pietro Crivello (Germany)
Raphael Carapito (France)
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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
Room 150 (Lower Foyer)

09:00–17:15 **Inspectors Workshop**
Rooms E & F (Lower Foyer)

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

WEDNESDAY, April 26, 2023
Room D (Lower Foyer)

08:30–16:30 **Executive Committee meeting**
Room E (Lower Foyer)

08:30–16:30 **External Proficiency Testing Committee meeting**
Room F (Lower Foyer)

09:00–12:00 **IT & Bioinformatics Committee meeting**
Room H (Upper Foyer)

08:30–17:00 **Accreditation Committee meeting**
Room M (Upper Foyer)

08:30–16:30 **Standards Committee meeting**
Room I (Upper Foyer)

13:30–17:00 **Education Committee meeting**
Room K+L (Upper Foyer)

12:15–13:45 **Open Meeting of the Population Genetics Working Group**
14:00–17:00 **Scientific Committee meeting**

Room G (Upper Foyer)
14:30–16:30 **Young EFI Working Group**

Journée scientifique de la Société Francophone d’Histocompatibilité et d’Immunogénétique (SFHI)
Auditorium 450 (Upper Foyer)

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

10:00–10:30 Coffee break

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)

12:00–14:30 Lunch

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)****16:00–16:30 Coffee break****Great Auditorium****16:30–18:00 PLENARY SESSION II****HLA Immunogenetics, Population genetics & Evolution****Mezzanine (Upper Foyer)****18:00–20:00 Wine and Cheese poster session****FRIDAY, April 28, 2023****Great Auditorium****08:30–10:00 PLENARY SESSION III****HLA in Solid Organ Transplantation****10:00–10:30 Coffee break****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)****12:00–14:30 Lunch****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

16:00–16:30 Coffee break

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)

10:00–10:30 Coffee break

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*

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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

- 10:00–10:30** **Coffee break**

PARALLEL SESSIONS

Great Auditorium

Special Joint EFI-ESOT Session

The use of AI to Assist Decision Making in Transplantation

- Chairpersons* *Gilles Blancho, 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

12:00–14:30 **Lunch**

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*

16:00–16:30 **Coffee break**

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 Wine and Cheese poster 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 Sebastiaan 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

10:00–10:30 Coffee break

PARALLEL SESSIONS

Great Auditorium

Special Joint EFI–SIP Session

Society for Immune Polymorphism: Advances in Clinical Immunogenomics

Chairpersons Martin Maier, 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***12:00–14:30 Lunch****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 Maiers, 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*

16:00–16:30 Coffee break

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

10:00–10:30 Coffee break

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

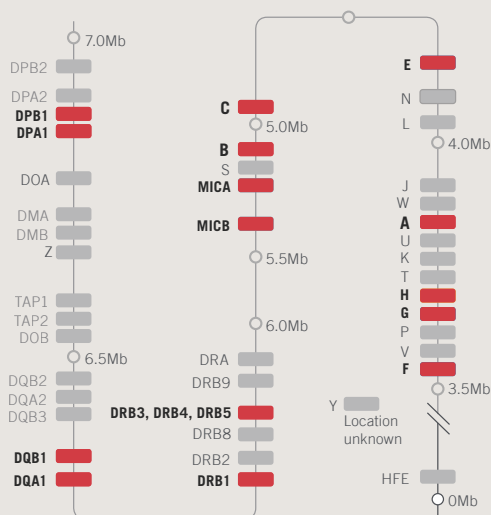
Fast Software Analysis
with Data Upload at 1 min/sample*

*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

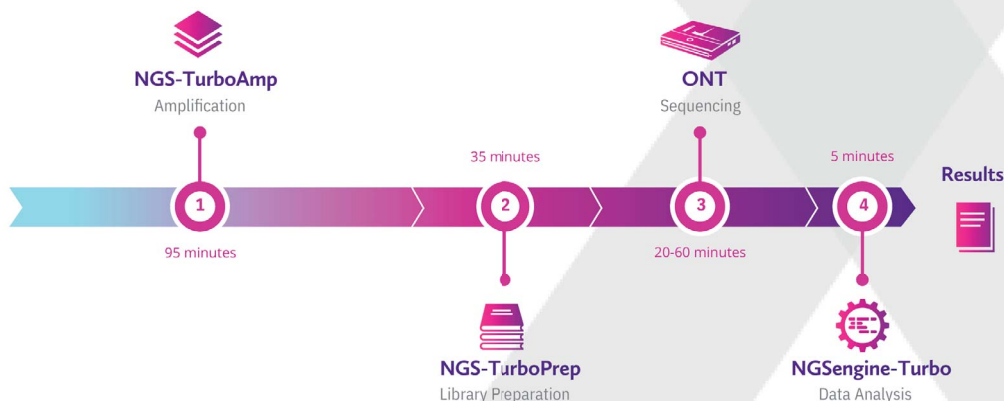


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Looking for more solutions to help aid in your decision making process?



How could more tools in your toolbox better aid you in your decision making process for critical transplant patients? When you have more information at your disposal, you can 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.



SCAN to see how a fellow member of the HLA community accomplished this.

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HistoTrac™ Software

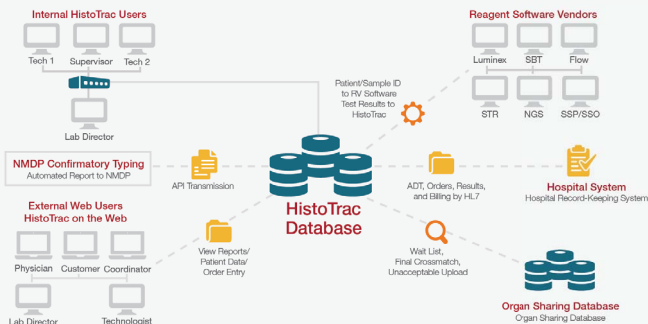
A comprehensive data management system for your HLA Laboratory

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

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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

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P6/ID 3182

HNA antibody association to HLA alleles and autoimmune neutropenia

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P7/ID 2013

Association between T regulatory cell genes and autoimmune neutropenia

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P8/ID 1143

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

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P9/ID 923

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

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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

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P11/ID 5558

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

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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 Ocejo-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

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P19/ID 5887

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

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P20/ID 3321

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

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P21/ID 3705

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

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Bioinformatics, data analysis in Immunogenetics

P22/ID 1335

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

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P23/ID 5340

Attention Based Immune Repertoire Classification

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P24/ ID 3609

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

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P25/ID 4818

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

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P26/ID 3657

Nanopore sequencing data analysis using a cloud computing service

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P27/ID 348

GRMA – Graph based HLA-matching with mismatches

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P28/ID 8982

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

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P29/ID 6803

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

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P30/ID 3195

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

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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

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P32/ID 129

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

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P33/ID 800

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

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P34/ID 9693

Data sharing, research evaluation and Open Science

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P35/ID 7926

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

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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

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P37/ID 7674

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

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P38/ID 9159

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

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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

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P40/ID 8919

Advysor solid organs software for accurate post transplantation monitoring

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P41/ID 1061

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

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P42/1467

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

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P43/3737

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

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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

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P45/ID 1781

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

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P46/ID 7547

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

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P47/ID 8496

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

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P48/ID 6974

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

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P49/ID 6587

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

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P50/ID 8003

Detection of HLA Antibodies in potential haploidentical HSC transplant recipients

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P51/ID 5022

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

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P52/ID 3828

Chimerism analysis using next generation sequencing

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P53/ID 1995

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

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P54/ID 447

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

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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

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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

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P57/ID 783

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

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P58/ID 1487

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

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P59/ID 1544

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

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P60/ID 1236

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

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P61/ID 2703

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

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P62/ID 6682

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

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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

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P64/ID 289

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

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P65/ID 4428

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

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P66/ID 1739

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

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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

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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

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P69/ID 3995

Imlifidase desensitization in a highly-sensitized kidney transplant recipient

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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

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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

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P72/ID 2383

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

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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

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P74/ID 9213

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

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P75/ID 3365

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

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P76/ID 5429

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

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P77/ID 2991

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

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P78/ID 8714

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

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P79/ID 2647

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

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P80/ID 939

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

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P81/ID 6984

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

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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

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MHC Evolution, Population Genetics

P83/ID 195

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

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P84/ID 343

Distribution of HLA-DRB3 alleles in Spanish population

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P85/ID 1053

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

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P86/ID 1100

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

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P87/ID 1135

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

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P88/ID 1139

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

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P89/ID 1168

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

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P90/ID 2049

Recombination between HLA genes in two siblings

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P91/ID 2354

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

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P92/ID 2401

Association between migraine and HLA-B and HLA-DRB1 gene polymorphisms in a southern Croatia population

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P93/ID 2782

Next-generation sequencing reveals and validates HLA polymorphism among Croatians

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P94/ID 2875

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

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P95/ID 3318

Serological equivalents of rare HLA alleles in French population

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P96/ID 3576

Distribution of Mhc-C encoded C1 and C2 epitopes and inhibitory KIR repertoire potential in West-African chimpanzees and humans

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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

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P98/ID 3918

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

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P99/ID 3997

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

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P100/ID 4169

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

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P101/ID 4547

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

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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

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P103/ID 5660

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

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P104/ID 6166

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

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P105/ID 6539

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

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P106/ID 6771

New HLA alleles identified in the admixed Brazilian population

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P107/ID 7158

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

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P108/ID 8479

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

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P109/ID 9027

Comparative analysis of HLA-haplotype distributions in two Slavic populations

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NK cells & KIR

P110/ID 9581

Selective HLA haplotype loss and immunological escape of NPM1+ AML

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P111/ID 1490

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

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P112/ID 2762

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

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P113/ID 1575

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

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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 Ogret³, 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

¹Histocompatibility 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

¹Transplantation 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

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

⁴Omixon 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

¹Department 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

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

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

⁴Department 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

¹GenDx, 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

¹Immunogenetics 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*



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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

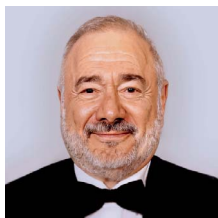
Vaccine development for many neglected tropical diseases (NTDs) is confronted with scientific challenges in target antigen identification and the lack of correlates of protection. Causes are unsuitable preclinical models, genomic complexity of the pathogens, and the remoteness of the affected and impoverished 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

PLATINUM PARTNERS



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.



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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



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Omixon is a global transplantation diagnostic company with a mission to provide histocompatibility laboratories with innovative technologies to improve transplant outcomes. Omixon is headquartered in Budapest, Hungary, with operations in the United States, Brazil and the Netherlands serving more than 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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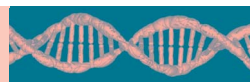


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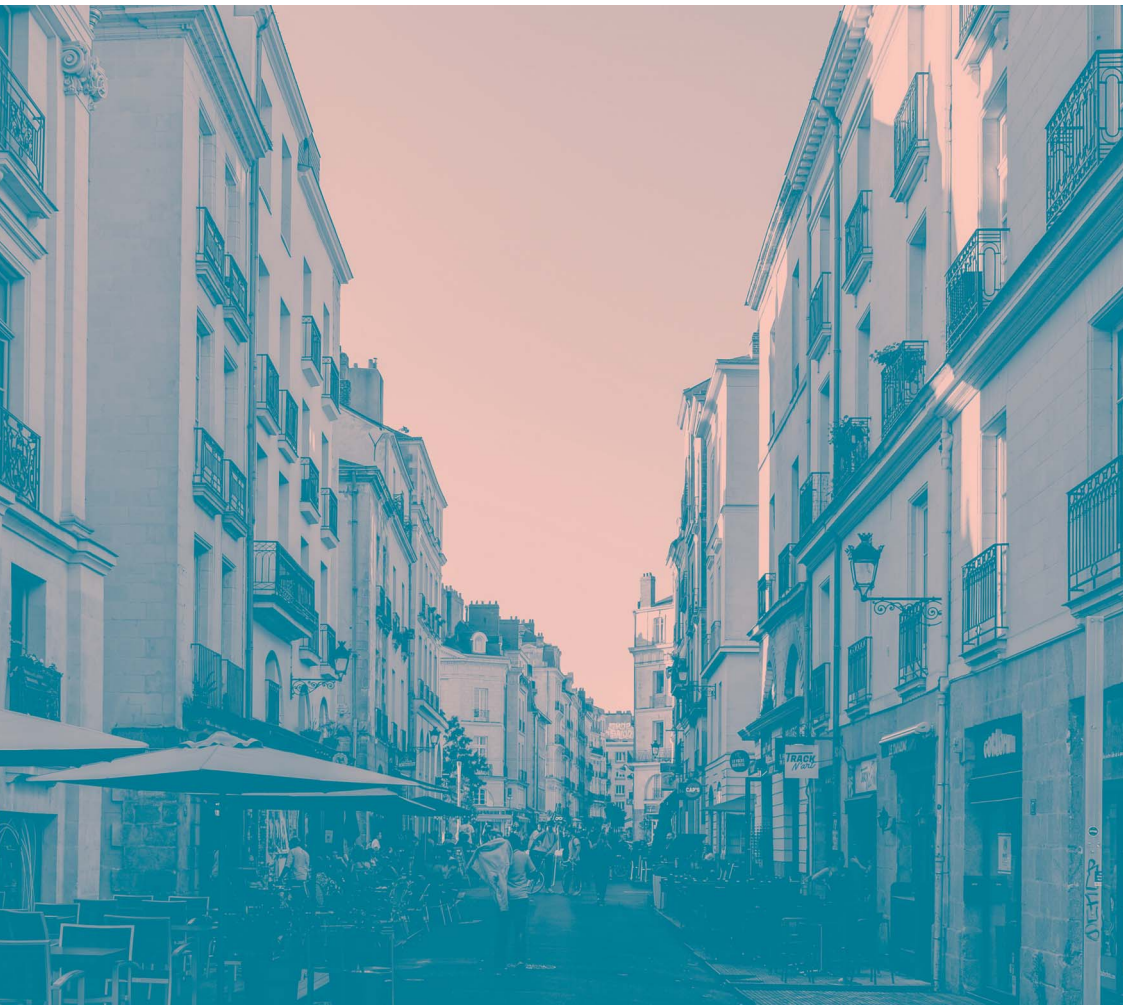
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BRONZE PARTNERS



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

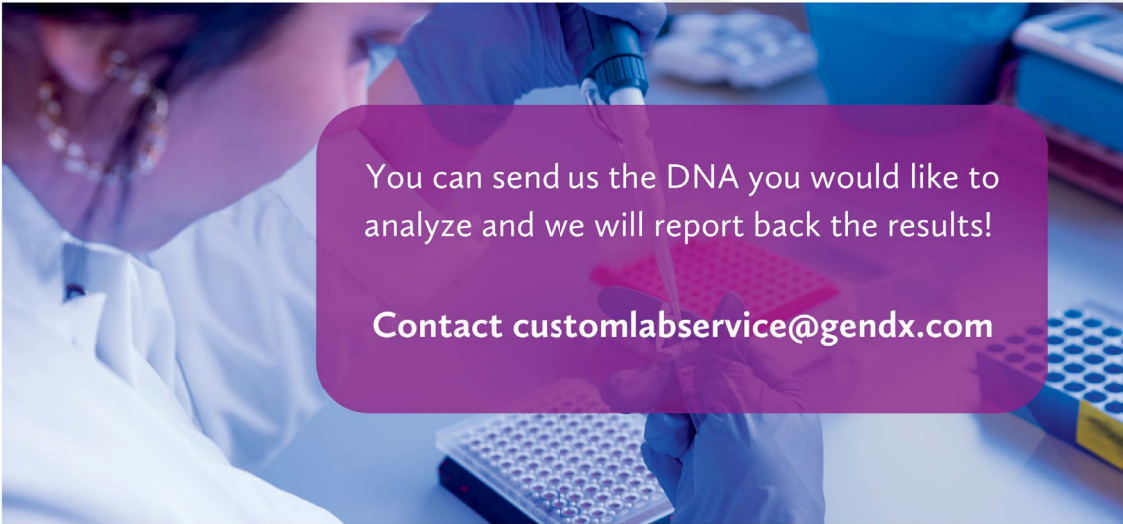


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Does Your DNA Purification Method for NGS Really Matter?

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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Devysr Accept cfDNA

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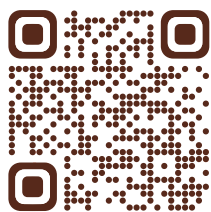
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International Convention Center
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Why Jerusalem?

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Is still one of the world's most multicultural societies: on its streets one might meet Jews from all four corners of globe, speaking in a plethora of tongues; Palestinian Arabs (both Muslim and Christian); and priests, monks, and nuns of all Christian denominations.

Dotting the landscape are sacred sites – from the splendid Dome of the Rock/Temple Mount, to Gethsemane, as well as monuments and museums dedicated to history and memory, such as the Yad Vashem Center, and the Shrine of the Book. The medley of languages, customs and costumes, smells and tastes, is intoxicating.

It is bursting with shopping, nightlife, dining and culture to rival any major city. The colorful Mahane Yehuda market, charming Nahalat Shiva and bustling Ben Yehuda pedestrian mall and Jaffa Road. Each has its own unique personality and charm that you won't want to miss out on.

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