Curriculum Vitae

Personal Data

Name	Dr. Jan Fiedler (Dr. rer. nat., Dipl.-Biochem)
Nationality	German
Date of Birth	05/31/1981
Place of Birth	Husum
Marital Status	married, two children
E-Mail	Jan.Fiedler@ymail.com

Education

10/2015	Start of TRAIN (Translational Alliance in Lower Saxony) Academy program for 2 years, translational research & medicine: From idea to the product (expected certificate in 10/2017)
07/2014	Internship for CRISPR/Cas9 genome editing at Lawson Lab, University of Massachusetts Medical School (UMass), Worcester, USA
Since 01/2013	Group leader “Non-coding RNAs in the vasculature” at the Institute of Molecular and Translational Therapeutic Strategies, Prof. Dr. Dr. T. Thum, Hannover Medical School, Germany
08/2010 - 12/2012	Postdoctoral researcher at the Institute of Molecular and Translational Therapeutic Strategies, Prof. Dr. Dr. T. Thum, Hannover Medical School, Germany
07/2010	PhD thesis “Endothelial microRNA-24 contributes to capillary density in the infarcted heart” accomplished at the University of Wuerzburg (Dr. rer. nat.)
11/2009 - 07/2010	Research associate at the Institute of Molecular and Translational Therapeutic Strategies, Prof. Dr. Dr. T. Thum, Hannover Medical School, Germany
06/2006 - 10/2009	PhD student at the IZKF Junior Research Group ‘Cardiac Wounding and Healing’, Dr. T. Thum, Supervisors Prof. Dr. J. Bauersachs and Prof. Dr. T. Dandekar, University Hospital Wuerzburg, Germany
05/2006	Diploma in Biochemistry (Dipl.-Biochem. Univ.)
10/2001 - 05/2006	Studies of Biochemistry at the University of Bayreuth, Germany Diploma thesis “Role of Mdm36 for mitochondrial morphogensis in yeast” at the Chair of Cell Biology, University of Bayreuth, Germany, Supervisor Prof. Dr. B. Westermann

Languages

English (fluently), French (basic knowledge), German (native)

Software expertise

Microsoft Office (Word, Excel, PowerPoint, Access), Adobe (Photoshop, Illustrator), Statistics (GraphPad Prism), Image J

Extra qualifications

- TRAIN academy member
- GCP course at Hannover Medical School (06/2016)
- Leadership course performed at Hannover Medical School (04/2012 – 11/2012)
- Gene safety officer education at Hannover Medical School (04/2010)
- Lecturer at Hannover Medical School starting 2011 (Biochemistry, Biomedicine, Hannover Biomedical Research School)

Methods

Molecular Biology	DNA/RNA preparation, PCR, Real-time PCR, Cloning, Western Blot, Gene array profiling, Chromatin Immunoprecipitation, RNA Immunoprecipitation, Reporter gene assays, Immunostaining, generation of viral particles, CRISPR/Cas9 genome editing
Cell Biology	Fluorescence Microscopy, siRNA/miRNA transfection, Functional analysis of primary cells (apoptosis, proliferation, migration, angiogenic capacity), miRNA screening (high throughput applying Agilent Bravo system), FACS-based assays, Reprogramming of somatic cells
Biochemistry	Protein purification, ELISA, Immunoprecipiation
Cell Culture	Primary cell culture of endothelial cells, fibroblasts, cardiomyocytes, aortic smooth muscle cells and isolation and cultivation of different human progenitor cells, fractionation of cardiac cell types, preparation of transgenic cell lines

Awards

03/2016	Publication prize of the Working Group on Chronic Heart Failure, German Society of Cardiology, Mannheim, Germany: “MicroRNA-24 regulates vascularity after myocardial infarction”
03/2016	Keystone Symposia scholarship to attend Keystone conference in Copper Mountain, USA
09/2014	European Society of Cardiology (ESC) travel stipend to attend ESC Congress in Barcelona, Spain
04/2012	Franz-Maximilian Groedel Prize of the German Society of Cardiology, Mannheim, Germany: “MicroRNA-24 regulates vascularity after myocardial infarction”

List of publications

First authorships

1. Hartmann D *, **Fiedler J***, Sonnenschein K, Just A, Pfanne A, Zimmer K, Remke J, Foinquinos A, Butzlaff M, Schimmel K, Maegdefessel L, Hilfiker-Kleiner D, Lachmann N, Schober A, Froese N, Heineke J, Bauersachs J, Batkai S, Thum T. MircoRNA-based therapy of GATA2-deficient disease. ***Circulation*** **accepted, IF = 17.2**; * both authors contributed equally
2. **Fiedler J***, Gronniger E*, Pfanne A, Bronneke S, Schmidt K, Falk CS, Wenck H, Terstegen L, Thum T, Winnefeld M. Identification of miR-126 as a new regulator of skin aging. ***Exp Dermatol.*** **2016, IF = 2.7**; * both authors contributed equally
3. **Fiedler J**, Breckwoldt K, Remmele CW, Hartmann D, Dittrich M, Pfanne A, Just A, Xiao K, Kunz M, Muller T, Hansen A, Geffers R, Dandekar T, Eschenhagen T, Thum T. Development of Long Noncoding RNA-Based Strategies to Modulate Tissue Vascularization. ***J Am Coll Cardiol.*** **2015, IF = 17.7**; 66: 2005-2015.
4. **Fiedler J**, Stöhr A, Gupta SK, Hartmann D, Holzmann A, Just A, Hansen A, Hilfiker-Kleiner D, Eschenhagen T and Thum T. Functional microRNA library screening identifies the hypoxaMiR miR-24 as a potent regulator of smooth muscle cell proliferation and vascularisation. ***Antioxid Redox Signal*** **2013, IF = 7.1**
5. Pfaff N*, **Fiedler J***, Holzmann A, Schambach A, Moritz T, Cantz T, Thum T. miRNA screening reveals a new miRNA family stimulating iPS cell generation via regulation of Meox2. ***EMBO Rep.*** **2011, IF = 7.3**; * both authors contributed equally
6. **Fiedler J**, Jazbutyte V, Kirchmaier BC, Gupta SK, Lorenzen J, Hartmann D, Galuppo P, Kneitz S, Pena JT, Sohn-Lee C, Loyer X, Soutschek J, Brand T, Tuschl T, Heineke J, Martin U, Schulte-Merker S, Ertl G, Engelhardt S, Bauersachs J, Thum T. MicroRNA-24 regulates vascularity after myocardial infarction. ***Circulation.*** **2011, IF = 14.7**; 124: 720-730.

Co-authorships

1. Gupta SK, Itagaki R, Zheng X, Batkai S, Thum S, Ahmad F, Van Aelst LN, Sharma A, Piccoli MT, Weinberger F, **Fiedler J**, Heuser M, Heymans S, Falk CS, Forster R, Schrepfer S, Thum T. miR-21 promotes fibrosis in an acute cardiac allograft transplantation model. *Cardiovasc Res.* 2016; 110: 215-226.
2. Hirt MN, Werner T, Indenbirken D, Alawi M, Demin P, Kunze AC, Stenzig J, Starbatty J, Hansen A, **Fiedler J**, Thum T, Eschenhagen T. Deciphering the microRNA signature of pathological cardiac hypertrophy by engineered heart tissue- and sequencing-technology. *J Mol Cell Cardiol.* 2015; 81: 1-9.
3. Lorenzen JM, Schauerte C, Hubner A, Kolling M, Martino F, Scherf K, Batkai S, Zimmer K, Foinquinos A, Kaucsar T, **Fiedler J**, Kumarswamy R, Bang C, Hartmann D, Gupta SK, Kielstein J, Jungmann A, Katus HA, Weidemann F, Muller OJ, Haller H, Thum T. Osteopontin is indispensible for AP1-mediated angiotensin II-related miR-21 transcription during cardiac fibrosis. *Eur Heart J.* 2015; 36: 2184-2196.
4. Dangwal S, Stratmann B, Bang C, Lorenzen JM, Kumarswamy R, **Fiedler J**, Falk CS, Scholz CJ, Thum T, Tschoepe D. Impairment of Wound Healing in Patients With Type 2 Diabetes Mellitus Influences Circulating MicroRNA Patterns via Inflammatory Cytokines. *Arterioscler Thromb Vasc Biol.* 2015;
5. Lorenzen JM, Schauerte C, Kielstein JT, Hubner A, Martino F, **Fiedler J**, Gupta SK, Faulhaber-Walter R, Kumarswamy R, Hafer C, Haller H, Fliser D, Thum T. Circulating long noncoding RNA TapSAKI is a predictor of mortality in critically ill patients with acute kidney injury. *Clin Chem*. 2015;61:191-201.
6. Bang C, Batkai S, Dangwal S, Gupta SK, Foinquinos A, Holzmann A, Just A, Remke J, Zimmer K, Zeug A, Ponimaskin E, Schmiedl A, Yin X, Mayr M, Halder R, Fischer A, Engelhardt S, Wei Y, Schober A, **Fiedler J**, Thum T. Cardiac fibroblast-derived microRNA passenger strand-enriched exosomes mediate cardiomyocyte hypertrophy. *J Clin Invest*. 2014;124:2136-2146.
7. Lorenzen JM, Kaucsar T, Schauerte C, Schmitt R, Rong S, Hubner A, Scherf K, **Fiedler J**, Martino F, Kumarswamy R, Kolling M, Sorensen I, Hinz H, Heineke J, van Rooij E, Haller H, Thum T. MicroRNA-24 antagonism prevents renal ischemia reperfusion injury. *J Am Soc Nephrol*. 2014;25:2717-2729.

8. Volkmann I, Kumarswamy R, Pfaff N, **Fiedler J**, Dangwal S, Holzmann A, Batkai S, Geffers R, Lother A, Hein L and Thum T. MicroRNA-mediated epigenetic silencing of sirtuin1 contributes to impaired angiogenic responses. *Circ Res* 2013, 113: 997-1003.
9. Lorenzen JM, Dietrich B, **Fiedler J**, Jazbutyte V, Fleissner F, Karpinski N, Weidemann F, Wanner C, Asan E, Caprio M, Ertl G, Bauersachs J, Thum T. Pathologic endothelial response and impaired function of circulating angiogenic cells in patients with fabry disease. *Basic Res Cardiol.* 2013 Jan;108(1):311-012-0311-3. Epub 2012 Nov 20.
10. Diekmann U, Elsner M, **Fiedler J**, Thum T, Lenzen S, Naujok O. MicroRNA target sites as genetic tools to enhance promoter-reporter specificity for the purification of pancreatic progenitor cells from differentiated embryonic stem cells. *Stem Cell Rev.* 2012 Oct 31.
11. Ucar A, Gupta SK, **Fiedler J**, Erikci E, Kardasinski M, Batkai S, Dangwal S, Kumarswamy R, Bang C, Holzmann A, Remke J, Caprio M, Jentzsch C, Engelhardt S, Geisendorf S, Glas C, Hofmann TG, Nessling M, Richter K, Schiffer M, Carrier L, Napp LC, Bauersachs J, Chowdhury K, Thum T. The miRNA-212/132 family regulates both cardiac hypertrophy and cardiomyocyte autophagy. *Nat Commun.* 2012;3:1078.
12. Jazbutyte V, **Fiedler J**, Kneitz S, Galuppo P, Just A, Holzmann A, Bauersachs J, Thum T. MicroRNA-22 increases senescence and activates cardiac fibroblasts in the aging heart. *Age (Dordr)*. 2012 Apr 27.
13. Lorenzen JM, Volkmann I, **Fiedler J**, Schmidt M, Scheffner I, Haller H, Gwinner W, Thum T. Urinary miR-210 as a Mediator of Acute T-Cell Mediated Rejection in Renal Allograft Recipients. *Am J Transplant.* 2011; 11: 2221-2227.
14. Ucar A, Vafaizadeh V, Jarry H, **Fiedler J**, Klemmt PA, Thum T, Groner B, Chowdhury K. miR-212 and miR-132 are required for epithelial stromal interactions necessary for mouse mammary gland development. *Nat Genet.* 2010; 42: 1101-1108.
15. Fleissner F, Jazbutyte V, **Fiedler J**, Gupta SK, Yin X, Xu Q, Galuppo P, Kneitz S, Mayr M, Ertl G, Bauersachs J, Thum T. Short communication: asymmetric dimethylarginine impairs angiogenic progenitor cell function in patients with coronary artery disease through a microRNA-21-dependent mechanism. *Circ Res.* 2010; 107: 138-143.
16. Thum T, Gross C, **Fiedler J**, Fischer T, Kissler S, Bussen M, Galuppo P, Just S, Rottbauer W, Frantz S, Castoldi M, Soutschek J, Koteliansky V, Rosenwald A, Basson MA, Licht JD, Pena JT, Rouhanifard SH, Muckenthaler MU, Tuschl T, Martin GR, Bauersachs J, Engelhardt S. MicroRNA-21 contributes to myocardial disease by stimulating MAP kinase signalling in fibroblasts. *Nature.* 2008; 456: 980-984.
17. Thum T, Galuppo P, Wolf C, **Fiedler J**, Kneitz S, van Laake LW, Doevendans PA, Mummery CL, Borlak J, Haverich A, Gross C, Engelhardt S, Ertl G, Bauersachs J. MicroRNAs in the human heart: a clue to fetal gene reprogramming in heart failure. *Circulation.* 2007; 116: 258-267.

Review articles and editorials

1. **Fiedler J**, Thum T. New Insights Into miR-17-92 Cluster Regulation and Angiogenesis. *Circ Res.* 2016; 118: 9-11.
2. **Fiedler J**, Batkai S, Thum T. MicroRNA-based therapy in cardiology. *Herz*. 2014;39:194-200.
3. Thum T, **Fiedler J**. LINCing MALAT1 and angiogenesis. *Circ Res*. 2014;114:1366-1368.
4. **Fiedler J**, Thum T. MicroRNAs in myocardial infarction. *Arterioscler Thromb Vasc Biol.* 2013 Feb;33(2):201-205.
5. Bang C, **Fiedler J**, Thum T. Cardiovascular importance of the microRNA-23/27/24 family. *Microcirculation*. 2012 Apr;19(3):208-214.
6. **Fiedler J**, Thum T. MicroRNAs Looping Around Angiogenesis. *Arterioscler Thromb Vasc Biol.* 2011; 31: 2367-2368.
7. **Fiedler J**, Gupta SK, Thum T. Identification of cardiovascular microRNA targetomes. *J Mol Cell Cardiol.* 2011; 51: 674-681.
8. **Fiedler J**, Gupta SK, Thum T. MicroRNA-Based Therapeutic Approaches in the Cardiovascular System. *Cardiovasc Ther.* 2010; (Epub)