### Day 1: 15 May 2022 | Sunday

<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Location</th>
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<tr>
<td>15:00 – 17:30</td>
<td><strong>Pre-Workshop:</strong> Single Cell Multimodal Omics?</td>
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</table>
| Chairs:  | Anita Chong | Chicago, United States  
           | Janine Altmüller | Berlin, Germany | Ricardo Ferreira | Oxford, United Kingdom  
          | Matthias Farlik | Vienna, Austria | Ashley D. Sanders | Berlin, Germany  
          | Xunrong Luo | Durham, United States |                             |
| 15:00 – 15:20 | Multimodal single-cell approaches shed light on T-cell heterogeneity | Ricardo Ferreira | Oxford, United Kingdom |
| 15:20 – 15:40 | Single-cell multi-omics profiling to understand disease progression cell-by-cell | Matthias Farlik | Vienna, Austria |
| 15:40 – 16:00 | Questions and discussion                                                                       |                                              |                             |
| 16:00 – 16:30 | **COFFE BREAK**                                                                                |                                              |                             |
| 16:30 – 16:50 | Monitoring genetic stability by single-cell sequencing                                           | Ashley D. Sanders | Berlin, Germany |
| 16:50 – 17:10 | Single Cell Transcriptomics in Discovering Novel Cellular Pathways for Kidney Transplant Rejection | Xunrong Luo | Durham, United States |
| 17:10 – 17:30 | Discussion panel with all speakers                                                              |                                              |                             |
Day 2: 16 May 2022 | Monday

08:20 – 08:30  Opening:
Official Welcome to the ITS 2022

Anita Chong | Chicago, United States
Faddi Issa | Oxford, United Kingdom
Nina Pilat | Vienna, Austria

08:30 – 10:30  Session 1:
B cells, Protective and Pathogenic Antibodies

Chairs:  Aravind Cherukuri | Pittsburgh, United States
         Cees van Kooten | Leiden, The Netherlands

08:30 – 08:50  Autoreactive innate B cells infiltrate kidney allografts undergoing AMR
Anita Chong | Chicago, United States

08:50 – 09:10  Intragraft antibody responses in human cardiac allograft vasculopathy
Emmanuel Zorn | New York, United States

09:10 – 09:30  Implementation and impact of assessing alloreactive memory B cells in kidney transplantation
Oriol Bestard | Barcelona, Spain

09:30 – 09:37  [OP 07] CHANGES OF IMMUNOGLOBULIN E-RECEPTOR POSITIVE CELL SUBSETS AFTER CARDIAC ALLOGRAFT REJECTION IN MICE
Anna Marianne Weijler | Vienna, Austria

Rens Kraaijeveld | Rotterdam, The Netherlands

09:44 – 09:51  [OP 09] CIRCULATING AND INTRAGRAFT DONOR(HLA)-SPECIFIC B CELLS DRIVE ALLOGRAFT REJECTION AFTER KIDNEY TRANSPLANTATION
Alba Torija | Hospitalet de Llobregat, Spain

09:51 – 10:30  Discussion panel with all speakers

10:30 – 11:00  COFFEE BREAK
**Session 2: Big Data and Artificial Intelligence**

**Chairs:** Maria Kaisar | Oxford, United Kingdom
          Xunrong Luo | Durham, United States

11:00 – 11:20 Genomic-related applications in kidney transplantation
Sophie Limou | Nantes, France

11:20 – 11:40 Machine learning in clinical transplantation
Katie Connor | Edinburgh, United Kingdom

11:40 – 12:00 Big data and artificial intelligence in liver transplantation
Ali Zarrinpar | Gainesville, United States

12:00 – 12:30 Discussion panel with all speakers

**12:30 – 14:00 LUNCH BREAK | POSTER VIEWING**

**13:00 – 14:00 SATELLITE SYMPOSIUM**

**Session 3: Innate Immunity**

**Chairs:** Katja Kotsch | Berlin, Germany
            Cees van Kooten | Leiden, The Netherlands

14:00 – 14:20 Lymph node fibroblastic reticular cells steer immune responses
Jonathan S Bromberg | Baltimore, United States

14:20 – 14:40 Innate lymphoid cells
Andreas Diefenbach | Berlin, Germany

14:40 – 14:47 [OP 14] OCCURRENCE OF VIRAL INFECTIONS MAY BE PREDICTED BY LONGITUDINAL MONITORING OF TORQUE-TENO VIRUS IN PEDIATRIC KIDNEY TRANSPLANT PATIENTS
Fabian Eibensteiner | Vienna, Austria

14:47 – 14:54 [OP 15] COMPLEMENT SYSTEM ACTIVATION IN BRAIN DEATH AND THE EFFECT OF LUMINAL INTESTINAL PRESERVATION
Marc Weiss | Aarhus, Denmark

14:54 – 15:30 Discussion panel with all speakers

**15:30 – 16:00 COFFEE BREAK**
16:00 – 17:30  
**Session 4: DISCUSSION PANEL**  
**Scientific Leadership in Transplantation**

**Chairs:**  
Caroline Dudreuilh | London, United Kingdom  
Nina Pilat | Vienna, Austria

**Discussion panel on:**  
- Career challenges  
- Value of mentorship  
- Do’s and don’ts while doing PhD

*All participants are invited to watch a movie prior to the meeting. We wish to use it as a base for discussion.*  
Movie: “Picture a scientist” available on streaming platform Netflix. You can also view it via THIS LINK (password: ttspas)

**Movie:** Picture a Scientist (https://www.pictureascientist.com/)

*PICTURE A SCIENTIST chronicles the groundswell of researchers who are writing a new chapter for women scientists. Biologist Nancy Hopkins, chemist Raychelle Burks, and geologist Jane Willenbring lead viewers on a journey deep into their own experiences in the sciences, ranging from brutal harassment to years of subtle slights. Along the way, from cramped laboratories to spectacular field stations, we encounter scientific luminaries - including social scientists, neuroscientists, and psychologists - who provide new perspectives on how to make science itself more diverse, equitable, and open to all.*

17:30 – 19:00  
**Networking Event**

18:00 – 18:30  
**Moderated e-Poster Session 1**  
[POSTER AREA]

**Chairs:**  
Thomas Resch | Innsbruck, Austria

18:00 – 18:05  
[POS 80] VALIDATION OF THE OPTIMAL TT VIRUS RANGE FOR RISK STRATIFICATION OF GRAFT REJECTION AND INFECTION IN KIDNEY TRANSPLANT RECIPIENTS BY TTV R-GENE®  
Frederik Haupenthal | Vienna, Austria

18:05 – 18:10  
[POS 47] withdrawn

18:10 – 18:15  
[POS 59] withdrawn

*Version: 10 May 2022*
18:15 – 18:20  [POS 61] CHIMERISM AND BIDIRECTIONAL ALLORESPONSES IN PATIENTS RECEIVING LUNG TRANSPLANTATION  Jianing Fu | New York, United States

18:20 – 18:25  [POS 68] HUMORAL RESPONSE TO 3 AND 4 DOSES OF MRNA COVID-19 VACCINE IN KIDNEY TRANSPLANT RECIPIENTS WITHOUT PRIOR SEROCONVERSION  Clara Brandstetter | Linz, Austria

18:25 – 18:30  [POS 46] A PIG CROSS-CIRCULATORY PLATFORM FOR MONITORING AND MODULATING THE INNATE RESPONSES IN LUNG GRAFTS.  Matthieu Glorion | Suresnes, France

18:30 – 19:00  Moderated e-Poster Session 2  [POSTER AREA]  !SESSION TIMING CHANGED!

18:30 – 18:35  [POS26] SINGLE CELL ALLOREACTIVE TCR REPERTOIRE PROFILING  Alexandra Sharland | Sydney, Australia

18:35 – 18:40  [POS 33] DONOR-SPECIFIC HYPORESPONSIVENESS FOLLOWING KIDNEY TRANSPLANTATION EXPLAINED BY LOSS OF DONOR-REACTIVE POLYFUNCTIONAL CD4+ EFFECTOR MEMORY T CELLS  Amy van der List | Rotterdam, Netherlands

18:40 – 18:45  [POS 34] DYNAMIC OF DONOR DERIVED CELL-FREE DNA AFTER PANCREAS TRANSPLANTATION  Maria José Ramírez-Bajo | Barcelona, Spain


18:50 – 18:55  [POS 40] NOVEL AVENUE OF ALLOGRAFT MONITORING: DIRECT MEASUREMENT OF DONOR-DERIVED EXTRACELLULAR VESICLES IN HUMAN PLASMA  Wouter Woud | Rotterdam, Netherlands

18:55 – 19:00  [POS 45] TISSUE BIOENERGETICS DURING THE EARLY PHASE OF NORMOTHERMIC MACHINE PERFUSION OF THE LIVER PREDICTS CLINICAL OUTCOME AFTER TRANSPLANTATION  Andras T. Meszaros | Innsbruck, Austria
### Session 5: Marginal organs and ex-vivo machine perfusion

**Chairs:** Georg Lurje | Berlin, Germany  
Cyril Moers | Groningen, The Netherlands

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<tr>
<th>Time</th>
<th>Title</th>
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<tbody>
<tr>
<td>08:30 – 08:50</td>
<td>Improving outcomes in liver transplantation with HOPE</td>
<td>Zoltan Czigany</td>
<td>Aachen, Germany</td>
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<tr>
<td>08:50 – 09:10</td>
<td>Pumping kidneys as a solution for everything?</td>
<td>Cyril Moers</td>
<td>Groningen, The Netherlands</td>
</tr>
<tr>
<td>09:10 – 09:30</td>
<td>Silencing HLA expression through ex vivo machine perfusion</td>
<td>Constanca Figueiredo</td>
<td>Hannover, Germany</td>
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<tr>
<td>09:30 – 09:37</td>
<td>[OP 16] EXTRACELLULAR VESICLE SUBSETS RELEASED DURING NORMOTHERMIC MACHINE PERFUSION ARE ASSOCIATED WITH HUMAN KIDNEY CHARACTERISTICS</td>
<td>Wouter Woud</td>
<td>Rotterdam, The Netherlands</td>
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<td>09:37 – 09:44</td>
<td>[OP 17] LIVER NORMOTHERMIC MACHINE PERFUSION SUPPORTS TRANSLATION AND MITOCHONDRIAL FUNCTION AND REDUCES DEGRADATION AND METABOLIC IMBALANCE</td>
<td>Maria Letizia Lo Faro</td>
<td>Oxford, United Kingdom</td>
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<td>09:44 – 09:51</td>
<td>[OP 18] REMOVAL OF NEUTROPHIL EXTRACELLULAR TRAPS DURING EX VIVO LUNG PERFUSION SHOWS IMPROVEMENT OF LUNG FUNCTION IN A PORCINE LUNG INJURY MODEL</td>
<td>Margareta Mittendorfer</td>
<td>Lund, Sweden</td>
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<td>09:51 – 10:30</td>
<td>Discussion panel with all speakers</td>
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**10:30 – 11:00** COFFEE BREAK

### Session 6: Mechanisms of alloimmunity and tolerance

**Chairs:** Marisa Alegre | Chicago, United States  
Elke Eggenhofer | Regensburg, Germany

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<th>Time</th>
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<tbody>
<tr>
<td>11:00 – 11:20</td>
<td>The holy grail of (central) tolerance: Generation of MHC/peptide ligands for T cell repertoire selection</td>
<td>Ludger Klein</td>
<td>Munich, Germany</td>
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<tr>
<td>11:20 – 11:40</td>
<td>Selective co-stimulation blockade with antagonist anti-CD28 therapeutics in transplantation</td>
<td>Gilles Blanchard</td>
<td>Nantes, France</td>
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Version: 10 May 2022
11:40 – 11:47 | OP 19 | GPR109A ACTIVATION IN HUMAN REGULATORY MACROPHAGES ENHANCES INDUCED TREG GENERATION | Laura Cordero | Regensburg, Germany

11:47 – 11:54 | OP 20 | INTRINSIC TISSUES FACTORS PREDISPOSE SUSCEPTIBILITY OF ISCHEMIA-REPERFUSION INJURY BY INFLUENCING THE RECRUITMENT OF TREGS INTO KIDNEY ALLOGRAFTS | Zheng Zhang | Chicago, United States

11:54 – 12:30 | Discussion panel with all speakers |

12:30 – 14:00 | LUNCH BREAK | POSTER VIEWING |

13:00 – 14:00 | SATELLITE SYMPOSIUM |

14:00 – 15:30 | Session 7: COVID-19 – immunological response to vaccination |

Chairs: Anita Chong | Chicago, United States
Katja Kotsch | Berlin, Germany

14:00 – 14:20 SARS-CoV2 vaccination of adolescent and adult kidney transplant recipients: outcomes after different approaches based on comprehensive humoral-, B- and T cell analysis | Arne Sattler | Berlin, Germany

14:20 – 14:40 Low-Avidity CD4+ T Cell Responses to SARS-CoV-2 in Unexposed Individuals and Humans with Severe COVID-19 | Petra Bacher | Kiel, Germany

14:40 – 14:47 | OP 21 | THREE-DOSE COURSE OF MRNA-1273 COVID-19 VACCINE IN KIDNEY TRANSPLANT RECIPIENTS: EVOLUTION OF CELLULAR AND HUMORAL IMMUNITY | David Cucchiari | Barcelona, Spain

14:47 – 14:54 | OP 22 | B CELL COMPOSITION IS ALTERED AFTER KIDNEY TRANSPLANTATION AND TRANSITIONAL B CELLS CORRELATE WITH SARS-COV-2 VACCINATION RESPONSE | Max Schuller | Graz, Austria

14:54 – 15:01 | OP 23 | ASSESSING SARS-COV-2-SPECIFIC ADAPTIVE IMMUNITY TO PREDICT SEROCONVERSION AFTER MRNA-BASED VACCINATION IN SOT | Laura Donadeu | Barcelona, Spain

15:01 – 15:30 | Discussion panel with all speakers |

15:30 – 16:00 | COFFEE BREAK |
16:00 – 17:00  
**Session 8:**  
**Keynote lecture**

Chairs: Jonathan Bromberg | Baltimore, United States

16:00 – 16:45 Single cell profiling of myeloid cell in health and disease  
Florent Ginhoux | Singapore

16:45 – 17:00 Q&A session

17:00 – 18:00  
**Session 9:**  
You make us look good... (Patients are the real heroes)

Chairs: Jonathan Bromberg | Baltimore, United States

Session will focus on looking at the specific case seen from perspective of surgeon and his patient after heart transplantation.

Patient: Milos Nikolic  
Belgrade, Serbia  
Surgeon: Andreas Zuckermann | Vienna, Austria

19:30 – 22:00  
Networking Event (offsite)  
Beach Mitte  
Caroline-Michaelis-Str. 8  
10115 Berlin

*For those who wish to walk together we will be meeting at 19:15 in the lobby of the venue.*
Day 4: 18 May 2022 | Wednesday

**08:30 – 10:00**  
**Session 10:** Basic mechanisms of organ regeneration & organoids

Chairs: Elke Eggenhofer | Regensburg, Germany  
Bill Scott | Newcastle, United Kingdom

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<tr>
<td>08:30 – 08:50</td>
<td>Organoids and liver regenerative medicine</td>
<td>Luc van der Laan</td>
<td>Rotterdam, The Netherlands</td>
</tr>
<tr>
<td>08:50 – 09:10</td>
<td>Kidney organoids</td>
<td>Nuria Montserrat</td>
<td>Barcelona, Spain</td>
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<tr>
<td>09:10 – 09:17</td>
<td>[OP 10] DE NOVO SIX2 ACTIVATION IN HUMAN KIDNEYS TREATED WITH NEONATAL KIDNEY STEM/PROGENITOR CELLS DURING NORMOTHERMIC MACHINE PERFUSION</td>
<td>Fanny Arcolino</td>
<td>Leuven, Belgium</td>
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<td>09:17 – 09:24</td>
<td>[OP 11] ADMINISTRATION OF MESENCHYMAL STROMAL CELLS TO REJECTED DONOR LUNGS RESULTS IN REGENERATION AND REDUCTION OF PRIMARY GRAFT DYSFUNCTION</td>
<td>Anna Niroomand</td>
<td>Lund, Sweden</td>
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<td>09:24 – 09:31</td>
<td>[OP 12] withdrawn</td>
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<td>09:31 – 09:38</td>
<td>[OP 13] 17β-ESTRADIOL AND METHYPREDNISOLONE ASSOCIATION AMELIORATES LUNG INFLAMMATION AFTER BRAIN DEATH IN FEMALE RATS</td>
<td>Marina Vidal-dos-Santos</td>
<td>São Paulo, Brazil</td>
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<td>09:38 – 10:00</td>
<td>Discussion panel with all speakers</td>
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**10:00 – 10:30**  
COFFEE BREAK

**10:30 – 12:00**  
**Best Abstracts Session**  
“A star is born”

Chairs: Marisa Alegre | Chicago, United States  
Nina Pilat | Vienna, Austria

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<td>10:30 – 10:42</td>
<td>[OP 01] TARGETED DELIVERY OF GALUNISERTIB SUPPRESSES FIBROGENESIS IN AN INTEGRATED EX VIVO RENAL TRANSPLANT AND FIBROSIS MODEL</td>
<td>Leonie van Leeuwen</td>
<td>Groningen, The Netherlands</td>
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<td>10:42 – 10:54</td>
<td>[OP 02] IMPLICATION OF CD8+ CELLS IN TREG MEDIATED SKIN GRAFT SURVIVAL</td>
<td>Romy Steiner</td>
<td>Vienna, Austria</td>
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Version: 10 May 2022
10:54 – 11:06  [OP 03] RENAL-RESIDENT INNATE LYMPHOID CELLS TYPE 2 ARE LOST FOLLOWING RENAL TRANSPLANTATION AND ARE NOT RESTORED AFTER THERAPEUTIC IL-33 TREATMENT
An He | Berlin, Germany

11:06 – 11:18  [OP 04] REGULATORY T CELLS SUPPRESS MEMORY IL-17A PRODUCTION IN HIGHLY SENSITISED PATIENTS WITH END-STAGE RENAL DISEASE
Caroline Dudreuilh | London, United Kingdom

11:18 – 11:30  [OP 05] THE ROLE OF CHIMERIC ANTIGEN RECEPTOR (CAR) VERSUS ENDOGENOUS CO-STIMULATION IN THE FUNCTION OF ALLOANTIGEN-SPECIFIC TREGS
Isaac Rosado-Sánchez | Vancouver, Canada

11:30 – 11:42  [OP 06] TRANSITIONAL-1 B CELL IL-10/TNF-Α RATIO RISK-STRATIFIES RENAL TRANSPLANT PATIENTS WITH EARLY BORDERLINE CHANGE
Aravind Cherukuri | Pittsburgh, United States

11:42 – 12:00  Discussion with all speakers

12:00 – 12:30  BREAK (LIGHT LUNCH)

12:30 – 14:00  Session 11: Biobanks and Bioassays

12:30 – 12:50  Quality in Organ Donation and Transplantation. From clinical samples to whole organs bioresource
Sarah Cross | Oxford, United Kingdom

12:50 – 13:10  The alloreactive T cell repertoire
Jianing Fu | New York, United States

13:10 – 13:30  Bioassays to determine activity of extracellular matrix remodelling can contribute to an accurate prognosis in kidney transplant recipient
Federica Genovese | Herlev, Denmark

13:30 – 14:00  Discussion panel with all speakers

14:00 – 14:30  AWARDS CEREMONY & CLOSING