

### RNA related publications

#### **A030: Ingrid Grummt – Molecular Biology of the Cell II**

2013

Chen, S., Santiago-Reichert, M., Seiler, J., Felbel, K., **Grummt, I.**, Voit, R. (2013) Repression of RNA polymerase I transcription upon stress is caused by inhibition of RNA-dependent deacetylation of PAF53 by SIRT7. *Mol. Cell*, 52, 303-313.

Bierhoff, H., Postepska-Igielska, A., **Grummt, I.** Noisy Silence: Noncoding RNA and heterochromatin formation at repetitive elements. *Epigenetics*, in press

Postepska-Igielska A, Kronic D, Greulich-Bode K, Boukamp P, **Grummt I** The chromatin remodeling complex NoRC safeguards genomic stability by heterochromatin formation at telomeres and centromeres. *EMBO Rep.*, in press

2012

Xie W, Ling T, Zhou Y, Feng W, Zhu Q, Stunnenberg HG, Grummt I, Tao W (2012) The chromatin remodeling complex NuRD establishes the poised state of rRNA genes characterized by bivalent histone modifications and altered nucleosome positions. *Proc Natl Acad Sci U S A* 109, 8161-8166

2011

Tumurbaatar I, Cizmecioglu O, Hoffmann I, Grummt I, Voit R (2011) Human Cdc14B promotes progression through mitosis by dephosphorylating Cdc25 and regulating Cdk1/cyclin B activity. *PLoS ONE* 6:e14711

#### **A130: Frank Lyko – Epigenetics**

2013

Durdevic Z and Schaefer M 2013. tRNA modifications: Necessary for correct tRNA-derived fragments during the recovery from stress? *Bioessays*. DOI: 10.1002/bies.201200158

Durdevic Z, Hanna K, Gold B, Pollex T, Cherry S, Lyko F, and Schaefer M (2013). Efficient RNA virus control in *Drosophila* requires the RNA methyltransferase Dnmt2. *EMBO Rep* 14, 269–275

2012

Tuorto F, Liebers R, Musch T, Schaefer M, Hofmann S, Kellner S, Frye M, Helm M, Stöcklin G and Lyko F 2012. Site-specific cytosine-5 methylation by the mouse RNA methyltransferases Dnmt2 and NSun2 promotes tRNA stability and protein synthesis. *Nat Struct Mol Bio.* 19(9): 900-905

## **A200: Georg Stoecklin – Posttranscriptional Control of Gene Expression**

### Original Research Articles

2013

M Hämmerle\*, T Gutschner\*, H Uckelmann, S Ozgur, E Fiskin, M Groß, B Skawran, R Geffers, T Longerich, K Breuhahn, P Schirmacher, G Stoecklin, S Diederichs. Post-transcriptional destabilization of the liver-specific long non-coding RNA HULC by the IGF2 mRNA-binding protein 1 (IGF2BP1). *Hepatology* (2013): in press

Leppik K, Schott J, Reitter S, Poetz F, Hammond MC, Stoecklin G. Roquin promotes constitutive mRNA decay via a conserved class of stem-loop recognition motifs. *Cell* 2013;153:869-81

Ozgur S, Stoecklin G. Role of Rck-Pat1b binding in assembly of processing-bodies. *RNA Biol* 2013;10 [Epub ahead of print]

Färber V, Erben E, Sharma S, Stoecklin G, Clayton C. Trypanosome CNOT10 is essential for the integrity of the NOT deadenylase complex and for degradation of many mRNAs. *Nucleic Acids Res* 2013;41:1211-22

2012

Hofmann S, Cherkasova V, Bankhead P, Bukau B, Stoecklin G. Translation suppression promotes stress granule formation and cell survival in response to cold shock. *Mol Biol Cell* 2012;23:3786-800

Tuorto F, Liebers R, Musch T, Schaefer M, Hofmann S, Kellner S, Frye M, Helm M, Stoecklin G, Lyko F. RNA cytosine methylation by Dnmt2 and NSun2 promotes tRNA stability and protein synthesis. *Nat Struct Mol Biol* 2012;19:900-5

Ruggieri A, Dazert E, Metz P, Hofmann S, Bergeest JP, Mazur J, Bankhead P, Hiet MS, Kallis S, Alvisi G, Samuel CE, Lohmann V, Kaderali L, Rohr K, Frese M, Stoecklin G, Bartenschlager R. Dynamic oscillation of translation and stress granule formation mark the cellular response to virus infection. *Cell Host Microbe* 2012;12:71-85

Spasic M, Friedel CC, Schott J, Kreth J, Leppik K, Hofmann S, Ozgur S, Stoecklin G. Genome-wide assessment of AU-rich elements by the AREScore algorithm. *PLoS Genet* 2012;8:e1002433

Helfer S, Schott J, Stoecklin G, Förstemann K. AU-rich Element-Mediated mRNA Decay can occur independently of the miRNA machinery in Mouse Embryonic Fibroblasts and Drosophila S2-cells. *PLoS One* 2012;7:e28907

2011

Clement SL, Scheckel C, Stoecklin G, Lykke-Andersen J. Phosphorylation of TTP by MK2 impairs ARE-mRNA decay by preventing deadenylase recruitment. *Mol Cell Biol* 2011;31:256-66

## Reviews:

2013

Stoecklin G and Mühlemann O. RNA decay mechanisms: Specificity through diversity. *Biochim Biophys Acta*, 2013;1829:487-90

Stoecklin G and Kedersha N. Relationship of GW/P-bodies with stress granules. *Adv Exp Med Biol* 2013;768:197-211

2011

Leppik K, Schott J, Stoecklin G. Protein synthesis and translational control: at eye level with the ribosome. *EMBO Rep* 2011;12:1214-16

## **B050: Stefan Wiemann – Molecular Genome Analysis**

2013

Korner C, Keklikoglou I, Bender C, Worner A, Munstermann E, Wiemann S: MicroRNA-31 Sensitizes Human Breast Cells to Apoptosis by Direct Targeting of Protein Kinase C {epsilon} (PKC{epsilon}). *J Biol Chem* 2013, 288(12):8750-8761

Ward A, Balwierz A, Zhang JD, Kublbeck M, Pawitan Y, Hielscher T, Wiemann S, Sahin O (2013) Re-expression of microRNA-375 reverses both tamoxifen resistance and accompanying EMT-like properties in breast cancer. *Oncogene* 32(9):1173-1182

Garding A, Bhattacharya N, Claus R, Ruppel M, Tschuch C, Filarsky K, Idler I, Zucknick M, Caudron-Herger M, Oakes C, Fleig V, Keklikoglou I, Allegra D, Serra L, Thakurela S, Tiwari V, Weichenhan D, Benner A, Radlwimmer B, Zentgraf H, Wiemann S, Rippe K, Plass C, Döhner H, Lichter P, Stilgenbauer S, Mertens D: Epigenetic Upregulation of lncRNAs at 13q14.3 in Leukemia Is Linked to the Downregulation of a Gene Cluster That Targets NF-kB. *PLoS Genet* 2013; 9(4): e1003373

2012

Jurmeister S, Baumann M, Balwierz A, Keklikoglou I, Ward A, Uhlmann S, Zhang JD, Wiemann S, Sahin O (2012) MicroRNA-200c represses migration and invasion of breast cancer cells by targeting actin-regulatory proteins FHOD1 and PPM1F. *Mol Cell Biol* 32: 633-651

Keklikoglou I, Koerner C, Schmidt C, Zhang JD, Heckmann D, Shavinskaya A, Allgayer H, Guckel B, Fehm T, Schneeweiss A, Sahin O, Wiemann S, Tschulena U (2012) MicroRNA-520/373 family functions as a tumor suppressor in estrogen receptor negative breast cancer by targeting NF-kappaB and TGF-beta signaling pathways. *Oncogene* 31(37):4150-63

Uhlmann S, Mannsperger H, Zhang JD, Horvat EA, Schmidt C, Kublbeck M, Henjes F, Ward A, Tschulena U, Zweig K, Korf U, Wiemann S, Sahin O (2012) Global microRNA level regulation of EGFR-driven cell-cycle protein network in breast cancer. *Mol Syst Biol* 8: 570#

Nelson LD, Bender C, Mannsperger H, Buergy D, Kambakamba P, Palla S, Mudduluru G, Korf U, Hughes D, Van Dyke MW, Allgayer H: First analysis of the association of G\*G multiplex nucleic acid-

binding proteins with clinical outcome and proteomic changes in colorectal cancer. *Molecular Cancer* 2012 Jun 8;11(1):38

2011

Brase JC, Johannes M, Schlomm T, Falth M, Haese A, Steuber T, Beissbarth T, Kuner R, Sultmann H (2011b) Circulating miRNAs are correlated with tumor progression in prostate cancer. *Int J Cancer* 128: 608-616

Gade S, Porzelius C, Faelth M, Brase JC, Wuttig D, Kuner R, Binder H, Sultmann H, Beissbarth T (2011) Graph based fusion of miRNA and mRNA expression data improves clinical outcome prediction in prostate cancer. *BMC Bioinformatics* 12: 488

### **B060: Peter Lichter – Molecular Genetics**

2013

Wu H, Haag D, Muley T, Warth A, Zapatka M, Toedt G, Pscherer A, Hahn M, Rieker RJ, Wachter DL, Meister M, Schnabel P, Muller-Decker K, Rogers MA, Hoffmann H, Lichter P, Tumor-microenvironment interactions studied by zonal transcriptional profiling of squamous cell lung carcinoma, *Genes, Chromosomes & Cancer* 52, 250-264, 2013

Meier J, Hovestadt V, Zapatka M, Pscherer A, Lichter P, Seiffert M, Genome-wide identification of translationally inhibited and degraded miR-155 targets using RNA-interacting protein-IP, *RNA Biology*, 39-51, 2013

Garding A, Bhattacharya N, Claus R, Ruppel M, Tschuch C, Filarsky K, Idler I, Zucknick M, Caudron-Herger M, Oakes C, Fleig V, Keklikoglou I, Allegra D, Serra L, Thakurela S, Tiwari V, Weichenhan D, Benner A, Radlwimmer B, Zentgraf H, Wiemann S, Rippe K, Plass C, Döhner H, Lichter P, Stilgenbauer S, Mertens D: Epigenetic Upregulation of lncRNAs at 13q14.3 in Leukemia Is Linked to the Downregulation of a Gene Cluster That Targets NF- $\kappa$ B. *PLoS Genet* 2013; **9**(4): e1003373

2012

Bai AHC, Milde T, Remke M, Rolli CG, Hielscher T, Cho Y-J, Kool M, Northcott PA, Jugold M, Bahzin AV, Eichmüller SB, Kulozik AE, Pscherer A, Benner A, Taylor MD, Pomeroy SL, Kemkemmer R, Witt O, Korshunov A, Lichter P, Pfister SM (2012) MicroRNA-182 promotes leptomeningeal spread of non-sonic hedgehog-medulloblastoma. *Acta Neuropathol.* 123, 529-538

2011

Lossner C, Meier J, Warnken U, Rogers MA, Lichter P, Pscherer A, Schnolzer M, Quantitative proteomics identify novel miR-155 target proteins, *Plos One* 6, e22146, 2011

### **B061: Daniel Mertens – Mechanisms of Leukemogenesis**

Garding A, Bhattacharya N, Claus R, Ruppel M, Tschuch C, Filarsky K, Idler I, Zucknick M, Caudron-Herger M, Oakes C, Fleig V, Keklikoglou I, Allegra D, Serra L, Thakurela S, Tiwari V, Weichenhan D, Benner A, Radlwimmer B, Zentgraf H, Wiemann S, Rippe K, Plass C, Döhner H, Lichter P, Stilgenbauer S, Mertens D: Epigenetic Upregulation of lncRNAs at 13q14.3 in Leukemia Is Linked to the Downregulation of a Gene Cluster That Targets NF- $\kappa$ B. *PLoS Genet* 2013; **9**(4): e1003373

Allegra, D. and D. Mertens (2011). "In-vivo quantification of primary microRNA processing by Drosha with a luciferase based system." *Biochem Biophys Res Commun* **406**(4): 501-505

Grasedieck, S., N. Scholer, M. Bommer, J. H. Niess, H. Tumani, A. Rouhi, J. Bloehdorn, P. Liebisch, D. Mertens, H. Dohner, C. Buske, C. Langer and F. Kuchenbauer (2012). "Impact of serum storage conditions on microRNA stability." *Leukemia ePub*

Grasedieck, S., A. Sorrentino, C. Langer, C. Buske, H. Dohner, D. Mertens and F. Kuchenbauer (2013). "Circulating microRNAs in hematological diseases: principles, challenges and perspectives." *Blood*

Mertens, D. and S. Stilgenbauer (2012). "CLL and deletion 13q14: merely the miRs?" *Blood* 119(13): 2974-2975

### **B063: Holger Sültmann – Cancer Genome Research**

2013

Kaduthanam S, Gade S, Meister M, Brase JC, Johannes M, Dienemann H, Warth A, Schnabel PA, Herth FJ, Sültmann H, Muley T, Kuner R. Serum miR-142-3p is associated with early relapse in operable lung adenocarcinoma patients. *Lung Cancer*, S0169-5002(13), 23-8, 2013

Hellwinkel OJC, Sellier C, Sylvester Y-MJ, Brase JC, Isbarn H, Erbersdobler A, Steuber T, Sültmann H, Schlomm T, Wagner C. A cancer-indicative microRNA-pattern in normal prostate tissue. *Internat J Mol Sci* 14, 5239-5249, 2013

2012

Sultan M, Dökel S, Amstislavskiy V, Wuttig D, Sültmann H, Lehrach H, Yaspo ML. A Simple Strand-Specific RNA-Seq library preparation protocol combining Illumina TruSeqRNA Sample kit and the dUTP method. *Biochemical and Biophysical Research Communications*, 422(4):643-6, 2012

Kuner R, Brase JC, Sültmann H, Wuttig D. microRNA biomarker in body fluids of prostate cancer patients. *Methods*, May 15. [Epub ahead of print], 2012; 59(1):132-7, 2013

Börno ST, Fischer A, Kerick M, Fälth M, Laible M, Brase JC, Kuner R, Dahl A, Grimm C, Isau M, Roehr C, Wunderlich A, Timmermann B, Claus R, Plass C, Graefen M, Simon R, Demichelis F, Rubin MA, Sauter G, Schlomm T, Sültmann H, Lehrach H, Schweiger MR. Increase in genome-wide differential DNA methylation events in TMPRSS2:ERG fusion negative prostate cancers miRNA-26a hypermethylation. *Cancer Discovery*, Nov;2(11):1024-35, 2012

Starmann J, Fälth M, Lanz K-L, Spindelböck W, Lackner K, Zatloukal K, Trauner M, Sültmann H. Gene expression analysis unravels tumor-associated molecular changes in steatohepatitis but not in steatosis. *PLOS ONE*, 7(10), e46584, 2012

2011

Brase JC, Johannes M, Schlomm T, Fälth M, Haese A, Steuber T, Beißbarth T, Kuner R, Sültmann H. Circulating micro RNAs are correlated with tumor progression in prostate cancer. *Int. J. Cancer* 128(3):608-16, 2011

Johannes M, Fröhlich H, Sültmann H, Beißbarth T. pathClass: A R-package for classification with prior knowledge of feature connectivity. *Bioinformatics* 27(10):1442-1443, 2011

Gade S, Porzelius C, Fälth M, Brase J, Wuttig D, Kuner R, Binder H, Sültmann H, Beißbarth T. Graph based fusion of miRNA and mRNA expression data improves prediction of relapse time in prostate cancer. *BMC Bioinformatics* Dec 21;12(1):488, 2011 [Epub]

### **B066: Karsten Rippe – Genome Organization and Function**

2013

Garding A, Bhattacharya N, Claus R, Ruppel M, Tschuch C, Zucknick M, Oakes C, Fleig V, Allegra D, Caudron-Herger M, Filarsky K, Keklikoglou I, Serra L, Weichenhan D, Idler I, Benner A, Radlwimmer B, Zentgraf H, Wiemann S, Rippe K, Plass C, Döhner H, Lichter P, Stilgenbauer S and Mertens D. Epigenetic upregulation of lncRNAs at 13q14.3 in leukemia correlates with downregulation in cis of a gene cluster regulating NF- $\kappa$ B. *PLoS Genetics*. 2013. in press

2012

Teif VB, Vainshtein Y, Caudron-Herger M, Mallm J-P, Marth C, Höfer T and Rippe K. Genome-wide nucleosome positioning during embryonic stem cell development. *Nat Struct Mol Biol*. 2012; 19, 1185-1192

Eißmann M, Gutschner T, Hämmerle M, Günther S, Caudron-Herger M, Groß M, Schirmacher P, Rippe K, Braun T, Zornig M and Diederichs S. Loss of abundant nuclear non-coding RNA MALAT1 is compatible with life and development. *RNA Biol*. 2012; 9, 1076-1087

Caudron-Herger M and Rippe K. Nuclear architecture by RNA. *Curr Opin Genet Dev*. 2012; 22, 197-187

2011

Caudron-Herger M, Muller-Ott K, Mallm J-P, Marth C, Schmidt U, Fejes-Toth K and Rippe K: Coding RNAs with a non-coding function: maintenance of an open chromatin structure. *Nucleus*. 2011; 2, 410-424

## **B070: Jörg Hoheisel - Functional Genome Analysis**

2012

Bauer A, Keller A, Costello-Goldring E, Greenhalf W., Bier M, Borries A, Beier M, Neoptolemos JP, Büchler M, Werner J, Giese N & Hoheisel JD (2012). Diagnosis of pancreatic cancer and chronic pancreatitis by measurement of microRNA abundance in blood and tissue. PLoS ONE 7, e34151

2011

Keller A, Leidinger P, Bauer A, ElSharawi A, Haas J, Backes C, Wendschlag A, Giese N, Tjaden C, Ott K, Werner J, Hackert T, Ruprecht K, Huwer H, Huebers J, Jacobs G, Rosenstiel P, Dommisch H, Schäfer A, Müller-Quernheim J, Wullich B, Keck B, Graf N, Reichrath J, Vogel B, Nebel A, Jager SU, Staehler P, Amarantos I, Boisguerin V, Staehler C, Beier M, Scheffler M, Büchler MW, Wischhusen J, Häusler SFM, Dietl J, Hofmann S, Lenhof HP, Schreiber S, Katus HA, Rottbauer W, Meder B, Hoheisel JD, Franke A & Meese E (2011). Towards discovering the blood-born miRNome of human diseases. Nature Meth. 8, 841-843

## **B150: Sven Diederichs – Molecular RNA Biology and Cancer**

2013

**M Hämmerle\***, **T Gutschner\***, **H Uckelmann**, S Ozgur, **E Fiskin**, **M Groß**, B Skawran, R Geffers, T Longerich, K Breuhahn, P Schirmacher, G Stoecklin, **S Diederichs**: "Post-transcriptional destabilization of the liver-specific long non-coding RNA HULC by the IGF2 mRNA-binding protein 1 (IGF2BP1)" Hepatology (2013): in press

M Eißmann, B Schwamb, IM Melzer, J Moser, D Siele, U Köhl, RJ Rieker, DL Wachter, A Agaimy, E Herpel, P Baumgarten, M Mittelbronn, S Rakel, D Kögel, S Böhm, **T Gutschner**, **S Diederichs**, M Zörnig: "A functional yeast survival screen of tumor-derived cDNA libraries designed to identify anti-apoptotic mammalian oncogenes" PLoS ONE (2013): in press

**J Winter**, **S Link**, **D Witzigmann**, **C Hildenbrand**, C Previti, **S Diederichs**: "Loop-miRs: Active microRNAs generated from single-stranded loop regions" Nucleic Acids Research (2013): in press

**T Gutschner**, **M Hämmerle**, M Eißmann, J Hsu, Y Kim, G Hung, AS Revenko, G Arun, **M Stentrup**, **M Groß**, M Zörnig, AR MacLeod, DL Spector, **S Diederichs**: "The non-coding RNA MALAT1 is a critical regulator of the metastasis phenotype of lung cancer cells" Cancer Research (2013) 73: 1180-1189

T Palm, K Hemmer, **J Winter**, I Fricke, K Tarbashevich, F Sadegi Shakib, I Rudolph, A Hillje, P De Lucca, L Bahnassawy, R Madel, T Viel, A de Siervi, A Jacobs, **S Diederichs**, J Schwamborn: "A systemic transcriptome analysis reveals the regulation of neural stem cell maintenance by an E2F1-miRNA feedback loop" Nucleic Acids Research (2013): in press

C Luo, PW Tetteh, PR Merz, E Dickes, A Abukiwan, A Hotz-Wagenblatt, S Holland-Cunz, T Sinnberg, B Schitteck, D Schadendorf, **S Diederichs**, SB Eichmüller: "miR-137 inhibits the invasion of melanoma cells through down-regulation of multiple oncogenic target genes" Journal of Investigative Dermatology (2013) 133: 768-775

2012

M Faryna\*, C Konermann\*, S Aulmann, J Lorenzo Bermejo, M Brugger, **S Diederichs**, J Rom, D Weichenhan, R Claus, M Rehli, P Schirmacher, HP Sinn, C Plass, C Gerhäuser: "Genome-wide methylation screen in low-grade breast cancer to identify novel diagnostic and prognostic markers" *FASEB Journal* (2012) 26: 4937-4950

M Eißmann\*, **T Gutschner\***, **M Hämmerle**, S Günther, M Caudron-Herger, **M Groß**, P Schirmacher, K Rippe, T Braun, M Zörnig\*, **S Diederichs\***: "Loss of the abundant nuclear non-coding RNA MALAT1 is compatible with life and development" *RNA Biology* (2012) 9: 1076-1087

**SE Grund**, **M Polycarpou-Schwarz**, C Luo, SB Eichmüller, **S Diederichs**: "Rare Drosha splice variants are deficient in microRNA processing but do not affect general microRNA expression in cancer cells" *Neoplasia* (2012) 14: 238-248

A Heinemann, F Zhao, S Pechlivanis, J Eberle, A Steinle, **S Diederichs**, D Schadendorf, A Paschen: "Tumor suppressive microRNAs miR-34a/c control cancer cell expression of ULBP2, a stress induced ligand of the natural killer cell receptor NKG2D" *Cancer Research* (2012) 72: 460-471

2011

**T Gutschner**, **M Baas**, **S Diederichs**: "Non-coding RNA gene silencing through genomic integration of RNA destabilizing elements using zinc finger nucleases" *Genome Research* (2011) 21: 1944-1954

**J Winter**, **S Diederichs**: "Argonaute proteins regulate microRNA stability" *RNA Biology* (2011) 8: 1149-1157

M Ganzinger, T Noack, **S Diederichs**, T Longerich, P Knaup: "Service-oriented Data Integration for a Biomedical Research Network" *Studies in Health Technology and Informatics* (2011) 169: 867-871

C Kahlert, F Klupp, K Brand, F Lasitschka, **S Diederichs**, J Kirchberg, N Rahbari, S Dutta, U Bork, J Fritzmann, C Reissfelder, M Koch, J Weitz: "Invasion front specific expression and prognostic significance of microRNAs in colorectal liver metastases" *Cancer Science* (2011) 102: 1799-1807

N Bäumer\*, L Tickenbrock\*, P Tschanter\*, L Lohmeyer, **S Diederichs**, S Bäumer, BV Skryabin, F Zhang, S Agrawal-Singh, G Koehler, WE Berdel, H Serve, S Koschmieder, C Müller-Tidow: "Inhibitor of CDK interacting with cyclin A1 (INCA1) regulates proliferation and is repressed by oncogenic signaling" *Journal of Biological Chemistry* (2011) 286: 28210-28222

Review Articles & Book Chapters

**T Gutschner**, **M Hämmerle**, **S Diederichs**: "MALAT1 - a paradigm for long noncoding RNA function in cancer" *Journal of Molecular Medicine* (2013): Mar.

**T Gutschner**, **S Diederichs**: "The Hallmarks of Cancer: A long non-coding RNA point of view" *RNA Biology* (2012) 9: 703-719

**J Winter**, **S Diederichs**: "microRNA Northern Blotting, Precursor Cloning & Ago2-improved RNA interference" in *Methods in Molecular Biology: microRNA & Cancer*, edited by Wei Wu (2011) 85-100



**J Winter, S Diederichs:** "microRNA Biogenesis and Cancer" in *Methods in Molecular Biology: microRNA & Cancer*, edited by Wei Wu (2011) 3-22

#### **C010: Christoph Plass – Epigenomics and Cancer Risk Factors**

2013

Garding A, Bhattacharya N, Claus R, Ruppel M, Tschuch C, Filarsky K, Idler I, Zucknick M, Caudron-Herger M, Oakes C, Fleig V, Keklikoglou I, Allegra D, Serra L, Thakurela S, Tiwari V, Weichenhan D, Benner A, Radlwimmer B, Zentgraf H, Wiemann S, Rippe K, Plass C, Döhner H, Lichter P, Stilgenbauer S, Mertens D: Epigenetic Upregulation of lncRNAs at 13q14.3 in Leukemia Is Linked to the Downregulation of a Gene Cluster That Targets NF- $\kappa$ B. *PLoS Genet* 2013; **9**(4): e1003373

2012

Baer C, Claus R, Frenzel LP, Zucknick M, Park YJ, Gu L, Weichenhan D, Fischer M, Pallasch CP, Herpel E, Rehli M, Byrd JC, Wendtner CM, Plass C. Extensive promoter DNA hypermethylation and hypomethylation is associated with aberrant microRNA expression in chronic lymphocytic leukemia. *Cancer Res.* 2012 Aug 1;72(15):3775-85

#### **C080: Barbara Burwinkel – Molecular Epidemiology**

Book chapters:

2013

Pfütze K, Lou X, Burwinkel B. MicroRNA signatures as biomarkers of colorectal cancer in „MicroRNAs in Medicine“. Editor Charles Lawrie (in press)

Cuk K, Madhavan D, Turchinovich A, Burwinkel B. Plasma microRNAs as biomarkers of human diseases in „MicroRNAs in Toxicology and Medicine“. Editor Saura C. Sahu (in press)

Reviews and original articles:

2013

Cuk K\*, Madhavan D\*, Burwinkel B, Yang R. Cancer diagnosis and prognosis decoded by blood-based circulating microRNA signatures. *Frontiers in Non-Coding RNA* (2013): in press

Turchinovich A, Weiz L, Burwinkel B. Isolation of circulating microRNA associated with RNA-binding protein. *Methods in Molecular Biology*. 2013, Vol. 1024 (accepted)

Turchinovich A and Burwinkel B. Extracellular microRNA: the promises for the diagnostics of multiple diseases // *European Pharmaceutical Review*. Issue 1 2013 / 21 February 2013

2012

Madhavan D, Zucknick M, Wallwiener M, Cuk K, Modugno C, Scharpff M, Schott S, Heil J, Turchinovich A, Yang R, Benner A, Riethdorf S, Trumpp A, Sohn C, Pantel K, Schneeweiss A, Burwinkel B. Circulating miRNAs as surrogate markers for circulating tumor cells and prognostic markers in

metastatic breast cancer. *Clin Cancer Res.* 2012 Nov 1;18(21):5972-82. doi: 10.1158/1078-0432.CCR-12-1407. Epub 2012 Sep 4

Turchinovich A, Weiz L, Burwinkel B. Extracellular miRNAs: the mystery of their origin and function. *Trends Biochem Sci.* 2012 Nov;37(11):460-5. doi: 10.1016/j.tibs.2012.08.003. Epub 2012 Sep 1

Cuk K, Zucknick M, Heil J, Madhavan D, Schott S, Turchinovich A, Arlt D, Rath M, Sohn C, Benner A, Junkermann H, Schneeweiss A, Burwinkel B. Circulating microRNAs in plasma as early detection markers for breast cancer. *Int J Cancer.* 2013 Apr 1;132(7):1602-12. doi: 10.1002/ijc.27799. Epub 2012 Sep 14

Turchinovich A, Burwinkel B. Distinct AGO1 and AGO2 associated miRNA profiles in human cells and blood plasma. *RNA Biol.* 2012 Aug;9(8):1066-75. doi: 10.4161/rna.21083. Epub 2012 Aug 1

2011

Turchinovich A, Weiz L, Langheinz A, Burwinkel B. Characterization of extracellular circulating microRNA. *Nucleic Acids Res.* 2011 Sep 1;39(16):7223-33. doi: 10.1093/nar/gkr254. Epub 2011 May 24

#### **D015/G300: Philipp Beckhove – Translational Immunology**

2013

Luo C, Tetteh PW, Merz PR, Dickes E, Abukiwan A, Hotz-Wagenblatt A, Holland-Cunz S, Sinnberg T, Schitteck B, Schadendorf D, Diederichs S, Eichmüller SB. (2013) miR-137 inhibits the invasion of melanoma cells through downregulation of multiple oncogenic target genes. *J Invest Dermatol* 133: 768-775

2012

Bai AHC, Milde T, Remke M, Rolli CG, Hielscher T, Cho Y-J, Kool M, Northcott PA, Jugold M, Bahzin AV, Eichmüller SB, Kulozik AE, Pscherer A, Benner A, Taylor MD, Pomeroy SL, Kemkemmer R, Witt O, Korshunov A, Lichter P, Pfister SM (2012) MicroRNA-182 promotes leptomeningeal spread of non-sonic hedgehog-medulloblastoma. *Acta Neuropathol.* 123, 529-538

SE Grund, M Polycarpou-Schwarz, C Luo, SB Eichmüller, S Diederichs: "Rare Drosha splice variants are deficient in microRNA processing but do not affect general microRNA expression in cancer cells" *Neoplasia* (2012) 14: 238-248

#### **D090: Bruno Kyewski – Developmental Immunology**

2013

Ucar O, Tykocinski LO, Dooley J, Liston A, Kyewski B: An evolutionarily conserved mutual interdependence between Aire and microRNAs in promiscuous gene expression. Eur J Immunol 2013, doi: 10.1002/eji.201343343

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