

PhD Program at Hamburg School of Infection & Immunity (HSII)

FACULTY MEMBERS

UKE CENTER FOR DIAGNOSTICS		
NAME	RESEARCH AREAS	RESEACH TOPICS
Prof. Dr. Marcus Altfeld	Immunology, Infection, Inflammation, Molecular Immunology, Clinical Immunology, Translational Immunology	NK cells, Innate lymphoid cells, Human immunology, Sex-differences in immunity, Major Histocompatibility complex (MHC), Immune response to infection, Organoids, AIDs and immunodeficiencies
Prof. Dr. Martin Aepfelbacher	Infection, Inflammation, Microbiology	Epigenetics, Immune response to infection, Leukocyte migration and Inflammation, Cellular and Molecular Microbiology, Structural and Systems Biology
Prof. Dr. Nicole Fischer	Infection, Virology, Tumor Virology	Organoids, Epigenetics, chronic viral infection, viral persistence, chromatin remodeling
Dr. rer. nat. Anna Gieras	Immunology	Lymphocyte development and selection, Human immunology, Organoids, Feto-maternal immunity
Prof. Dr. Friedrich Haag	Immunology, Infection, Clinical Immunology, Cancer Immunology	T cell response, B cell response, Human immunology, Immune response to infection, Cancer and the immune system
Prof. Dr. Friedrich Koch-Nolte	Molecular Immunology	Lymphocyte development and selection, B cell response, Transgenic and knock-out animal models, Immuno targeting, Cancer and the immune system, therapeutic antibodies and chimeric antigen receptors, nanobodies, sterile inflammation, purinergic signaling, endogenous danger signals (ATP, NAD)

Dr. med. Marc Lütgehetmann	Infection, Molecular Immunology, Microbiology	Transgenic and knock-out animal models, Molecular Diagnostics: Pathogen detection, Hepatitis Viruses (A-E)
Prof. Dr. Hans-Willi Mittrücker	Immunology, Infection, Autoimmune diseases	T cell response, Transgenic and knock-out animal models, Autoimmunity, Immune response to infection
Dr. med. Susanne Pfefferle	Infection, Microbiology, Virology	Immune response to infection, molecular diagnostics
Prof. Dr. Dr. Thomas Renné	Inflammation, Coagulation	Transgenic and knock-out animal models, Leukocyte migration and Inflammation, Thrombo-inflammation
Dr. med. Felix Stahl	Immunology, Infection, Virology	T cell response, Transgenic and knock-out animal models, Autoimmunity, Immune response to infection, Feto-maternal immunity, Immune response to infection, Diagnostic applications
Prof. Dr. Eva Tolosa	Immunology, Inflammation, Clinical Immunology, Translational Immunology	Lymphocyte development and selection, T cell response, Human immunology, Autoimmunity, Systems Immunology and Bioinformatics, Immune deficiency, Immune regulation
Prof. Dr. Thorsten Wiech	Immunology, Inflammation, Translational Immunology	Human immunology, Autoimmunity

UKE CENTER FOR EXPERIMENTAL MEDICINE		
NAME	RESEARCH AREAS	RESEACH TOPICS
Prof. Dr. Linda Diehl	Immunology, Inflammation, Cancer Immunology	T cell response, Transgenic and knock-out animal models, Cancer and the immune system, Leukocyte migration and Inflammation
Dr. rer. nat. Björn Diercks	Immunology, Inflammation, Molecular Immunology	T cell response

Dr. rer. nat. Ralf Fliegert	Immunology, Inflammation	Signalling in immune cells
Prof. Dr. Andreas Guse	Immunology, Inflammation, Molecular Immunology	T cell activation
Prof. Dr. Jörg Heeren	Inflammation, Molecular Immunology	Immuno targeting, Autoimmunity, Feto-maternal immunity, Immunometabolism, Metaflammation
PD Dr. Andrea Kristina Horst	Immunology, Inflammation, Molecular Immunology	T cell response, Cytokine networks, Autoimmunity, Innate lymphoid cells
Prof. Dr. Catherine Meyer-Schwesinger	Inflammation, Molecular Immunology, Nephrology	Human immunology, Transgenic and knock-out animal models, Autoimmunity
Dr. rer. nat. Katrin Neumann	Immunology, Inflammation, Molecular Immunology	T cell response, Cytokine networks, Autoimmunity, Innate lymphoid cells
Prof. Dr. Pablo Sáez	Immunology	Cancer and the immune system, Leukocyte migration and Inflammation
Prof. Dr. Gisa Tiegs	Immunology, Inflammation, Molecular Immunology	T cell response, Cytokine networks, Autoimmunity, Innate lymphoid cells
PD Dr. rer. nat. René Werner	Artificial Intelligence, Machine Learning	Artificial Intelligence in medical biology
Dr. rer. nat. Anna Worthmann	Inflammation, (Immuno)metabolism	Immunometabolism, Obesity and Diabetes, Insulin Resistance

UKE CENTER FOR INTERNAL MEDICINE		
NAME	RESEARCH AREAS	RESEARCH TOPICS
Prof. Dr. Marylyn Addo	Infection, Clinical Immunology, Translational Immunology, vaccines	T cell response, Human immunology, Vaccine design, AIDs and immunodeficiencies, Sex-differences in immunity, Immune response to infection

Dr. Lorenz Adlung	Immunology, Systems Immunology	Single cell sequencing, Cytokine networks, AIDs and immunodeficiencies, Systems Immunology and Bioinformatics, Cancer and the immune system
Dr. Dr. Madeleine Altfeld-Bunders	Infection, Inflammation, Translational Immunology	T cell response, Human immunology, Organoids, AIDs and immunodeficiencies, Feto-maternal immunity, Innate lymphoid cells, Immune response to infection
Dr. Lidia Bosurgi	Immunology	Macrophage biology, Phagocytosis, Tissue remodeling
Dr. rer. nat. Antonella Carambia	Immunology, Inflammation, Clinical Immunology, Translational Immunology	T cell response, Transgenic and knock-out animal models, Immuno targeting, Autoimmunity
PD Dr. rer. nat. Maura Dandri	Infection, Inflammation, Hepatology, Liver immunology	Antigen processing and presentation, Transgenic and knock-out animal models, Epigenetics, Immune response to infection, humanized-chimeric mouse models, innate immunity, Viral Hepatitis, Virus-host interaction
Prof. Dr. Nicola Gagliani	Immunology, Infection, Inflammation, Molecular Immunology, Systems Immunology, Cancer Immunology	Lymphocyte development and selection, T cell response, Single cell sequencing, Cytokine networks, Human immunology, Transgenic and knock-out animal models, Autoimmunity, Feto-maternal immunity, Systems Immunology and Bioinformatics, Immune response to infection, Cancer and the immune system
Prof. Dr. Johannes Herkel	Immunology, Inflammation, Translational Immunology	T cell response, Single cell sequencing, Human immunology, Transgenic and knock-out animal models, Immuno targeting, Autoimmunity, T cell tolerance
Prof. Dr. Samuel Huber	Immunology, Infection, Inflammation, Molecular Immunology, Clinical Immunology,	T cell response, Single cell sequencing, Cytokine networks, Organoids, Immuno targeting, Autoimmunity, Sex-differences in immunity, Immune response to

	Translational Immunology, Systems Immunology, Cancer Immunology	infection, Cancer and the immune system, Leukocyte migration and Inflammation
Prof. Dr. Tobias B. Huber	Inflammation, Translational Immunology, Transplantation Immunology, Kidney immunology	Single cell sequencing, Organoids, Transgenic and knock-out animal models, Epigenetics
PD Dr. med. Christian F. Krebs	Immunology, Infection, Molecular Immunology, Clinical Immunology, Translational Immunology, Systems Immunology, Microbiology	T cell response, Single cell sequencing, Cytokine networks, Human immunology, Antigen processing and presentation, Organoids, Transgenic and knock-out animal models, Immuno targeting, Autoimmunity, Systems Immunology and Bioinformatics, Major Histocompatibility complex (MHC), Immune response to infection, Leukocyte migration and Inflammation
Prof. Dr. Ulf Panzer	Immunology, Inflammation, Translational Immunology, Systems Immunology, Nephrology	T cell response, Single cell sequencing, Cytokine networks, Autoimmunity, Leukocyte migration and Inflammation
Prof. Dr. Victor Puelles	Immunology, Infection, Inflammation, Molecular Immunology, Clinical Immunology, Translational Immunology, Systems Immunology, Transplantation Immunology, Microbiology, Pathology	Immunopathology
Prof. Dr. Christoph Schramm	Inflammation, Clinical Immunology, Translational Immunology	T cell response, Human immunology, Autoimmunity, Sex-differences in immunity
Dr. med. Julian Constantin Schulze zur Wiesch	Immunology, Infection, Inflammation, Clinical Immunology, Translational Immunology	T cell response, B cell response, Human immunology, AIDs and immunodeficiencies, Major Histocompatibility complex (MHC), Immune response to infection, Leukocyte migration and Inflammation, immune exhaustion

Dr. rer. nat. Dorothee Schwinge	Immunology, Inflammation, Clinical Immunology, Translational Immunology	T cell response, Single cell sequencing, Cytokine networks, Human immunology, Antigen processing and presentation, Organoids, Transgenic and knock-out animal models, Autoimmunity, Sex-differences in immunity
Prof. Dr. Oliver Steinmetz	Immunology, Inflammation, Molecular Immunology, Clinical Immunology, Translational Immunology	Regulatory T cells, Leukocyte migration and Inflammation, T cell response, Cytokine networks, Human immunology
Dr. med. Nicola M. Tomas	Immunology, Inflammation, Translational Immunology	B cell response, Autoimmunity
PD. Dr. med. Jan-Eric Turner	Immunology, Inflammation, Translational Immunology	T cell response, Autoimmunity, Innate lymphoid cells
Dr. rer. nat. Nicola Wanner	Inflammation	Organoids, Transgenic and knock-out animal models, Epigenetics, Immune response to infection

UKE CENTER FOR MEDICAL NEUROBIOLOGY		
NAME	RESEARCH AREAS	RESEARCH TOPICS
Prof. Dr. Stefan Bonn	Artificial Intelligence, Machine Learning	Artificial Intelligence in medical biology
Dr. Regine Dress	Immunology, Infection, Systems Immunology	Single cell sequencing, Human immunology, Immune response to infection, Myeloid cells, Immune cell development
Prof. Dr. Manuel A. Fries	Immunology, Infection, Inflammation, Molecular Immunology, Clinical Immunology, Translational Immunology, Systems Immunology, Neuroimmunology	T cell response, Single cell sequencing, Human immunology, Transgenic and knock-out animal models, Autoimmunity, Sex-differences in immunity, Feto-

		maternal immunity, Systems Immunology and Bioinformatics, Neuro-immuno Interactions
Prof. Dr. Immo Prinz	Immunology, Infection, Inflammation, Molecular Immunology, Systems Immunology	T cell response, Single cell sequencing, Human immunology, Systems Immunology and Bioinformatics

UKE HEARD AND NEUROCENTER		
NAME	RESEARCH AREAS	RESEARCH TOPICS
PD Dr. med. Mathias Gelderblom	Inflammation, Clinical Immunology	T cell response, Single cell sequencing, Leukocyte migration and Inflammation
Prof. Dr. Tim Magnus	Immunology, Inflammation, Molecular Immunology, Clinical Immunology, Translational Immunology	T cell response, Single cell sequencing, Cytokine networks, Human immunology, Transgenic and knock-out animal models, Immuno targeting, Sex-differences in immunity, Innate lymphoid cells, Leukocyte migration and Inflammation, Local immune cell responses (e.g. microglia)
PD Dr. med. Malte Mohme	Immunology, Translational Immunology, Cancer Immunology	T cell response, Cytokine networks, Human immunology, Epigenetics, Systems Immunology and Bioinformatics, Major Histocompatibility complex (MHC), Cancer and the immune system
Dr. rer. nat. Björn Rissiek	Immunology, Inflammation, Molecular Immunology, Translational Immunology	T cell response, Transgenic and knock-out animal models, Immuno targeting

UKE CENTER FOR OBSTETRICS AND PEDIATRICS

NAME	RESEACH AREAS	RESEACH TOPICS
Prof. Dr. Petra Arck	Immunology, Infection, Inflammation, Molecular Immunology, Clinical Immunology, Translational Immunology, Reproductive Immunology, Immune Ontogeny	T cell response, Single cell sequencing, Cytokine networks, Human immunology, Antigen processing and presentation, Epigenetics, Sex-differences in immunity, Feto-maternal immunity
Prof. Dr. Sandra Maria Blois	Inflammation, Glycoimmunology	Glycoimmunology, Glyco-Feto-maternal Immunity, Antibodies Glycosylation
Prof. Dr. Anke Diemert	Translational Immunology	Human immunology, Sex-differences in immunity, Feto-maternal immunity
Prof. Dr. Ingo Müller	Clinical Immunology, Translational Immunology, Cancer Immunology, Transplantation Immunology	Lymphocyte development and selection, T cell response, Human immunology, AIDs and immunodeficiencies, Glycoimmunology, Innate lymphoid cells, Cancer and the immune system
Dr. med. Julia Pagel	Clinical Immunology, Translational Immunology, Microbiome	T cell response, Human immunology, Autoimmunity, Feto-maternal immunity, Immune response to infection, Neonatal Immunity

UKE CENTER FOR ONCOLOGY

NAME	RESEACH AREAS	RESEARCH TOPICS
Prof. Dr. Boris Fehse	Infection, Translational Immunology, Cancer Immunology, Adoptive immunotherapy	AIDS and immunodeficiencies, Stem cell transplantation, Gene therapy, Adoptive immunotherapy, CAR-T cells

BERNHARD NOCHT INSTITUTE FOR TROPICAL MEDICINE (BNITM)

NAME	RESEACH AREAS	RESEARCH TOPICS
PD Dr. rer nat. Thomas Jacobs	Immunology, Tropical Medicine, Translational Immunology, Protozoan Infections	Cellular immunity, T/NK cell regulation, co-inhibitory pathways, immunopathogenesis, NK cell function, longitudinal cohort studies, protozoan infections (Malaria, T. cruzi), immunotherapy strategie
Dr. rer. nat. Rosa Isela Gálvez	Immunology, Infection with Tropical Pathogens, Vaccine Research, BSL-3 Pathogen Research	Cellular immunity, T/NK cell function, tissue-specific immune responses, immune responses to natural infections and vaccination (tropical pathogens), translational models

CENTER FOR STRUCTURAL SYSZEMS BIOLOGY (CSSB)

NAME	RESEACH AREAS	RESEARCH TOPICS
Prof. Dr. Maya Topf	Computational Biology and Bioinformatics	Computational Structural Biology

EUROPEAN MOLECULAR BIOLOGY LABORATORY HAMBURG (EMBL)

NAME	RESEACH AREAS	RESEARCH TOPICS
Prof. Dr. Dr. h.c. Matthias Wilmanns	Infection, Microbiology	Cancer and the immune system

LEIBNIZ INSTITUTE FOR EXPERIMENTAL VIROLOGY (HPI)		
NAME	RESEACH AREAS	RESEARCH TOPICS
Prof. Dr. Wolfram Brune	Infection, Virology	Vaccine design, Feto-maternal immunity, Immune response to infection, Viral immune evasion
Prof. Dr. Gülsah Gabriel	Immunology, Infection, Molecular Immunology, Virology	Molecular mechanisms of viral pathogenesis
Dr. Dr. Angelique Hölzemer	Immunology, Infection, Inflammation	Human immunology, Organoids, AIDs and immunodeficiencies, Major Histocompatibility complex (MHC), Immune response to infection
PD Dr. Christian Körner	Immunology, Infection, Molecular Immunology, Translational Immunology	Human immunology, Major Histocompatibility complex (MHC), Immune response to infection, NK cell biology
UNIVERSITY OF HAMBURG		
Prof. Dr. Jan Baumbach	Computational Systems Biology	Network and Systems Medicine
Prof. Dr. Tobias Lenz	Infection, Molecular Immunology, Immunogenomics	Major histocompatibility complex (MHC), Systems Immunology and Bioinformatics
Prof. Dr. Christian Lohr	Infection, Inflammation, Neuroinflammation	Transgenic and knock-out animal models, Immune response to infection, Response of brain cells to infection and inflammation
Prof. Dr. Chris Meier	Infection, Medicinal Chemistry, Drug Development, antiviral Research, Action of second messengers in inflammation	Novel antivirals, emerging infections, synthesis of chemical tools, membrane permeable adenine nucleotides

