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PERSONAL

Born: 12th of August 1966, in Zurich, Switzerland
Citizenship: Swiss

EDUCATION

1997	Ph.D., Faculty of Mathematics and Science, University of Zurich, Switzerland
1992	Diploma (M.Sc.), Faculty of Mathematics and Science, University of Zurich Major: Molecular Biology; Minors: Biochemistry and Immunology

POSITIONS

Since 2019	Scientific Director, Center for Chronic Immunodeficiency, Medical Center – University of Freiburg, Freiburg, Germany
Since 2012	Director, Institute for Transfusion Medicine and Gene Therapy, Medical Center – University of Freiburg, Freiburg, Germany
Since 2012	Professor of Cell and Gene Therapy, University of Freiburg, Freiburg, Germany
2009-2012	Associate Professor of Experimental Hematology, Hannover Medical School, Germany
2003-2009	Assistant Professor of Molecular Virology, Charité Medical School, Berlin, Germany
2002-2003	Senior Research Associate, The Salk Institute, La Jolla, USA
1998-2002	Postdoctoral Fellow, Laboratory of Genetics, The Salk Institute, La Jolla, USA *Laboratory of Prof. Matthew D. Weitzman*
1997-1998	Postdoctoral Fellow, Institute of Molecular Biology, University of Zurich *Laboratory of Prof. Roberto Cattaneo*
1992-1997	Graduate Student, Institute of Molecular Biology, University of Zurich *PhD thesis in the laboratories of Profs. Martin A. Billeter and Roberto Cattaneo*
1987-1992	Studies in Biology, Faculty of Mathematics and Science, University of Zurich *Diploma thesis in the laboratory of Prof. Martin A. Billeter*

PROFESSIONAL AFFILIATIONS

German Society of Gene Therapy (DG-GT), President
American Society of Gene and Cell Therapy (ASGCT), Member
European Society of Gene and Cell Therapy (ESGCT), Member
German Society of Transfusion Medicine and Immunohematology (DGTI), Member
German Society of Virology (GfV), Member

10 SELECTED PEER-REVIEWED PUBLICATIONS

(out of 132 PubMed listed publications; 12'090 citations; h-index=50 according Google Scholar on 22-Nov-2022)

1. Bexte T, Alzubi J, Reindl LM, Wendel P, Schubert R, Salzmann-Manrique E, von Metzler I, **Cathomen T***, and Ullrich E* (2022). CRISPR-Cas9 based gene editing of the immune checkpoint NKG2A enhances NK cell mediated cytotoxicity against multiple myeloma. **OncoImmunology**, 11:1, 2081415 (*corresponding authors)
2. Wolf P, Alzubi J, Gratzke C, and **Cathomen T** (2021). The potential of CAR-T cell therapy for prostate cancer (Review). **Nat Rev Urol** 18, 556-71.
3. Mosti L, Langner LM, Chmielewski KO, Arbuthnot P, Alzubi J, and **Cathomen T** (2021). Targeted multi-epitope switching enables straightforward positive/negative selection of CAR T cells. **Gene Ther** 28, 602-12.
4. Turchiano G, Andrieux G, Klermund J, Blattner G, Pennucci V, El Gaz M, Monaco G, Poddar S, Mussolino C, Cornu TI, Boerries M, and **Cathomen T** (2021). Quantitative evaluation of chromosomal rearrangements in gene-edited human stem cells by CAST-Seq. **Cell Stem Cell** 28, 1136-47.
5. Alzubi J, Lock D, Rhiel M, Schmitz S, Wild S, Mussolino C, Hildenbeutel M, Brandes C, Rositzka J, Lennartz S, Haas SA, Chmielewski KO, Schaser T, Kaiser A, **Cathomen T**, and Cornu TI. (2021) Automated generation of gene-edited CAR T cells at clinical scale. **Mol Ther Methods Clin Dev** 20, 379-88.
6. Craig-Muller N, Hammad R, Elling R, Alzubi J, Timm B, Kolter J, Knelangen N, Bednarski C, Gläser B, Ammann S, Ivics Z, Fischer J, Speckmann C, Schwarz K, Lachmann N, Ehl S, Moritz T, Henneke P, and **Cathomen T**. (2020) Modeling MyD88 deficiency in vitro provides new insights in its function. **Front Immunol** 11, 608802.
7. Alzubi J, Dettmer V, Kuehle J, Thorausch N, Seidl M, Taromi S, Schamel W, Zeiser R, Abken H, **Cathomen T***, and Wolf P* (2020). PSMA-directed CAR T cells combined with low-dose docetaxel treatment induce tumor regression in a prostate cancer xenograft model. **Mol Ther Oncolytics** 18, 226-35. (*corresponding authors)
8. Dettmer V, Bloom K, Gross M, Weissert K, Aichele P, Ehl S, and **Cathomen T** (2019). Retroviral UNC13D gene transfer restores cytotoxic activity of T cells derived from familial hemophagocytic lymphohistiocytosis type 3 patients in vitro. **Hum Gene Ther** 30, 975-84.
9. Patsali P, Turchiano G, Papasavva P, Romito M, Loucari CC, Stephanou C, Christou S, Sitarou M, Mussolino C, Cornu TI, Antoniou MN, Lederer CW*, **Cathomen T***, and Kleanthous M* (2019). Correction of IVS I-110(G>A) beta-thalassemia by CRISPR/Cas- and TALEN-mediated disruption of aberrant regulatory elements in human hematopoietic stem and progenitor cell. **Haematologica** 104, e497-501 (*corresponding authors)
10. Cornu TI, Mussolino C, and **Cathomen T** (2017). Refining strategies to translate genome editing to the clinic (Review). **Nat Med** 23, 415-23.

10 SELECTED PATENTS *(out of 12)*

1. Construct for epigenetic modification and its use in the silencing of genes (US11072782B2; issued on July 27, 2021).
2. Biodegradable multilayer nanocapsules for the delivery of biologically active agents in target cells (EP3658126B1, granted Sep. 8, 2021; US11253482B2, issued on Feb. 22, 2022).
3. Modified Cas9 system and its use for improved gene editing (EP3730610B1; issued on April 13, 2022).
4. Method for characterization of modifications caused by the use of designer nucleases (US11319580B2, issued on May 3, 2022).
5. A truly unbiased in vitro assay to profile off-target activity of one or more target-specific programmable nucleases in cells (EP3812472; issued on November 21, 2022).
6. Gene therapy for the treatment of severe combined immunodeficiency (SCID) related to RAG1 (P243030DK00; filed on May 20, 2021)
7. Gene therapy for the treatment of hyper-IgE-syndrome (HIES) (P243029DK00; filed on May 20, 2021)
8. Chimeric antigen receptors that bind to prostate specific membrane antigen (EP19219238.3; filed on December 23, 2019)
9. Chimeric antigen receptors that bind to prostate specific membrane antigen (WO2020/002015/A1; filed on June 27, 2018).
10. New sequence specific reagents targeting CCR5 in primary hematopoietic cells (WO2018/189360/A1; filed on April 13, 2017).