Curriculum Vitae

Prof. Dr. Nico Lachmann

Personal Information

Name:	Nico Lachmann, Prof. Dr. rer. nat
Address:	Hannover Medical School Department of Pediatric Pneumology, Allergology and Neonatology Carl-Neuberg Straße 1 30625 Hannover, Germany
eMail:	lachmann.nico@mh-hannover.de
Website:	Link
Place of Birth:	Grevesmühlen, Germany
Date of Birth:	01.08.1980

Education

06/2016
Habilitation

Hannover Medical School, Hannover (Germany), Habilitation (Venia Legendi) in the subject of "Regenerative Medicine"
Cumulative Thesis: "Pluripotent- and Multipotent-Stem Cell Derived Hematopoietic Cells and Their Use for Regenerative Therapies"

11/2008 – 01/2012
PhD student

Hannover Medical School, Hannover (Germany), PhD Program "Regenerative Science", REBIRTH Cluster of Excellence
Overall Grade: summa cum laude, excellent
Cumulative PhD Thesis: "Strategies for Cell-Type Specific and Time Dependent Transgene Expression in Hematopoietic Gene Therapy"

10/2006 – 10/2008
M.Sc.

Hannover Medical School Hannover (Germany),
Yale University, School of Medicine, New Haven (CT, USA), "Biomedicine"
Overall Grade: 1.9
Master Thesis: "Elucidation of cellular and molecular role of SMAD7 in the development of hematopoietic stem cells" Yale University School of Medicine, New Haven, CT, USA (Supervisor 1: Prof. Dr. Christoph Klein (Childrens Hospital, Munich (Dr. von Haunerschen Kinderspital München)
Supervisor 2: Prof. Richard Flavell (School of Medicine, Yale University, New Haven, CT, USA)

10/2003 – 09/2006
B.Sc.

Leibniz University Hannover, Hannover (Germany), Bachelor-program "Life Science"
Overall Grade: 1.9
Bachelor Thesis: "Products of animal celllines cultured in an industrial scale format" (Supervisor: PD Dr. Cornelia Casper, Leibniz University Hannover)

08/2001 – 09/2003
A-Level

Berufsoberschule Lübeck, Lübeck (Germany) (Highschool equivalent)
Certificate: A-Level *(Overall Grade: 1.5)*

09/1997 – 01/2001

Leibniz Research Center Borstel, Apprenticeship as Biologic Lab Assistant, Borstel Germany

Curriculum Vitae

Prof. Dr. Nico Lachmann

Academic Appointments

07/2022 – present **ATTRACT group leader, "Immune Cell Technologies",** Fraunhofer Institute for Toxicology and Experimental Medicine (ITEM)

09/2020 – present **Associate (W2) Professor**, RESIST Cluster of Excellence, Department of Pediatric Pneumology, Allergology and Neonatology, Hannover Medical School, Hannover, Germany

10/2018 – present **Faculty** of Hannover Medical School

06/2015 – 08/2020 **Group-Leader (Translational Hematology of Congenital Diseases)**, REBIRTH Center for Translational and Regenerative Medicine, Institute of Experimental Hematology, Hannover Medical School, Hannover, Germany

10/2013 – 12/2019 **Adjunct Instructor**, Division of Pulmonary Biology, Prof. Bruce Trapnell Cincinnati Childrens Hospital Medical Center, Cincinnati, OH, USA

01/2012 – 05/2015 **Postdoctoral Scientist**, REBIRTH Cluster of Excellence, Institute of Experimental Hematology, RG Reprogramming and Gene Therapy Prof. Thomas Moritz, Hannover Medical School, Hannover, Germany

02/2012 – 07/2013 **Postdoctoral Scientist**, Max-Planck-Institute for Molecular Biomedicine, Prof. Tobias Cantz, (Zellux: Train the trainer), Münster, Germany

Industry & professional consultancy

01/2021 – present **Novo Nordisk S/A Copenhagen** (industrial collaboration on macrophage immune cell pharming)

2023 – present **Laverock Therapeutics** (Consultant)

02/2022 – 02/2023 **Catalent** (Consultant on iPSC-derived NK cells)

Other Work Experience

03/2008 – 10/2008 Master Thesis, Department of Immunobiology (Prof. Richard Flavell), School of Medicine, Yale University, New Haven, CT, USA

02/2001 – 07/2001 Research Assistant, RG "Biophysic" (Prof. Thomas Gutsmann), Leibniz Research Center Borstel, Borstel, Germany

Internships

11/2008 – 12/2008 Department of Pediatric Hematology-Oncology (Prof. Dr. Christoph Klein), Hannover Medical School, Hannover, Germany

04/2008 – 06/2008 Institute of Cell and Molecular Pathology (Prof. Dr. Brigitte Schlegelberger), Hannover Medical School, Hannover, Germany

07/2005 – 09/2005 Bayer, Bayer Crop Science AG, Monheim, Germany

Curriculum Vitae

Prof. Dr. Nico Lachmann

Additional work experience

09/2009 – 12/2012	Co-Founder and Associate of SciSerNet GbR
10/2006 – 02/2008	Office Assistant, Congress & Event Management, Hannover Medical School, Hannover, Germany
10/2003 – 02/2008	Student Sales Assistant, ATELCO Computer AG, Hannover, Germany

Awards and Honors

2024	**ERC Proof-of-Concept Grant** "iMAClung", European Commission, Horizon Europe
2022/23	**ERC Proof-of-Concept Grant** "iPYRO", European Commission, Horizon Europe
2019	**ERC Starting Grant,** "iPSC2Therapy", European Commission, Horizon 2020
2019	**Young Investigator Award,** German Stem Cell Network (GSCN), Berlin
2015	**Abstract Achievement Award,** American Society of Hematology (ASH) (Orlando, FL, USA)
2015	**Fellowship for Interdisciplinary Sciences,** Joachim Herz Stiftung
2015	**Best-Poster-Award,** German Stem Cell Network (GSCN, Frankfurt am Main, Germany)
2015	**Best Clinical Research Award,** German Society for Pulmonology (DGP) together with Dr. med. Christine Happle, Berlin, Germany
2015	**Klaus Betke Fellowship,** 2nd Klaus Betke Symposium, Munich, Germany
2014	**Top Abstract Award & Best Translational Research** (*Large-scale hematopoietic differentiation of human induced pluripotent stem cells provides granulocytes or macrophages for cell replacement- and genetic-therapies*) German Society of Hematology and Oncology (DGHO), Hamburg, Germany
2014	**Selected as top abstract at "Presidential Symposium"** (*Therapeutic Efficacy of Intratracheally Transplanted Macrophage Progenitor Cells Introduces a Novel Gene-Therapy Approach To Hereditary Pulmonary Alveolar Proteinosis*) American Society for Gene and Cell Therapy (ASGCT); Washington D.C. (USA)
2014	**Young Academy Fellowship** (*Induced pluripotent stem cell (iPSC)-derived tissue-macrophages as an innovative therapy approach of hereditary Pulmonary Alveolar Proteinosis (herPAP)*) Hannover Medical School
2013	**Eva-Luise Köhler Forschungspreis für seltene Erkrankungen 2013** (Eva-Luise Köhler research award for rare diseases 2013) „*Innovative treatment options for hereditary pulmonary alveolar proteinosis*"; Eva Luise und Horst Köhler Stiftung, Allianz Chronischer Seltener Erkrankungen; Berlin (Germany)
2012	**HiLF-Grant intramural program** Hannover Medical School "*Hematopoietic Gene Therapy of CSF2RA-Deficient Pulmonary Alveolar Proteinosis (PAP) Utilizing Patient-Specific Induced Pluripotent Stem Cells (iPSCs)*"
2012-2016	**Travel Awards:** American Society for Gene and Cell Therapy, **ASGCT**; European Society for Gene and Cell Therapy, **ESGCT**; International Society for Stem Cell Research, **ISSCR**, German Stem Cell Network **GSCN**

Patents

EP24176410.9 (PRODUCTION OF CRYONOIDS AND BLOOD CELLS DERIVED THEREFROM.) Filing data 16.05.2024

PCT/US18/32933 (Cell Therapy with lentiviral transduced CSF2RA transgene in the treatment of hereditary pulmonary alveolar proteinosis), Filing date 17.05.2017, licensed

PCT/EP2018/061574 (Stem-cell derived myeloid cells, generation and use thereof), Filing date 04.05.2017 licensed

Curriculum Vitae

Prof. Dr. Nico Lachmann

PCT/EP2021/083371 (Application of stem-cell derived monozytes in a monocyte activation test (MAT) for the assessment of pyrogenicity and inflammatory potential), Filling date 30.11.2020

Reviewer

- Grants applications: European Research Council (ERC), Deutsche Forschungsgemeinschaft (DFG), Agence Nationale de la Recherche (ANR), Swiss 3R Competence Centre, AFM-Telethon, Italian Cystic Fibrosis Research Foundation
- Scientific journals: Nature, Nature Immunology, Nature Reviews Immunology, Nature Reviews Disease Primer, Nature Communications, Nature Communications Medicine, Nature Biomedical Engineering, iScience, Stem Cell Reports, eBioMedicine, AJRCCM, Bioactive Materials, CMLS, Differentiation, Scientific Reports, PLOS One, Human Gene Therapy, Immunotherapy, Theranostics, Experimental Hematology, Experimental Cell Research

Academic Activities

2023 – present	Board member, PhD program "Regenerative Sciences", Hannover Medical School
2023 – present	Member (Jury) of the Joachim-Herz-Fellowship Program, Joachim Herz Foundation, Hamburg
2023 – present	Spokesperson, Medical Scientist Program "nextGENERATION" (Regenerate Organ Function)
2023 – present	Organizer and moderator, International UniStemDay 2023 at Hannover Medical School
2023 – present	Mentor via:mento international program University Kiel
2021 – present	Elected member, Extended Board, German Stem Cell Network, GSCN
2021 – present	EU representative for Hannover Medical School, adviser for research grants within the framework of Horizon Europe
2019 – present	Elected member of section II (Department of Internal Medicine, Pediatrics and Surgery), Hannover Medical School
2019 – present	Elected member, steering committee REBIRTH Center for Translational and Regenerative Medicine, Hannover Medical School
2014 – present	Member of the organizing committee for the "Research Week" in cooperation with the Leibniz University Hannover *Invited external reviewer for poster presentations*
2009 – present	Initiator and founder of "StemCells – Goes Back to School" *Scientific talks for students (highschool level) on stem cell technologies and the use of gene therapy applications to treat primary immunodeficiencies. Scientific interactions with: Gymnasium Burgdorf, Robert Koch Gymnasium in Clausthal Zellerfeld, Gymnasium in Wolfsburg, IGS Sarstedt, St. Ursula-Schule Hannover, Sophienschule Hannover*
2014 – 2017	Lecture at Katholische Kirche Niedersachsen for Stem Cells in Regenerative Sciences *Invited talks on regenerative medicine and the use of stem cell technology for clinical use. Talks are given for the catholic church in lower Saxony.*
2012/2013	Faculty of "Ethikuniversität an der Medizinischen Hochschule Hannover" *Talks about the ethical use of stem cells for regenerative medicine*
2009-2017	Member in the REBIRTH organizing committee for the IdeenExpo, Hannover (Germany)

Additional Qualifications and Certificates

2014	Qualifikation zum Prüfarzt/Prüfärztin bzw. Assistenz in klinischen Studien (GCP-Grundkurs) *Extended Qualification and certificate on good clinical practice (GCP)*
2013	"Basisprogramm zur Qualifizierung von Lehrenden der MHH"

MHH intramural teaching qualification class for faculty

2008 Category C certificate to guide and lead animal experiments (principal investigator level), of Federation of European Laboratory Animal Science Association (FELASA) Hannover Medical School, Hannover (Germany)

Professional Societies

Member *" International Society for Stem Cell Research (ISSCR)"*

Associate Member "*European Society of Gene and Cell Therapy (ESGCT)*"

Associate Member "*American Society of Gene and Cell Therapy (ASGCT)*"

Member of the "German Stem Cell Network (GSCN)"

Member "European Hematology Association"

Invited Talks and Social Media Content

2024	Fraunhofer Workshop "Alternatives to Animal Testing 2024", Title: The plasticity of macrophages as a target for novel therapeutics
2024	International Society for Stem Cell Research (ISSCR), Annual Meeting 2024, "Harnessing the therapeutic potential of iPSC-derived immune cells to treat diseases of the lung and beyond", invited by EVOTEC
2024	Würzburg, SFB/CRC "Decisions in Infectious Diseases" Prof. Dr. Thomas Rudel, title of the talk "iPSC meet infection models"
2024	Institute for Regenerative Medicine (IREM), Sils Maria Retreat, Switzerland "iPSC-derived macrophages: Regenerative Therapies and Infection Medicine"
2024	Interview on macrophages in anti-cancer therapies, Comprehensive Cancer Center Göttingen
2024	Central Animal Facility, Hannover Medical School, "Standardized iPSC-derived immune cells and its use to avoid animal research"
2023	CCC
2023	Brodehl Symposium, Keynote lecture, "Application of human induced pluripotent stem cells in pediatric research and congenital diseases"
2023	Fraunhofer Academy, Tissue Engineering Digital Workshop "Scalable generation of immune cells from human iPSC for (non)therapeutic applications"
2023	Fraunhofer ITEM, Tag der offenen Tür, Designer Immune Cells for Modern Healthcare
2023	DGK annual meeting, Medical Scientist Retreat, Support for Medical Scientist; nextGENERATION
2022	German Stem Cell Network (GSCN) Annual Meeting, "Hematopoietic progenitors drive human macrophage ontogeny from pluripotent stem cells"
2022	Podcast, Bringing Science to life, "Prof. Dr. Nico Lachmann, vom Makrophagen-Spezialisten zum Start-up Gründer" (https://www.youtube.com/watch?v=Qcij71rqmjM)
2022	Keynote lecture, DECHEMA Advanced Therapies – Challenges for Routine Applications, "Scalable generation of custom-made immune cells for innovative cell-based immunotherapies and industrial applications" in Frankfurt am Main

Curriculum Vitae

Prof. Dr. Nico Lachmann

2021	PharmaLab 2021 “Scalable Generation of Fully Defined Monocyte/Macrophages from Human iPSC to Assess Pyrogens in Parenteral drugs and Medical Products”
2021	Innovative Therapy Days 2021, INTERNATIONAL SYMPOSIUM:LEADING RESEARCH TO INDUSTRY ”IPSC-DERIVED HEMATOPOIETIC CELLS AND CELL-BASED THERAPIES”
2021	German Stem Cell Network (GSCN) Annual Meeting, “Stem cells meet cell-based immunotherapies, the hope behind regenerative medicine”
2021	Deutsche Zentren der Gesundheitsforschung, „Working as a Medical Scientist“
2020	Macrophage-directed-Therapies Summit, “Designer Macrophage Manufacturing & Exploring the Role of Macrophages in Lung Disease”
2020	ROTARY Club Hannover, “Blut auf Bestellung”
2019	European Society for Gene and Cell Therapy (ESGCT), Barcelona, “The „New Stem Cell“: macrophages for disease modeling and cell based therapies”
2019	Paul Ehrlich and Ludwig Darmstädter Research Award Symposium (short listed)
2018	Workshop Pluripotent Stem Cells in Translational Cardiovascular Research, German Society for Cardiology, Charité, Berlin
2018	Society for Laboratory Automation and Screening Europe (SLAS) Transforming Research Conference in Brussel “iPSC-Technology: New Avenues for Cell-Based Therapies”
2018	Graduation speech, PhD program “Infection Biology”, Hannover Medical School
2018	KeyNote lecture MD/PHD program “Molecular Medicine”, Hannover Medical School
2018	17th Fraunhofer seminar „Translational Lung Research Models of Lung Disease"
2017	Future Medicine 2017, Berlin “Next Generation of „Antibiotics“: Bioreactor Derived Immune Cells to Fight Infectious Diseases”
2017	12min.me, “Kann man aus Stammzellen Blut herstellen? Neue Wege in der regenerative Medizin”
2016	Volkswagen Stiftung, Herrenhausen Late “Stammzellen = Alleskönner. Was kann die Regenerative Medizin?

Curriculum Vitae

Prof. Dr. Nico Lachmann

Publications and Articles (TOP 10, cronological)

1. Ackermann M, Rafiei Hashtchin A, Manstein F, Carvalho Oliveira M, Kempf H, Zweigerdt R, Lachmann N. „Continuous human iPSC-macrophage mass production by suspension culture in stirred tank bioreactors“ **Nat Protoc.** 2022 Feb;17(2):513-539. doi: 10.1038/s41596-021-00654-7.

2. Ackermann M, Haake K, Kempf H, Kaschutnig P, Weiss AC, Nguyen AHH, Abeln M, Merkert S, Kühnel MP, Hartmann D, Jonigk D, Thum T, Kispert A, Milsom MD, **Lachmann N**. “A 3D iPSC-differentiation Model Identifies interleukin-3 as a Regulator of Early Human Hematopoietic Specification” **Haematologica**. 2020 Apr 23:haematol.2019.228064. doi: 10.3324/haematol.2019.228064

3. Hetzel M, Lopez-Rodriguez E, Mucci A, Nguyen AHH, Suzuki T, Shima K, Buchegger T, Dettmer S, Rodt T, Bankstahl JP, Malik P, Knudsen L, Schambach A, Hansen G, Trapnell BC, **Lachmann N***, Moritz T*. “Effective hematopoietic stem cell-based gene therapy in a murine model of hereditary pulmonary alveolar proteinosis.” **Haematologica**. 2019 Jul 9

4. Ackermann M*, Kempf H*, Hetzel M, Hesse C, Hashtchin AR, Brinkert K, Schott JW, Haake K, Kühnel MP, Glage S, Figueiredo C, Jonigk D, Sewald K, Schambach A, Wronski S, Moritz T, Martin U, Zweigerdt R, Munder A, **Lachmann N** „Bioreactor-based mass production of human iPSC-derived macrophages enables immunotherapies against bacterial airway infections.“, **Nature Communications**. 2018 Nov 30;9(1):5088. doi: 10.1038/s41467-018-07570-7.

5. Happle C*, **Lachmann N*,** Ackermann M, Wetzke M, Mirenska A, Göhring G, Thomay K, Mucci A, Glomb T, Suzuki T, Glage S, Dittrich-Breiholz O, Trapnell B, Moritz T, Hansen G “Pulmonary transplantation of human iPSC-derived macrophages ameliorates hereditary lung disease” **Am J Respir Crit Care Med**. 2018 Apr 13. doi: 10.1164/rccm.201708-1562OC

6. Hetzel M, Mucci A, Blank P, Nguyen AHH, Schiller J, Halle O, Kühnel MP, Billig S, Meineke R, Brand D, Herder V, Baumgärtner W, Bange FC, Goethe R, Jonigk D, Förster R, Gentner B, Casanova JL, Bustamante J, Schambach A, Kalinke U, **Lachmann N**. „Hematopoietic stem cell gene therapy for IFNγR1 deficiency protects mice from mycobacterial infections.“ **Blood**. 2018 Feb 1;131(5):533-545. doi: 10.1182/blood-2017-10-812859.

7. **Lachmann N***, Ackermann M*, Frenzel E, Liebhaber S, Brennig S, Happle C, Hoffmann D, Klimenkova O, Lüttge D, Buchegger T, Kühnel MP, Schambach A, Janciauskiene S, Figueiredo C, Hansen G, Skokowa J, Moritz T. „Large-scale hematopoietic differentiation of human induced pluripotent stem cells provides granulocytes or macrophages for cell replacement therapies“ **Stem Cell Reports.** 2015 Feb 10;4(2):282-96 **contributed equally*

8. Suzuki T, Arumugam P, Sakagami T, **Lachmann N**, Chalk C, Sallese A, Abe S, Trapnell C, Carey B, Moritz T, Malik P, Lutzko C, Wood RE, Trapnell BC „ Pulmonary macrophage transplantation therapy“ **Nature** 2014 Oct 23;514(7523):450-4

9. Happle C*, **Lachmann N***, Skuljec J, Wetzke M, Ackermann M, Brennig S, Mucci A, Jirmo AC, Groos S, Mirenska A, Hennig C, Rodt T, Bankstahl JP, Schwerk N, Moritz T, Hansen G. „Pulmonary transplantation of macrophage progenitors as effective and long-lasting therapy for hereditary pulmonary alveolar proteinosis„ **Science Transl Med. 2014** Aug 20;6(250):250ra113. **contributed equally*

10. **Lachmann N***, Happle C*, Lüttge D, Wetzke M, Merkert S, Ackermann M, Kensah J, Jara-Avaca M, Mucci A, Skuljec J, Dittrich AM, Pfaff N, Brennig S, Schambach A, Steinemann D, Göhring G, Cantz T, Martin U, Schwerk N, Hansen G, Moritz T “Gene correction of human induced Pluripotent Stem Cells repairs the cellular phenotype in Pulmonary Alveolar Proteinosis” **Am J Respir Crit Care Med. 2014** Jan 15;189(2):167-82 **contributed equally*

Curriculum Vitae

Prof. Dr. Nico Lachmann

Books and Chapters

Tissue-Resident Macrophages, 2023, ISBN: 978-1-0716-3436-3, Springer Protocols, Chapter: "Adaptation of Human iOSC-Derived Macrophages Toward an Alveolar Macrophage-Like Phenotype Post Intra-Pulmonary Transfer into Murine Models"

Seltene Lungenerkrankungen, 2022, ISBN: 978-3-662-63650-3, 2. Auflage, Spinger, Chapter: „Pulmonale Alveolarproteinose"

Stem Cell Assays Methods and Protocols, 2022, ISBN: 978-1-0716-1978-0, Spinger Protocols, Chapter: „Generation of Human iPSC from Small Volume Peripheral Blood Samples""

Publications and Articles (chronological order 2012-present) (IF Claviat 2021)

2024

Ackermann M, Saleh F, Abdin SM, Rafiei Hashtchin A, Gensch I, Golgath J, Carvalho Oliveira M, Nguyen AHH, Gaedcke S, Fenske A, Jang MS, Jirmo AC, Abeln M, Hansen G, **Lachmann N**. "Standardized generation of human iPSC-derived hematopoietic organoids and macrophages utilizing a benchtop bioreactor platform under fully defined conditions" Stem Cell Res Ther. 2024 Jun 18;15(1):171. doi: 10.1186/s13287-024-03785-2.

Paasch D, **Lachmann N**, "CAR macrophages tuning the immune symphony of anti-cancer therapies" Cell Stem Cell. 2024 DOI:https://doi.org/10.1016/j.stem.2024.05.006

Momenilandi M, Lévy R, Sobrino S, Li J, Lagresle-Peyrou C, Esmaeilzadeh H, Fayand A, Le Floc'h C, Guérin A, Mina ED, Shearer D, Delmonte OM, Yatim A, Mulder K, Mancini M, Rinchai D, Denis A, Neehus AL, Balogh K, Brendle S, Rokni-Zadeh H, Changi-Ashtiani M, Seeleuthner Y, Deswarte C, Bessot B, Cremades C, Materna M, Cederholm A, Ogishi M, Philippot Q, Beganovic O, Ackermann M, Wuyts M, Khan T, Fouéré S, Herms F, Chanal J, Palterer B, Bruneau J, Molina TJ, Leclerc-Mercier S, Prétet JL, Youssefian L, Vahidnezhad H, Parvaneh N, Claeys KG, Schrijvers R, Luka M, Pérot P, Fourgeaud J, Nourrisson C, Poirier P, Jouanguy E, Boisson-Dupuis S, Bustamante J, Notarangelo LD, Christensen N, Landegren N, Abel L, Marr N, Six E, Langlais D, Waterboer T, Ginhoux F, Ma CS, Tangye SG, Meyts I, **Lachmann N**, Hu J, Shahrooei M, Bossuyt X, Casanova JL, Béziat V. "FLT3L governs the development of partially overlapping hematopoietic lineages in humans and mice" Cell. 2024 May 23;187(11):2817-2837.e31. doi: 10.1016/j.cell.2024.04.009. Epub 2024 May 3.

Pecksen E, Tkachuk S, Schröder C, Vives Enrich M, Neog A, Johnson CP, **Lachmann N**, Haller H, Kiyan Y. "Monocytes prevent apoptosis of iPSCs and promote differentiation of kidney organoids" Stem Cell Res Ther. 2024 May 3;15(1):132. doi: 10.1186/s13287-024-03739-8.

Abdin SM, Mansel F, Hashtchin AR, Ackermann M, Hansen G, Becker B, Kick B, Pham N, Dietz H, Schaniel C, Martin U, Spreitzer I, **Lachmann N.„**Sensor macrophages derived from human induced pluripotent stem cells to assess pyrogenic contaminations in parenteral drugs." Biofabrication. 2024 May 17;16(3). doi: 10.1088/1758-5090/ad4744.

Abdin SM, Paasch D, **Lachmann N**. „CAR macrophages on a fast track to solid tumor therapy" Nat Immunol. 2024 Jan;25(1):11-12. doi: 10.1038/s41590-023-01696-7.

Jahn C, Juchem M, Sonnenschein K, Gietz A, Buchegger T, **Lachmann N**, Göhring G, Behrens YL, Bär C, Thum T, Hoepfner J. „Generation of human induced pluripotent stem cell line MHHi029-A from a male Fabry disease patient carrying c.959A > T mutation" Stem Cell Res. 2024 Mar 24:77:103404. doi: 10.1016/j.scr.2024.103404

Hammad R, Alzubi J, Rhiel M, Chmielewski KO, Mosti L, Rositzka J, Heugel M, Lawrenz J, Pennucci V, Gläser B, Fischer J, Schambach A, Moritz T, **Lachmann N**, Cornu TI, Mussolino C, Schäfer R, Cathomen T. "CRISPR-Cas12a for Highly Efficient and Marker-Free Targeted Integration in Human Pluripotent Stem Cells" Int J Mol Sci . 2024 Jan 12;25(2):985. doi: 10.3390/ijms25020985

Rodriguez Gonzalez C, Schevel H, Hansen G, Schwerk N, **Lachmann N**. „Pulmonary Alveolar Proteinosis and new therapeutic concepts" Klin Padiatr. 2024 Jan 29. doi: 10.1055/a-2233-1243

Neehus AL, Carey B, Landekic M, Panikulam P, Deutsch G, Ogishi M, Arango-Franco CA, Philippot Q, Modaresi M, Mohammadzadeh I, Corcini Berndt M, Rinchai D, Le Voyer T, Rosain J, Momenilandi M, Martin-Fernandez M, Khan T, Bohlen J, Han JE, Deslys A, Bernard M, Gajardo-Carrasco T, Soudée C, Le Floc'h C, Migaud M, Seeleuthner Y, Jang MS, Nikolouli E, Seyedpour S, Begueret H, Emile JF, Le Guen P, Tavazzi G, Colombo CNJ, Marzani FC, Angelini M, Trespidi F, Ghirardello S, Alipour N, Molitor A, Carapito R, Mazloomrezaei M, Rokni-Zadeh H, Changi-Ashtiani M, Brouzes C, Vargas P, Borghesi A, **Lachmann N**, Bahram S, Crestani B, Pahari S, Schlesinger LS, Marr N, Bugonovic D, Boisson-Dupuis S, Béziat V, Abel L, Borie R, Young LR, Deterding R, Shahrooei M, Rezaei N, Parvaneh N, Craven D, Gros P, Malo D, Sepulveda FE, Nogee LM, Aladjidi N, Trapnell BC, Casanova JL, Bustamante J. "Human inherited CCR2 deficiency underlies progressive polycystic lung disease." Cell. 2024 May 21:S0092-8674(24)00530-0. doi: 10.1016/j.cell.2024.05.021.

2023

Abdin SM, Paasch D, Kloos A, Oliveira MC, Jang MS, Ackermann M, Stamopoulou A, Mroch PJ, Falk CS, von Kaisenberg CS, Schambach A, Heuser M, Moritz T, Hansen G, Morgan M, **Lachmann N**. " Scalable generation of functional human iPSC-derived CAR-macrophages that efficiently eradicate CD19-positive leukemia" J Immunother Cancer. 2023 Dec 22;11(12):e007705. doi: 10.1136/jitc-2023-007705.

Schweikert A, Kenny S, Oglesby I, Glasgow A, de Santi C, Gensch I, **Lachmann N**, Desroziers T, Fletcher C, Snijders D, Nathan N, Hurley K; COST Open-ILD Group Management Committee. "An evaluation of an open access iPSC training course: "How to model interstitial lung disease using patient-derived iPSCs" Stem Cell Res Ther. 2023 Dec 20;14(1):377. doi: 10.1186/s13287-023-03598-9.

Hetzel M, Gensch I, Ackermann M, **Lachmann N**. „Adaptation of Human iPSC-Derived Macrophages Toward an Alveolar Macrophage-Like Phenotype Post-Intra-Pulmonary Transfer into Murine Models" Methods Mol Biol. 2024;2713:463-479. doi: 10.1007/978-1-0716-3437-0_31.

Shum IO, Merkert S, Malysheva S, Jahn K, **Lachmann N,** Verboom M, Frieling H, Hallensleben M, Martin U. „An Improved Protocol for Targeted Differentiation of Primed Human Induced Pluripotent Stem Cells into HLA-G-Expressing Trophoblasts to Enable the Modeling of Placenta-Related Disorders" Cells. 2023 Aug 15;12(16):2070. doi: 10.3390/cells12162070

Malainou C, Abdin SM, **Lachmann N**, Matt U, Herold S "Alveolar macrophages in tissue homeostasis, inflammation, and infection: evolving concepts of therapeutic targeting" J Clin Invest. 2023 Oct 2;133(19):e170501

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