

# MMI Special Seminar

Wednesday, November 13, 2024  
3 p.m. at GBSF 1005

“Tissue-dependent adaptation and functional specialization of human MAIT cells”

## Research Bio

Johan K. Sandberg is a Professor of Viral Immunology and Immunopathogenesis at the Center for Infection Medicine (CIM), Department of Medicine at Karolinska Institutet (KI). Prof. Sandberg is also Deputy Division Chief at the CIM. His research aims to improve our understanding of the role of cellular immune responses in the context of viral and bacterial infections in humans. Currently, his research focuses primarily on the immunobiology of T cell subsets with innate-like characteristics, such as Mucosa-associated Invariant T (MAIT) cells, and on their interaction with pathogens and other components of the immune system. His work is supported by grants from the Swedish Research Council, the Swedish Cancer Society, the Center for Innovative Medicine, the Swedish Heart-Lung Foundation, and from KI. For more detailed information please visit his KI website: <https://ki.se/en/people/johan-sandberg>

## Publications

Kammann T, Cai C, Sekine T, Mouchtaridi E, Boulouis C, Nilsén V, Ballesteros OR, Müller TR, Gao Y, Raineri EJM, Mily A, Adamo S, Constantz C, Niessl J, Weigel W, Kokkinou E, Stamper C, Marchalot A, Bassett J, Ferreira S, Rørdahl I, Wild N, Brownlie D, Tibbitt C, Mak JYW, Fairlie DP, Leeansyah E, Michaelsson J, Marquardt N, Mjösberg J, Jorns C, Buggert M, **Sandberg JK**. “MAIT cell heterogeneity across paired human tissues reveals specialization of distinct regulatory and enhanced effector profiles”. *Sci Immunol*. 2024 Sep 6;9(99):eadn2362. doi: 10.1126/sciimmunol.adn2362. Epub 2024 Sep 6. PMID: 39241054.

Parrot T, Gorin JB, Ponzetta A, Maleki KT, Kammann T, Emgård J, Perez-Potti A, Sekine T, Rivera-Ballesteros O; Karolinska COVID-19 Study Group; Gredmark-Russ S, Rooyackers O, Folkesson E, Eriksson LI, Norrby-Teglund A, Ljunggren HG, Björkström NK, Aleman S, Buggert M, Klingström J, Strålin K, **Sandberg JK**. “MAIT cell activation and dynamics associated with COVID-19 disease severity”. *Sci Immunol*. 2020 Sep 28;5(51):eabe1670. doi: 10.1126/sciimmunol.abe1670. PMID: 32989174; PMCID: PMC7857393.

Boulouis C, Leeansyah E, Mairpady Shambat S, Norrby-Teglund A, **Sandberg JK**. “Mucosa-Associated Invariant T Cell Hypersensitivity to Staphylococcus aureus Leukocidin ED and Its Modulation by Activation”. *J Immunol*. 2022 Mar 1;208(5):1170-1179. doi: 10.4049/jimmunol.2100912. Epub 2022 Feb 9. PMID: 35140134; PMCID: PMC9012079.

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Medical Microbiology and  
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We hope to see you there!