







6th International Symposium on Trained Immunity | Innate Immune Memory

13th – 15th November 2024 – Dresden, Germany #iSTIIIMDD2024

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Christine Stabell Benn
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Danica Chen
Robin Choudhury
Maziar Divangahi
George Hajishengallis
Melanie Hamon
Lydia Kalafati
Katherine Y. King
Yang Li
Arthur Liesz
Ichiro Manabe

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Willem Mulder
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Abstract Submission

June 3rd – September 30th 2024



Carl Gustav Carus Management GmbH



For more information, visit https://innateimmunememory.com/

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Program



Day 1 (Novem	ber 13, 2024)	
13:50-14:00	Welcome by the organizers (L. Kalafati, M. Sieweke, M. Netea, Z. Fehervari, G. Hajishengallis and T. Chavakis)	
	on I: Innate immune memory in Infection and Vaccination / Chair: Divangahi	
14:00-14:25	Christine Stabell Benn (University of Southern Denmark, Denmark) Topic: Clinical implications of the non-specific effects of vaccines: What is known and what needs further study	
14:25-14:50	Mihai Netea (Radboud University Nijmegen, Netherlands) Topic: Trained immunity in human myeloid cells in health and disease	
14:50-15:15	Bali Pulendran (Stanford, USA)	
	Topic: Systems Vaccinology	
15:15-15:45	Break	
	Session II: Epigenetic mechanisms / Chair: Netea	
15:45-16:10	Musa Mhlanga (Radboud University Nijmegen, Netherlands)	
	Topic: Epigenetics: at the apex of trained immunity	
16:10-16:35	Mélanie Hamon (Pasteur Institute, France)	
Topic: Innate immune memory of Natural killer cells to bacterial infection		
16:35-17:00 Benjamin Youngblood (St. Jude, USA)		
	Topic: Translating epigenetic mechanisms of T cell exhaustion into durable immunotherapy	
17:00-18:00	4 selected oral presentations from Abstracts (each 15 min incl. discussion)	
	Tanapat Palaga (Chulalongkorn University, Thailand)	
	Topic: A DNA Repair Enzyme MGMT as a Regulator of ß-glucan-induced Trained Immunity in Macrophages	
	 Tomoaki Koga (Kumamoto University, Japan) 	
	Topic: A histone demethylase KDM7A decelerates profibrotic macrophage skewing via the epigenetic and metabolic reprogramming	
	Susan Ribeiro (Emory University, USA)	
	Topic: TGF-b and HDACs interplay on the epigenetic reprograming of HIV reservoirs	
	Conor Smith (Trinity College Dublin, Ireland)	
	Topic: Innate immune cell dysregulation in Hidradenitis suppurativa	
18:00-18:30	Break	
	Official Opening of the Conference / Chair: Chavakis	
18:30-18:40	Opening and Welcome	
	Esther Troost, Dean, Faculty of Medicine Carl Gustav Carus, TU Dresden, Germany	
18:40-19:05	Zoltan Fehervari (Nature, UK)	
	Topic: Navigating publication in high-impact journals	
19:05-21:00	Poster Session I and Buffet Dinner	

Day 2 (Novem	ber 14, 2024)			
Session III: Innate Immune Memory in Disease / Chair: Mhlanga				
9:00-9:25	Robin Choudhury (Oxford, UK) Topic: Hyperglycemia Induces Trained Immunity in Macrophages and Their Precursors and Promotes Atherosclerosis			
9:25-9:50	Jalees Rehman (University of Illinois College of Medicine, USA) Topic: Trans-generational trained immunity in macrophages			
9:50-10:15	Ichiro Manabe (Chiba University, School of Medicine, Japan) Topic: Stress memory in heart failure and multimorbidity			
10:15-10:45	10:15-10:45 Break			
Sessio	on IV: Innate Immune Memory in Disease including Cancer / Chair: Fehervari			
10:45-11:10	Jun Yan (University of Louisville School of Medicine, USA) Topic: Harnessing the power of trained immunity to combat tumor metastasis			
11:10-11:35	Lydia Kalafati (TU Dresden, Germany) Topic: <i>Trained Granulopoiesis in Cancer</i>			
11:35-12:00	Willem Mulder (Eindhoven University of Technology, The Netherlands) Topic: Nanobiologic therapeutics in trained immunity			
12:00-13:30	Poster Session II and Buffet Lunch			
	Session V: NK cells / Chair: Sieweke			
13:30-13:55	Chiara Romagnani (Charité Berlin, Germany) Topic: Dynamics and mechanisms of human NK cell memory and clonality			
13:55-14:20	Joseph Sun (Sloan Kettering Institute, USA) Topic: NK cells in host innate immune memory			
14:20-14:45	Break Section VI: Selected Abstracts / Chair: Chavakis			
14:45-17:00				
14.43-17.00	 9 selected oral presentations from Abstracts (each 15 min incl. discussion) Nikolaus Dietlein (German Cancer Research Center, Heidelberg, Germany) Topic: Usp22 is an intracellular regulator of systemic emergency hematopoiesis Mina Morcos (Technical University of Munich, Germany) 			
	Topic: BCG-induced immune training modifies the bone marrow microenvironment and exhibits anti-leukemic properties to B-cell acute lymphoblastic leukemia • Leonardo Jurado (McGill University, Canada) Topic: A fungal-derived adjuvant remarkably amplifies the antitumoral potency of BCG • Athanasios Ziogas (Radboudumc, the Netherlands) Topic: Long-term histone lactylation connects metabolic and epigenetic rewiring in			
	innate immune memory			

14.45 17.00		
14:45-17:00	Sinu John (National Institute of Allergy and Infectious Diseases, USA)	
	Topic: Macrophage Training Reactivates Latent HIV-1 from HAART-suppressed PBMCs of PLWH	
	Iain Fraser (National Institute of Allergy and Infectious Diseases, USA)	
	Topic: Endogenous Cytokine Reporter Macrophages Facilitate Identification of Novel Training Compounds that can Reactivate and Initiate Clearance of Latent HIV	
	Ilayda Baydemir (Radboudumc, the Netherlands)	
	Topic: Enhancing BCG vaccine efficacy through the modulation of Acetyl-CoA metabolism	
	Anna Ledwith (Trinity College Dublin, Ireland)	
	Topic: Induction of trained immunity through dietary supplementation with b-glucan boosts myeloid anti-tumour immunity in diet induced obesity	
	Claudio Mauro (University of Birmingham, United Kingdom)	
	Topic: Understanding the Memory of Obesity Associated Trained Immnity in the Adaptive Immune Response	
17:00-17:30	Break	
	Session VII: Bone Marrow and Trained immunity / Chair: King	
17:30-17:55	Triantafyllos Chavakis (TU Dresden, Germany)	
	Topic: Bone marrow-mediated trained immunity in inflammatory disease	
17:55-18:20	20 Maziar Divangahi (McGill University, Canada)	
	Topic: Unlocking the Power of Trained Immunity in Pulmonary Infections	
18:20-18:45	45 Michael Sieweke (TU Dresden, Germany)	
	Topic: Macrophage self-renewal and age dependent epigenetic noise	
Day 3 (Novem	ber 15, 2024)	
Session VII	I: Bone Marrow, Clonal Hematopoiesis, and Trained immunity / Chair: Romagnani	
9:00-9:25	Danica Chen (UC Berkeley, USA)	
	Topic: Aging and Trained Immunity	
9:25-9:50	George Hajishengallis (University of Pennsylvania, USA)	
	Topic: Clonal hematopoiesis, trained immunity and maladaptive epigenetic alterations	
9:50-10:15	Katherine Y. King (Baylor College, TX, USA)	
	Topic: Cellular and epigenetic basis of trained immunity in hematopoietic stem and progenitor cells	
10:15-10:40	Nancy Speck (University of Pennsylvania, USA)	
	Topic: Regulation of innate immune responses by RUNX1	
10:40-11:05	Yang Li (Helmholtz Zentrum, Braunschweig, Germany)	
	Topic: Uncovering Regulatory Networks and Causal Drivers of Viral Infection through Multi-Omics Data Integration	
	tinough Multi-Offics Duta integration	
11.05 11.10	Perole	
11:05-11:40	Break	
	Session IX: Selected Abstracts / Chair: Kalafati	

11:40-13:10	6 selected oral presentations from Abstracts (each 15 min incl. discussion)		
	 Angela Bordin (Texas A&M University, USA) 		
	Topic: Enteral immunization induces trained immunity and protection against pneumonia in newborn foals through the gut-lung axis		
	Rutger Röring (Murdoch Children's Research Institute, Australia)		
	Topic: Determinants of innate immune cytokine responses in pre-school children: a population-derived cohort study		
	Hannah Riley Knight (University of Chicago, USA)		
	Topic: High-throughput screen identifies non inflammatory small molecule inducers of trained immunity		
	Ioannis Belios (University Medical Center Hamburg-Eppendorf, Germany		
	Topic: Evidence of trained immunity against Influenza-A virus infection after exposure to prenatal stress.		
	Jonas Geldner (Hannover Medical School, Germany)		
	Topic: The COVID-19 lockdown is associated with impaired systemic immune maturation in preterm infants		
	Susanna Fagerholm (University of Helsinki, Finland)		
	Topic: Integrins as regulators of dendritic cell mechanical immune memory and anti- tumor responses		
13:10-14:10	Lunch		
	Session X: Immunometabolism / Chair: Hajishengallis		
14:10-14:35	Giuseppe Matarese (University of Napoli, Italy)		
	Topic: The missing link between maintenance of immune tolerance and trained immunity		
14:35-15:00	Arthur Liesz (Ludwig-Maximilians-Universität Munich, Germany)		
	Topic: Trained Immunity in Brain Ischemia		
15:00-15:20	Closing remarks and young investigator awards		

Oral Abstracts



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A DNA Repair Enzyme MGMT as a Regulator of ß-glucan-induced Trained Immunity in Macrophages1
TGF-b and HDACs interplay on the epigenetic reprograming of HIV reservoirs2
A histone demethylase KDM7A decelerates profibrotic macrophage skewing via the epigenetic and metabolic reprogramming3
Innate immune cell dysregulation in Hidradenitis suppurativa4
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