

**Sunday, March 2<sup>nd</sup>, 2025**

| <b>Time</b>           | <b>Function</b>   | <b>Location</b>                         |   |
|-----------------------|---|---|---|
| 10:00 AM –<br>5:30 PM | <b>REGISTRATION</b>   | <i>Aqualea<br/>Prefunction<br/>West</i> |   |
| 12:00 PM –<br>1:30 PM | <b>LUNCH</b><br>Open to all registered attendees  | <i>Belleair<br/>Room</i>                |   |
| 12:00 PM –<br>1:30 PM | <b>Young Investigator Meet-and-Greet</b><br>A special program open to all young investigators<br>Prior registration requested but not required            | <i>Madeira<br/>Room</i>                 |   |
| 1:30 PM –<br>1:45 PM  | <b>Opening Remarks - Looking backward to guide our steps forward</b><br>Carmella Evans-Molina, MD, PhD  | <i>Aqualea<br/>Grand<br/>Ballroom</i>   |   |
| 1:45 PM –<br>3:10 PM  | <b>Key Question 1 Seminar:<br/>Differences in T1D Between Children and Adults</b><br>Co-chairs: Sarah Richardson, PhD and Todd Brusko, PhD                | <i>Aqualea<br/>Grand<br/>Ballroom</i>   |   |
|                       | 1:45 PM –<br>1:55 PM  |   | <b>Key Question 1 Introduction</b><br>Sarah Richardson, PhD<br>Todd Brusko, PhD                         |
|                       | 1:55 PM –<br>2:20 PM  |   | <i>Development of adaptive immunity during childhood</i><br>Joshua Gray, PhD                            |
|                       | 2:20 PM –<br>2:45 PM  |   | <i>Age-dependent effects of childhood exposures on islet<br/>autoimmunity risk</i><br>Kendra Vehik, PhD |
|                       | 2:45 PM –<br>3:10 PM  |   | <i>Age-related Immune and Tissue Signatures of Type 1 Diabetes</i><br>Todd Brusko, PhD                  |
| 3:10 PM –<br>3:45 PM  | <b>Discussion Session I - Key question 1:<br/>Differences in T1D Between Children and Adults</b><br>Co-chairs: Sarah Richardson, PhD and Todd Brusko, PhD | <i>Aqualea<br/>Grand<br/>Ballroom</i>   |   |
| 3:45 PM –<br>4:15 PM  | <b>BREAK</b>  | <i>Aqualea<br/>Prefunction<br/>Area</i> |   |

|                   |  |                                 |
|-------------------|--|---------------------------------|
|                   | <p align="center"><b>Key Question 2 Seminar:</b><br/> <b>Prohormone or Post Translational Antigenic Processing Defects in the T1D Pancreas</b><br/> Co-chairs: Emily Sims, MD and Clive Wasserfall</p>                     |                                 |
| 4:15 PM – 4:25 PM | <p align="center"><b>Key Question 2 Introduction</b><br/> Emily Sims, MD<br/> Clive Wasserfall, PhD</p>  | <i>Aqualea Grand Ballroom</i>   |
| 4:25 PM – 4:50 PM | <p align="center"><i>Causes and consequences of impaired islet prohormone processing in T1D</i><br/> Yi-Chun Chen, PhD</p>   |                                 |
| 4:50 PM – 5:15 PM | <p align="center"><i>T cell recognition of post-translationally modified and misprocessed prohormone peptides</i><br/> Eddie James, PhD</p>  |                                 |
| 5:15 PM – 5:40 PM | <p align="center"><i>Plasticity in proglucagon processing in alpha-cells</i><br/> Jonathan Campbell, PhD</p>   |                                 |
| 4:15 PM – 5:40 PM |  |                                 |
| 5:40 PM – 6:15 PM | <p align="center"><b>Discussion Session II: Key Question 2:</b><br/> <b>Prohormone or Post Translational Antigenic Processing Defects in the T1D Pancreas</b><br/> Co-chairs: Emily Sims, MD and Clive Wasserfall, PhD</p> | <i>Aqualea Grand Ballroom</i>   |
| 6:15 PM – 6:30 PM | <b>BREAK</b>   | <i>Aqualea Prefunction Area</i> |
| 6:30 PM – 7:15 PM | <p align="center"><b>Lifetime Achievement Award for T1D Research</b><br/> <i>What questions should we be asking about T1D?</i><br/> <i>Lessons learned along the way</i><br/> Jeffrey Krischer, MD, PhD</p>                | <i>Aqualea Grand Ballroom</i>   |
| 7:15 PM – 8:15 PM | <p align="center"><b>OPENING RECEPTION</b><br/> Light hors d'oeuvres provided</p>  | <i>Sky Terrace</i>              |
| 8:15 PM           | <p align="center"><b>DINNER</b><br/> On your own / Opportunity for Networking</p>  | --                              |

**Monday, March 3<sup>rd</sup>, 2025**

| <b>Time</b>            | <b>Function</b>  | <b>Location</b>                         |   |
|------------------------|--|---|---|
| 7:30 AM –<br>4:30 PM   | <b>REGISTRATION</b>  | <i>Aqualea<br/>Prefunction<br/>West</i> |   |
| 7:00 AM –<br>8:30 AM   | <b>BREAKFAST</b>   | <i>Belleair Room</i>                    |   |
| 7:30 AM –<br>8:30 AM   | <b>SPECIAL BREAKFAST MEETING</b><br><b>Women Inspiring and Elevating Leadership in Diabetes<br/>(WIELD)</b><br>Amelia Linnemann, PhD<br>Jessica Dunne, PhD   | <i>Madeira Room</i>                     |   |
| 8:30 AM –<br>10:00 AM  | <b>Key Question 3 Seminar:</b><br><b>Discussion III - Key Question 3:</b><br><b>The Role of the Exocrine Pancreas in T1D Development</b><br>Co-Chairs: Teresa Mastracci, PhD and Ben Giepmans, PhD | <i>Aqualea Grand<br/>Ballroom</i>       |   |
|                        | 8:30 AM<br>–<br>8:45 AM  |   | <b>Key Question 3 Introduction</b><br>Teresa Mastracci, PhD<br>Ben Giepmans, PhD                        |
|                        | 8:45 AM<br>–<br>9:10 AM  |   | <i>Pancreatitis and diabetes: Overlap with type 1 DM</i><br>Melena Bellin, MD                           |
|                        | 9:10 AM<br>–<br>9:35 AM  |   | <i>Engineered biomaterials to explore the islet-ECM axis</i><br>Nikki Farnsworth, PhD                   |
|                        | 9:35 AM<br>–<br>10:00 AM   |   | <i>Advancing the use of pancreas slice cultures to the exocrine<br/>pancreas</i><br>Herbert Gaisano, MD |
| 10:00 AM –<br>10:40 AM | <b>Discussion III - Key Question 3:</b><br><b>The Role of the Exocrine Pancreas in T1D Development</b><br>Co-Chairs: Teresa Mastracci, PhD and Ben Giepmans, PhD                                   | <i>Aqualea Grand<br/>Ballroom</i>       |   |
| 10:40 AM –<br>11:00 AM | <b>BREAK</b>   | <i>Aqualea<br/>Prefunction<br/>Area</i> |   |

|                        |  |   |                           |
|------------------------|--|---|---------------------------|
| 11:00 AM –<br>11:30 AM | <b>Oral Abstracts I: The Emerging Immune Landscape in Type 1 Diabetes</b><br>Co-Chairs: Maryaline Coffre, PhD and Dirk Homann, PhD   |   | Aqualea Grand<br>Ballroom |
|                        | 11:00 AM –<br>11:10 AM   | <i>Efferocytosis pathways in islet myeloid cells suppress autoimmunity during type 1 diabetes</i><br>Kristen Wells, PhD                       |                           |
|                        | 11:10 AM –<br>11:20 PM   | <i>Public B cell clones are found in the peripheral blood and pancreatic lymph nodes of T1D donors</i><br>Jessica Prendergast, PhD            |                           |
|                        | 11:20 PM –<br>11:30 PM   | <i>Pancreatic stellate cells may contribute to reduced glucose-stimulated insulin secretion in type 1 diabetes</i><br>Alejandra Petrilli, PhD |                           |
| 11:30 AM –<br>12:45 PM | <p><b>NEW for 2025 - Shark Tank “Breakthrough T1D Award for Innovation”<br/>Early-Stage Investigator Competition</b></p> <p>Competition Theme: “A breakthrough for T1D research”<br/>Chairs: Esther Latres, PhD &amp; Mark Atkinson, PhD<br/>Sharks: Ake Lernmark, MD, PhD, Lori Sussel, PhD, Timothy Tree, PhD, and Melena Bellin, PhD</p> <p><b>Presenters:</b><br/>Chaitra Rao, PhD<br/>Alexandra Cuaycal, PhD<br/>Debjyoti Kundu, PhD<br/>Melanie Shapiro, PhD</p> |   | Aqualea Grand<br>Ballroom |
| 12:45 PM –<br>1:45 PM  | <b>LUNCH</b>   |   | Belleair Room             |
| 1:45 PM –<br>3:35 PM   | <b>Key Question 4 Seminar:</b><br><b><i>In Vivo and In Vitro</i> Translational Studies to Advance Therapies for T1D</b><br>Co-Chairs: Juan Dominguez-Bendala, PhD and Alberto Pugliese, MD   |   | Aqualea Grand<br>Ballroom |
|                        | 1:45 PM –<br>1:55 PM   | <b>Key Question 4 Introduction</b><br>Juan Dominguez-Bendala, PhD and Alberto Pugliese, MD  |                           |
|                        | 1:55 PM –<br>2:20 PM   | <i>Molecular architecture of pancreatic islet cells across sex</i><br>Fahd Qadir, PhD   |                           |
|                        | 2:20 PM –<br>2:45 PM   | <i>Modeling type 1 diabetes in a vascularized 3D model of the human pancreatic islet</i><br>Christopher Hughes, PhD                           |                           |

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|                   | 2:45 PM – 3:10 PM  | <i>Mice with human immune system to study the thymic development of human beta cell antigen-reactive T cells and immune infiltration of stem cell-derived beta cells</i><br>Remi Creusot, PhD |                                 |
|                   | 3:10 PM – 3:35 PM  | <i>Modeling lymph node function and multi-organ immune responses in tissue slices and organs-on-chip</i><br>Rebecca Pompano, PhD  |                                 |
| 3:35 PM – 4:10 PM | <p align="center"><b>Discussion IV - Key Question 4:</b><br/> <b><i>In Vivo and In Vitro</i> Translational Studies to Advance Therapies for T1D</b><br/> Co-Chairs: Juan Dominguez-Bendala, PhD and Alberto Pugliese, MD</p> |   | <i>Aqualea Grand Ballroom</i>   |
| 4:10 PM – 4:30 PM | <b>BREAK</b>   |   | <i>Aqualea Prefunction Area</i> |
| 4:30 PM – 5:30 PM | <p align="center"><b>Oral Abstracts II: Cutting Edge Technologies in Immunology and Pathology</b><br/> Co-Chairs: Josh Vieth, PhD and Jamie Felton, MD</p>   |   | <i>Aqualea Grand Ballroom</i>   |
|                   | 4:30 PM – 4:40 PM  | <i>High-throughput TCR screening system for linking antigen specificity and phenotype of T cells involved in the pathogenesis of type 1 diabetes</i><br>Maki Nakayama, MD                     |                                 |
|                   | 4:40 PM – 4:50 PM  | <i>Spatial interrogation of the diabetic hallmarks and tissue composition of human pancreas in 2D and 3D using deep learning models</i><br>Yu Shen, BS  |                                 |
|                   | 4:50 PM – 5:00 PM  | <i>Integrated histopathology of the human pancreas throughout stages of type 1 diabetes progression</i><br>Verena van der Heide, PhD  |                                 |
|                   | 5:00 PM – 5:10 PM  | <i>Stem cell-derived pancreatic <math>\beta</math>-cells overexpressing CD155 demonstrate enhanced protection from killing by antigen-specific T cells</i><br>Matthew Brown, BS               |                                 |
|                   | 5:10 PM – 5:20 PM  | <i>Mapping the human pancreas by imaging mass cytometry reveals early dysregulation in the endocrine and immune compartment in type 1 diabetes progression</i><br>Nathan Steenbuck, PhD       |                                 |

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|-----------------------|--|---|--------------------|
|                       | 5:20 PM –<br>5:30 PM   | <i>INS genetic variation promotes type 1 diabetes risk by increasing beta cell insulin production, hyperactivity, and fragility</i><br>James Johnson, PhD |                    |
| 5:30 PM –<br>7:00 PM  | <b>FREE TIME / NETWORKING</b><br><b>INCLUDES ANNUAL MEETING PHOTO at Sunset</b><br><i>(Est. 6:30pm)</i><br>Organized by Alberto Pugliese, MD |   | --                 |
| 7:00 PM –<br>10:00 PM | <b>DINNER, AWARDS CEREMONY &amp; nPOD HAS TALENT</b>   |   | <i>Sky Terrace</i> |

| <b>Tuesday, March 4<sup>th</sup>, 2025</b> |  |   |                               |
|--|--|---|-------------------------------|
| <b>Time</b>                                | <b>Function</b>  |   | <b>Location</b>               |
| 7:00 AM –<br>8:30 AM                       | <b>BREAKFAST</b>   |   | <i>Belleair Room</i>          |
| 8:30 AM –<br>10:20 AM                      | <b>Key Question 5 Seminar:</b><br><b>β- and Islet-Cell Specific Targets</b><br>Co-Chairs: Qizhi Tang, PhD and Holger Russ, PhD |   | <i>Aqualea Grand Ballroom</i> |
|  | 8:30 AM –<br>8:40 AM   | <b>Key Question 5 Introduction</b><br>Qizhi Tang, PhD<br>Holger Russ, PhD   |                               |
|  | 8:40 AM –<br>9:05 AM   | <i>Islet-derived CD8+ T cells from donors with type 1 diabetes: function and reactivity</i><br>Sally Kent, PhD                        |                               |
|  | 9:05 AM –<br>9:30 AM   | <i>Defective islet autophagy as a contributor to beta cell immunogenicity</i><br>Amelia Linnemann, PhD                                |                               |
|  | 9:30 AM –<br>9:55 AM   | <i>Identification of T cell epitopes in T1D using synthetic immunology</i><br>Alok Joglekar, PhD                                      |                               |
|  | 9:55 AM –<br>10:20 AM  | <i>Beta-cell senescence in T1D: Friend or foe?</i><br>Feyza Engin, PhD  |                               |
|  | 10:20 AM –<br>10:55 AM   | <b>Discussion V - Key Question 5:</b><br><b>β- and Islet-Cell Specific Targets</b><br>Co-Chairs: Qizhi Tang, PhD and Holger Russ, PhD |                               |

|                        |   |   |   |
|------------------------|---|---|---|
| 10:55 AM –<br>11:25 AM | <b>BREAK</b>  |   | <i>Aqualea<br/>Prefunction<br/>Area</i> |
| 11:25 AM –<br>12:30PM  | <b>Lightning Poster Presentations</b><br>Sylvaine You, PhD and Klaus Kaestner, PhD  |   | <i>Aqualea<br/>Grand<br/>Ballroom</i>   |
| 12:30 PM –<br>1:45 PM  | <b>LUNCH and BREAK</b>  |   | <i>Belleair<br/>Room</i>                |
| 1:45 PM –<br>2:30 PM   | <b>George Eisenbarth Memorial Lecture</b><br><b>Åke Lernmark, MD, PhD</b><br><i>Molecular biology of type 1 diabetes etiology</i>   |   | <i>Aqualea<br/>Grand<br/>Ballroom</i>   |
| 2:30 PM –<br>3:55 PM   | <b>Key Question 6 Seminar:</b><br><b>How Can nPOD Studies Better Guide Clinical Trials Seeking to Understand<br/>Disease Heterogeneity?</b><br>Co-Chairs: Maria Redondo, MD, PhD and Richard Oram, MD, PhD                |   | <i>Aqualea<br/>Grand<br/>Ballroom</i>   |
|                        | 2:30 PM –<br>2:40 PM  | <b>Key Question 6 Introduction</b><br>Maria Redondo, MD, PhD<br>Richard Oram, MD, PhD                   |   |
|                        | 2:40 PM –<br>3:05 PM  | <i>Sex differences in response to beta-cell inflammation in T1D</i><br>Raghu Mirmira, MD, PhD           |   |
|                        | 3:05 PM –<br>3:30 PM  | <i>T1D in Africa: Different in so many ways</i><br>Jean Claude Katte, MD, PhD                           |   |
|                        | 3:30 PM –<br>3:55 PM  | <i>What does disease heterogeneity in nPOD look like?</i><br>Irina Kusmartseva, PhD<br>John Kaddis, PhD |   |
| 3:55 PM –<br>4:30 PM   | <b>Discussion Session VI - Key Question 6:</b><br><b>How Can nPOD Studies Better Guide Clinical Trials Seeking to Understand<br/>Disease Heterogeneity?</b><br>Co-Chairs: Maria Redondo, MD, PhD and Richard Oram, MD PhD |   | <i>Aqualea<br/>Grand<br/>Ballroom</i>   |
| 4:30 PM –<br>6:00 PM   | <b>BREAK</b>  |   | <i>Aqualea<br/>Prefunction<br/>Area</i> |
| 6:00 PM –<br>9:00 PM   | <b>Poster Session</b><br><i>(Heavy hors d'oeuvres provided)</i>   |   | <i>Siesta Key<br/>Room</i>              |
| 9:00 PM                | <b>DINNER (on your own)</b>   |   | --                                      |
| 9:00 PM – 11:00<br>PM  | <b>After you've had dinner, join us for karaoke!</b>  |   | <i>Madeira<br/>Room</i>                 |

## Wednesday, March 5<sup>th</sup>, 2025 (Half day)

| Time                   | Function   | Location   |
|------------------------|--|--|
| 7:00 AM –<br>8:30 AM   | <p style="text-align: center;"><b>BREAKFAST &amp; CHECKOUT</b><br/> <b>Hotel checkout is 11 AM</b></p> <p style="text-align: center;">If checking out today, please bring luggage to the back of the meeting room for the remainder of the meeting.</p> <p style="text-align: center;"><b>Note: Breakfast will only be served from 7:00 AM – 8:30 AM</b></p> | <i>Belleair Room</i>   |
| 8:30 AM –<br>9:00 AM   | <p><b>HPAP Update</b><br/>Klaus Kaestner, PhD</p>  | <i>Aqualea Grand Ballroom</i>  |
| 9:00 AM –<br>9:50 AM   | <p><b>Oral Abstracts III: Islet cell heterogeneity in T1D pathogenesis</b><br/>                     Co-Chairs: Bruce Verchere, PhD, and Anna Casu, MD</p>  |  |
|                        | 9:00 AM –<br>9:10 AM   | <p><i>Are we missing something? Do the small things matter? Loss of extra-islet beta cells in Type 1 diabetes</i><br/>Teifion Lockett, PhD</p>             |
|                        | 9:10 AM –<br>9:20 AM   | <p><i>Heterogeneity of <math>\beta</math> Cell extracellular vesicles in T1D: PD-L1 and HLA class I mediated immunomodulation</i><br/>Chaitra Rao, PhD</p> |
|                        | 9:20 AM –<br>9:30 AM   | <p><i><math>\beta</math> cell heterogeneity in the acute IFN-<math>\alpha</math> response</i><br/>Leslie Wagner, PhD</p>                                   |
|                        | 9:30 AM –<br>9:40 AM   | <p><i>Chromogranins and secretogranins in the pathogenesis of type 1 diabetes</i><br/>Patricia Velado, PhD</p>   |
| 9:40 AM –<br>9:50 AM   | <p><i>Functional heterogeneity of alpha cells</i><br/>Julia Panzer, PhD</p>  | <i>Aqualea Grand Ballroom</i>  |
| 9:50 AM –<br>10:20 AM  | <b>BREAK / CHECK OUT</b>   | <i>Aqualea Prefunction Area</i>  |
| 10:20 AM –<br>10:50 AM | <p><b>Innovation Lecture</b><br/> <i>MALDI imaging-directed spatial biology: A new lens to redefine Alzheimer's disease research and therapeutic directions</i><br/>                     Ramon Sun, PhD</p>  | <i>Aqualea Grand Ballroom</i>  |



|                                |  |  |
|--------------------------------|--|--|
| <p>10:50 AM –<br/>11:30 AM</p> | <p><b>What questions were not asked that should have been asked?</b><br/>Co-Chairs<br/>Mark Atkinson, PhD<br/>Alberto Pugliese, MD<br/>Carmella Evans-Molina, MD PhD</p> | <p><i>Aqualea<br/>Grand<br/>Ballroom</i></p> |
| <p>11:30 AM –<br/>11:45 AM</p> | <p><b>Closing Remarks</b></p>  | <p><i>Aqualea<br/>Grand<br/>Ballroom</i></p> |
| <p><b>END OF MEETING</b></p>   |  |  |

## Optional Key Question Meetings

| Date & Time                             | Key Question   | Location             |
|---|--|----------------------|
| <b>Tuesday, March 4</b><br>7:30-8:30am  | <b>KEY QUESTION 1</b><br><i>Differences in T1D Between Children and Adults</i>   | <i>Sand Key Room</i> |
| <b>Tuesday, March 4</b><br>12:30-1:45pm | <b>KEY QUESTION 2</b><br><i>Prohormone or Post-Translational Antigenic Processing Defects</i>                                  | <i>Sand Key Room</i> |
| <b>Monday, March 3</b><br>12:45-1:45pm  | <b>KEY QUESTION 3</b><br><i>The Role of the Exocrine Pancreas in T1D</i>   | <i>Sand Key Room</i> |
| <b>Tuesday, March 4</b><br>4:30-6pm     | <b>KEY QUESTION 4</b><br><i>In Vivo and In Vitro Translational Studies to Advance Therapies for T1D</i>                        | <i>Sand Key Room</i> |
| <b>Monday, March 3</b><br>5:30-6:30pm   | <b>KEY QUESTION 5</b><br><i>Beta and Islet-Cell Specific Targets</i>   | <i>Sand Key Room</i> |
| <b>Monday, March 3</b><br>7:30-8:30am   | <b>KEY QUESTION 6</b><br><i>How Can nPOD Studies Better Guide Clinical Trials Seeking to Understand Disease Heterogeneity?</i> | <i>Sand Key Room</i> |

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