EUROPEAN FEDERATION

NEWSLETTER

FOR IMMUNOGENETICS

MARCH 2021 - ISSUE 94

.....FROM THE EFI PRESIDENT

DEAR COLLEAGUES AND FRIENDS,



This is my final address to you as an EFI President in a Newsletter issue. When looking back, the last three years passed so guickly and were extremely challenging - certainly largely moulded by the pandemic. Covid-19 affected so many EFI related activities, thus, requiring strategies to be developed and actions to be taken that would carry us as a society through these difficult times. Independently from the pandemic, we had already decided at the beginning of my EFI chair term that communication within our executive body and transparency of decisions taken there needed to be increased. Bi-monthly teleconferences were setup in order to discuss with the entire EFI Executive Committee (EC) all issues that otherwise were either accumulated and put on the agenda for the two main EC meetings (at our annual conference and at the autumn meeting in Leiden) or were decided from the EFI Officers midterm, thus not always keeping the entire EC fully informed. This systematic communication within the EFI EC turned out to be helpful in order to work continuously on the various projects that were on the focus, but more importantly, it proved to be the right strategy when the pandemic came and appropriate measures had to be decided quickly.

In addition, during the last three years we also established virtual communication platforms, such as GoToMeeting, GoToWebinar, and Slack which made communication within EFI much easier. In the meanwhile, these platforms have proven to be very helpful and effective and were taken on positively by all EFI Committees. Virtual tools also allowed continuation of education and training activities, one of our

society's main goals. In the last 9 months, EFI organised two webinars which were very well attended by participants from all over the world! We also managed to introduce e-learning platforms for training and continuous education of future lab directors (ESHI-diploma candidates) as well as for technical staff ETHIQ In particular, the ETHIQ diploma has been a longterm EFI goal which with the implementation of Moodle as an electronic E-learning platform is now feasible. First pilot "ETHIQ-students" have already registered with the scheme and we look forward to receive their feedback in due time. Another major decision that was taken was the selection of "Guarrant" as the Core Professional Congress Organiser (PCO) for EFI. This PCO will help us organising our annual meetings as well as the International Summer school events over a period of three years (starting with the EFI conference in Nantes in 2023). It was felt that having a core PCO over several years would make the organisation of our annual meetings easier rather than explaining on an annual basis to each new local PCO what EFI is, what its industrial partners are and how our annual meetings have to be organised. Finally, last year EFI launched its new web page, which eventually enabled us to fulfil the GDPR requirements and have a safe virtual presentation of our society to the outer world.

One of the major consequences of the Covid-19 pandemic on EFI's work was its impact on the EFI accreditation activities. As you may have noticed by now, all on-site-visit activities scheduled since March 2020 were cancelled. The Accreditation Committee decided to implement an extra-"B-packet" cycle in order to address this challenge. However, the extra cycle was almost completed and we are still in the middle of the pandemic. Therefore, additional solutions had to be taken into consideration in order to address the continuity of accreditation and quality surveillance in the field of H&I in Europe.

Another obstacle on EFI's way also resulted from the pandemic: this was the postponement of the International Summer School that was supposed to be carried out in Prague last September. After consultation with our sister societies (ASHI, APHIA and ARHSI) it was decided that the H&I summer school is going to be carried our virtually sometime in the autumn 2021. EFI will be in charge of it and further details on this issue will be announced soon. Most importantly though, the greatest damage of the pandemic to EFI was caused by the need to postpone our 2020 annual conference for a whole year. This also affected the subsequent



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Many COVID-19 antibody tests can detect one or two antibody targets, which may be sufficient for the general population. Transplant patients, however, are not like other patients. With suppressed immune systems, they may suffer a much greater mortality risk (>30%) from a SARS-CoV-2 infection than others (5%)¹.

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Our collaborators recently published a peer-reviewed article in *Transplantation* about the development of the LABScreen COVID Plus assay³. For free access, please visit: **go.1lambda.com/MultiplexAssayPaper**

Learn more at onelambda.com/covidplus

¹ Cravedi, P, Mothi, SS, Azzi, Y, et al; for the TANGO study group. COVID-19 and kidney transplantation: Results from the TANGO International Transplant Consortium. Am J Transplant. 2020; 20: 3140– 3148. https://doi.org/10.1111/ajt.16185

 $^{\rm 2}\,{\rm Product}$ is CE marked for IVD in the EU. Product not cleared by US FDA.

³ Bray RA, Lee JH, Brescia P, Kumar D, Nong T, Shih R, Woodle ES, Maltzman JS, Gebel HM. Development and Validation of a Multiplex, Bead-Based Assay to Detect Antibodies Directed Against SARS-CoV-2 Proteins. Transplantation. 2020 Dec 2. doi: 10.1097/TP. 000000000003524. Epub ahead of print. PMID: 33273320.

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....FROM THE EDITOR'S DESK

Before you lies the 94th edition of the EFI Newsletter, which unfortunately contains less items than we are used to from previous editions. There are less meetings of which reports are being written, which due to the nature of virtual meetings is very understandable. I think we all agree that the virtual platforms are useful in these extraordinary times, but we cannot wait to pack our bags and meet each other in person at a full live meeting.

In addition, we miss the reports of scientists and technicians visiting laboratories abroad using the possibilities of EFI sponsorship. Also these activities have completely stopped for the time being and we are looking forward to times in which these activities can again start.

For the first time in EFI history, our Newsletter contains the scientific program of a full virtual EFI annual meeting. The program has largely remained unchanged from the original program that was published in Newsletter #91. I think we can all agree that the program contains excellent speakers and interesting topics, relevant to our field. The local organizing committee should be applauded for actually preparing two EFI meetings in a row. This must have been a tremendous job.

Finally, I would like to thank our President Joannis Mytilineos, who will hand over the Presidency to Ann-Margaret Little during the upcoming EFI annual meeting. Joannis has been President in an extremely challenging time for EFI, and he has done an excellent job in navigating our society through this difficult time. As editor of this Newsletter, I may have had to push to receive the President's contribution for the Newsletter in a timely manner, but I know this reflects the extremely busy agenda Joannis had the last couple of years. On behalf of all EFI members, many thanks to Joannis and a warm welcome to Ann-Margaret.

As always, I hope you enjoy reading this newsletter, I hope to see you all virtually 'in Glasgow' and I am looking forward to your contribution to the next edition.

Sebastiaan Heidt

Deadline for contributions to EFI Newsletter 95 is September 6, 2021. Please send your contributions by e-mail to s.heidt@lumc.nl



CONTENTS.

From the EFI President From the editor's desk Membership update Invitation to the General Assembly 2021 Vacancy announcement for the EFI Committee for External Proficiency Testing Report of the EFI Scientific Committee Update from the EFI Education Committee March 2021 EFI 2021 Programme Highlights from the HLA journal 1

3 7 7

7

9

9

11

19



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.....FROM THE EFI PRESIDENT (CONTINUED)

EFI annual conferences in Amsterdam, Nantes and Madrid. As EFI's main source of income is generated through our annual conference, this postponement had a major financial impact on our society. We still do not have the full view on the fiscal consequences, as some insurance refunds have not been settled yet. Nevertheless, it is expected that it will not only be the loss of income but also a substantial amount of additional expenses due to unmet liabilities, which EFI will have to carry. Fortunately, this is where the healthy financial structure, which our society was able to build up in the previous years, now pays off. This allowed us to continue carrying out our work and plan ahead despite the financially substantial uncertainties we are going through.

All in all, I think that the last three years were successful and helped us as a society to grow closer and so far overcome the crisis together. Our reactions were adequate and I am proud to hand over a functioning, structured and highly motivated society to Ann-Margaret Little who will be our new President right after our annual conference. I wish Ann-Margaret a successful term and I will be at her side whenever she needs my advice or my help.

This year's EFI annual conference will be a full virtual event and by the time, you will be reading this article we will most probably be standing just days before the opening of this annual highlight. It will be the first full virtual EFI annual conference. I would like to thank the local organisers, and in particular Ann-Margaret Little, Dave Turner, and Elen McFarlane, for the hard work they have put into this EFI-scientific-life virtual premiere! Also many thanks to Fitwise, the local PCO for this year's (and actually last year's) event for their full and professional support during these difficult days. In addition, many thanks to BSHI who as a co-organising society stood strong and supportively behind the local organisers. A great word of gratitude also to the Scientific and the Education Committees for shaping the contents of this year's annual event. Make sure not to miss the Ceppelini lecture given by Prof. Jacques Neefjes but also the Julia Bodmer awardee's presentation, which will be held by the young investigator who was selected by the EFI Scientific Committee for his outstanding work submitted to EFI. Finally, don't miss the General Assembly which will be once again virtual (as this was the case last year) and will provide an excellent opportunity for all members to receive a full picture of the activities in which our society is involved.

Before closing, I would like to express my gratitude to a couple of colleagues for their enormous help during my term as an EFI President: First of all Sandra van Hensbergen, the EFI administrative secretary, who has put so much work in every single of the projects outlined above! All virtual meeting packages as well as the creation of our new website and the e-learning platforms - they all went through Sandra's hands. So thank you Sandra for all your hard work! We would not have managed without you! Then Sonja at the accreditation office, for putting her "flesh and bones" in her work for the EFI accreditation program - an incredibly reliable, long lasting commitment - thanks Sonja! Then Mats Bengtsson who has been the EFI Secretary for a number of years now and who has always stood there as the solid rock of EFI, critically identifying any threats coming up towards EFI, but also grabbing all opportunities that were visible, always for the good of our society. Furthermore, the team of our French Treasurers around Gwendaline Guidicelli, who took care of the EFI finances so good and combined the critical view of the financial manager with the visionary and the realistic approach of a thoughtful scientist. I am glad that during the last three years, we eventually "dared" to tackle the "hot iron" of finances, and eventually made it possible to settle all problems which resulted from the "bi-national" nature of our society, which has its offices in the Netherlands, however, is legally a French association. I would also like to thank Elissaveta Naumova, who as the previous President made it easy for me to enter smoothly in the deep waters of the EFI Presidency. At last, I would like to thank all Committee Chairs and Members who continuously work so hard in order to advance EFI and constantly improve the quality of our society's output for the good of our members and our patients, who are our highest priority. Last but not least many thanks to you all - the EFI Members! You are the heart and the soul of our society. Without your active participation and your interest in advancing the field of H&I and Transplantation Immunology, our society would not flourish and would not be standing were it stands today.

Let me wish you all the best for the future! Take care, stay safe and I hope that with the vaccination plans developing quickly throughout Europe we will be able to meet again in person soon!

Joannis Mytilineos EFI President







HISTO TYPE Rainbow



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MEMBERSHIP UPDATE

Since the last issue of the EFI Newsletter we received a number of applications forms from new members. Hereby we would like to welcome the following new EFI members:



M. Petzl-Erler, Curitiba, Brasil

- J. Markers, Tübingen, Germany
- J. Lee, Huntingdon, UK
- N. Patel, Loughborough, UK
- C. Dard, Corenc, France
- R. Das, Chicago, USA
- L. Kolesar, Budapest, Hungary
- N. Lauterbach, Budapest, Hungary
- C. Erikstrup, Aarhus, Denmark

INVITATION TO THE GENERAL ASSEMBLY 2021

All EFI members are invited to participate in the 2021 EFI General Assembly, which will be held during the 34th European Immunogenetics and Histocompatibility Conference.

The General Assembly will be held on April 22nd between 18:15 and 20:15 hrs CEST as a virtual meeting on the GoToWebinar platform. Please note this will be advertised as 17:15-19:15 (British Summer Time) on the programme of the virtual conference

The General Assembly will be chaired by the EFI President and a draft agenda is given below.

Mats Bengtsson, EFI Secretary on behalf of the Executive Committee.

Agenda

- 1. Opening
- 2. Minutes of the General Assembly July 23rd, 2020 (EFI newsletter September 2020, issue 92)
- 3. Report of the EFI President
- 4. Report of the EFI Secretary
- 5. Report of the EFI Treasurer
- 6. Report from the EFI Committees
 - a. Accreditation
 - b. Education
 - c. External Proficiency testing
 - d. Scientific
 - e. Standards and Quality Assurance
 - f. IT & Bioinformatics
- 7. Next EFI conference, Amsterdam, The Netherlands
- 8. EFI medal
- 9. Installation of the new EFI President

VACANCY ANNOUNCEMENT FOR THE EFI COMMITTEE FOR EXTERNAL PROFICIENCY TESTING

We are pleased to call for applications regarding a vacancy for membership in the EFI Committee for External Proficiency Testing. The vacancy is from region 4 (Germany). Applicants for this position should be from Germany and should share specific interests in external quality control, international standards and quality assurance. Candidates are asked to coordinate their application with the executive committee of the national H&I society, the Deutsche Gesellschaft für Immungenetik (DGI) prior to submission to the EFI Secretary. To apply, please complete the application form that can be found on the EFI website (https://efi-web.org/vacancies). The deadline for application is June 7th

2021.



Seeing Beyond Limits

In addition to our Gold Sponsorship, we are thrilled to also provide reagents for official workshop projects!

Immucor is a proud partner and gold sponsor of the 18th International HLA & Immunogenetics Workshop, May 2022 in Amsterdam, The Netherlands!

We invite you to participate in these exciting projects that aim to better understand and define HLA epitopes and clinical relevance of non-HLA antibodies in the absence of donor-specific HLA antibodies.



• The Immucor LIFECODES[®] Non-HLA Antibody reagents will be used in the "Clinical Relevance of Non-HLA Antibodies" project coordinated by Dr. Henny G. Otten (The Netherlands) and Dr. Elaine F. Reed (USA).

To participate in this projec visit: https://www.ihiw18.org/componentepitopes/project-the-clinical-relevance-of-non-hla-antibodies/

 The Immucor LIFECODES[®] LSA[™] Class I and Class II reagents will be used in the "Definition of Immunogenic Epitopes" project coordinated by Dr. Sebastiaan Heidt (The Netherlands) & Dr. Eric Spierings (The Netherlands).

To participate in this project visit: https://www.ihiw18.org/componentepitopes/definition-of-immunogenic-epitopes/





REPORT OF THE EFI SCIENTIFIC COMMITTEE

The EFI SC is pleased to announce that Professor Luca Vago will take over the chairmanship of the Committee after the virtual 34th EFI Conference. Professor Katharina Fleischhauer will stay on the Committee for another year until the end of her 9-year term.

A recent event hosted by the EFI SC was the webinar entitled "The impact of immunogenetic variation on viral disease", held on February 17, 2021 by Professor Mary Carrington, Director of the Basic Science Program at the Frederick National Laboratory for Cancer Research, USA.

Professor Carrington is well-known to the EFI Community and beyond, for her groundbreaking work on the influence of immunogenetic variation on human disease, in particular infection and autoimmunity. In this webinar, she brilliantly shared with us some fundamental concepts on how genetic variation is a double-edged sword, as some variants that are protective against one disease can increase the risk of another. She made this point by recapitulating some of her pioneering work on 3 polymorphisms: 1) the CCR5 Δ 32 variant that protects against HIV-1 and HBV persistence, but associates with the risk of symptomatic West Nile Virus infection; 2) HLA-B*57:01 conferring protection against HIV-1 but susceptibility to abacavir hypersensitivity and psoriasis; 3) genetically defined high HLA-C expression levels that are associated with protection against HIV-1 on the one hand and risks of Crohn's disease and graft-versus-host



disease on the other. In the final part of the webinar, Professor Carrington presented state-of-the-art evidence regarding the relevance of genetic variation for the outcome of SARS-Cov-2 infection, and ongoing work being conducted in collaboration with her laboratory to define genetic risk profiles for Covid-19.

Professor Carrington's webinar was attended by over 270 participants from all over the world. If you missed the event, the slides can be downloaded in the members only section of the EFI Website at https://efi-web.org/resources/webinar-series.

Watch out for additional EFI SC webinars in planning for the coming months.

Katharina Fleischhauer (on behalf of the EFI SC)

UPDATE FROM THE EFI EDUCATION COMMITTEE MARCH 2021

European Specialisation in H&I (ESHI) Diploma

In line with other disciplines with examinations under the umbrella of the UEMS, an online examination for the ESHI Diploma was undertaken in November 2020. This approach worked well and this same method of assessment will be used in Spring 2021. As usual, applications for future examinations must be made via the Section of Surgery/Transplantation/ Transplant Immunology page of the UEMS website (http://www.uemssurg.org/divisions/trans¬plantation/¬transplant-¬immunology2). The next examinations (again likely to be online) will be in Autumn 2021. See the website for details.

e-Learning

Nine 30 minute presentations on different aspects of H&I in solid organ transplantation, HSCT, disease association and transfusion (relevant for individuals wishing to work towards taking the ESHI Diploma, but hopefully of interest to all) are now available to EFI members via the website. These talks have been recorded by eminent scientists and physicians in our field. Log on to the EFI website and navigate to 'Resources' under Useful Links and 'ESHI Diploma training course', then follow the instructions to register and create an account to access these talks. Also, many other on line resources are already available, such as the Massive Open Online Course (MOOC) on kidney, pancreas and islet transplantation, provided by Leiden University Medical Center (LUMC) and the Basic and Advanced on line courses provided by WMDA.

Members can also access pdfs of slides from the 2019 EFI Conference Teaching sessions and Summer Schools via the members area of the website, again under 'Resources'.

One of the benefits of registering for the EFI/BSHI 2021 conference (https://efi2020.org.uk/) will be that access to all plenary sessions, teaching sessions and other talks will be available to registrants for a year after the conference. This will create a fantastic learning resource that we hope will be built on in subsequent years.

EFI Continued Medical Education (CME) / Continued Professional Development (CPD)

At the last EFI Executive Committee and Coordinators (ECC) meeting it was agreed to investigate two options for host-ing an EFI CME/CPD system; via the providers of the EFI

website or via a company who provide an online platform for the British Society for H&I (BSHI). Discussions are ongoing with this company, 'CPDme', about the best package that can be made available to EFI members.

European Technical H&I Qualification (ETHIQ)

The pilot scheme of the ETHIQ logbook is being undertaken by 15 participants in 4 countries. The scheme is for technical staff working at the bench in EFI accredited laboratories, with supervision given by senior staff in their own lab. The aim is to create a qualification that gives a measure of technician's knowledge and technical competence in H&I. Four French colleagues undertaking the pilot have completed the logbook and associated work (the logbook can be completed between 1-3 years after registration) and will be undertaking a short on line assessment as a final piece of the training programme. The Education Committee is very grateful to these 'early adopters' of the training scheme and appreciate the hard work they have obviously put into this. To grow the scheme the EFI Executive Committee has also agreed to develop the ETHIQ qualification as an online resource (using Moodle) to enable more members to access the programme. It is anticipated that this new Moodle based ETHIQ diploma will be available for registration in early 2022.

ASHI/APHIA/EFI/ARSHI Summer School

The joint EFI, ASHI, APHIA and ARSHI International Summer School (ISS) will now be held as a virtual meeting over the dates of 6th-8th September 2021. Planning for this event is underway and it is expected that registration will open in May 2021. It is hoped the virtual school will still be able to provide a focused course on many aspects of theoretical and applied H&I. It will represent an opportunity for those studying towards higher H&I qualifications as well as a chance to meet others (online!) working in the field from different parts of the world.

EFI 2021 FROM RESEARCH TO CLINICAL REALITY

34th European Immunogenetics and Histocompatibility Conference, together with BSHI

ONLINE | 21-23 APRIL 2021



We are very disappointed that we were unable to deliver EFI 2020 and 2021 as planned in Glasgow.

Instead the EFI 2021 organisers are now working on a fully virtual e-conference which will fulfil the aim to deliver an excellent scientific and educational programme.

Kind Regards, EFI and BSHI Conference Organising Group

www.efi2021.org.uk







The programme has been awarded 17 CPD Credits by the Royal College of Pathologists, 17 CME credits by the European Federation for Immunogenetics and BSHI and 17.0 contact hours or 2.55 continuing education credits (CECs) have been awarded by the American Board of Histocompatibility and Immunogenetics (ABHI)

WEDNESDAY 21 st APRIL 2021 (Day 1)		
08:00	Company Symposia On Demand: CareDx, Immucor, One Lambda, Omixon, GenDx, BAG Diagnostics, Stemcell and inno-train Diagnostik	
09:00	Oral Abstracts "On Demand", Poster and Exhibition Viewing	
	ARMADILLO	
10:30	Opening Ceremony Opening by 2021 Conference Organising Group followed by Welcome from EFI President and BSHI Chair	
10:40	Julia Bodmer Lecture & Award	
11:00	HLA Award	
11:10	Ceppellini Lecture and Award My MHC life and beyond: A fascination of the ins and outs of antigen presentation Prof Jacques Neefjes, the Netherlands	
12:00	LUNCH – Oral Abstracts "On Demand", Poster and Exhibition Viewing	
	ARMADILLO Plenary Session 1 - Foetal/maternal immunology	
13:00	BSHI Hilliard Festenstein Award Lecture The immune system in human pregnancy Prof Ashley Moffett, UK	
13:30	NK cells and HLA-G Dr Sumi Rajagopalan	
14:00	Uterine transplantation: A global update progress in the UK Benjamin Jones, UK	
14:30	Live Q & A Session	
14:45	BREAK – Oral Abstracts "On Demand", Poster and Exhibition Viewing	
	ARMADILLO	FORTH
15:00	Teaching Session 1 NK cells: From basics to clinical Impact	Special Session 1 Mismatched VUD V Cord V Haplo - New developments in HSCT and cellular therapies
	15:00 – 15:25	MODERATOR: Prof Alejandro Madrigal, UK



	NK cells: From basics to clinical impact	15:00 – 15:25
	Dr Paul Norman, USA	Mismatched VUD
		Prof Bronwen Shaw, USA
	15:25 – 15:50	
	Bioinformatics challenges and solutions to gain insight in the role	15:25 – 15:50
	of NK cell receptors in health and disease	Haplo
	Dr Jill Hollenbach, USA	Fabio Ciceri, Italy
	15:50 – 16:15	15:50 – 16:15
	Functional heterogeneity in human NK cells	Cord
	Prof Karl-Johan Malmberg, Norway	Dr Robert Danby, UK
	16:15 – 16:30	16:15 – 16:30
	Live Q & A Session	Live Q & A Session
16:30	Oral Abstracts "On Demand", Poster and Exhibition Viewing (with your own cheese & wine)	
19.00		
18.00		



THURSDAY 22 nd APRIL 2021 (Day 2)			
07:00	TULIP RUN (Organised by GenDx)		
08:00	Company Symposia On Demand: CareDx, Immucor, One Lambda, Omixon, GenDx, BAG Diagnostics, Stemcell and inno-train Diagnostik		
	ARMADILLO Plenary Session 2 - Regenerative medicine		
09:00	Mastering immunogenicity: How great is the challenge for regenerative medicine? Prof Paul Fairchild, UK		
09:30	Mesenchymal stromal cells in renal transplantation Prof Marlies Reinders, the Netherlands		
10:00	Developing macrophage based cell therapies for the damaged liver Prof Stuart Forbes, UK		
10:30	Live Q & A Session		
10:45	BREAK – Oral Abstracts "On Demand". Poster and Exhibition Viewing		
	AMADILLO	FORTH	
11:00	Teaching Session 2 New methods in chimerism testing	Teaching Session 3 Relevance of HLA and non-HLA pharmacogenetics in drug hypersensitivity & transplantation	
	11:00 – 11:25 New methods in chimerism testing, Integration into Existing Laboratory Practice Dr Leigh Keen, UK	11:00 – 11:25 Introduction to Pharmacogenetics: Current status and future directions in the H&I laboratory Dr Martin Howell, UK	
	11:25 – 11:50 Implications of pregnancy-induced microchimerism for transplantation outcome and methodologies for detection Dr Michael Eikmans, the Netherlands	11:25 – 11:50 Transplant drug-related pharmacogenetics Prof Iain A M Macphee, UK	
	11:50– 12:15 New chimerism technologies for the study of relapse immunobiology Dr Cristina Toffalori, Italy	11:50– 12:15 HLA associations in drug-induced liver injury and their clinical significance Prof Ann Daly, UK	
	12:15 – 12:30 Live Q & A Session	12:15 – 12:30 Live Q & A Session	
12:30	LUNCH – Oral Abstracts "On Demand", Poster and Exhibition Viewing		
	ARMADILLO Plenary Session 3 - Solid organ transplantation		
13:30	GWAS studies in kidney transplantation: What they tell us		

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- Paired Kidney Exchange
- DSA Analysis
- Virtual Crossmatch Assessment

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- HistoScope
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- Training and Implementation Support

Find more information visit our website at www.HistoTrac.com or email HistoTrac@SystemLink-Inc.com.

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	Prof Peter Conlon, Ireland	
14:00	HLA Molecular Mismatch: A prognostic and predictive biomarker for primary alloimmunity Dr Peter Nickerson, Canada	
14:30	Treatment of late antibody-mediated rejection Dr Georg Böhmig, Austria	
15:00	Live Q & A Session	
15:15	BREAK – Oral Abstracts "On Demand", Poster and Exhibition Viewing	
15:30	ARMADILLO	FORTH
	Teaching Session 4 New research methods	Special Session 2 ESOT: Increasing access to transplant
	 15:30 – 15:55 Single-cell omics transforms biology and medicine Dr Masoud Zamani Esteki, the Netherlands 15:55 – 16:20 Novel methodologies for functional and phenotypic immune cell profiling Dr Lotte Wieten, the Netherlands 16:20 – 16:45 Bioinformatics tools for research in histocompatibility Dr Loren Gragert, New Orleans 16:45 – 17:00 	15:30 – 15:55 Cellular therapies Dr Martin Hoogduijn, the Netherlands 15:55 – 16:20 Kinetics of pretransplant HLA-DSA Prof Maarten Naesens, Belgium 16:20 – 16:45 Improving access to transplantation through technology Mr Gabriel Oniscu, UK 16:45 – 17:00 Live O & A Session
	Live Q & A Session	
17:00	SESSIONS END	
17:15	EFI General Assembly (via GoToMeeting)	
19:00	END OF DAY 2	

FRIDAY 23 rd APRIL 2021 (Day 3)		
08:30	Company Symposia On Demand: CareDx, Immucor, One Lambda, Omixon, GenDx, BAG Diagnostics, Stemcell and inno-train Diagnostik	
	ARMADILLO Plenarv Session 4 - NK cells in medicine	
09:30	Peptide: MHC specificity of the killer cell immunoglobulin-like receptors: a potential target for immunotherapy Prof Salim Khakoo, UK	
10:00	Administration of donor-derived ex vivo expanded NK cells after haploidentical transplantation improves treatment outcomes Prof Stefan O Ciurea, USA	
10:30	Live Q & A Session	
10:45	BREAK – Oral Abstracts "On Demand", Poster and Exhibition Viewing	
	ARMADILLO Best Oral Abstract Session	
11:00	 11:00 - 11:08 The loss of HLA-F / KIR3DS1 ligation post HIV infection is mediated by hemoglobin peptides Gia-gia Toni Ho 11:08 - 11:16 The immunopeptidomes of two transmissible cancers demonstrate a dominant and partly shared peptide motif for MHC class I Dr Hannah Siddle 11:16 - 11:24 Semaphorin 5A is a candidate biomarker for graft rejection after lung transplantation Tamina Rother 11:24 - 11:32 Peptide-dependent T cell cross-reactivity drives allorecognition Dr Nicole Mifsud 11:32 - 11:40 Peptide-specific CAR-T cells and TRUCKs with inducible IL-12 expression control epstein-barr virus-associated lymphoproliferation Anna Dragon 11:40 - 11:48 Chimpanzees and bonobos have MHC-A allotypes resembling an HLA-A*03-like supertype: implications for controlling retroviral infections Dr Natasjade Groot 11:56 - 11:56 Unraveling the determinants of alloreactivity in humans: HLA-DP as a model for immunity and transplantation Esteban Arrieta Bolanos 11:56 - 12:04 Post-transplant T-cell receptor repertoire sequencing allows detecting the immune response to minor histocompatibility antigens Dr Grigory Efimov 12:05 - 12:30 Live Q & A Session 	

12:30	LUNCH – Oral Abstracts "On Demand", Poster and Exhibition Viewing	
	ARMADILLO Plenary Session 5 - HLA & antigen presentation	
13:30	BSHI Terasaki Award Lecture Distinguishing HLA allotypes through their interactions with the peptide loading complex Dr Mary Carrington, USA	
14:00	HLA Presentation of viral & tumor neoantigens Prof William Hildebrand, USA	
14:30	Live Q & A Session	
14:45	BREAK – Oral Abstracts "On Demand", Poster and Exhibition Viewing	
15:00	18th International Workshop Update	
15:30	Closing Lecture Using super-resolution microscopy to watch immune cells kill Prof Dan Davis, UK	
16:20	Closing Ceremony	
16:30	END OF DAY 3	

Only three COVID-19 Antibodies developed

Patient is showing antibodies for only three COVID-19 targets, the Spike, S1 and RBD.

Positive result for all five COVID-19 Antibodies

Patient has developed antibodies exceeding the cutoff values to all five COVID-19 targets.

LABScreen[™] COVID Plus Seeing COVID-19 Antibodies Through a Better Lens

When it comes to COVID-19 exposure, transplant patients and potential donors require a greater level of clarity to understand the nature of their complex antibody profiles and their immune responses.

After infection or exposure, some patients may develop antibodies to only a few targets (Fig. 1), but others may respond to all five (Fig. 2). With the LABScreen COVID Plus assay, the data can be simply analyzed using the familiar HLA Fusion[™] 4.5 EUA Software and may help research if the patient has any protective antibodies.

With five unique targets, the LABScreen COVID Plus panel is the most comprehensive test available for SARS-CoV-2 antibody detection¹ – and a broader panel gives greater visibility.

Download our recent white paper on COVID-19 antibody detection

Learn more at onelambda.com/covidplus

¹ Product is CE marked for IVD in the EU. Product not cleared by US FDA.

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HIGHLIGHTS FROM THE HLA JOURNAL

By Luca Vago, Section editor HLA journal

A one-step assay for sorted CD3+ cell purity and chimerism after hematopoietic stem cell transplantation.

Desoutter J, Usureau C, Jacob V, Lebon D, Caulier A, Da Costa C, Charbonnier A, Joris M, Marolleau JP, Guillaume N. HLA. 2021 Mar;97(3):183-187. doi: 10.1111/tan.14168. Epub 2020 Dec 29.

The analysis of hematopoietic chimerism on sorted subpopulations of blood cells represents an important parameter to monitor the outcome of allogeneic hematopoietic cell transplantation: in particular, detection of a sizable and/or rapidly increasing fraction of host-derived T cells may strongly suggests defective engraftment or impending immune-mediated rejection, and prompt therapeutic intervention. Still, purification of cell subsets requires a specific expertise and access to a fluorescence activated cell sorter to confirm the desired sample purity. In the present study, the Authors validate the use of a qPCR assay to check T cell purity, which can be performed in parallel with hematopoietic chimerism assessment and avoid the use of immunophenotypic analyses. This simple and easy to implement resource might speed up the activity of chimerism labs and spare them the need of additional expensive instrumentation.

Low incidence of IgA isotype of HLA antibodies in alloantigen exposed individuals.

Car H, Karahan GE, Dreyer GJ, Brand-Schaaf SH, de Vries APJ, van Kooten C, Kramer CSM, Roelen DL, Claas FHJ, Heidt S.

HLA. 2021 Feb;97(2):101-111. doi: 10.1111/tan.14146. Epub 2020 Dec 2.

The presence of anti-HLA antibodies of the IgG isotype in patients before and after solid organ transplantation is known to represent a significant risk factor for graft rejection and poor graft survival. Still, the clinical relevance of anti-HLA antibodies belonging to other isotypes is more debated, mostly due to the lack of assays to reliably detect them. The Authors of the present study fills this gap by developing and validating an assay for the detection of IgA anti-HLA antibodies. They also apply the newly optimized assay to test sera from 289 individuals with known alloantigen exposure through pregnancy or kidney transplantation. They detect IgA HLA antibodies (mostly directed against class II antigens) in a very low percentage of the allosensitized individuals, and always in conjunction with IgG HLA antibodies. The new assay will allow the rapid and effective screening of large number of samples, including those collected from transplanted patients, to clarify the relevance of other isotypes of anti-HLA antibodies in determining the clinical outcome.

Development of an immunogenicity score for HLA-DQ eplets: A conceptual study.

Schawalder L, Hönger G, Kleiser M, van Heck MR, van de Pasch LAL, Vendelbosch S, Rozemuller EH, Schaub S.

HLA. 2021 Jan;97(1):30-43. doi: 10.1111/tan.14110. Epub 2020 Oct 28.

In solid organ transplantation, there is growing evidence that the immunogenicity of incompatible HLAs can be effectively recapitulated deconstructing them in their structural epitopes. or eplets. However, the attribution of the immunogenicity of each eplet is a complex task: antibody responses observed in transplanted patients have been of great help in identifying immunogenic eplets, but this approach is undermined by the great number of confounders that are present in the transplant setting. In the present study, the Authors decided to estimate the immunogenicity of HLA-DQ eplets measuring antibody responses in 221 mothers after delivery of HLA-DQ mismatched children. They identified as DOB1 eplets with the highest immunogenicity 55PP, 52PR, 52PQ, 85VG and 45EV, whereas 25% of all DQB1 eplets elicited no responses. The DQA1 eplets with the five highest immunogenicity scores were 25YS, 47QL, 55RR, 187T and 18S, whereas 17% of all DQA1 eplets were not reacting. The map of potentially immunogenic regions of HLA-DQ traced by this report represents a useful basis for validation studies performed in clinical transplant cohorts.

Finally we would like to point the attention of the EFI newsletter readership to an excellent review on the role of donor-specific antibodies directed against HLA-C in solid organ transplantation, published in the January 2021 issue of *HLA*.

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Margot D.,

Stem cell transplant recipient

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