



NEWSLETTER

DECEMBER 2020 - ISSUE 93

.....FROM THE EFI PRESIDENT

DEAR COLLEAGUES AND FRIENDS,


Time rushes and the Christmas Season is quickly approaching. This year the holidays will be for sure completely different from any year before. The COVID-19 pandemic has dominated our public and private life to such an extent that we all prob-

ably plan by now to spend the upcoming Festive Days with as few visits/visitors as possible in order to adhere to the "lockdown" regulations imposed by the regional and national authorities throughout Europe (and elsewhere). At the same time, the discussion about the various vaccinations being in the pipeline has reached its peak! There is a high probability that by the time you will be reading this newsletter the first vaccination programs will be rolling out. We hope that these products will prove to be successful and that the distribution and access to the various vaccines will be managed in a logistically coordinated, fair and safe manner. Ideally, we should be seeing light at the end of the tunnel concerning this plague by the mid of next year – however, it will certainly take some time until a substantial number of the population in our countries has been vaccinated so that we can feel again safe while travelling and moving around.

In the meanwhile, EFI continues to try to serve its members from remote as much as possible. As already discussed in earlier newsletter issues, communication within the EFI Board (EC), as well as all the EFI Committees, has been carried out virtually via the GoToMeeting tool since several months now, which has proved extremely helpful. Within the EC we have had regular video conferences in order to follow up with the various projects that were ongoing. Recently, we have had our autumn business meeting in a virtual manner for the first time in the history of EFI. As you may know, once a year, the EFI EC and the Chairs of the various EFI Committees have a series of business meetings that are normally carried out in Leiden, the Netherlands. This time all meetings went virtual, and we are glad that they were as productive and successful as previous occasions. Of course, the personal interaction and exchange that takes place in the coffee and lunch breaks, as well as the wonderful dinner, usually organised by Sonja and Sandra, the office managers in Leiden, was missing.

Because of the continuous communication within the EFI EC and the various Committees, we were able to tackle many issues that have been in the pipeline for a long time, and we are immensely proud of this. One of the goals EFI always aimed to achieve, even in the pre-COVID19 time, was the provision of virtual learning options. EFI is working closely with the UEMS-EBTI and a virtual platform has been created with a series of lectures from members of our community who cover all main aspects of the H&I field, mainly as a prepara-



A close-up photograph of a rainbow lizard, showing its vibrant green, blue, and yellow scales and its large, prominent eye.

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....FROM THE EDITOR'S DESK

The previous newsletter was published after the first Corona wave and at that time we were hoping that a second wave would not arise. Unfortunately, the second wave appeared to be unavoidable and currently major restrictions within Europe are again in place. Luckily, we have learned a lot from the first wave, and our daily working life seems to be less affected. We have all gotten used to numerous virtual meetings and congresses, and working (partially) from home. Also the effect on clinical practice seems to be less than before. In the meantime, it has been decided that the upcoming EFI annual meeting will be a full virtual meeting. As we have seen from our sister society ASHI, such meeting can be quite successful, and even allows for some degree of social interaction during virtual get-togethers. Good luck to the team in Scotland for organising the first EFI virtual annual meeting.

Virtual seems to be the keyword in this newsletter, since also the Executive Committee Autumn meeting was held on a virtual platform this year. While under normal circumstances this is already a meeting with an intensely packed agenda for two days, it must have been even more exhausting when attended from behind a computer.

As always, I hope you enjoy reading this Newsletter. Have a wonderful Christmas and a great start of what must be a better year! Stay healthy, and I keep looking forward to your contribution to the next edition.

Sebastiaan Heidt

Deadline for contributions to EFI Newsletter 94 is Februari 22, 2021.

Please send your contributions by e-mail to s.heidt@lumc.nl



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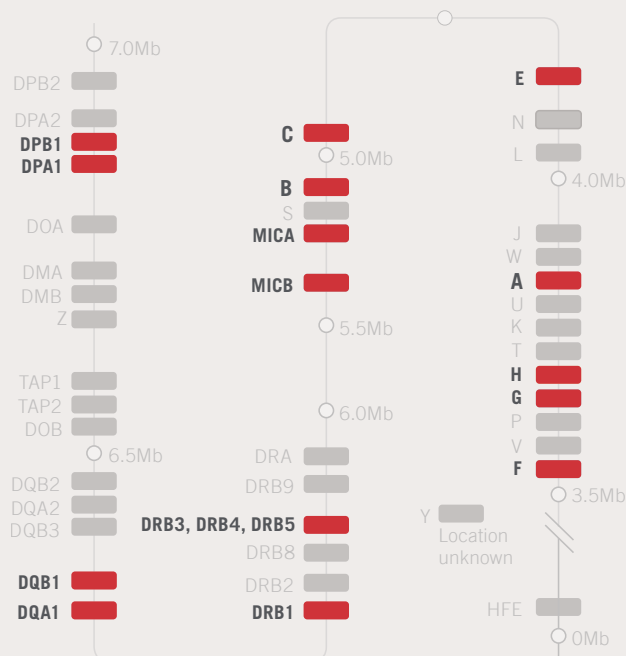
Margot D.,
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.....FROM THE EFI PRESIDENT (CONTINUED)

tory course (but not exclusively) for the ESHI exam, which also went virtual for the first time. Furthermore, a Moodle platform is being created which will accommodate virtual learning and the management of the ETHIQ scholars, the EFI H&I Technical Diploma Logbook, which now has enrolled as a pilot.

By now, I am sure that you have already heard that as a consequence of the COVID-19 pandemic we have decided that the next EFI conference (the postponed Glasgow event) will be a fully virtual conference organised together with BSHI. We look forward to seeing you all there in a virtual manner. The conference chairs will for sure provide us in the next couple of weeks with more information concerning this event. Furthermore, it was also decided that the International Summer School that was scheduled for last September shall also go virtual, and the Education Committee is resuming its work towards that task in order to start the coordination along with the co-organising sister societies.

As training and lack of interaction/exchange of information is a problem that struck all of us during the time of the pandemic, EFI felt that it was important to intensify our contacts to the national H&I societies in Europe in order to see how we as an umbrella society can support the national societies in their work. An example was the cooperation with the DGI, the German H&I society, where EFI has helped to carry out their annual national assembly in a virtual mode. Cooperation in the organisation of virtual national or regional scientific or educational meetings is also possible. We will reach out to the national society representatives in the next couple of months in order to see what is needed and how we can help so that the H&I communities throughout Europe can continue their work with as little obstacles as possible.

As already announced in the last EFI newsletter, the new EFI Homepage was launched a couple of months ago. We are proud of the new design and hope that you will find the contents of the new site appealing and useful. Another project that EFI has long been discussing was the creation of fixed e-mail addresses for EFI officers, i.e. the President, the Secretary and the Treasurer, which will be independent from the rotating individuals. This has now been established and I am glad to let you know that from now on you can reach the EFI president through the new e-mail address: [president\(at\)efi-web.org](mailto:president(at)efi-web.org).

Coming to a closure, I would like to take this opportunity to thank once again all the people working hard for EFI. In the first line Sandra and Sonja, the managers of the EFI office in Leiden, who have for months now been working mainly from their homes (with only occasional visits to their office due to the pandemic regulations). They are the “engines” of EFI’s practical work. Then to all the Committee chairs and members who despite the pandemic have constantly worked hard in order to continue to provide the appropriate support to our society. Lastly, the EFI officers and councillors for all the discussions, advice and support provided within the EFI EC, which makes us a living society despite all the COVID-19 pandemic related problems. I feel privileged to work closely together with so many great people – I thank you from the deep of my heart!

Finally, I would like to wish you, your families and staff, a Merry Christmas and a Happy and Healthy New Year, which hopefully will be a much better one than the so much COVID-19 dominated 2020! Stay safe!

Joannis Mytilineos
EFI-President

MEMBERSHIP UPDATE

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

S. Bezstarosti, Leiden, the Netherlands
C. Bouthemy, Toulouse, France
R. Marzella, Bari, Italy
M. Goebel, Hamburg, Germany
S. Murugan, Bengaluru, India
R. Vedam, Bengaluru, India
L. Ford, Manchester, UK
K. Hoerster, Essen, Germany
M. van der Linden - van Oevelen, Leiden, the Netherlands
D. Nelson, Weltevreden Park, South Africa
M.T. Ahlen, Tromsø, Norway
E. Loeser, Freiburg, Germany
L. de Brito Vargas, Curitiba, Brasil
B. Depreter, Brussels, Belgium
L. Kleid, München, Germany
A.G. Bianculli, Roma, Italy
J. Torres, Barcelona, Spain
M.K. Larsen, Frederikssund, Denmark



MEMBERSHIP UPDATE

REPORT OF THE EFI EXECUTIVE COMMITTEE AUTUMN MEETING OCTOBER 30TH 2020



This report usually starts with that the EFI Executive Committee (EC) gathered in Leiden for the autumn meeting, but this year nothing is business as usual and we can only hope that things will go back to normal as soon as possible. The pandemic has changed our lives in many ways, but we as humans also have the ability to adopt to changes. For EFI this means that the usually lively and engaging meeting with most of the Chairs of the different committees and the EC had to be cancelled this year and instead a virtual meeting took place on October 29th. In addition, the EC continued virtually with its own meeting the following day. The meeting used the GoToMeeting platform that works well but you really miss the social interaction and talks during coffee breaks. Many of the things discussed will be also be presented in the reports from the different committees in this newsletter.

EFI conferences

One of the focuses for the EC is obviously the arrangements of the annual meeting that sadly had to be cancelled this year because of the pandemic. It was therefore very reassuring to learn

about the plans for next year's Virtual Meeting hosted by our colleagues in Scotland together with BSHI. The only thing is that the financial result from the meeting will probably not be what we are used to. Next to that Eric Spierings and Sebastiaan Heidt gave an update on the combined workshop and conference in Amsterdam 2022. They described different scenarios from a full physical meeting, hybrid meeting to a virtual meeting only. It is not easy today to know what to plan for. The EC and the organizers will continuously communicate about the arrangements trying to find the best solution. But let us be optimistic and say that we will all meet for another fantastic meeting 2022 in Amsterdam.

EFI budget

The accumulation on assets have been up to discussions several times during recent years but under the current situation it feels very good to have a solid financial situation for EFI. We did not have any income from the annual meeting this year so €60.000 will be used from the reserves. We do not expect any surplus next year either, but because of our savings we can con-

tinue to work with things like e-learning and improvements like the CME/CPD scheme and launch the ETHIQ Log-book. The forecast for 2020 is around minus €10.200 but this will increase to a deficit around €118.000 for 2021.

EFI communication tools

EFI is currently using a wide array of communication channels from the EFI newsletter, LinkedIn, Twitter, Facebook, our website, GoToMeeting/Webinar, MailChimp, G Suite and recently also Slack. Some of the tools are used for internal communication, while others are used for external communication. We are at present also looking into using tools like Moodle for educational activities, EasyChair for abstracts and we will also incorporate the Annual Meeting website into the corporate website. It was decided to establish a Communication Working Group to come up with a communication strategy for EFI and to determine how to use the different tools most effectively. The two Councilors Kay Poulton and Esteban Arrieta-Bolanos will work together with Sandra van Hensbergen on this.

EFI Elections

There will not be any elections during 2021, but vacancies for the position of Secretary, deputy Secretary and Treasurer, as well as three positions for councilors will be announced for election in 2022.

International Summer School

Not only did we have to cancel the annual meeting in Glasgow but also the International Summer School scheduled for Prague was cancelled. The current plan is to arrange a virtual International Summer School next year but this needs to be confirmed with our sister societies. The time differences will also make this a challenge.

Legal stuff

As previously reported we have had contacts with a French law firm to get legal advice and one of many things that became clear is that articles of our constitution are unclear and ambiguous. A small working group under Ann-Margaret Little with Gwendaline

Guidicelli, Paul Rouzaire and Pierre-Antoine Gourraud will look into this in more detail and come up with proposal what needs to be done.

International Collaboration

As a result of our cooperation with EFIS we will organize a joint session at European Congress of Immunology in Belgrade from September 1-4, 2021. Our

Scientific Committee will host a session on “Immunogenetics of Cancer” chaired by Katharina Fleischhauer. The speakers will be John Trowsdale on Immunogenetics of the MHC and NK receptors, Luca Vago on Immunogenetics of Leukemia and Lotte Wieten on Immunogenetics of Cancer Therapy. We were also supposed to participate in a Transplantation Basic Science Sympo-

sium together with ASHI and ESOT, but this was cancelled. Additionally, EFI is a coordinating and supporting partner to the COVID-HLA-Genome project, which is also part of the International Workshop.

As usual, the EFI medal and Ceppellini award were discussed as well.



Very fruitful meeting today
for the EFI EC!



MERRY CHRISTMAS!

May Christmas bring you plenty of love
and joy.



The ESI Executive Committee would
like to wish you Happy Holidays!
Let's hope for a healthy and
successful 2021 with peace and
happiness for everyone!

REPORT OF THE EFI SCIENTIFIC COMMITTEE

The chairmanship of the EFI SC will be taken over by **Professor Luca Vago, San Raffaele Institute Milan, Italy**, at the EFI General Assembly 2021.

The organizers of the **6th European Congress of Immunology (ECI)**, to be held from September 1-4, 2021 either virtually or in Belgrade, have invited EFI for a joint EFI-EFIS session. The session will be entitled "Immunogenetics of Cancer", and chaired from the EFI side by Katharina Fleischhauer. Speakers will be John Trowsdale (Cambridge)

– „Immunogenetics of the MHC and NK Cell Receptors“, Luca Vago (Milan)
– „Immunogenetics of Leukemia“, and Lotte Wieten (Maastricht) – „Immunogenetics of Cancer Therapy“.

The EFI SC met for a virtual meeting on September 25th, 2020. It has been decided that a series of four **EFI Scientific Webinars** will be launched in 2021. Speakers will be announced. Under the umbrella of the EFI-SC, a new **Bioinformatics Working Group (BIWG)** will be installed, to be coordinated by

James Robinson (London). Further details to come.

All abstracts accepted for the EFI Conference 2020 will be carried over to 2021. In addition, there will be the possibility to submit **Late Breaking Abstracts**, the best of which will be selected for oral presentation in a dedicated Late Breaking Abstract session at EFI 2021. Watch out for the Late Breaking Abstract deadline!

Katharina Fleischhauer (on behalf of the EFI Scientific Committee)

REPORT OF THE EFI EDUCATION COMMITTEE

Many of the activities of the Education Committee are still being impacted by the Covid-19 pandemic. However, progress has been made in some projects as outlined below.

European Specialisation in H&I (ESHI) Diploma

An on line assessment method will be trialed in late November 2020 for one Diploma candidate. If this is successful it is anticipated that this method of assessment will be used in spring 2021 (around the time of the virtual EFI Conference) for any exam applicants. 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/transplantation/transplant-immunology2>).

e-Learning

- 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. Log on to your account on 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.



- 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'

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

- At the recent EFI Executive Committee and Coordinators (ECC) meeting it was agreed to investigate two options for hosting an EFI CME/CPD system; via the providers of the EFI website and via a company who have recently started an online platform for the British Society for H&I (BSHI). Both of these options will be assessed and this project will be taken forward in the coming months.

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 the H&I lab. Some of the individuals undertaking the pilot will complete the logbook and associated work soon (the logbook can be completed between 1-3

years after registration) and will then be eligible for a yet to be created on line assessment. The EFI Executive Committee have agreed to explore a Moodle platform to develop the ETHIQ qualification to enable more members to access this programme.

ASHI/APHIA/EFI/ARSHI Summer School

• The joint EFI, ASHI, APHIA and ARSHI International Summer School (ISS) will most likely now be held as a virtual meeting in the summer of 2021. The EFI EC agreed that arranging a

physical meeting for 2021 was still too much of a risk. All of the societies need to agree to this proposal and then planning for this unusual 'school' will begin. 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 (on line!) working in the field from different parts of the world.

David Turner

REPORT OF THE EFI COMMITTEE FOR EXTERNAL PROFICIENCY TESTING

The EFI EPT Committee met twice in 2020 using online meeting platforms, once in July and once in October.

1. Coronavirus

With respect to the coronavirus pandemic there were no further limitations for the External Proficiency Testing scheme providers in the EFI Regions reported in addition to the modifications some providers have already introduced earlier in the year. All schemes will reach a satisfactory number of samples for this EPT year.

2. New EFI EPT Standards

The committee started to work on a revision of the EFI EPT Standards for the assessment of chimerism monitor-

ing. The definition of the numbers of discrepancies to be allowed for a satisfactory performance will be stated more precisely in the future.

3. List of EPT providers registered by EFI

Several changes will be included in revised document which will be uploaded to the EFI website soon.

4. Committee Chair position

The current Committee Chair will end his third and final term in 2021. The Committee is very happy that the EFI Executive Committee approved our

proposal for Helle Bruunsgaard from Copenhagen, Denmark to take over the EPTC Chair position next year.

In case of any questions and comments regarding External Proficiency Testing please feel free to contact the EFI EPTC chairpersons or your regional representative within the EPTC.

Falko Heinemann and Yvonne Zoet (chair and co-chair of the EFI EPTC)

THE IT&BIOINFORMATICS COMMITTEE

Members: Jose M Nunes, James Robinson, Eric Spierings (chair)

The IT&Bioinformatics Committee supports EFI in all questions that may require an informatics solution. Currently, the committee has two vacancies. Are you interested in sharing your thoughts on e-learning, webinars, the corporate EFI website and the EFI conference website? Would you like to discuss the direction EFI should take

regarding the conference application and a mobile application allowing EFI members to access all EFI-related topics? Would you be willing to explore and test-drive a new abstract submission tool for the conferences? If one or more of these challenges attract you, please apply for one of the positions in the IT&Bioinformatics Committee.

Programming skills are not essential; some affection to IT is preferred. Candidates are invited to submit their application to the EFI office using the online application form.

(https://efi-web.org/fileadmin/Efi_web/Committees/20200820_Committee_Member_Application_Form_v4.pdf)

REPORT OF THE EFI ACCREDITATION COMMITTEE



The EFI Accreditation Committee met by video conference in October. Accreditation inspections have been paused since April 2020 due to the travel restrictions imposed by the pandemic and an extra paper based inspection has been added into the accreditation cycle for all laboratories. It was agreed by the members of the committee that inspections will recommence from March 2021 but it was recognised that there may be continuing travel restrictions for some months. A number of options for performing inspections including the use of remote video links were agreed and are as follows:

- Agreed hierarchy for inspections
 - 1. On-site inspection with 1 local and 1 outside inspector
 - 2 = On-site inspection with 2 local inspectors

- 2 = On-site with 1 local inspector + remote connection with 1 outside inspector
- 3. Fully remote with 1 local and 1 outside inspector

The most appropriate type of inspection will be decided by the EFI Commissioner taking into account any local factors which affect travel to the laboratory. Where one or both inspectors will perform the inspection remotely additional documents may be requested from the laboratory before the inspection.

A virtual inspectors update will be arranged before inspections re-start to make sure that all inspectors are up to date with the new arrangements.

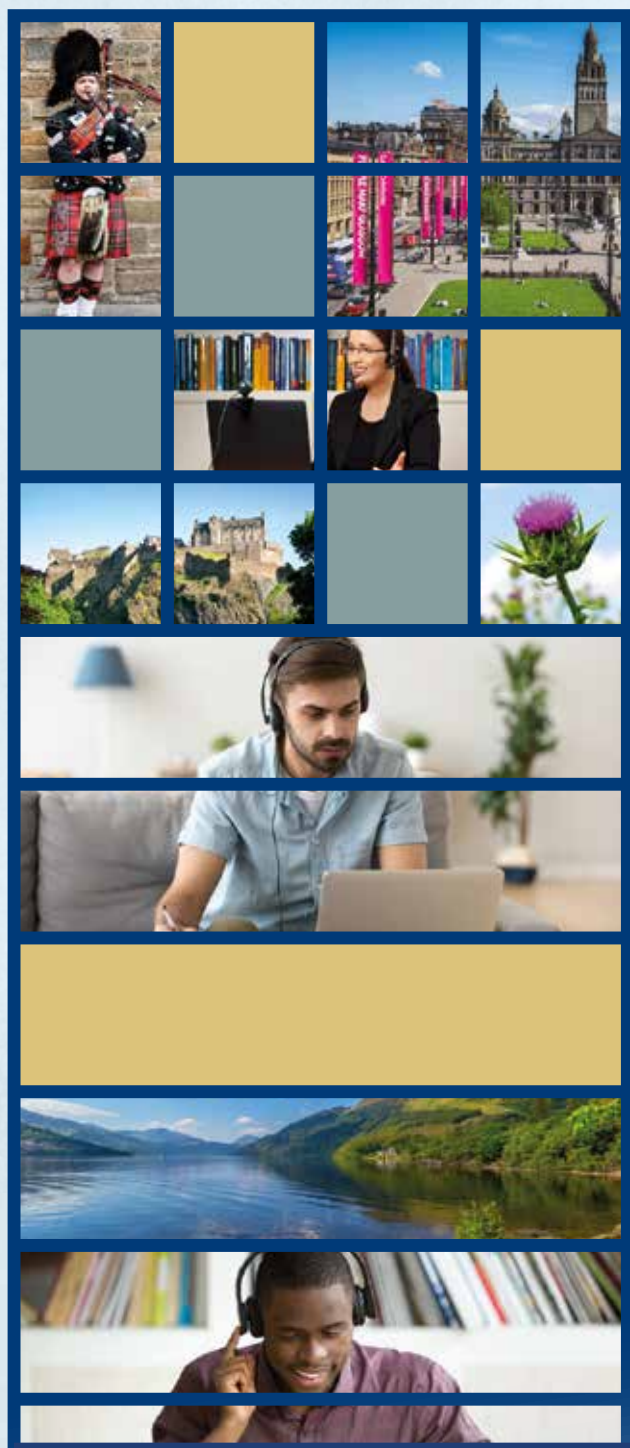
Andrea Harmer
Chair EFI Accreditation Committee



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

Key Dates

Registration open:	November 2020
Preliminary Programme:	November 2020
Abstract submission:	December 2020
	Closing date 10 January 2021

www.efi2021.org.uk



BSHI
British Society for
Histocompatibility
and Immunogenetics
*Promoting Science and
Education in Transplantation*



NORTHERN IRELAND TISSUE – TYPING LABORATORY REVISITED

By Mahendra Mishra

It is impossible to remember, when exactly I developed xenophilia for working and living abroad, but it was firmly entrenched by the time I finished High School in 1979. The opportunity came when I was contacted telephonically on 22nd May 2015 by the Head of Nephrology -Belfast City Hospital to enquire if I would consider relocating to Belfast for a temporary position as Deputy Head of the Northern Ireland Tissue -Typing laboratory. I was ecstatic and replied in the affirmative. Northern Ireland had a very robust transplant program where Derek Middleton had been the laboratory director for a very long time and it would be anyone's dream to be a part of it. The possibilities appeared infinite -the route very tortuous for someone from India which involved applying for a UK professional registration, writing the IELTS, getting selected for the position, grant of a work visa and leaving my existing well-paid job as Head of the HLA laboratory in one of the largest commercial standalone laboratories in the country.

The post was advertised on 16th of June 2016, and required either Health Care and Professional Council (HCPC) or GMC registration. I lost no time in applying for it and for HCPC registration. In my endeavour, I was duly supported by the very patient and positive Belfast laboratory manager Ms Elaine Boyle, who guided me at every step for my application to HCPC and kept me informed of the progress. Almost simultaneously, I wrote the IELTS examination in which I got a decent Band score. I was fortunate to get shortlisted and was selected after a video interview. It was possible only because I was awarded the European specialization in Histocompatibility and Immunogenetics Diploma through an examination, and support of a colleague in the UK. The flight from London hovered over the Irish sea before landing in Belfast City airport at around 9 pm on 17th Jan 2016. For me it was love with the city at first sight. I did not feel alien in my new surroundings at work and in the city where the gentry appeared very earnest and friendly. My office colleagues

were very cordial and made me feel at home, as I assumed the new appointment.

The laboratory has an impressive liquid Nitrogen storage facility for donor cells and also many deep freezers with -80° Celsius where multiple aliquots of patients' sera is stored very precisely and records maintained thereof. I was seeing this for the first time at work because this is not done in India where only current sera are tested for deceased donor work up. Physical security of laboratory with identity card induced opening of doors, cyber-security which involved encryption and meticulous storage of patients' documents containing all requisite details impressed me. The process of induction included multiple (almost 20) short virtual and physical courses including mandatory Control of Substances Hazardous to health (COSSH) courses, impressive fire safety training, occupational health, risk assessments, storage of reagents, samples and patient records to facilitate retrieval with clock-work precision, documentation, elaborate instructions on use of personal computers and contingency planning. It was an out of the world learning experience and something that I had not experienced in 31 years as a medical professional.

Initially my focus was on assimilating the Histocompatibility & Immunogenetics (H&I) practices of the laboratory. CDC crossmatch was done in four different Terasaki plates for each sample with adequate controls which was in contrast to other laboratories where the emphasis is on economising. On my persuasion, the laboratory stopped performing Class II HLA typing by serology for deceased donation. Three colour flowcytometry crossmatch (FCXM) procedure which included testing both with and without pronase, caught my imagination. Another ingenuous method in the laboratory was use of 'random donor plates' wherein Terasaki plates with recipient's sera was tested for reactivity against known HLA alleles of individuals to confirm reactivity pattern observed by SAB or FCXM. It was dif-

ficult for me to comprehend why purely out of their passion for benchwork that two scientists in the laboratory did not seek career enhancement.

I was very impressed by the way my colleagues examined each probe for Luminex rSSO typing and the documentation of the results. The number of Single antigen bead (SAB) assays done in a week exceeded what I had seen in three months after starting the test in India. There was an opportunity to use the kits from both vendors and compare the results. The laboratory had a robust system of validation of new kits and equipment. During my tenure the laboratory validated a new Beckton Dickinson flowcytometer with existing Beckman Coulter, which involved a lot of planning and effort. In India there is no practice of HLA -AB typing for platelet recipients, so although I had theoretical knowledge it was the first time that I witnessed it at work. To best of my knowledge, in Northern Ireland all repeat platelet transfusions are HLA-AB matched which are drawn from a donor pool, and certainly for renal transplant recipients.

In India, a major limitation of deceased donor transplantation is absence of a coordinating agency designated to ensure the HLA typing of the donor kidney and antibody work up of potential recipients. Usually CDC crossmatch is the only test done pretransplant, though I had succeeded in convincing some centres to do HLA typing and pooled bead assay followed by phenotype assay (if positive) because SAB assay was either not readily available or prohibitively expensive. In Belfast I got a first-hand idea of how antibody work up was carried out for all recipients and the principles of allocation. The Virtual Crossmatch (VXM) program had commenced in Belfast a little over a year back under the able guidance of Jeanie Martin who was the interim Clinical Lead after the departure of two previous lab directors and I was fortunate to be around as it "matured" with increasing number of transplants carried out after VXM including those with low MFI DSA. VXM program was

ASHI Session Recordings Now Available

Thanks for joining us at the 2020 ASHI Virtual Annual Meeting! Although virtual conferences can be challenging, we hope you found the meeting educational and enjoyable. If you missed any of our events, lunch-and-learns, or in-booth talks, please feel free to check out the recorded sessions on our Learning Center.

[Visit Our Learning Center >>](#)

Increasing Access to Transplantation for the Highly Sensitized Patient: Combining the Latest Innovations in HLA Typing, Antibody Detection and Data Analysis

In this talk, we explore how workflow improvements and expanded antibody testing can improve analysis with epitope matching and virtual crossmatching, which may be particularly applicable for challenging and highly sensitized cases.

Assessment of the Humoral Response to SARS-CoV-2 Infection Via Novel Multiplexed Assays

Explore with us a new approach to COVID-19 antibody testing with a multiplexed panel, designed to help determine whether a patient's past exposure to the virus may impact their transplant candidacy or their post-transplant risk for rejection.

Introduction to the Molecular Microscope Diagnostic System (MMDx)

Learn how this central diagnostic system for biopsy can be applied as a tool for stratifying risk for rejection and injury in kidney, heart, and lung transplant patients.

The Power of Digital Storytelling to Educate, Empower, and Engage Patients and Prospective Living Donors

Join Dr. Amy Waterman with UCLA and the Terasaki Institute for Biomedical Innovation for a discussion on how the true stories of transplant donors, recipients, and candidates has the power to save and change lives.

successful due to the close interaction between the nephrology and H&I teams. Dr Courtney, who had a very grasp of Immunology, chaired antibody meetings every fortnight where all potential recipients for deceased donations were discussed. A couple of days later Jeanie would preside over biweekly laboratory antibody meetings. Usually she managed to give me personal attention and we discussed all professional subjects freely. By the end of three months, I had a good grasp of the VXM program and had understood the concepts of “unacceptable antigens, other unacceptables and other weak antibodies which could rarely cause a positive crossmatch”. In the process I also learned a lot of SAB testing and interpretation using kits from both vendors including use of iBeads. As Deputy Head of the laboratory I got an opportunity to visit three other laboratories including the H&I lab in Manchester, where I saw case sheets of highly sensitized patients with HLA- DPB1, DQA1, and allele specific antibodies. In the H&I lab of Guy’s Hospital I was able to closely observe the protocols followed for highly sensitized cases based on a

combination of SAB and FCXM. My curiosity and love for H&I increased many folds. I could contribute with my knowledge of pooled bead assay and phenotype bead assay in the meetings which I had used extensively in New Delhi. My day started with examining case files of all the recipients worked up for a deceased donor kidney offer, and gauging my response if I would have been on call. In addition, to this the time that I spent browsing through case histories of sensitized patients was both very interesting and exciting. Historically, many patients were worked up using single antigen assay by flowcytometry and later with SAB on Luminex platform – so it was possible to compare both technologies. Two patients who had positive reaction on flow crossmatch with their spouse but negative with an unrelated donor, ended up with successful kidney transplant. In the meetings with Aisling, interim Clinical lead and other scientists we also discussed recipients that were allocated kidneys by the UK kidney allocation scheme for living donors and the offer of facilities to citizens from Republic of Ireland who used only SAB for VXM. Along with

another Clinical Scientist from the lab I attended the monthly Multi-Disciplinary Meetings for discussions of all patients that were considered for a possible transplant. This was an opportunity to interact with clinical colleagues on the 9th floor of Tower Building from where one could get a bird’s eye view of Belfast City.

Meetings also took place with the Northern Ireland Blood Transfusions Services team to discuss allocation of funds for introduction of Next Generation Sequencing (NGS) for patients requiring bone marrow transplants for using available funds. I was part of the H&I team which interacted with Hepatologists in the Royal Victoria Hospital. They had started examining the possibility of HLA antibody mediated rejections in patients who had received Liver Transplants outside Northern Ireland. H&I lab of Belfast was requested to perform SAB assay for donor specific antibodies and it was correlated with liver function evaluation and biopsies in the recipients. It was around that time that we first started examining cases of liver rejections.



Relaxing after completion of trek to Slieve Donard



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The attitude of all colleagues in the laboratory was as though I was going to be in the laboratory for a long time and I was an integral part of the team discussing all activities related to patients, equipment, EQAS, accreditations, VXM program and standard operating procedures (SOP) and educational meetings. I was nominated to attend the annual British Transplant Society Meeting in Glasgow to meet clinical counterparts in UK. I was sponsored for the EFI annual meeting in Kos, Greece where I presented two posters including one pertaining to a patient in Belfast and then the annual BSHI meeting in Oxford – which I regard as the Temple of learning where again I had again presented a poster and inspired a colleague to present another.

My HCPC registration as Clinical Scientist materialised only on 23rd July 2016, by which time the Belfast Health and Social Care Trust consented to extend my tenure by additional six months. The Laboratory was now actively involved in preparation for UKAS accreditation. I volunteered to take Pathology and Immunology classes for medical undergraduates in Queens' University and

greatly enjoyed the opportunity which was provided with the kind intervention of Prof Joseph Houghton. Delay in acquiring HCPC registration impacted my learning in a real-life situation of offers for deceased donor transplants which is certainly more challenging than looking at them retrospectively. Unfortunately, due to paucity of manpower, I was not part of the duty roster, because rules mandated that I work initially under supervision, and independently after being deemed competent. There were some complicated cases requiring one's urgent attention and expertise during working hours and a second opinion was readily available from professional colleagues with whom I had excellent professional relationship. I was deputed to attend a stakeholders' meeting in London, where I met many senior scientists of H&I labs from all over UK. In this meeting comradery was palpable which was akin to Armed forces because one is directly working for the nation, for there are no private labs and it is this that makes the H&I laboratories achieve very high standards.

Socially we interacted with NIBTS staff with whom the H&I staff shared two

classrooms and a tea room. One of the high points of this tenure was the successful nomination of the interim Clinical Lead for Chairman's award for her contribution towards H&I in Northern Ireland where she had worked for over forty years was recalled from retirement. In the conventional fashion of Indian Armed forces with two days the nomination was done and for the second consecutive year the transplant team was felicitated in a glittering ceremony held in Belfast City Hall in November 2016. A colleague from the lab took me for memorable treks in Mourne and Slieve Gullion. On 19th January 2017, I left Belfast for the Manchester Laboratory with which I have an eight-year association and is an excellent centre for learning the intricacies of H&I to learn Chimerism. In the following year another colleague Miceal got felicitated at the annual BSHI meeting which he very much deserved and in 2019 Jeanie was awarded the OBE for her work in H&I. Belfast was a second home to me and has left me with indelible professional and personal memories.



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We are proud to sponsor the Non-HLA antigens as targets in organ transplantation project coordinated by Dr. Henry G. Otten (The Netherlands) and Dr. Elaine F. Reed (USA) at the 18th International HLA & Immunogenetics Workshop May 2022 in Amsterdam The Netherlands.



By Luca Vago, Section editor HLA journal

HLA allele frequencies and susceptibility to COVID-19 in a group of 99 Italian patients.

Novelli A, Andreani M, Biancolella M, Liberatoscioli L, Passarelli C, Colona VL, Rogliani P, Leonardi F, Campana A, Carsetti R, Andreoni M, Bernardini S, Novelli G, Locatelli F. HLA. 2020 Nov;96(5):610-614. doi: 10.1111/tan.14047. Epub 2020 Sep 3.

There is increasing evidence that host genetic factors might influence the susceptibility to COVID-19 and the severity of the clinical manifestations related to the infection. In this brief report, the Authors employed Next-Generation Sequencing to obtain the complete high-resolution HLA typing of 99 Italian patients who developed COVID-19, and compared the HLA allele frequencies with the ones obtained from an historical cohort of 1017 individuals typed in the same lab. After the application of Bonferroni's correction for multiple tests, a significant association was found for HLA-DRB1*15:01, -DQB1*06:02 and -B*27:07. Data from this small but well-annotated series might improve our understanding on the molecular determinants of immune responses against SARS-Cov-2 and have relevant implications in identifying subjects at higher risk to develop symptomatic infection.

Toward defining the immunogenicity of HLA epitopes: Impact of HLA class I eplets on antibody formation during pregnancy.

Hönger G, Niemann M, Schawalder L, Jones J, van Heck MR, van de Pasch LAL, Vendelbosch S, Rozemuller EH, Hösli I, Blümel S, Schaub S. HLA. 2020 Nov;96(5):589-600. doi: 10.1111/tan.14054. Epub 2020 Sep 10.

Pregnancy represents one of the most fascinating contexts to study the targets and molecular mechanisms of alloresponses. In the present study, the Authors employed Next-Generation Sequencing to obtain the full high-resolution typing of 159 mothers and of their newborn children, and used the computational tool HLAMatchmaker to map their structural epitopes, or eplets. In parallel, sera collected from the same mothers immediately after full-term delivery were analyzed for presence of anti-HLA class I-specific antibodies, and the antibody profile was subsequently evaluated for eplet-associated patterns. The Authors detected child-specific antibodies in 28.9% of the mothers, and could clearly identify prevalent responses against some eplets but not others, supporting the idea of differential immunogenicity. If confirmed, these results might have direct and clinically-relevant translation in the field of transplantation, helping in the definition of permissive and non-permissive donor-recipient incompatibilities.

Genomic characterization of MICA gene using multiple next generation sequencing platforms: A validation study.

Zou Y, Duke JL, Ferriola D, Luo Q, Wasserman J, Mosbrugger TL, Luo W, Cai L, Zou K, Tairis N, Damianos G, Pagkrati I, Kukuruga D, Huang Y, Monos DS. HLA. 2020 Oct;96(4):430-444. doi: 10.1111/tan.13998. Epub 2020 Aug 21.

The MICA gene encodes a protein with a domain structure

similar to the heavy chain of HLA class I molecules but that does not associate with β 2-microglobulin, does not bind peptides like the HLA class I molecules, and functions instead as a stress-induced ligand for the NKG2D receptor. It is known that the molecule is quite polymorphic (more than 159 alleles corresponding to 92 different proteins and 4 null alleles), but the full extent of this variability is probably underappreciated, due to lack of robust and widely applicable protocols for its typing. In the present study, the Authors developed a new protocol for the genomic characterization of the MICA gene using Next-Generation Sequencing, and applied it to characterize 156 samples. Complete consensus sequences were generated, extending from the 5' untranslated region (UTR) to the 3' UTR of the MICA gene. As a result, 32 MICA sequences were submitted to the IMGT/HLA database including either new alleles or filling up the gaps (exonic, intronic and/or UTRs) of already reported alleles, providing novel knowledge and technological tools for the characterization of this interesting immune-related molecule.

Finally we would like to point the attention of the EFI newsletter readership to the obituary contributed by Peter Parham in memory of Peter Hartman, founder of Traffic and an example of how publishers can promote scientific research. Moreover, the latest issues of HLA include three excellent review articles, focused respectively on how nonclassical HLA-DM and -DO control the peptidic repertoire presented by other HLA Class II molecules (in the October issue), on the role of maternal T cells and myeloid cells during pregnancy (in the November issue), and on novel strategies to tame humoral alloimmune responses (in the December issue).



In treatment of patients with SARS-COV-2 infection, Convalescent plasma therapy is a promising treatment option for COVID-19 patients. Many clinical trials are underway to determine the clinical efficacy.

What is convalescent plasma therapy?

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*Relevant national transfusion guidelines will vary by region.

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Morsing, K., Peters, A., van Buul, J., Vlaar, A., 2018. Blood Reviews 32, 1-7.

Lucas, G., Win, N., Calvert, A., Green, A., Griffin, E., Bendukidze, N., Hopkins, M., Browne, T., Poles, A., Chapman, C., Massey, E., 2011. Vox Sanguinis 103, 10-17.

