

# Christine Mayr, MD, PhD

Associate Member

Cancer Biology and Genetics Program  
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## EDUCATION AND TRAINING:

1992-2000	Undergraduate education Medical School Ludwig-Maximilians University, Munich Free University, Berlin, Germany
2000	MD Free University, Berlin, Germany
2001	PhD in immunology, <i>magna cum laude</i> Humboldt University, Berlin, Germany
2000-2002	Residency Department of Hematology/Oncology Ludwig-Maximilians University, Munich, Germany
2004-2005	Residency Institute of Human Genetics Technical University, Munich, Germany

## POSITIONS AND EMPLOYMENT:

2015-present	Associate Member of Cancer Biology and Genetics Memorial Sloan Kettering Cancer Center
2015-present	Associate Professor of Gerstner Sloan Kettering Graduate School Memorial Sloan Kettering Cancer Center
2015-present 2017-present	Associate Professor of Biochemistry and Molecular Biology Associate Professor of Computational Biology and Medicine Weill Cornell Medical School, Cornell University
2009-2015	Assistant Member of Cancer Biology and Genetics Memorial Sloan Kettering Cancer Center
2009-2015	Assistant Professor of Gerstner Sloan Kettering Graduate School Memorial Sloan Kettering Cancer Center
2005-2009	Postdoctoral fellow with Dr. David P. Bartel Whitehead Institute Massachusetts Institute of Biology, Cambridge
2002-2004	Postdoctoral fellow with Dr. Michael Hallek Ludwig-Maximilians University, Munich
1996-2001	PhD in immunology with Dr. Werner Reutter and Dr. Burkhardt F. Klapp Department of Molecular Biology and Biochemistry, Free University, Berlin Department of Internal Medicine, Charité, Humboldt University, Berlin

## AWARDS AND HONORS:

2016	NIH Director's Pioneer Award
2015	Pershing Square Sohn Prize for Young Investigators in Cancer Research
2013	Science Signaling Breakthrough of 2013
2013	Damon Runyon-Rachleff Innovation Award
2011	Sidney Kimmel Scholar Award
2010	MSKCC Special Projects Award
2008	Whitehead Postdoc Association Educational Award
2006-2008	Postdoctoral fellowship from the Germany Research Foundation (DFG)
2004-2006	Award from the German Cancer Aid (Deutsche Krebshilfe)
2004	Merit Award of the American Society of Clinical Oncology
2003-2004	Award from Friedrich Baur Stiftung
2002-2003	Award from Friedrich Baur Stiftung

## SELECT INVITED KEYNOTE LECTURES:

2018	Keynote Lecture, Macromolecular complexes in mRNA localization, Dusseldorf, Germany
2017	Keynote Lecture, Gordon Research Seminar, Translation machinery in health and disease, Galveston
2016	Keynote Lecture, Computational RNA biology Conference, Hinxtton, UK
2016	Keynote Lecture, Spring Meeting 2016, University of Heidelberg

## SELECT INVITED LECTURES:

2018	EMBL/EMBO symposium, Complex Life of mRNA, Heidelberg, Germany
2018	Seminar, University of Wisconsin, Madison, WI
2018	Seminar, Fred Hutchinson Cancer Center, Seattle, WA
2018	Seminar, University of California, Santa Cruz, CA
2018	Seminar, Salk Institute, San Diego, CA
2018	Barcelona Biomed Plenary Seminar, IRB Barcelona, Barcelona, Spain
2018	Royal Society meeting on translation, Newport Pagnell, UK
2018	Seminar, University of Amherst, MA
2017	Seminar, New York University Medical School, New York, NY
2017	Seminar, Center for RNA Biology, Ohio State University, OH
2017	Symposium, New Horizon in Membrane Transport and Communication, Frankfurt, Germany
2017	EMBO workshop, mRNA 3' end formation, Oxford, UK
2017	Seminar, The Crick Institute, London, UK
2017	EMBO meeting on RNA localization and local translation, Barga, Italy
2017	ASBMB symposium, Evolution and Core Processes in Gene Regulation, Kansas City, MO
2017	2 <sup>nd</sup> International Conference "The long and the short of non-coding RNAs", Heraklion, Crete
2017	Symposium, Center for Genomics and Systems Biology, NYU, New York, NY
2017	Seminar, Gene Center, Ludwig-Maximilians University Munich, Germany
2017	Seminar, Whitehead Institute, Cambridge, MA
2017	Seminar, University of Maryland, VA
2017	Curie international course on post-transcriptional gene regulation, Paris, France
2017	Seminar, Caltech, Pasadena, CA
2017	Keystone Symposia, Protein-RNA Interactions, Banff, Alberta, Canada
2017	Keystone Symposia, Strategies to Study the Proteome, Breckenridge, CO
2016	Seminar, University of Michigan, MI
2016	Seminar, Max-Planck Institute for Biophysical Chemistry, Göttingen, Germany
2016	EMBL/EMBO conference, From Functional Genomics to Systems Biology, Heidelberg
2016	EMBL/EMBO symposium, Complex Life of mRNA, Heidelberg, Germany
2016	Annual Meeting, Oligonucleotide Therapeutics Society, Montreal, Canada
2016	Seminar, University of Pennsylvania, Philadelphia, PA
2016	Seminar, New York Genome Center, New York, NY
2016	ISMB – Annual Meeting of the International Society for Computational Biology, Orlando, FL
2016	Seminar, Celgene, San Diego, CA
2015	Seminar, Harvard Medical School, Boston, MA
2015	Seminar, University of San Francisco, San Francisco, CA

2015 Seminar, Calico, San Francisco, CA  
2015 19<sup>th</sup> Weintraub meeting 2015, Boulder, CO  
2015 Seminar, Purdue University, West Lafayette, IN  
2015 CSHL conference, mRNA processing, Cold Spring Harbor, NY  
2015 40<sup>th</sup> FEBS Congress, Berlin, Germany  
2015 Seminar, University of Edinburgh, Scotland  
2015 8<sup>th</sup> Berlin Summer meeting of Computational biology and Molecular biology, Berlin, Germany  
2015 Seminar, Genomic Medicine Institute, Cleveland, OH  
2015 CSHL conference, Systems biology: Global regulation of gene expression, Puerto Rico

## PUBLICATIONS:

## IN REVISION:

Singh I\*, Lee SH\*, Abdel-Wahab O, Leslie CS, **Mayr C**. Widespread intronic polyadenylation inactivates tumor suppressor genes in leukemia. *In revision*

Singh I, Lee SH, Samur MK, Tai YT, Munshi NC, **Mayr C**, Leslie CS. Widespread intronic polyadenylation diversifies immune cell transcriptomes. *In revision*

## PUBLISHED PAPERS:

Berkovits BD, **Mayr C**. Alternative 3'UTRs act as scaffolds to regulate membrane protein localization. *Nature* 522, 363-367 (2015). Epub 2015 Apr 20.

Highlighted in *Nature Reviews Molecular Cell Biology*

Lianoglou S, Garg V, Yang JL, Leslie CS, **Mayr C**. Ubiquitously transcribed genes use alternative polyadenylation to achieve tissue-specific expression. *Genes Dev* 27, 2380-2396 (2013).

Selected by *Science Signaling* as one of the Breakthroughs of 2013

Recommended by the Faculty of 1000

**Mayr C**, Bartel DP. Widespread shortening of 3'UTRs by alternative cleavage and polyadenylation activates oncogenes in cancer cells. *Cell* 138, 673-684 (2009).

Highlighted in *Nature*

Highlighted in *Nature Reviews Genetics*

Designated as "Exceptional" by the Faculty of 1000

Pallasch CP, Patz M, Park YJ, Hagist S, Eggle D, Claus R, Debey-Pascher S, Schulz A, Frenzel L, Claasen J, Kutsch N, Krause G, **Mayr C**, Rosenwald A, Plass C, Schultze JL, Hallek M, Wendtner CM. miRNA deregulation by epigenetic silencing disrupts suppression of the oncogene PLAG1 in chronic lymphocytic leukemia. *Blood* 114, 3255-3264 (2009). Epub 2009 Aug 19.

Wang ET, Sandberg R, Luo S, Khrebtkova I, Zhang L, **Mayr C**, Kingsmore SF, Schroth GP, Burge CB.

Alternative isoform regulation in human tissue transcriptomes. *Nature* 456,470-476 (2008).

Designated as "Exceptional" by the Faculty of 1000

Wiesner M, Zentz C, **Mayr C**, Wimmer R, Hammerschmidt W, Zeidler R, Moosmann A. Conditional immortalization of human B cells by CD40 ligation. *PLoS ONE* 3, e1464 (2008).

Bund D, **Mayr C**, Kofler DM, Hallek M, Wendtner CM. CD23 is recognized as tumor-associated antigen (TAA) in B-CLL by CD8+ autologous T lymphocytes. *Exp Hematol* 35, 920-930 (2007).

Zhou B, Wang S, **Mayr C**, Bartel DP, Lodish HF. miR-150, a microRNA expressed in mature B and T cells, blocks early B cell development when expressed prematurely. *Proc Natl Acad Sci U S A* 104, 7080-7085 (2007). Epub 2007 Apr 16.

**Mayr C**, Hemann MT, Bartel DP. Disrupting the pairing between let-7 and Hmga2 enhances oncogenic transformation. *Science* 315, 1576-1579 (2007). Epub 2007 Feb 22.

Highlighted in *Science* as Editor's Choice

Highlighted in *Nature Reviews Cancer*

Highlighted in *Journal of the American Chemical Society*

Bund D, **Mayr C**, Kofler DM, Hallek M, Wendtner CM. Human Ly9 (CD229) as novel tumor-associated antigen (TAA) in chronic lymphocytic leukemia (B-CLL) recognized by autologous CD8+ T cells. *Exp Hematol* 34, 860-869 (2006).

**Mayr C**, Bund D, Schlee M, Bamberger M, Kofler DM, Hallek M, Wendtner CM. MDM2 is recognized as a tumor-associated antigen in chronic lymphocytic leukemia by CD8+ autologous T lymphocytes. *Exp Hematol* 34, 44-53 (2006).

**Mayr C**, Speicher MR, Kofler DM, Buhmann R, Busch R, Strehl J, Hallek M, Wendtner CM. Chromosomal translocations are associated with poor prognosis in chronic lymphocytic leukemia. *Blood* 107, 742-751 (2006). Epub 2005 Sep 22.

**Mayr C**, Kofler DM, Büning H, Bund D, Hallek M, Wendtner C-M. Transduction of CLL cells by CD40 ligand (CD40L) enhances an antigen specific immune recognition by autologous T cells. *Blood* 106, 3223-3226 (2005). Epub 2005 Jul 12.

**Mayr C**, Bund D, Schlee M, Moosmann A, Kofler DM, Hallek M, Wendtner C-M. Fibromodulin as a novel tumor-associated antigen (TAA) in chronic lymphocytic leukemia (CLL) which allows expansion of specific CD8+ autologous T lymphocytes. *Blood* 105, 1566-1573 (2005). Epub 2004 Oct 7.

Kofler DM, Büning H, **Mayr C**, Bund D, Baumert J, Hallek M, Wendtner CM. Engagement of the B-cell antigen receptor (BCR) allows efficient transduction of ZAP-70 positive B-CLL cells by recombinant adeno-associated virus (rAAV) vectors. *Gene Ther* 11, 1416-1424 (2004).

Strehl J, Mey U, Glasmacher A, Djulbegovic B, **Mayr C**, Gorschluter M, Ziske C, Schmidt-Wolf IG. High-dose chemotherapy followed by autologous stem cell transplantation as first-line therapy in aggressive non-Hodgkin's lymphoma is superior to conventional chemotherapy in selected patients: a meta-analysis. *Haematologica* 88, 1304-1315 (2003).

Hildebrandt M, Rose M, **Mayr C**, Arck P, Schüler C, Reutter W, Salama A, Klapp BF. Dipeptidyl peptidase IV (DPP IV, CD 26) in patients with mental eating disorders. *Adv Exp Med Biol* 477, 197-204 (2000).

Hildebrandt M, Rose M, **Mayr C**, Schüler C, Reutter W, Salama A, Klapp BF. Alterations in expression and in serum activity of dipeptidyl peptidase IV (DPP IV, CD 26) in patients with hyporectic eating disorders. *Scand J Immunol* 50, 536-541 (1999).

## REVIEWS AND COMMENTARIES:

**Mayr C**. Regulation by 3'UTRs. *Annu Rev Genet* (2017). Epub 2017 Aug31.

**Mayr C**. Evolution and biological roles of alternative 3'UTRs. *Trends Cell Biol* (2016), Epub 2015 Nov 17.

Kofler DM, **Mayr C**, Wendtner CM. Current status of immunotherapy in B cell malignancies. *Curr Drug Targets* 7, 1371-1374 (2006).

Wendtner CM, Kofler DM, Mayr C, Bund D, Hallek M. The potential of gene transfer into primary B-CLL cells using recombinant virus vectors. *Leuk Lymphoma* 45, 897-904 (2004).

**Mayr C**, Radzom S, Dreyling M. Neurotoxicity under chemotherapy with high doses of cytarabine. *Arzneimitteltherapie* 19, 296-298 (2001).

## PATENTS:

**Mayr C**, Berkovits BD, Ma W. Vector constructs and methods for achieving or enhancing protein localization on the surface of cells. SK2015-052-01.