

Workpackages (WP), Principal Investigators and Associated Partners in the Helmholtz Alliance on Immunotherapy of Cancer

Work Packages Immunotherapy of Leukemia and Lymphoma

Coordinators: Krammer, von Kalle, Blankenstein

Specific Aim 1: Adoptive T cell Therapy (ATT) of Viral Disease and Cancer

WP1: Isolation of high-avidity T cell receptor (TCR) for “designer” T Cells

Principal Investigator: Blankenstein

Cooperators: Bernhard, Pezzutto, Schendel, Uckert, von Kalle

WP2: Genetic engineering of “designer” T Cells for Adoptive T cell Therapy (ATT)

Principal Investigator: Uckert

Cooperators: Bernhard, Blankenstein, Moldenhauer, Pezzutto, Schendel, von Kalle

WP3: Targeting Epstein Barr Virus (EBV)-specific antigens for the therapy of EBV-associated lymphoproliferative diseases

Principal Investigators: Kolb, Pezzutto

Collaborators: Bernhard, Blankenstein, Hammerschmidt, Moosmann, Schendel, Uckert, von Kalle

WP4: Generation of “designer” T cells directed against CD19 and NY-ESO-1 for treatment of B cell lymphoma and multiple myeloma

Principal Investigators: Bernhard, Pezzutto

Collaborators: Blankenstein, Schendel, Uckert, von Kalle

WP5: The clonal dynamics of adoptively transferred T cells

Principal Investigator: von Kalle

Cooperators: Blankenstein, Pezzutto, Schendel, Uckert

Specific Aim 2: Immunotherapy of Leukemia and Lymphoma

WP6: Immunotherapy of leukemia and lymphoma with bispecific Antibodies targeting CD19 or CXCR5

Principal Investigators: Lipp, Moldenhauer

Collaborators: Hämmerling, Kolb, Krämer, Pezzutto

WP7: Immunotherapy of leukemia and lymphoma with engineered antibodies and antibody fragments

Principal Investigators: Lipp, Moldenhauer

Collaborators: Breitling, Buchmann, Pezzutto

Specific Aim 3: Breaking Apoptosis Resistance

WP8: Resensitization of apoptosis-resistant leukemia and lymphoma to chemo- and immunotherapy

Principal Investigator: Krammer

Collaborators: Bernhard, Dreger, Falk, Jäger, Lipp, Luft, Moldenhauer, Pezzuto, Schendel, Uckert, von Kalle, Weiss

Work Packages Immunotherapy of Hepatocellular Carcinoma

Coordinators: Manns, Müller-Schilling

Specific Aim 1:

Combination Immunotherapy for Hepatocellular Carcinoma (HCC)

WP1: Combination T cell therapy for HBV-associated HCC

Principal Investigator: Protzer

Collaborators: Busch, Hämmerling, Knolle, Schendel, Uckert

WP2: Humoral and cellular immunotherapy of HCV and HCV-related HCC

Principal Investigators: Bruder, Pietschmann

Collaborators: Enk, Greten, Mahnke, Moldenhauer, Müller-Schilling, Protzer, Schendel, Schirmacher

WP3: Strategies to resensitize HCC cells for apoptosis and immune effector function

Principal investigators: Müller-Schilling, Schirmacher

Collaborators: Büchler, Falk, Greten, Jäger, Krammer, Lichter, Manns, Melino, Pietschmann, Protzer, Schendel, von Kalle

WP4: Identification of immunoregulatory mechanisms in patients with HCC and development of new immunotherapeutic approaches

Principal Investigators: Greten, Manns

Collaborators: Büchler, Falk, Geffers, Jäger, Müller-Schilling, Schirmacher, von Kalle

Work Packages Melanoma Studies

Coordinators: Jäger, Schadendorf

Specific Aim 1: Combination Immunotherapies to Improve Vaccination Efficacy

WP1: Combination immunotherapy: from preclinical animal model to translation

Principal Investigator: Enk

Collaborators: Garbi, Hämmerling, Mahnke, Umansky

WP2: Antigen-specific immune responses in melanoma - analysis and prognostic significance

Principal Investigator: Jäger

Collaborators: Beckhove, Enk, Falk, Schadendorf, Schendel

Specific Aim 2: Improve Tumor Recognition by Modulation of Tumor Cells and Effector T Cells

WP3: Drug-induced improvement of melanoma cell recognition and elimination by adaptive and innate effector cells

Principal Investigator: Falk

Collaborators: Bernhard, Paschen, Schendel, Uckert

WP4: High-affinity TCR for Adoptive T cell Therapy (ATT) in melanoma

Principal Investigator: Schendel

Collaborators: Bernhard, Blankenstein, Frankenberger, Kolb, Pezzutto, Uckert

Specific Aim 3: Genetic Predisposition to Autoimmunity as a Predictor of Successful Immunotherapy in Melanoma

WP5: Genetic predisposition, autoimmunity, and outcome of immunotherapy

Principal Investigator: Schadendorf

Collaborators: Falk, Kumar, Jäger, Paschen

Work Packages Immunomonitoring

Coordinators: Falk, Lipp, Schendel

Specific Aim 1: Immunomonitoring the responses of MHC/peptide-specific effector T cells and Treg and tracking of TCR-transgenic T cells after Adoptive T cell Therapy (ATT) in patients

WP1: Monitoring of specific effector cells in immunotherapy

Principal Investigators: Falk, Schendel

Collaborators: Greten, Lipp, Meuer

Topics: Leukemia and Lymphoma (WP3, 4, 5, 6, 7), Hepatitis and HCC (WP 1, 2, 4) and Melanoma (WP 1, 2)

WP2: T cell repertoire analysis, TCR identification, and T cell tracking via unique TCR sequences

Principal Investigator: Schendel

Collaborators: Blankenstein, Frankenberger, Uckert

Topics: Leukemia and Lymphoma (WP 1, 2, 4), Hepatitis and HCC (WP 1, 2), Melanoma (WP 4)

Specific Aim 2: Immunomonitoring of responses to monoclonal antibody or bispecific antibody therapy

WP3: Functional analyses of the application of monoclonal antibodies or bsAb *in vitro* and *in vivo* and cytokine/chemokine quantifications in patient serum

Principal Investigators: Falk, Lipp

Collaborators: Enk, Kolb, Moldenhauer, Pezzutto, Schadendorf

Topics: Leukemia and Lymphoma (WP 6, 7), Hepatitis and HCC (WP 1, 2)

Specific Aim 3: Monitoring the resensitization of tumor cells to apoptosis in drug and immunotherapy by determining susceptibility of tumors to effector cells, e.g., in combination therapy

WP4: Determination of resistance and sensitivity to apoptosis and immune effector cells

Principal Investigator: Falk

Collaborators: Krammer, Lipp, Müller-Schilling

Topics: Leukemia and Lymphoma (WP4, 5, 6, 7), Hepatitis and HCC (WP4), Melanoma (WP3);

Specific Aim 4: Visualization of T cells and tumor cells during tumor growth, vaccination, and rejection by *in vivo* imaging

WP 5: Visualization of T cells and tumor cells during tumor growth, vaccination, and tumor rejection

Principal Investigator: Lipp

Collaborators: Blankenstein, Bruder, Enk, Hämmerling

Topics: Leukemia and Lymphoma (WP 1, 3, 5, 6, 7), Hepatitis and HCC (WP1, 2), Melanoma (WP1)

Participating Partners

Immunotherapy of Leukemia and Lymphoma, Principal Investigators

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Immunotherapy of Hepatocellular Carcinoma, Principal Investigators

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Melanoma Studies, Principal Investigators

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Department of Hematology and Oncology, University Hospital, Ludwig-Maximilians-University	Munich
Institute of Virology, Technical University of Munich	Munich
Department of Gastroenterology, Hepatology and Endocrinology, Medical School Hannover	Hannover
Department of Hematology and Oncology, Charité Medical School	Berlin
Institute of Biology, Humboldt University	Berlin
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