



09:00 09:45 Registration & coffee

Room: **Rotonde**
 09:45 09:55 Opening by Leendert Trouw
Keynote lecture
Chair: Sharon Veenbergen
 09:55 10:50 **Intracellular complement and cell physiology**
Claudia Kemper (USA)

11:00 12:45 Session 1
Topic: **Tumor Immunology / Immune Therapy**
Chairs: Reno Debets & Liesbeth de Vries
Room: **Rotonde**
 11:00 11:30 **Molecular imaging and cancer immunotherapy**
Liesbeth de Vries (UMC Groningen)
 11:30 11:45 IgA3.0 ch14.18 antibodies are effective in preclinical neuroblastoma models without inducing neuropathic pain
Margjolein Stip (UMC Utrecht)
 11:45 12:00 Optimizing T-cell receptor engineering of primary NK-cells to therapeutically target tumors and tumor immune evasion
Els van Hees (LUMC)
 12:00 12:15 Novel bioinformatics pipeline for the identification of putative immune inhibitory receptors in health and disease
Akashdeep Singh (UMC Utrecht)
 12:15 12:30 T-cell dysfunction in CLL can be alleviated by blocking Sialic acid-binding Ig-like lectin 10 (Siglec-10) ligation
Armando van Bruggen (Amsterdam UMC)
 12:30 12:45 A combination of pattern recognition receptor agonists induces potent antigen-specific T cell responses and improves ICB efficacy in tumor models
Kou Hioki (Erasmus MC)

Session 2
Adaptive Immunology / Immune Therapy
Jake den Haan & Frank Staal
Boston 9
Human T cell development: from basic insights to curative therapies
Frank Staal (LUMC)
 Human lymph node stromal cells maintain FOXP3+ regulatory T cells in a HLA-DR dependent manner
Cristoforo Grasso (Amsterdam UMC)
 N-glycosylation of IgG-Fc regulates effector functions of secreted antibodies but is not required for B-cell receptor function
Theresa Kissel (LUMC)
 3D chromatin reprogramming primes human memory Th2 cells for rapid recall and pathogenic dysfunction
Ralph Stadhouders (Erasmus MC)
 Persistent virus-specific and clonally expanded antibody secreting cells respond to induced self antigen in the CNS
Alexander Yermans (UMC Utrecht)
 Single-cell T cell Receptor sequencing of paired human atherosclerotic plaques and blood reveals autoimmune-like features of expanded effector T cells
Marie Depuydt (LACDR)

Session 3
Infection & Inflammation
Dimitri Diavatopoulos & Jelle de Wit
Boston 19
Vaccination for mucosal responses
Dimitri Diavatopoulos (Radboudumc)
 Infection and transmission of SARS-CoV-2 depend on heparan sulfate proteoglycans
Julia Eder (Amsterdam UMC)
 Robust SARS-CoV-2 epitopes-specific CD8+ T-cells responses in mRNA-1273 vaccinated inflammatory bowel disease patients treated with TNF inhibitors
Jet van den Dijssel (Sanquin)
 Ageing alters motility and reduces immune activation of Plasmodium falciparum malaria sporozoites in vitro
Roos van Schuijfenburg (LUMC)
 Overcoming antimicrobial resistance by identification of kinase inhibitors as host-directed therapeutics against intracellular bacteria
Robin van den Biggelaar (LUMC)
 Recruitment of CD62Low neutrophils in acute inflammation correlates with a pre-existing reactivity and with plasma cytokine levels
Suus Bongers (UMC Utrecht)

Session 4
Mucosal and organ specific immunity
Bram Rutgers & Joost Smolders
Boston 12-14
Immune surveillance of the central nervous system in health and multiple sclerosis
Joost Smolders (Erasmus MC)
 Autologous co-cultures of human intestinal CD8+ cells and organoids to recapitulate key aspects of the celiac disease mucosal immune response
Joram Moolweer (UMC Groningen)
 Retinoic acid-loaded liposomes induce mucosal CD103+ dendritic cells that inhibit Th17 cell and drive regulatory T cell development
Florianne Hafkamp (Amsterdam UMC)
 Mucosal memory TIGITneg T cells proliferate and acquire a Th1* phenotype in an in vitro inflammatory environment
Maud Heredia (Erasmus MC)
 Chemotherapy-induced intestinal epithelial damage directly modulates T cell behavior
Alessandra Cutilli (UMC Utrecht)
 The brain CD8+ TRM-cell transcriptome is consistent within white matter but differs between brain white and grey matter regions
Cheng-Chih Hsiao (Netherlands Institute for Neuroscience)

Session 5
Autoimmunity & Allergy
Nathalie Cools & Leendert Trouw
Cambridge 32
Antigen-specific cell therapy for the treatment of multiple sclerosis: how to bring a promising approach to patients
Nathalie Cools (University of Antwerp)
 Phenotyping of autoantigen-specific B cells in rheumatoid arthritis using spectral flow cytometry reveals a population of recently activated memory B cells and plasmablasts
Sanne Reijm (LUMC)
 Bruton's tyrosine kinase inhibition to suppress mast cell activation in atherosclerosis
Esmeralda Hemme (LACDR)
 Single cell RNA sequencing of antigen-specific autoreactive B cells in MuSK myasthenia gravis
Laurent Paardekooper (LUMC)
 Corticosteroids induce differentiation of ILC2s towards an immunomodulatory phenotype characterized by high amphiregulin production
Esmee van der Ploeg (Erasmus MC)
 Targeted complement inhibition using engineered bispecific antibodies that bind local antigens and endogenous complement regulators as a novel therapeutic approach
Sanne van de Bovenkamp (LUMC)

12:45 13:30 Lunch - Atrium

Room: **Boston 9**
 12:45 13:30 General Assembly NVVI

Room: **Rotonde**
Keynote lecture
Chair: Nienke Vrisekoop
 13:30 14:25 **Swarming sentinels and sessile networks: The dynamic spectrum of innate immune surveillance**
Tim Lämmermann (Germany)

14:30 15:30 Poster viewing: Odd poster numbers

15:30 16:00 Coffee/tea break - Atrium

16:00 17:45 Session 6
Topic: **Tumor Immunology / Immune Therapy**
Chairs: Wilfred Germeraad + Gerty Schreibelt
Room: **Rotonde**
 16:00 16:15 Galectin-mediated interactions are essential in governing dendritic cell anti-melanoma immunity
Laia Querol Cano (Radboudumc)
 16:15 16:30 Overcoming immune checkpoint blockade resistance in solid tumors with ITK inhibition
Ling Li (Erasmus MC)
 16:30 16:45 Bi-specific antibodies to enable or enhance complement activation by therapeutic anti-tumor antibodies
Douwe Dijkstra (LUMC)
 16:45 17:00 Modelling resistance of colorectal peritoneal metastases to immune checkpoint blockade in humanized mice
Emre Küçükköse (UMC Utrecht)
 17:00 17:15 Gene and protein sequence features augment HLA class I ligand predictions
Kaspar Bresser (Sanquin Research)
 17:15 17:30 Developing a bioluminescent T cell reporter mouse model for testing therapeutic combinations that induce an immune response in PDAC
Roisin McMorrow (Erasmus MC)
 17:30 17:45 LAIR-1 contributes for T cell exclusion from tumor beds
Maria Inês Ramos (UMC Utrecht)

Session 7
Adaptive Immunology / Immune Therapy
Derk Amsen & Hans Koenen
Boston 9
Human T cells recognize HLA-DP bound peptides in two orientations
Michel Kester (LUMC)
 A universal mRNA influenza T-cell vaccine boosts existing cellular responses and enhances protection against severe pneumonia induced by H7N9 challenge in ferrets
Jorgen de Jonge (RIVM)
 Deep profiling of specific B cells against different pathogens identifies novel subsets of the IgG memory B cell and antibody-secreting cell lineages
Mathieu Claireaux (Amsterdam UMC)
 Near-ubiquitous CD4+ T cell-mediated recognition of a highly conserved and immunodominant cholesterol-dependent cytolyisin-derived bacterial epitope presented by HLA-DP
Martijn van de Gard (RIVM)
 Single cell RNA sequencing of whole airway biopsies shows T cell subtype proportion differences between asthma and healthy controls
Marijn Berg (Erasmus MC)
 Distinct SARS-CoV-2-specific T cell responses upon COVID-19 vaccination and cross-reactivity against variants of concern among different age groups
Jolanda Brummelman (RIVM)
 Extended delivery of whole inactivated virus influenza vaccine results in quantitatively and qualitatively enhanced immune responses
Martin Beukema (UMC Groningen)

Session 8
Innate Immunology
Nienke Vrisekoop & Tom van der Poll
Boston 19
Immunology of Sepsis
Tom van der Poll (Amsterdam UMC)
 Cytotoxic cells restore innate interferon-β response in cytomegalovirus-infected cells
Michael Schakelaar (Amsterdam UMC)
 Discovery of unique liver NK cells and novel insight in exhaustion-related NK cell states in chronic HBV by single cell RNA sequencing
Diren Arda Karaoglu (Erasmus MC)
 Local and systemic transcriptomic profiling of monocytes shows host-pathogen interactions in children experiencing severe RSV infection
Klasina Chappin (UMC Utrecht)
 Temporal perturbation of STAT1/2 activities reveal dynamic ligand discrimination of type I interferon signaling
Thomas van de Kreeke (Eindhoven University of Technology)
 The journey of microplastics from blood to organs and the involvement of phagocytes
Joëlle Klazen (UMC Utrecht)

Session 9
Clinical & Medical Immunology
Virgil Dalm & Mirjam van der Burg
Boston 12-14
Peripheral immune cell subset profiles in psoriasis patients reveal heterogeneity in the immunological landscape and facilitate therapy choice
Xuehui He (Radboudumc)
 Mucosal α4β7+ lymphocytes and MAdCAM+ venules predict response to Vedolizumab in ulcerative colitis
Ellen van Lochem (Rijnstate hospital)
 Longitudinal phenotypical characterization of SARS-CoV-2 Spike-specific T-cell responses following mRNA-1273 vaccination in kidney patients
Céline Imhof (UMC Groningen)
 Neutrophil extracellular trap-formation in anti-neutrophil cytoplasmic antibody-associated vasculitis and glomerulonephritis using a novel bio-impedance technique: A prospective cohort study
Joop Aendekerk (MUMC+)
 Patients with idiopathic recurrent pregnancy loss have a distinct endometrial cell profile
Aysel Gurbanova (Radboud University)
 Anti-C2 antibody ARGX-117 inhibits complement in a disease model for multifocal motor neuropathy
Kevin Budding (UMC Utrecht)
 Identification of novel cell cluster expressing CD38 and HLA-DR in chronic intervillositis of unknown etiology
Juliette Krop (LUMC)

Session 10
Autoimmunity & Allergy
Maartje Huijberts & Annemiek van Spriel
Cambridge 32
Citrullinated human and murine peptide fragments derived from myelin oligodendrocyte glycoprotein (MOG) display distinct biophysical and biochemical behavior
Ward Doelman (Leiden University)
 Single-cell profiling of age-associated immunity in murine atherosclerosis
Virginia Smit (LACDR)
 Rapid and persistent break of tolerance of B cells in the autoreactive germinal center
Theo van den Broek (UMC Utrecht)
 Clonal profiling of anti-citrullinated protein antibodies: First insights into a secreted autoimmune repertoire at molecular resolution
Eva Maria Stork (LUMC)
 Genetic variants linked to asthma enable risk prediction and offer new insights into disease pathophysiology
Bernard Stikker (Erasmus MC)
 The role of the complement system in the induction of antibodies directed against post-translationally modified proteins
Stef van der Meulen (LUMC)
 Aberrant Signaling in Circulating Naive and IgA+ – but Not IgG+ – Memory B cells from Patients with Rheumatoid Arthritis
Stefan Neys (Erasmus MC)

17:45 18:30 Friendship Drinks
18:30 19:40 Dinner - Gaudi & Dalí Restaurant



Room: Rotonde
Keynote lecture
Chair: Jolanda de Vries
19:40 20:00 **Thesis Award Winner - Lisette Krabbendam (Erasmus MC)**
20:00 21:00 **Van Loghem Laureaat - Rene Toes (LUMC)**
21:00 01:00 Congress Party

Thursday 15 December 2022

08:15 09:00 Registration & coffee

Room: Rotonde
Session: Bright Sparks
Chairs: Hermelijn Smits & Lisette Krabbendam
09:00 09:15 Revising IFN-1 response dynamics across (non-) immune cells using microfluidics and modeling
Laura Van Eindhoven (Eindhoven University of Technology)
09:15 09:30 Chimeric HLA-Antigen Receptor (CHAR) T-cell engineering - a new approach to target HLA sensitization
Jse Gille (LUMC)
09:30 09:45 Location matters: diverse, organ-specific lifespans of memory T-cells in mice and humans
Lynne Derksen (UMC Utrecht)
09:45 10:00 T cell receptor specific for the tumor-restricted Cancer Germline Antigen Ropporin-1 to treat triple negative breast cancer
Dian Kortleve (ErasmusMC-Cancer Institute)

10:00 10:20 Lecture t.b.a.

10:20 10:50 Coffee/tea break - Atrium

10:50 11:45 **Keynote lecture**
Chair: Joke den Haan
Immune responses to HBV and SARS-CoV-2
Matteo Iannacone (Italy)

11:45 12:45 Poster Viewing: Even numbers

12:15 13:00 Lunch - Atrium

13:00 14:45 Session 11
Innate Immunity
Tamar Tak & Jeroen den Dunne
Room: Rotonde
13:00 13:15 Neutrophil-mediated tumor cell killing induces uptake of antigens and dendritic cell maturation
Celine Sewnath (Amsterdam UMC)
13:15 13:30 Expression of complement regulators on red blood cell progenitors during in vitro and in vivo erythropoiesis
Esther de Boer (Sanquin)
13:30 13:45 Inflammaging markers in the blood are associated with frailty in older individuals: results from the VITAL study
Yannick van Sleen (UMC Groningen)
13:45 14:00 Non-canonical NF- κ B signalling is required for extrathymic AIRE expression in cells of the dendritic lineage
Guus van Laar (Amsterdam UMC)
14:00 14:15 Single-cell RNA sequencing reveals the presence of immature neutrophils in inflamed murine joints
Erinke van Grinsven (Oxford)
14:15 14:30 Natural killer cell profiles in recurrent pregnancy loss: Increased expression and positive associations with tactile and LILRB16
Denise Habets (MUMC+)
14:30 14:45 Overexpression of transmembrane TNF drives angiogenesis, osteogenesis and inflammation reminiscent to human spondyloarthritis in a NF- κ B inducing kinase (NIK) dependent manner
Jan Piet van Hamburg (Amsterdam UMC)

Session 12
Tumor Immunology / Immune Therapy
Jeannette Leusen & Floris Dalmeijer
Boston 9
Vaccination of Type 1 Diabetes patients with proinsulin-peptide pulsed tolerogenic dendritic cell induces long term peptide-specific T-cell regulation
Chelsea Gootjes (LUMC)
Tissue spatial analysis by imaging mass cytometry and longitudinal peripheral blood flow cytometry in checkpoint inhibitor toxicity
Mick van Eijs (UMC Utrecht)
Dysfunction of T cells From Chronic Lymphocytic Leukemia (CLL) Patients Is Linked to Disturbed Lipid and Fatty Acid Homeostasis
Chaja Jacobs (Amsterdam UMC)
BYON4228, a pan-allelic SIRP α blocking antibody with a favorable pre-clinical safety profile, enhances anti-tumor immunity in vitro and in vivo
Seline Zwarthoff (Byondis)
T cell receptors equipped with icos mediate enhanced durability of anti-melanoma response upon adoptive T cell therapy in vivo
Alexandre Marraffa (Erasmus MC)
T cell mediated killing of neuroblastoma is inhibited by secreted MIF and MDK
Josephine Strijker (Princess Maxima Center)
NKG2A genetic deletion promotes human NK cell anti-tumor responses by reversing HLA-E-mediated inhibition and promoting tumor infiltration
Roel Klein Wolterink (MUMC+)

Session 13
Clinical & Medical Immunology
Mette Hazenberg & Sharon Veenbergen
Boston 19
Role of the microbiome in graft vs host disease in hematological cancer therapy
Mette Hazenberg (Amsterdam UMC)
Early detection of MALT lymphoma in Sjögren's syndrome patients through immunogenetics
Pieter Martijn Kollijn (Erasmus MC)
Antibody neutralization and potential effector functions directly after primary HCV is associated with the protection against reinfection
Ana Chumbe (Amsterdam UMC)
High intestinal secretory leukocyte protease inhibitor expression correlates with abundant neutrophilic inflammation and identifies inflammatory bowel disease patients with a strong IL-17 response
Beatriz Calado (Erasmus MC)
SARS-CoV-2 booster immunizations are essential for the generation of memory B cell responses in older adults
Marije Verheul (RIVM)
Elevated adaptive immune responses to multiple Lachnospiraceae bacterial flagellins in therapy-naïve pediatric CD patients are associated with distinct immune pathology
Danielle Barendregt (Erasmus MC)

Session 14
Infection & Inflammation
Joppe Hovius & Hermelijn Smits
Boston 12-14
Chromogranin A and catestatin modulate inflammation
Elke Muntjewerff (Uppsala- Sweden)
Mapping the immune response in schistosomiasis - insights from controlled human infection models
Emma Houlder (LUMC)
Inducing tick immunity by vaccination as a novel strategy to prevent Lyme borreliosis
Melissa van Gool (Amsterdam UMC)
Immune cell phenotyping of leprosy patients and their contacts: unravelling the cellular capacity to control mycobacterial growth
Anouk van Hooij (LUMC/ErasmusMC)
Imaging granuloma organization in the Mycobacterium tuberculosis-infected non-human primate lung
Paula Niewold (LUMC)
Prevotella timonensis structures affect cellular uptake mechanisms and enhance HIV-1 susceptibility
Marleen van Smoorenburg (Amsterdam UMC)
Single-cell RNA sequencing of B cells in the blood and liver of chronic hepatitis B patients
Zgjim Osmani (Erasmus MC)

Session 15
Immunometabolomics
Eric Eldering & Bart Everts
Cambridge 32
Metabolic control of tolerogenic dendritic cells
Bart Everts (LUMC)
Pyruvate metabolism controls epigenome remodeling during CD4+ T cell activation
Enric Mocholi (UMC Utrecht)
Glutamine import as a novel therapeutic vulnerability in Chronic Lymphocytic Leukemia
Eric Eldering (Amsterdam UMC)
A novel in vitro model of lipid-activated human macrophages for studying adipocyte-macrophage cross-talk during obesity
Joost Maarten Lambooi (LUMC)
T-cells from chronic lymphocytic leukemia patients have low metabolic fitness and altered use of carbon fuels
Helga Simon-Molas (Amsterdam UMC)
mTORC1 signalling in antigen-presenting cells of the skin restrains CD8+ T cell priming
Thiago Patente (LUMC)

14:45 15:00 Coffee/tea break - Atrium

Room: Rotonde
15:00 16:10 Keynote lectures & closing
Chair: Esther de Jong
15:00 15:55 **Decoding the developing human immune system**
Muzlifah Haniffa (UK)
15:55 16:10 Awards ceremony & Closing by Leendert Trouw
Poster prize & Bright spark award
Announcement NVVI Lunteren/Spring Meeting by Sandra van Vliet