

Publications nCounter Core Facility

Since 2012, 62 original articles were published of which 41 were from groups of the Heidelberg campus (**).

1. **Hammer C, Cichon S, Mühleisen TW, Haenisch B, Degenhardt F, Breuer R, Witt S, Strohmaier J, Oruc L, Rivas F, Babadjanova G, Grigoriu-Serbanescu M, Hauser J, Röth R, Rappold G, Rietschel M, Nöthen MN, Niesler B. Replication of functional serotonin receptor type 3A and B variants in bipolar affective disorder: a European multicenter study. *Translational Psychiatry*. 2012 Apr 17;2(4):e103. <https://doi.org/10.1038/tp.2012.30>. PMID: 22832903
2. Stoilova B, Kowenz-Leutz E, Scheller M, Leutz A. Lymphoid to myeloid cell trans-differentiation is determined by C/EBP β structure and post-translational modifications. *PLoS One*. 2013 Jun 5;8(6):e65169. <https://doi.org/10.1371/journal.pone.0065169>. PMID: 23755188
3. Trilling M, Bellora N, Rutkowski AJ, de Graaf M, Dickinson P, Robertson K, Prazeres da Costa O, Ghazal P, Friedel CC, Albà MM, Dölken L. Deciphering the modulation of gene expression by type I and II interferons combining 4sU-tagging, translational arrest and in silico promoter analysis. *Nucleic Acids Research*. 2013 Sep;41(17):8107-25. <https://doi.org/10.1093/nar/gkt589>. PMID: 23832230
4. **Bali KK, Venkataramani V, Satagopam VP, Gupta P, Schneider R, Kuner R. Transcriptional mechanisms underlying sensitization of peripheral sensory neurons by Granulocyte-/Granulocyte-macrophage colony stimulating factors. *Molecular Pain*. 2013 Sep 25;9:48. <https://doi.org/10.1186/1744-8069-9-48>. PMID: 24067145
5. **Bali KK, Selvaraj D, Satagopam VP, Lu J, Schneider R, Kuner R. Genome-wide identification and functional analyses of microRNA signatures associated with cancer pain. *EMBO Molecular Medicine*. 2013 Nov;5(11):1740-58. <https://doi.org/10.1002/emmm.201302797>. PMID: 24039159
6. Mairinger FD, Walter RFH, Werner R, Christoph DC, Ting S, Vollbrecht C, Zarogoulidis K, Huang H, Li Q, Schmid KW, Wohlschlaeger J, Zarogoulidis P. Activation of Angiogenesis Differs Strongly Between Pulmonary Carcinoids and Neuroendocrine Carinomas and Is Crucial for Carcinoid Tumourgenesis. *Journal of Cancer*. 2014 May 15;5(6):465-71. <https://doi.org/10.7150/jca.9235>. PMID: 24959299
7. **Schlupf J, Steinbeißer H (2014) IGF antagonizes the Wnt/ β -Catenin pathway and promotes differentiation of extra-embryonic endoderm. *Differentiation*. 2014 Jun;87(5):209-19. <https://doi.org/10.1016/j.diff.2014.07.003>. PMID: 25287945
8. **Walstab J, Wohlfarth C, Hovius R, Schmitteckert S, Röth R, Lasitschka F, Wink M, Bönisch H, Niesler B. Natural compounds boldine and menthol are antagonists of human 5-HT₃ receptors: implications for treating gastrointestinal disorders. *Neurogastroenterology and Motility*. 2014 Jun;26(6):810-20. <https://doi.org/10.1111/nmo.12334>. PMID 24708203
9. **Körber C, Dondzillo A, Eisenhardt G, Herrmannsdörfer F, Wafzig O, Kuner T. Gene expression profile during functional maturation of a central mammalian synapse. *European Journal of Neuroscience*. 2014 Sep;40(6):2867-77. <https://doi.org/10.1111/ejn.12661>. PMID: 24995587
10. Walter RFH, Mairinger FD, Werner R, Ting S, Vollbrecht C, Theegarten D, Christoph DC, Zarogoulidis K, Schmid KW, Zarogoulidis P, Wohlschlaeger J. SOX4, SOX11 and PAX6 mRNA expression was identified as a (prognostic) marker for the aggressiveness of neuroendocrine tumors of the lung by using next-generation expression analysis (NanoString). *Future Oncology*. 2015;11(7):1027-36. <https://doi.org/10.2217/fon.15.18>. PMID: 25804118

11. Camacho Londono JE, Tian Q, Hammer K, Schröder L, Camacho Londono J, Reil JC, He T, Oberhofer M, Mannebach S, Mathar I, Philipp SE, Tabellion W, Schweda F, Dietrich A, Kaestner L, Laufs U, Birnbaumer L, Flockerzi V, Freichel M, Lipp P. A background Ca²⁺ entry pathway mediated by TRPC1/TRPC4 is critical for development of pathological cardiac remodelling. *European Heart Journal*. 2015 Sep 1;36(33):2257-66. <https://doi.org/10.1093/eurheartj/ehv250>. PMID: 26069213
12. Walter RFH, Robert Werner, Ting S, Vollbrecht C, Theegarten D, Christoph CD, Schmid KW, Wohlschlaeger J, Mairinger FD. Identification of deregulation of apoptosis and cell cycle in neuroendocrine tumors of the lung via NanoString nCounter expression analysis. *Oncotarget*. 2015 Sep 22;6(28):24690-8. <https://doi.org/10.18632/oncotarget.3992>. PMID: 26008974
13. Rosenbaum C, Schick MA, Wollborn J, Heider A, Scholz CJ, Cecil A, Niesler B, Hirrlinger J, Walles H, Metzger M. Activation of enteric glia during acute systemic inflammation in vitro and in vivo. *PLoS One*. 2016 Mar 10;11(3):e0151335. <https://doi.org/10.1371/journal.pone.0151335>. PMID: 2694064
14. Walter RFH, Mairinger FD, Werner R, Vollbrecht C, Hager T, Schmid KW, Wohlschlaeger J, Christoph DC. Folic-acid metabolism and DNA-repair phenotypes differ between neuroendocrine lung tumors and associate with aggressive subtypes, therapy resistance and outcome. *Oncotarget*. 2016 Apr 12;7(15):20166-79. <https://doi.org/10.18632/oncotarget.7737>. PMID: 27064343
15. **Linge A, Löck S, Gudziol V, Nowak A, Lohaus F, von Neubeck C, Jütz M, Abdollahi A, Debus J, Tinhofer I, Budach V, Sak A, Stuschke M, Balermipas P, Rödel C, Avlar M, Grosu AL, Bayer C, Belka C, Pigorsch S, Combs SE, Welz S, Zips D, Buchholz F, Aust DE, Baretton GB, Thames HD, Dubrovskaja A, Alsner J, Overgaard J, Baumann M, Krause M; DTKK-ROG. Low Cancer Stem Cell Marker Expression and Low Hypoxia Identify Good Prognosis Subgroups in HPV(-) HNSCC after Postoperative Radiochemotherapy: A Multicenter Study of the DTKK-ROG. *Clinical Cancer Research*. 2016 Jun 1;22(11):2639-49. <https://doi.org/10.1158/1078-0432.ccr-15-1990>. PMID: 26755529
16. Wallkamm V, Rahm K, Schmoll J, Kaufmann LT, Brinkmann E, Schunk J, Kraft B, Wedlich D, Gradl D. Regulation of distinct branches of the non-canonical Wnt-signaling network in *Xenopus* dorsal marginal zone explants. *BMC Biology*. 2016 Jul 5;14:55. <https://doi.org/10.1186/s12915-016-0278-x>. PMID: 27380628
17. **Martínez C, Rodiño-Janeiro BK, Lobo B, Stanifer ML, Klaus B, Granzow M, González-Castro AM, Salvo-Romero E, Alonso-Cotoner C, Pigrau M, Frias C, Roeth R, Rappold G, Huber W, Gonzalez- Silos R, Lorenzo J, de Torres I, Azpiroz F, Boulant S, Vicario M, Niesler B, Santos J. miR-16 and miR-125b are involved in barrier function dysregulation through the modulation of claudin-2 and cingulin expression in the jejunum in irritable bowel syndrome with diarrhoea. *Gut*. 2016 Sep;66(9):1537-1538. <https://doi.org/10.1136/gutjnl-2016-311477>. PMID: 28082316
18. Walter RFH, Vollbrecht C, Christoph D, Werner R, Schmeller J, Flom E, Trakada G, Rapti A, Adamidis V, Hohenforst-Schmidt W, Kollmeier J, Mairinger T, Wohlschlaeger J, Zarogoulidis P, Porpodis K, Schmidt KW, Mairinger FD. Massive parallel sequencing and digital gene expression analysis reveals potential mechanisms to overcome therapy resistance in pulmonary neuroendocrine tumors. *Journal of Cancer*. 2016 Oct 25;7(15):2165-2172. <https://doi.org/10.7150/jca.16925>. PMID: 27994651
19. Walter RFH, Werner R, Vollbrecht C, Hager T, Flom E, Christoph DC, Schmeller J, Schmid KW, Wohlschlaeger J, Mairinger FD. ACTB, CDKN1B, GAPDH, GRB2, RHOA and SDCBP Were Identified as Reference Genes in Neuroendocrine Lung Cancer via the nCounter Technology. *PLoS One*. 2016 Nov 1;11(11):e0165181. <https://doi.org/10.1371/journal.pone.0165181>. PMID: 27802291

20. **Pruunsild P, Bengtson CP, Bading H. Networks of Cultured iPSC-Derived Neurons Reveal the Human Synaptic Activity-Regulated Adaptive Gene Program. *Cell Reports*. 2017 Jan 3;18(1):122-135. <https://doi.org/10.1016/j.celrep.2016.12.018>. PMID: 28055543
21. **Solís-López A, Kriebs U, Marx A, Mannebach S, Liedtke WB, Caterina MJ, Freichel M, Tsvilovskyy VV. Analysis of TRPV channel activation by stimulation of FCeRI and MRGPR receptors in mouse peritoneal mast cells. *PLoS One*. 2017 Feb 3;12(2):e0171366. <https://doi.org/10.1371/journal.pone.0171366>. PMID: 28158279
22. Cirovic B, Schönheit J, Kowenz-Leutz E, Ivanovska J, Klement C, Pronina N, Bégay V, Leutz A. 3C/EBP-Induced Transdifferentiation Reveals Granulocyte-Macrophage Precursor-like Plasticity of B Cells. *Stem Cell Reports*. 2017 Feb 14;8(2):346-359. <https://doi.org/10.1016/j.stemcr.2016.12.015>. PMID: 28111277
23. **Hoffmann S, Schmitteckert S, Glaser A, Preiss H, Sumer S, Rolletschek A, Granzow M, Eckstein V, Niesler B and Rappold GA (2017). Comparative expression analysis of Shox2-deficient embryonic stem cell-derived sinoatrial node-like cells, *Stem Cell Research*. 2017 May;21:51-57. <https://doi.org/10.1016/j.scr.2017.03.018>. PMID: 28390247
24. Worst TS, Daskalova K, Steidler A, Berner-Leischner K, Niesler B, Röth R, Erben P, Pfalzgraf D. Impact of altered Wnt stimulation on bladder wall fibroblasts – implications for urinary tract wound healing and regeneration. *Urologia Internationalis*. 2017;99(4):476-483. <https://doi.org/10.1159/000481440>. PMID: 29131138
25. **Wohlfarth C, Schmitteckert S, Härtle JD, Houghton LA, Dweep H, Fortea M, Assadi G, Braun A, Mederer T, Pöhner S, Becker PB, Fischer C, Granzow M, Mönnikes H, Mayer EA, Sayuk G, Boeckstaens G, Wouters MM, Simrén M, Lindberg G, Ohlsson B, Schmidt PT, Dlugosz A, Agreus L, Andreasson A, D'Amato M, Burwinkel B, Lorenzo J, Röth R, Lasitschka F, Vicario M, Metzger M, Santos J, Rappold G, Martinez C, Niesler B. miRNA-16 and miR-103 impact 5-HT₄ receptor signalling and correlate with symptom profile in irritable bowel syndrome. *Scientific Reports*. 2017 Oct 31;7(1):14680. <https://doi.org/10.1038/s41598-017-13982-0>. PMID: 29089619
26. Worst TS, Daskalova K, Steidler A, Berner-Leischner K, Röth R, Niesler B, Weis CA, Kriegmair MC, Erben P, Pfalzgraf D. Novel insights into a reputedly irreversible process: combined mRNA and miRNA profiling of tissue from vesicourethral anastomotic stenosis after radical prostatectomy. *World Journal of Urology*. 2017 Nov;35(11):1701-1711. <https://doi.org/10.1007/s00345-017-2060-2>. PMID: 28634911
27. **Schmitteckert S, Griesbeck A, Sumer S, Jauch A, Rolletschek A, Niesler B, Rappold GA, Hoffmann S. Murine transgenic embryonic stem cell lines for the investigation of sinoatrial node-related molecular pathways. *Stem Cell Research*. 2017 Dec;25:278-282. <https://doi.org/10.1016/j.scr.2017.07.011>. PMID: 29246574
28. Steven S, Dib M, Hausding M, Kashani F, Oelze M, Kröllner-Schön S, Hanf A, Daub S, Roohani S, Gramlich Y, Lutgens E, Schulz E, Becker C, Lackner KJ, Kleinert H, Knosalla C, Niesler B, Wild PS, Münzel T, Daiber A. CD40L controls obesity-associated vascular inflammation, oxidative stress, and endothelial dysfunction in high fat diet-treated and db/db mice. *Cardiovasc Res*. 2018 Feb 1;114(2):312-323. <https://doi.org/10.1093/cvr/cvx197>. PMID: 29036612
29. **Sachdeva R, Schlotterer A, Schumacher D, Matka C, Mathar I, Dietrich N, Medert R, Kriebs U, Lin J, Nawroth P, Birnbaumer L, Fleming T, Hammes HP, Freichel M. 6TRPC proteins contribute to development of diabetic retinopathy and regulate glyoxalase 1 activity and methylglyoxal accumulation. *Molecular Metabolism*. 2018 Mar;9:156-167. <https://doi.org/10.1016/j.molmet.2018.01.003>. PMID: 29373286
30. **Speck T, Heidbuechel JPW, Ruta Veinalde1, Jaeger D, Kalle C, Ball CR, Ungerechts G, England CE. Targeted BiTE Expression by an Oncolytic Vector Augments Therapeutic Efficacy

Against Solid Tumors. *Clinical Cancer Research*, 2018 May 1;24(9):2128-2137.
<https://doi.org/10.1158/1078-0432.ccr-17-2651>. PMID: 29437789

31. **Braun A, Martínez-Martínez C, Schmitteckert S, Röth R, Lasitschka F, Niesler B. Site-specific gene expression analysis from archived human intestine samples combining laser-capture microdissection and multiplexed color-coded probes. *Neurogastroenterology and Motility*. 2018 May;30(5):e13261. <https://doi.org/10.1111/nmo.13261>. PMID: 29193461
32. **Berkel S, Eltokhi A, Frohlich H, Porras-Gonzalez D, Rafiullah R, Sprengel R, Rappold GA. Sex Hormones Regulate SHANK Expression. *Frontiers in Molecular Neurosciences*. 2018 Sep 25;11:337. <https://doi.org/10.3389/fnmol.2018.00337>. PMID: 30319350
33. **Liang J, Jahraus B, Balta E, Ziegler JD, Hübner K, Blank N, Niesler B, Wabnitz GH, Samstag Y. Sulforaphane Inhibits Inflammatory Responses of Primary Human T-cells by increasing ROS and depleting Glutathione. *Frontiers in Immunology*, 2018 Nov 14;9:2584. <https://doi.org/10.3389/fimmu.2018.02584>. PMID: 30487791
34. **Hoffmann S, Paone C, Sumer SA, Diebold S, Weiss B, Roeth R, Clauss S, Klier I, Käab S, Schulz A, Wild PS, Ghrib A, Zeller T, Schnabel RB, Steffen Just S, Rappold GA. Functional Characterization of Rare Variants in the SHOX2 Gene Identified in Sinus Node Dysfunction and Atrial Fibrillation. *Frontiers in Genetics*. 2019 Jul 11:10:648. <https://doi.org/10.3389/fgene.2019.00648>. PMID: 31354791
35. **Backhaus PS, Veinalde R, Hartmann L, Dunder JE, Jeworowski LM, Albert J, Hoyler B, Poth T, Jäger D, Ungerechts G, Engeland CE. Immunological Effects and Viral Gene Expression Determine the Efficacy of Oncolytic Measles Vaccines Encoding IL-12 or IL-15 Agonists. *Viruses*. 2019 Oct 3;11(10):914. <https://doi.org/10.3390/v11100914>. PMID: 31623390
36. **Sonner JK, Keil M, Falk-Paulsen M, Mishra N, Rehman A, Kramer M, Deumelandt K, Wolf L, von Landenberg A, Wolff H, Bharti R, Oezen I, Lanz TV, Wanke F, Tang Y, Brandao I, Mohapatra SR, Opitz CA, Röth R, Niesler B, Okun JG, Reinhardt C, Kurschus FC, Wick W, Bode H, Rosenstiel P, Platten M. Dietary tryptophan links encephalogenicity of autoreactive T cells with gut 1 microbial ecology, *Nature Communications*, 2019 Oct 25;10(1):4877. <https://doi.org/10.1038/s41467-019-12776-4>. PMID: 31653831
37. **Schmitteckert S, Mederer T, Roeth R, Guenther P, Holland-Cunz S, Metzger M, Samstag Y, Schröder-Braunstein J, Wabnitz G, Kurzhals S, Scheuerer J, Beretta CA, Lasitschka F, Rappold GA, Romero P, Niesler B. Postnatal human enteric neurospheres show a remarkable molecular complexity. *Neurogastroenterology and Motility*, 2019 Oct;31(10):e13674. <https://doi.org/10.1111/nmo.13674>. PMID: 31318473
38. **Thoeni C, Waldherr R, Scheuerer J, Schmitteckert S, Roeth R, Niesler B, Cutz E, Flechtenmacher C, Goepfert B, Schirmacher P, Lasitschka F. Expression Analysis of ATP-Binding Cassette Transporters ABCB11 and ABCB4 in Primary Sclerosing Cholangitis and Variety of Pediatric and Adult Cholestatic and Noncholestatic Liver Diseases. *Canadian Journal of Gastroenterology and Hepatology*, 2019 Dec 10;2019:1085717. <https://doi.org/10.1155/2019/1085717>. PMID: 31886153
39. **Aslan K, Turco V, Blobner J, Sonner JK, Liuzzi AR, Núñez NG, De Feo D, Kickingereeder P, Fischer M, Green E, Sadik A, Friedrich M, Sanghvi K, Kilian M, Cichon F, Wolf L, Jähne K, von Landenberg A, Bunse L, Sahm F, Schrimpf D, Meyer J, Alexander A, Brugnara G, Röth R, Pfliederer K, Niesler B, von Deimling A, Opitz C, Breckwoldt MO, Heiland S, Bendszus M, Wick W, Becher B, Platten M. Heterogeneity of response to immune checkpoint blockade in hypermutated experimental gliomas. *Nature Communications* 2020 Feb 18;11(1):931. <https://doi.org/10.1038/s41467-020-14642-0>. PMID: 32071302
40. **Orlik C, Deibel D, Küblbeck J, Balta E, Ganskih S, Habicht J, Niesler B, Schröder-Braunstein J, Schäkel K, Wabnitz G and Samstag Y. Keratinocytes costimulate naive human T cells via CD2: a

potential target to prevent the development of proinflammatory Th1 cells in the skin. *Cellular and Molecular Immunology*. 2020 Apr;17(4):380-394. <https://doi.org/10.1038/s41423-019-0261-x>. PMID: 31324882.

41. **Liang J, Ziegler JD, Jahraus B, Orlik C, Blatnik R, Blank N, Niesler B, Wabnitz G, Ruppert T, Hübner K, Balta E, Samstag Y. Piperlongumine Acts as an Immunosuppressant by Exerting Prooxidative Effects in Human T Cells Resulting in Diminished T_H17 but Enhanced T_{reg} Differentiation. *Frontiers in Immunology*. 2020 Jun 12;11:1172. <https://doi.org/10.3389/fimmu.2020.01172>. PMID: 32595640.
42. **Martinez C, Lasitschka F, Thöni C, Wohlfarth C, Granzow M, Röth R, Rappold GA, Dizdar V, Hausken T, Langeland N, Hanevik K, Niesler B. Comparative expression profiling in the intestine of patients with Giardia-induced post-infectious functional gastrointestinal disorders. *Neurogastroenterology and Motility*, 2020 Sep;32(9):e13868. <https://doi.org/10.1111/nmo.13868>. PMID: 32391639
43. **Mederer TM, Schmitteckert S, Volz J, Martínez C, Röth R, Thumberger T, Eckstein V, Scheuerer J, Thöni C, Lasitschka F, Carstensen L, Günther P, Holland-Cunz S, Hofstra R, Brosens E, Rosenfeld JA, Schaaf CP, Schriemer D, Ceccherini I, Rusmini M, Tilghman J, Luzón-Toro B, Torroglosa A, Borrego S, Sze-Man Tang C, Garcia-Barceló M, Tam P, Paramasivam N, Bewerunge-Hudler M, De La Torre C, Gretz N, Rappold GA, Romero P, Niesler B. A complementary study approach unravels novel players in the pathoetiology of Hirschsprung disease. *Plos Genetics*. 2020 Nov 5;16(11):e1009106. <https://doi.org/10.1371/journal.pgen.1009106>. PMID: 33151932
44. Konturek TJ, Martinez C, Niesler B, van der Voort I, Mönnikes H, Stengel A, Goebel-Stengel. The Role of Brain-derived Neurotrophic Factor in Irritable Bowel Syndrome, *Frontiers in Psychiatry, section Psychosomatic Medicine*. 2021 Jan 14;11:531385. <https://doi.org/10.3389/fpsy.2020.531385>. PMID: 33519536
45. Cossais F, Schaeffer E, Heinzl S, Zimmermann J, Niesler B, Röth R, Rappold G, Scharf A, Zorenkov D, Lange C, Barrensche M, Margraf NG, Ellrichmann M, Berg D, Böttner M, Wedel T.J. Expression Profiling of Rectal Biopsies Suggests Altered Enteric Neuropathological Traits in Parkinson's Disease Patients. *Journal of Parkinsons Disease*. 2021 Feb 02;11(1):171-176. <https://doi.org/10.3233/jpd-202258>. PMID: 33337386.
46. **Noor SI, Hoffmann M, Rinis N, Bartels MF, Winterhalter PR, Hoelscher C, Hennig R, Himmelreich N, Thiel C, Ruppert T, Erdmann Rapp E, Strahl S. Glycosyltransferase POMGNT1 deficiency strengthens N-cadherin-mediated cell–cell adhesion. *Journal of Biological Chemistry*. <https://doi.org/10.1016/j.jbc.2021.100433>. PMID:33610554
47. **Hoffmann S, Schmitteckert S, Raedecke Kb, Rheinert D, Diebold S, Roeth R, Weiss B, Granzow M, Niesler B, Griesbeck A, Eckstein V, Zimmermann WH, Just J, Rappold GA. Network-driven discovery yields new insight into Shox2-dependent cardiac rhythm control. *Biochimica et Biophysica acta. Gene Regulation Mechanism*, 2021 Apr-May;1864(4-5):194702. <https://doi.org/10.1016/j.bbagrm.2021.194702>. PMID:33706013
48. **Hoffmann S, Roeth R, Diebold S, Gogel J, Hassel D, Just S and Rappold GA. Identification and Tissue-Specific Characterization of Novel SHOX-Regulated Genes in Zebrafish Highlights SOX Family Members Among Other Genes. *Frontiers in Genetics*, 2021 May 27;12:688808. <https://doi.org/10.3389%2Ffgene.2021.688808>. PMID: 33706013
49. Gries M, Christmann A, Schulte S, Weyland M, Rommel S, Martin M, Baller M, Röth R, Schmitteckert S, Unger M, Grundmann D, Liu Y, Sommer F, Mühlhaus T, Schroda M, Timmermans JP, Pintelon I, Lashuel H, Rappold GA, Britschgi M, Laschke M, Niesler B, Schäfer KH. Functional and molecular early enteric biomarkers for Parkinson's disease in mice and men, *Molecular Neurodegeneration*, 2021 June 2;16(1):34. <https://doi.org/10.1186%2Fs13024-021-00439-2>. PMID: 34078425

50. ** Kulkarni A, Ferreira T, Bretscher C, Grewenig A, El-Andaloussi N, Bonifati S, Marttila T, Palissot V, Hossain J, Azuaje F, Miletic H, Ehrlich M, Golebiewska A, Niclou S, Roeth R, Niesler B, Weiss A, Brino L and Marchini A. Oncolytic H-1 parvovirus hijacks laminins for cell surface binding and clathrin-mediated endocytosis for cell entry. *Nature Communications*, 2021 Jun 22;12(1):3834. <https://doi.org/10.1038/s41467-021-24034-7>. PMID:34158478
51. ** Mohr S, Fritz N, Hammer C, Martinez C, Berens S, Schmitteckert S, Wahl V, Schmidt M, Houghton LA, Goebel-Stengel M, Kabisch M, Knab D, Milovač I, D'Amato M, Zheng T, Röth R, Mönnikes H, Engel F, Gauss A, Tesarz J, Raithel M, Andresen V, Frieling T, Keller J, Pehl C, Thöringer-Stein C, Clarke G, Kennedy PJ, Cryan JF, Dinan TG, Quigley EM, Spiller R, Beltrán C, Madrid AM, Torres V, Herzog W, Mayer EA, Sayuk G, Gazouli M, Karamanolis G, Kapur-Pojskič L, Bustamante M, Rabionet R, Estivill X, Franke A, Lieb W, Boeckxstaens G, Wouters MM, Simrén M, Rappold GA, Vicario M, Santos J, Schäfer R, Lorenzo-Bermejo J, Niesler B. The alternative serotonin transporter promoter P2 impacts gene function in females with irritable bowel syndrome, *Journal of Cellular and Molecular Medicine*, 2021 Aug 25;25:8047–8061. <https://doi.org/10.1111/jcmm.16736>. PMID: 34165249
52. **Eltokhi A, Gonzalez-Lozano MA, Oetli LL, Rozov A, Pitzer C, Röth R, Berkel S, Hüser M, Harten A, Kelsch W, Smit AB, Rappold GA, Rolf Sprengel R. Imbalanced post- and extrasynaptic SHANK2A functions during development affect social behavior in SHANK2-mediated neuropsychiatric disorders. *Molecular Psychiatry*, 2021 Nov;26(11):6482-6504. <https://doi.org/10.1038/s41380-021-01140-y>. PMID. 34234282
53. **Neuenfeldt F, Schumacher C, Grieshaber-Bouyer R, Habicht J, Schröder-Braunstein J, Gauss A, Merle U, Niesler B, Heineken N, Dalpke A, Gaida MM, Giese T, Meuer S, Samstag Y, Wabnitz G. Inflammation induces pro-NETotic neutrophils via TNFR2 signaling. *Cell Reports*, 2022 April 19;39(3):110710. <https://doi.org/10.1016/j.celrep.2022.110710>. PMID: 35443164
54. **Ferreira T, Kulkarni A, Bretscher C, Nazarov PV, Hossain JA, Ystaas LAR, Miletic H, Röth R, Niesler B, Marchini A. Oncolytic H-1 Parvovirus Hijacks Galectin-1 to Enter Cancer Cells. *Viruses*, 2022 May 11;14(5):1018. <https://doi.org/10.3390/v14051018>. PMID: 35632759
55. Hofmann L, Medyany V, Ezić J, Lotfi R, Niesler B, Röth R, Engelhardt D, Laban S, Schuler PJ, Hoffmann TK, Brunner C, Jackson EK, Theodoraki MN. Cargo and Functional Profile of Saliva-Derived Exosomes Reveal Biomarkers Specific for Head and Neck Cancer. *Frontiers in Medicine*. 2022 Jul 11;9:904295. <https://doi.org/10.3389/fmed.2022.904295>. PMID 35899209
56. Hofmann L, Kors TA, Ezić J, Niesler B, Röth R, Ludwig S, Laban S, Schuler PS, Hoffmann TK, Brunner C, Valentin Medyany M, Theodoraki MN. Comparison of plasma- and saliva-derived exosomal miRNA profiles reveals diagnostic potential in head and neck cancer. *Frontiers in Cell and Developmental Biology*. 2022 Aug 22;10:971596. <https://doi.org/10.3389/fcell.2022.971596>. PMID: 36072342
57. **Orlik C, Berschneider KM, Jahraus B, Niesler B, Balta E, Schäkel K, Schröder-Braunstein J, Souto-Carneiro MM, Samstag Y. Keratinocyte-induced costimulation of human T cells through CD6 - but not CD2 - activates mTOR and prevents oxidative stress. *Frontiers in Immunology*, 2022 Oct 24;13:1016112. <https://doi.org/10.3389/fimmu.2022.1016112>. PMID: 36353616
58. **Miyazawa H, Snaebjornsson MT, Prior N, Kafkia E, Hammarén HM, Straeten NT, Patil KR, Beck M, Aulehla A. Glycolytic flux-signaling controls mouse embryo mesoderm development. *eLife*, 2022 Dec 5;11:e83299. <https://doi.org/10.7554/elife.83299>. PMID: 36469462
59. **Balta E, Nina Janzen N, Kirchgessner H, Toufaki V, Orlik C, Liang J, Lairikyengbam D, Abken H, Niesler B, Müller-Decker KM, Ruppert T, Samstag Y. Expression of TRX1 optimizes the antitumor functions of human CAR T cells and confers resistance to a pro-oxidative tumor microenvironment. *Frontiers in Immunology*, 2022 Dez 14;13:1063313. <https://doi.org/10.3389/fimmu.2022.1063313>. PMID: 36591284

60. **Veinalde R, Pidelaserra-Martí G, Moulin C, Leng Tan C, Schäfer TE, Kang N, Ball CR, Leichsenring J, Stenzinger A, Kaderali L, Jäger D, Ungerechts G, Engeland CE. Virotherapy combined with anti-PD1 transiently reshapes the tumor immune environment and induces anti-tumor immunity in a preclinical PDAC model. *Frontiers in Immunology*, 2023 Jan 16;13:1096162. eCollection 2022. <https://doi.org/10.3389/fimmu.2022.1096162>. PMID: 36726983
61. Hofmann L, Waizenegger M, Röth R, Schmitteckert S, Engelhardt D, Schuler PJ, Laban S, Hoffmann TK, Brunner C, Theodoraki MN. Treatment dependent impact of plasma-derived exosomes from head and neck cancer patients on the epithelial-to-mesenchym transition. *Frontiers in Oncology*. 2023 Jan 4;12:1043199. <https://doi.org/10.3389/fonc.2022.1043199>. PMID: 36686733
62. **Sakson R, Beedgen L, Bernhard P, Alp KM, Lübbehusen N, Röth R, Niesler B, Luzarowski M, Shevchuk O, Mayer MP, Thiel C, Ruppert T. Targeted Proteomics Reveals Quantitative Differences in Low-Abundance Glycosyltransferases of Patients with Congenital Disorders of Glycosylation. *International Journal of Molecular Sciences*. 2024 Jan 18;25(2):1191. <https://doi.org/10.3390/ijms25021191>. PMID: 38256263

To view the full list of publications using data generated with the nCounter Systems and GeoMx DSP System, please access: www.nanostring.com/community/publications

Last update 10.04.2024