

Nils H. Thoennissen, MD

With more than 20 years of experience in evidence-based medicine and over 14 years clinical experience in hemotherapy including blood transfusions, as well as stem cell transplantation, Dr. Thoennissen is an international specialist in cancer, chronic degenerative diseases, and regenerative medicine with a doctoral thesis in neurological research, graded with "summa cum laude".



Education

- Westfälische-Wilhelms-University of Muenster, Muenster, Germany
- Cardiff University School of Medicine, Cardiff, Great Britain
- Johannes Gutenberg-University, Mainz, Germany
- Cedars-Sinai-Medical-Center, UCLA, Los Angeles, USA

Residency and Fellowship

- Resident Department of Hematology, Oncology & Transplantation, University Hospital of Münster, Germany
- IZKF-research fellowship Laboratory of Molecular Hematology, University Hospital of Münster, Germany
- DFG-research fellowship (2 years) Division of Hematology/Oncology Cedars-Sinai Medical-Center, UCLA, Los Angeles, USA

Career Highlights

- More than 14 years clinical experience in hemotherapy including blood transfusions, as well as stem cell transplantation.
- Spent 3 years in Los Angeles, USA, at Cedars-Sinai-Medical-Center, UCLA as postdoctoral fellow.
- Author of more than 40 high-ranking clinical and scientific publications in peer-reviewed international journals.
- Investigator and Sub-Investigator of several clinical studies.
- Past consultant of Hem/Onc Dpt. and Emergency Dpt. in the University Clinic of Hamburg-Eppendorf, Germany

Awards

- Doctoral thesis, University of Münster (WWU), Münster, Germany summa cum laude
 - 1st Price for Innovation, University Hsp. of Münster, Germany 09/2006
 - Travel Award 51st Congress of American Society of Hematology (ASH) 12/2009
 - Travel Award 52nd Congress of American Society of Hematology (ASH) 12/2010
 - Sponsorship Award for leukemic research University of Münster, Germany (WWU) 06/2012
 - Best Poster Award – Society for Gastroenterology, Germany „Nicotinamide and its therapeutical effects on colitis in a mouse model" 12/2012
 - Best of DGHO – Translational Medicine „Exome sequencing of paired chronic- blast phase samples in myeloproliferative neoplasms reveals high frequency of rare germline sequence variants In TYK2 and novel blast phase-restricted mutations" 10/2014
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Publication list

1. Kleef R, Nagy R, Baierl A, Bacher V, Bojar H, McKee DL, Moss R, Thoennissen NH, Szász M, Bakacs T. Low-dose ipilimumab plus nivolumab combined with IL-2 and hyperthermia in cancer patients with advanced disease: exploratory findings of a case series of 131 stage IV cancers - a retrospective study of a single institution. *Cancer Immunol Immunother.* 2020 Nov 5.
2. Thoennissen GB, Görlich D, Bacher U, Aufenberg T, Hüsken AC, Hansmeier AA, Evers G, Mikesch JH, Fritz F, Bokemeyer C, Müller-Tidow C, Stelljes M, Mesters RM, Krug U, Kropff MH, Thoennissen NH*, Berdel WE. Autologous Stem Cell Transplantation in Multiple Myeloma in the Era of Novel Drug Induction: A Retrospective Single-Center Analysis. *Acta Haematol.* 2017;137(3):163-172.
3. Pohlen M, Thoennissen NH*, Braess J, Thudium J2, Schmid C3, Kochanek M, Kreuzer KA, Lebiedz P, Görlich D, Gerth HU, Rohde C, Kessler T, Müller-Tidow C, Stelljes M, Büchner T, Schlimok G, Hallek M, Waltenberger J, Hiddemann W, Berdel WE, Heilmeier B, Krug U. Patients with Acute Myeloid Leukemia Admitted to Intensive Care Units: Outcome Analysis and Risk Prediction. *PLoS One.* 2016 Aug 30;11(8):e0160871.
4. Karagiannis P, Guth N, Thoennissen GB, Bern C, Sperveslage J, Oschlies I, Bokemeyer C, Klapper W, Wardelmann E, Thoennissen NH: Alveolar rhabdomyosarcoma confined to the bone marrow with no identifiable primary tumour using FDG-PET/CT. *Clin Sarcoma Res.* 2015; 5: 24.
5. Thoennissen NH, Clauditz T, Ittrich H, Stahl R, Bokemeyer C, Klose H. 55-jährige Patientin, Raucherin, mit deutlicher Abgeschlagenheit, Fieber und Hämoptysen. *Dtsch Med Wochenschr.* Okt. 2014;139(41):2073-4.
6. Bettenworth D, Nowacki TM, Ross M, Kyme P, Schwambach D, Kerstiens L, Thoennissen GB, Bokemeyer C, Hengst K, Berdel WE, Heide- mann J, Thoennissen NH. Nicotinamide treatment ameliorates the course of experimental colitis mediated by enhanced neutrophil-specific antibacterial clearance. *Mol Nutr Food Res.* 2014;58(7):1474-90.
7. Hascher A, Haase AK, Hebestreit K, Rohde C, Klein HU, Rius M, Jungen D, Witten A, Stoll M, Schulze I, Ogawa S, Wiewrodt R, Tickenbrock L, Berdel WE, Dugas M, Thoennissen NH*, Müller-Tidow C. DNA methyltransferase inhibition reverses epigenetically embedded phenotypes in lung cancer preferentially affecting polycomb target genes. *Clin Cancer Res.* Feb. 2014 15;20(4):814-26.
8. Mikesch JH, Kuhlmann M, Demant A, Krug U, Thoennissen GB, Schmidt E, Kessler T, Schliemann C, Pohlen M, Mohr M, Evers G, Köhler G, Wessling J, Mesters R, Müller-Tidow C, Berdel WE, Thoennissen NH. DexaBEAM versus ICE salvage regimen prior to autologous transplantation for relapsed or refractory aggressive peripheral T cell lymphoma: a retrospective evaluation of parallel patient cohorts of one center. *Ann Hematol.* Aug. 2013;92(8):1041-48.
9. Kyme P, Thoennissen NH*, Tseng CW, Thoennissen GB, Wolf AJ, Shimada K, Krug UO, Lee K, Müller-Tidow C, Berdel WE, Hardy WD, Gombart AF, Koeffler HP, Liu GY. C/EBP ϵ mediates nicotinamide-enhanced clearance of *Staphylococcus aureus* in mice. *J Clin Invest.* 4. Sep. 2012;122(9):3316-29.
10. Thoennissen GB, Thoennissen NH*, Fritz F, Hilbig A, Kerkhoff A, Liersch R, Krug U, Koschmieder S, Müller-Tidow C, Mesters R, Kropff M, Berdel WE. POEMS syndrome treated with melphalan high-dose therapy and autologous blood stem cell transplantation: a single-institution experience. *Ann. Hematol.* Sep. 2012;91(9):1419-25.
11. Thoennissen NH, Thoennissen GB, Nabavi-Nouis S, Abbassi S, Sauer T, Doan NB, Gery S, Müller-Tidow C, Said JW, Koeffler HP. The transcription factor C/EBP α and a critical circadian clock downstream target gene, PER2, are highly deregulated in diffuse large B-cell lymphoma. *Leuk Lymphoma.* Aug. 2012;53(8):1577-85.
12. Thoennissen NH, Lasho T, Thoennissen GB, Ogawa S, Tefferi A, Koeffler HP. Novel CUX1 missense mutation in association with 7q- at leukemic transformation of MPN. *Am J Hematol.* 2011;86(8):703-05.
13. Lee DH, Thoennissen NH*, Goff C, Iwanski GB, Forscher C, Doan NB, Said JW, Koeffler HP. Synergistic effect of low-dose cucurbitacin B and low-dose methotrexate for treatment of human osteosarcoma. *Cancer Lett.* 28. Jul. 2011;306(2):161-70.
14. Akagi T, Thoennissen NH*, George A, Crooks G, Song JH, Okamoto R, Nowak D, Gombart AF, Koeffler HP. In Vivo Deficiency of Both C/EBP β and C/EBP ϵ Results in Highly Defective Myeloid Differentiation and Lack of Cytokine Response. *PLoS One.* 2010;5(11):e15419.
15. Iwanski GB, Lee DH, En-Gal S, Doan NB, Castor B, Vogt M, Toh M, Bokemeyer C, Said JW, Thoennissen NH*, Koeffler HP. Cucurbitacin B, a novel in vivo potentiator of gemcitabine with low toxicity in the treatment of pancreatic cancer. *Br J Pharmacol.* 2010;160(4):998-1007
16. Thoennissen NH, Krug UO, Lee DH, Kawamata N, Iwanski GB, Lasho T, Weiss T, Nowak D, Koren-Michowitz M, Kato M, Sanada M, Shih LY, Nagler A, Raynaud SD, Müller-Tidow C, Mesa R, Haferlach T, Gilliland DG, Tefferi A, Ogawa S, Koeffler HP. Prevalence and prognostic impact of allelic imbalances associated with leukemic transformation of Philadelphia chromosome-negative myeloproliferative neoplasms. *Blood.* 2010;115(14):2882-90.
17. Thoennissen NH, O'Kelly J, Lu D, Iwanski GB, La DT, Abbassi S, Leiter A, Karlan B, Mehta R, Koeffler HP. Capsaicin causes cell-cycle arrest and apoptosis in ER-positive and -negative breast cancer cells by modulating the EGFR/HER-2 pathway. *Oncogene.* 2010;29(2):285-96. 5
18. Thoennissen NH, Iwanski GB, Doan NB, Okamoto R, Lin P, Abbassi S, Song JH, Yin D, Toh M, Xie WD, Said JW, Koeffler HP. Cucurbitacin B induces apoptosis by inhibition of the JAK/STAT pathway and potentiates antiproliferative effects of gemcitabine on pancreatic cancer cells. *Cancer Res.* 2009;69(14):5876-84.
19. Thoennissen NH, Keyvani K, Voelker HU, Bremer J, Krug U, Müller-Tidow C, Koch P, Müller-Hermelink HK, Berdel WE. Splenic marginal zone lymphoma: transformation to diffuse large B-cell lymphoma with isolated cerebral manifestation. *J Clin Oncol.* 2008;26(27):4509-11.
20. Thoennissen NH, Schliemann C, Hungermann D, Bremer J, Juergens KU, Semik M, Müller-Tidow C, Zuehlendorf M, Berdel WE. Solitary plasmacytoma of the lung with coexisting sarcoid-like lesions. *Ann Hematol.* 2008;87(5):417-20.
21. Thoennissen NH, Schliemann C, Brunnberg U, Schmidt E, Staebler A, Stegger L, Bremer C, Schleicher C, Mesters RM, Müller-Tidow C, Berdel WE. Chemotherapy in metastatic malignant triton tumor: report on two cases. *Oncol Rep.* 2007;18(4):763-67.
22. Thoennissen NH, Baumann C, Kelsch R, Albrecht O, Müller-Tidow C, Sibrowski W, Berdel WE, Mesters R: Heparin-Induced Thrombocytopenia vs. Plasmapheresis-Induced Platelet Loss in a Case of Thrombotic Thrombocytopenic Purpura. *Transfusion Medicine and Hemotherapy.* 2007;34:74-77.
23. Thoennissen NH, Alloggen A, Ritter M, Dittrich R, Schmid C, Schmid HH, Ringelstein EB, Nabavi DG. Influence of inflammation and pump dynamic on cerebral microembolization in patients with Continuous-Flow DeBakey LVAD. *ASAIO J.* 2006;52(3):243-47.

24. Thoennissen NH, Schneider M, Allroggen A, Ritter M, Dittrich R, Schmid C, Scheld HH, Ringelstein EB, Nabavi DG. High level of cerebral microembolization in patients supported with the DeBakey left ventricular assist device. *J Thorac Cardiovasc Surg.* 2005;130(4):1159-66.
25. Thoennissen NH, Allroggen A, Dittrich R, Ritter M, Schmid C, Scheld HH, Ringelstein EB, Nabavi DG. Can Doppler time domain analysis of microembolic signals discriminate between gaseous and solid microemboli in patients with left ventricular assist device? *Neurol Res.* 2005;27(7):780-84.
26. Mikesch JH, Schwambach D, Hartmann W, Schmidt LH, Schliemann C, Angenendt L, Wiewrodt R, Marra A, Thoennissen NH, Wardelmann E, Köhler G, Lenz G, Müller-Tidow CM, Berdel WE and Arteaga MF. Reptin drives tumour progression and resistance to chemotherapy in non-small cell lung cancer. *Eur Respir J.* 31. Mai 2018. PII: 1701637.
27. Bulk E, Ay AS, Hammadi M, Schölhaas S, Hascher A, Rohde C, Thoennissen NH, Wiewrodt R, Schmidt E, Klein HU, Dugas M, Berdel WE, Müller-Tidow C, Schwab A. Epigenetic dysregulation of Kca 3.1 channels induces poor prognosis in lung cancer. *Intern J Cancer.* 2015;137(6):1306-17.
28. Nowak D, Liem NLM, Mossner M, Papa RA, Nowak V, Jann JC, Kawamata N, Okamoto R, Thoennissen NH, Kato M, Hofmann WK, Ogawa S, Lock RB, Koeffler HP. Variegated clonality and rapid emergence of new molecular lesions in xenografts of acute lymphoblastic leukemia are associated with drug resistance. *Exp Hematol.* 2015;43(1):32-43.
29. Nowacki TM, Brückner M, Tepas P, Pott F, Thoennissen NH, Hengst K, Ross M, Bettenworth D. The risk of colorectal cancer in patients with ulcerative colitis. *Dig Dis Science.* 2015;60(2):492-501.
30. Kanda J, Mori K, Kawabata H, Kuwabara T, Mori KP, Imamaki H, Kasahara M, Yokoi H, Mizumoto C, Thoennissen NH, Koeffler HP, Barasch J, Takaori-Kondo A, Mukoyama M, Nakao K. An AKI biomarker lipocalin 2 in the blood derives from the kidney in renal injury but from neutrophils in normal and infected conditions. *Clin Exp Nephrol.* 2015;19(1):99-106.
31. Schmidt LH, Görlich D, Spieker T, Rohde C, Schuler M, Mohr M, Humberg J, Sauer T, Thoennissen NH, Hüge A, Voss R, Marra A, Faldum A, Müller-Tidow C, Berdel WE, Wiewrodt R. Prognostic Impact of Bcl-2 Depends on Tumor Histology and Expression of MALAT-1 lncRNA in Non-Small-Cell Lung Cancer. *J Thorac Oncol.* 2014;9(9):1294-304
32. Evers G, Pohlen M, Berdel WE, Thoennissen NH, Titze U, Köhler G, Weckesser M, Anthoni C, Mesters RM. Visceral leishmaniasis clinically mimicking lymphoma. *Ann Hematol.* 2014;93(5):885-7.
33. Aribi A, Gery S, Lee DH, Thoennissen NH, Thoennissen GB, Alvarez R, Ho Q, Lee K, Doan NB, Chan KT, Toh M, Said JW, Koeffler HP. The triterpenoid cucurbitacin B augments the antiproliferative activity of chemotherapy in human breast cancer. *Int J Cancer.* 2013;132(12):2730-37.
34. Gerth HU, Pohlen M, Thoennissen NH, Suwelack B, Pavenstädt HJ, Störkel S, Abbas M, Spieker T, Thölking G. Two papillary renal cell carcinomas of different origin following renal transplantation. *Oncol Lett.* 2012;4(1):80-82.
35. Agrawal-Singh S, Isken F, Agelopoulos K, Klein HU, Thoennissen NH, Koehler G, Hascher A, Baeumer N, Berdel WE, Thiede C, Ehninger G, Becker A, Schlenke P, Wang Y, McClelland M, Krug U, Koschmieder S, Buechner T, Yu DY, Singh SV, Hansen K, Serve H, Dugas M, Mueller-Tidow C. Genome wide analysis of histone H3 acetylation patterns in AML identifies PRDX2 as an epigenetically silenced tumor suppressor gene. *Blood.* 2012;119(10):2346-57.
36. Müller-Tidow C, Klein HU, Hascher A, Isken F, Tickenbrock L, Thoennissen NH, Agrawal-Singh S, Tschanter P, Disselhoff C, Wang Y, Becker A, Thiede C, Ehninger G, Zur Stadt U, Koschmieder S, Seidl M, Müller FU, Schmitz W, Schlenke P, McClelland M, Berdel WE, Dugas M, Serve H; im Auftrag von Study Alliance Leukemia. Profiling of histone H3 lysine 9 trimethylation levels predicts transcription factor activity and survival in acute myeloid leukemia. *Blood.* 2010;116(18):3564-71.
37. Agrawal-Singh S, Koschmieder S, Gelsing S, Stocking C, Stehling M, Thiede C, Thoennissen NH, Köhler G, Valk PJ, Delwel R, Mills K, Baeumer N, Tickenbrock L, Hansen K, Berdel WE, Müller-Tidow C, Serve H. Pim2 cooperates with PML-RARalpha to induce acute myeloid leukemia in a bone marrow transplantation model. *Blood.* 2010;115(22):4507-16.
38. Nowak D, Ogawa S, Müschen M, Kato M, Kawamata N, Meixel A, Nowak V, Kim HS, Kang S, Paquette R, Chang MS, Thoennissen NH, Mossner M, Hofmann WK, Kohlmann A, Weiss T, Haferlach T, Haferlach C, Koeffler HP. SNP array analysis of tyrosine kinase inhibitor-resistant chronic myeloid leukemia identifies heterogeneous secondary genomic alterations. *Blood.* 2010;115(5):1049-53.
39. Schmidt E, Thoennissen NH, Rudat A, Bieker R, Schliemann C, Mesters RM, Zühlendorf M, Müller-Tidow C, Berdel WE. Use of palifermin for the prevention of high-dose methotrexate-induced oral mucositis. *Ann Oncol.* 2008;19(9):1644-49.
40. Schliemann C, Bieker R, Thoennissen NH, Gerss J, Liersch R, Kessler T, Büchner T, Berdel WE, Mesters RM. Circulating angiopoietin-2 is a strong prognostic factor in acute myeloid leukemia. *Leukemia.* 2007;21(9):1901-06.
41. Zahragic L, Schliemann C, Bieker R, Thoennissen NH, Burow K, Kramer C, Zühlendorf M, Berdel WE, Mesters RM. Bevacizumab reduces VEGF expression in patients with relapsed and refractory acute myeloid leukemia without clinical antileukemic activity. *Leukemia.* 2007;21(6):1310-12.