

# Pieter Mestdagh

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## SCIENTIFIC DEGREES

- 2004 Msc. industrial engineering biochemistry
- 2006 Msc. bioscience engineering cell and gene biotechnology
- 2011 PhD biomedical sciences

## PROFESSIONAL CAREER

- 2006-2011 PhD student, Center for Medical Genetics, Ghent University
- 2011-present postdoctoral fellow FWO, Center for Medical Genetics, Ghent University
- 2012-present senior scientist Biogazelle
- 2015-present associate professor, Ghent University

## SCIENTIFIC AWARDS

- 2011 best PhD thesis from the faculty of Medicine and Health Sciences, Ghent University
- 2012 best presentation at the Advances in Neuroblastoma Research meeting, Toronto, Canada
- 2016 price for fundamental research from the Royal Academy of Medicine, Belgium

## PATENTS

- Neuroblastoma prognostic multigene expression signature (N° EP08171163.2; 10-12- 2008)
- Therapeutic lncRNAs in melanoma (PCT/EP2014/067781, 20-08-2014)

## SCIENTIFIC PUBLICATIONS

number of publications (A1): 67

h-index: 26

number of citations: 2898

1. **Mestdagh P**, Feys T, Bernard N, Guenther S, Chen C, Speleman F, Vandesompele J High-throughput stem-loop RT-qPCR miRNA expression profiling using minute amounts of input RNA. *Nucleic Acids Res.*, 21, e143, 2008. (IF: 6.878, rank: 33/275)
2. **Mestdagh P**, Van Vlierberghe P, De Weer A, Muth D, Westermann F, Speleman F, Vandesompele J. A novel and universal method for microRNA RT-qPCR data normalization. *Genome Biol.*, 6, R64, 2009. (IF: 6.626, rank: 10/152)
3. Bray I, Bryan K, Prenter S, Buckley P, Foley N, Murphy D, Alcock L, **Mestdagh P**, Vandesompele J, Speleman F, London W, McGrady P, Higgins D, O'Meara A, O'Sullivan M, Stallings R Widespread dysregulation of MiRNAs by MYCN amplification and chromosomal imbalances in neuroblastoma: association of miRNA expression with survival. *PLoS ONE*, 11, e7850, 2009. (IF: 4.351)
4. Vermeulen J, Pattyn F, De Preter K, Vercruyse L, Derveaux S, **Mestdagh P**, Lefever S, Hellemans J, Speleman F, Vandesompele J. External oligonucleotide standards enable cross laboratory comparison and exchange of real-time quantitative PCR data. *Nucleic Acids Res.*, 21, e138, 2009. (IF: 7.479, rank: 27/283)
5. Van Roy N, De Preter K, Hoebeek J, Van Maerken T, Pattyn F, **Mestdagh P**, Vermeulen J, Vandesompele J, Speleman F. The emerging molecular pathogenesis of neuroblastoma:

- implications for improved risk assessment and targeted therapy. *Genome Med.* 2009 Jul 27;1(7):74. (IF 2012: 3.906, rank 2012: 45/161)
6. Van Vlierberghe P, De Weer A, **Mestdagh P**, Feys T, De Preter K, De Paepe P, Lambein K, Vandesompele J, Van Roy N, Verhasselt B, Poppe B, Speleman F. Comparison of miRNA profiles of microdissected Hodgkin/Reed-Sternberg cells and Hodgkin cell lines versus CD77+ B-cells reveals a distinct subset of differentially expressed miRNAs. *Br. J. Haematol.*, 5, 686-90, 2009. (IF: 4.597, rank: 13/61)
  7. Chang K, **Mestdagh P**, Vandesompele J, Kerin M, Miller N. MicroRNA expression profiling to identify and validate reference genes for relative quantification in colorectal cancer. *BMC Cancer*, 173, 2010. (IF: 3.153, rank: 66/185)
  8. Ma L, Young J, Prabhala H, Pan E, **Mestdagh P**, Muth D, Teruya-Feldstein J, Reinhardt F, Onder T, Valastyan S, Westermann F, Speleman F, Vandesompele J, Weinberg R. miR-9, a MYC/MYCN-activated microRNA, regulates E-cadherin and cancer metastasis. *Nat. Cell Biol.*, 3, 247-56, 2010. (IF: 19.407, rank: 6/178)
  9. **Mestdagh P**, Fredlund E, Pattyn F, Schulte J, Muth D, Vermeulen J, Kumps C, Schlierf S, De Preter K, Van Roy N, Noguera R, Laureys G, Schramm A, Eggert A, Westermann F, Speleman F, Vandesompele J. MYCN/c-MYC-induced microRNAs repress coding gene networks associated with poor outcome in MYCN/c-MYC-activated tumors. *Oncogene*, 9, 1394-404, 2010. (IF: 7.414, rank: 34/286)
  10. Vermeulen, J; De Preter, K; **Mestdagh, P**; Laureys, G; Speleman, F; Vandesompele, J. Predicting Outcomes for Children with Neuroblastoma. *Discov Med.* 2010 Jul;10(50):29-36. (IF 2012: 2.965, rank 2012: 43/121)
  11. Lambertz I, Nittner D, **Mestdagh P**, Denecker G, Vandesompele J, Dyer M, Marine J. Monoallelic but not biallelic loss of Dicer1 promotes tumorigenesis in vivo. *Cell Death Differ.*, 4, 633-41, 2010. (IF: 9.050, rank: 24/286)
  12. Buckley P, Alcock L, Bryan K, Bray I, Schulte J, Schramm A, Eggert A, **Mestdagh P**, De Preter K, Vandesompele J, Speleman F, Stallings R. Chromosomal and microRNA expression patterns reveal biologically distinct subgroups of 11q- neuroblastoma. *Clin. Cancer Res.*, 11, 2971-8, 2010. (IF: 7.330, rank: 16/185)
  13. Schulte J, Marschall T, Martin M, Rosenstiel P, **Mestdagh P**, Schlierf S, Thor T, Vandesompele J, Eggert A, Schreiber S, Rahmann S, Schramm A. Deep sequencing reveals differential expression of microRNAs in favorable versus unfavorable neuroblastoma. *Nucleic Acids Res.*, 17, 5919-28, 2010. (IF: 7.836, rank: 30/286)
  14. Schulte J, Schowe B, **Mestdagh P**, Kaderali L, Kalaghatgi P, Schlierf S, Vermeulen J, Brockmeyer B, Pajtler K, Thor T, De Preter K, Speleman F, Morik K, Eggert A, Vandesompele J, Schramm A. Accurate prediction of neuroblastoma outcome based on miRNA expression profiles. *Int. J. Cancer*, 10, 2374-85, 2010. (IF: 4.926, rank: 32/185)
  15. Spooren A, **Mestdagh P**, Rondou P, Kolmus K, Haegeman G, Gerlo S. IL-1 $\beta$  potently stabilizes IL-6 mRNA in human astrocytes. *Biochem. Pharmacol.*, 8, 1004-15, 2011. (IF: 4.705, rank: 28/261)
  16. Pottelberge G\*, **Mestdagh P\***, Bracke K, Thas O, Durme Y, Joos G, Vandesompele J, Brusselle G. MicroRNA expression in induced sputum of smokers and patients with chronic obstructive pulmonary disease. *Am. J. Respir. Crit. Care Med.*, 7, 898-906, 2011. (IF: 11.080, rank: 1/26) \* equally contributing authors
  17. **Mestdagh P\***, Boström A\*, Impens F\*, Fredlund E, Van Peer G, De Antonellis P, von Stedingk K, Ghesquière B, Schulte S, Dewes M, Thomas-Tikhonenko A, Schulte J, Zollo M, Schramm A, Gevaert K, Axelson H, Speleman F, Vandesompele J. The miR-17-92 microRNA cluster

regulates multiple components of the TGF- $\beta$  pathway in neuroblastoma. *Mol. Cell*, 5, 762-73, 2010. (IF: 14.194, rank: 6/286) \*equally contributing authors

18. **Mestdagh P\***, Fredlund E\*, Pattyn F, Rihani A, Van Maerken T, Vermeulen J, Kumps C, Menten B, De Preter K, Schramm A, Schulte J, Noguera R, Schleiermacher G, Janoueix-Lerosey I, Laureys G, Powel R, Nittner D, Marine J, Ringnér M, Speleman F, Vandesompele J. An integrative genomics screen uncovers ncRNA T-UCR functions in neuroblastoma tumours. *Oncogene*, 24, 3583-92, 2010. (IF: 7.414, rank: 34/286) \*equally contributing authors
19. Ban J, Jug G, **Mestdagh P**, Schwentner R, Kauer M, Aryee D, Schaefer K, Nakatani F, Scotlandi K, Reiter M, Strunk D, Speleman F, Vandesompele J, Kovar H. Hsa-mir-145 is the top EWS-FLI1-repressed microRNA involved in a positive feedback loop in Ewing's sarcoma. *Oncogene*, 18, 2173-80, 2011. (IF: 6.373, 37/290)
20. Afanasyeva E, **Mestdagh P**, Kumps C, Vandesompele J, Ehemann V, Theissen J, Fischer M, Zapatka M, Brors B, Savelyeva L, Sagulenko V, Speleman F, Schwab M, Westermann F. MicroRNA miR-885-5p targets CDK2 and MCM5, activates p53 and inhibits proliferation and survival. *Cell Death Differ.*, 6, 974-84, 2011. (IF: 8.849, rank: 23/290)
21. Shohet JM, Ghosh R, Coarfa C, Ludwig A, Benham AL, Chen Z, Patterson DM, Barbieri E, **Mestdagh P**, Sikorski DN, Milosavljevic A, Kim ES, Gunaratne PH. A genome-wide search for promoters that respond to increased MYCN reveals both new oncogenic and tumor suppressor microRNAs associated with aggressive neuroblastoma. *Cancer Res.* 2011 Jun 1;71(11):3841-51. (IF: 7.856, rank: 12/196)
22. De Brouwer S, **Mestdagh P**, Lambertz I, Pattyn F, De Paepe A, Westermann F, Schroeder C, Schulte J, Schramm A, De Preter K, Vandesompele J, Speleman F. Dickkopf-3 is regulated by the MYCN-induced miR-17-92 cluster in neuroblastoma. *Int. J. Cancer*, 2011. (IF: 5.444, rank: 27/196)
23. De Weer A, Van der Meulen J, Rondou P, Taghon T, Konrad T, De Preter K, **Mestdagh P**, Van Maerken T, Van Roy N, Jeison M, Yaniv I, Cauwelier B, Noens L, Poirel H, Vandenberghe P, Lambert F, De Paepe A, Sánchez M, Odero M, Verhasselt B, Philippé J, Vandesompele J, Wieser R, Dastugue N, Van Vlierberghe P, Poppe B, Speleman F. EVI1-mediated down regulation of MIR449A is essential for the survival of EVI1 positive leukaemic cells. *Br. J. Haematol.*, 3, 337-48, 2011. (IF: 4.941, rank: 13/68)
24. **Mestdagh P\***, Lefever S\*, Pattyn F, Ridzon D, Fredlund E, Fieuw A, Ongenaert M, Vermeulen J, De Paepe A, Wong L, Speleman F, Chen C, Vandesompele J. The microRNA body map: dissecting microRNA function through integrative genomics. *Nucleic Acids Res.*, 20, e136, 2011. (IF: 8.026, rank: 26/290) \*equally contributing authors
25. De Preter K\*, **Mestdagh P\***, Vermeulen J\*, Zeka F, Naranjo A, Bray I, Castel V, Chen C, Drozynska E, Eggert A, Hogarty M, Izycka-Swieszewska E, London W, Noguera R, Piqueras M, Bryan K, Schowe B, van Sluis P, Molenaar J, Schramm A, Schulte J, Stallings R, Versteeg R, Laureys G, Van Roy N, Speleman F, Vandesompele J. miRNA expression profiling enables risk stratification in archived and fresh neuroblastoma tumor samples. *Clin. Cancer Res.*, 24, 7684-92, 2011. (IF: 7.742, rank: 14/196) \*equally contributing authors
26. Formosa A, Lena AM, Markert EK, Cortelli S, Miano R, Mauriello A, Croce N, Vandesompele J, **Mestdagh P**, Finazzi-Agrò E, Levine AJ, Melino G, Bernardini S, Candi E. DNA methylation silences miR-132 in prostate cancer. *Oncogene*. 2013 Jan 3;32(1):127-34. (IF: 8.559, rank: 24/291)
27. Van Peer G, **Mestdagh P**, Vandesompele J. Accurate RT-qPCR gene expression analysis on cell culture lysates. *Sci Rep*. 2012;2:222. (IF: 2.927, rank: 8/56)

28. Sprüssel A, Schulte JH, Weber S, Necke M, Händschke K, Thor T, Pajtler KW, Schramm A, König K, Diehl L, **Mestdagh P**, Vandesompele J, Speleman F, Jastrow H, Heukamp LC, Schüle R, Dührsen U, Buettner R, Eggert A, Göthert JR. Lysine-specific demethylase 1 restricts hematopoietic progenitor proliferation and is essential for terminal differentiation. *Leukemia*. 2012 Sep;26(9):2039-51. (IF: 10.164, rank: 8/197)
29. Heukamp LC, Thor T, Schramm A, De Preter K, Kumps C, De Wilde B, Odersky A, Peifer M, Lindner S, Spruessel A, Pattyn F, **Mestdagh P**, Menten B, Kuhfittig-Kulle S, Künkele A, König K, Meder L, Chatterjee S, Ullrich RT, Schulte S, Vandesompele J, Speleman F, Büttner R, Eggert A, Schulte JH. Targeted expression of mutated ALK induces neuroblastoma in transgenic mice. *Sci Transl Med*. 2012 Jul 4;4(141):141ra91. (IF: 10.757, rank: 17/185)
30. Nittner D, Lambertz I, Clermont F, **Mestdagh P**, Köhler C, Nielsen SJ, Jochemsen A, Speleman F, Vandesompele J, Dyer MA, Schramm A, Schulte JH, Marine JC. Synthetic lethality between Rb, p53 and Dicer or miR-17-92 in retinal progenitors suppresses retinoblastoma formation. *Nat Cell Biol*. 2012 Sep;14(9):958-65. (IF: 20.761, rank: 6/185)
31. Molenaar JJ, Domingo-Fernández R, Ebus ME, Lindner S, Koster J, Drabek K, **Mestdagh P**, van Sluis P, Valentijn LJ, van Nes J, Broekmans M, Haneveld F, Volckmann R, Bray I, Heukamp L, Sprüssel A, Thor T, Kieckbusch K, Klein-Hitpass L, Fischer M, Vandesompele J, Schramm A, van Noesel MM, Varesio L, Speleman F, Eggert A, Stallings RL, Caron HN, Versteeg R, Schulte JH. LIN28B induces neuroblastoma and enhances MYCN levels via let-7 suppression. *Nat Genet*. 2012 Oct 7;44(11):1199-206. (IF: 35.209, rank: 2/161)
32. Rossi S, Di Narzo AF, **Mestdagh P**, Jacobs B, Bosman FT, Gustavsson B, Majoie B, Roth A, Vandesompele J, Rigoutsos I, Delorenzi M, Tejpar S. microRNAs in colon cancer: a roadmap for discovery. *FEBS Lett*. 2012 Sep 21;586(19):3000-7. Review. (IF: 3.582, rank: 97/290)
33. Dynoodt P, **Mestdagh P**, Van Peer G, Vandesompele J, Goossens K, Peelman LJ, Geusens B, Speeckaert RM, Lambert JL, Van Gele MJ. Identification of miR-145 as a Key Regulator of the Pigmentary Process. *J Invest Dermatol*. 2013 Jan;133(1):201-9. (IF: 6.372, rank: 1/61)
34. Volders PJ, Helsen K, Wang X, Menten B, Martens L, Gevaert K, Vandesompele J, **Mestdagh P**. LNCipedia: a database for annotated human lncRNA transcript sequences and structures. *Nucleic Acids Res*. 2013 Jan;41(Database issue):D246-51. (IF: 8.808, rank: 22/291)
35. Kumps C, Fieuw A, **Mestdagh P**, Menten B, Lefever S, Pattyn F, De Brouwer S, Sante T, Schulte JH, Schramm A, Van Roy N, Van Maerken T, Noguera R, Combaret V, Devalck C, Westermann F, Laureys G, Eggert A, Vandesompele J, De Preter K, Speleman F. Focal DNA copy number changes in neuroblastoma target MYCN regulated genes. *PLoS One*. 2013;8(1):e52321. (IF: 3.534, rank: 8/55)
36. Goossens K, **Mestdagh P**, Lefever S, Van Poucke M, Van Zeveren A, van Soom A, Vandesompele J, Peelman LJ. Regulatory microRNA network identification in bovine blastocyst development. *Stem Cells Dev*. 2013 Jul 1;22(13):1907-20. (IF: 4.202, rank: 6/18)
37. Althoff K, Beckers A, Odersky A, **Mestdagh P**, Köster J, Bray IM, Bryan K, Vandesompele J, Speleman F, Stallings RL, Schramm A, Eggert A, Sprüssel A, Schulte JH. MiR-137 functions as a tumor suppressor in neuroblastoma by downregulating KDM1A. *Int J Cancer*. 2013 Sep 1;133(5):1064-73. (IF: 5.007, rank: 31/211)
38. Pede V, Rombout A, Vermeire J, Naessens E, **Mestdagh P**, Robberecht N, Vanderstraeten H, Van Roy N, Vandesompele J, Speleman F, Philippé J, Verhasselt B. CLL Cells Respond to B-Cell Receptor Stimulation with a MicroRNA/mRNA Signature Associated with MYC Activation and Cell Cycle Progression. *PLoS One*. 2013;8(4):e60275. (IF: 3.534, rank: 8/55)
39. Das S, Bryan K, Buckley PG, Piskareva O, Bray IM, Foley N, Ryan J, Lynch J, Creevey L, Fay J, Prenter S, Koster J, van Sluis P, Versteeg R, Eggert A, Schulte JH, Schramm A, **Mestdagh P**, Vandesompele J, Speleman F, Stallings RL. Modulation of neuroblastoma disease

- pathogenesis by an extensive network of epigenetically regulated microRNAs. *Oncogene*. 2013 Jun 13;32(24):2927-36 (IF: 8.559, rank: 24/291)
40. Lattanzi A, Gentner B, Corno D, Di Tomaso T, **Mestdagh P**, Speleman F, Naldini L, Gritti A. Dynamic Activity of miR-125b and miR-93 during Murine Neural Stem Cell Differentiation In Vitro and in the Subventricular Zone Neurogenic Niche. *PLoS One*. 2013 Jun 27;8(6):e67411. (IF: 3.534, rank: 8/55)
  41. Rihani A, Van Maerken T, Pattyn F, Van Peer G, Beckers A, De Brouwer S, Kumps C, Mets E, Van der Meulen J, Rondou P, Leonelli C, **Mestdagh P**, Speleman F, Vandesompele J. Effective Alu repeat based RT-Qpcr normalization in cancer cell perturbation experiments. *PLoS One*. 2013 Aug 14;8(8):e71776. (IF: 3.534, rank: 8/55)
  42. Vandesompele J, **Mestdagh P**. Some cautionary notes on the petite "Holy Grail" of molecular diagnostics. *Haematologica*. 2014 Mar;99(3):401-2. doi: 10.3324/haematol.2013.103127. (IF: 5.814, rank: 5/68)
  43. Pyfferoen L, **Mestdagh P**, Vergote K, De Cabooter N, Vandesompele J, Lambrecht BN, Vermaelen KY. Lung tumours reprogram pulmonary dendritic cell immunogenicity at the microRNA level. *Int J Cancer*. 2014 May 2. doi: 10.1002/ijc.28945. (IF: 5.007, rank: 31/211)
  44. Mets E, Van Peer G, Van der Meulen J, Boice M, Taghon T, Goossens S, **Mestdagh P**, Benoit Y, De Moerloose B, Van Roy N, Poppe B, Vandesompele J, Wendel HG, Van Vlierberghe P, Speleman F, Rondou P. MicroRNA-128-3p is a novel oncomiR targeting PHF6 in T-cell acute lymphoblastic leukemia. *Haematologica*. 2014 Aug;99(8):1326-33. (IF: 5.814, rank: 6/68)
  45. De Antonellis P, Carotenuto M, Vandebussche J, De Vita G, Ferrucci V, Medaglia C, Boffa I, Galiero A, Di Somma S, Magliulo D, Aiese N, Alonzi A, Spano D, Liguori L, Chiarolla C, Verrico A, Schulte JH, **Mestdagh P**, Vandesompele J, Gevaert K, Zollo M. Early Targets of miR-34a in Neuroblastoma. *Mol Cell Proteomics*. 2014 Aug;13(8):2114-31. (IF: 6.564, rank: 5/79)
  46. **Mestdagh P**, Hartmann N, Baeriswyl L, Andreasen D, Bernard N, Chen C, Cheo D, D'Andrade P, DeMayo M, Dennis L, Derveaux S, Feng Y, Fulmer-Smentek S, Gerstmayer B, Gouffon J, Grimley C, Lader E, Lee KY, Luo S, Mouritzen P, Narayanan A, Patel S, Peiffer S, Rüberg S, Schroth G, Schuster D, Shaffer JM, Shelton EJ, Silveria S, Ulmanella U, Veeramachaneni V, Staedtler F, Peters T, Guettouche T, Wong L, Vandesompele J. Evaluation of quantitative miRNA expression platforms in the microRNA quality control (miRQC) study. *Nat Methods*. 2014 Aug;11(8):809-15. (IF: 32.072, rank: 1/79)
  47. Althoff K, Lindner S, Odersky A, **Mestdagh P**, Beckers A, Karczewski S, Molenaar JJ, Bohrer A, Knauer S, Speleman F, Epple M, Kozlova D, Yoon S, Baek K, Vandesompele J, Eggert A, Schramm A, Schulte JH. miR-542-3p exerts tumor suppressive functions in neuroblastoma by downregulating Survivin. *Int J Cancer*. 2014 Jul 21. (IF: 5.007, rank: 31/211)
  48. Van Peer G, Lefever S, Anckaert J, Beckers A, Rihani A, Van Goethem A, Volders PJ, Zeka F, Ongenaert M, **Mestdagh P**, Vandesompele J. miRBase Tracker: keeping track of microRNA annotation changes. *Database*, Aug 25;2014. pii: bau080. (IF: 3.372, rank: 7/57)
  49. Thor T, Künkele A, Pajtler KW, Wefers AK, Stephan H, **Mestdagh P**, Heukamp L, Hartmann W, Vandesompele J, Sadowski N, Becker L, Garrett L, Hölter SM, Horsch M, Calzada-Wack J, Klein-Rodewald T, Racz I, Zimmer A, Beckers J, Neff F, Klopstock T, Antonellis PD, Zollo M, Wurst W, Fuchs H, Gailus-Durner V, Schüller U, de Angelis MH, Eggert A, Schramm A, Schulte JH. MiR-34a deficiency accelerates medulloblastoma formation in vivo. *Int J Cancer*. 2014 Oct 27 (IF: 5.007, rank: 31/211)
  50. Lee S, Rahnenführer J, Lang M, de Preter K, **Mestdagh P**, Koster J, Versteeg R, Stallings R, Varesio L, Asgharzadeh S, Schulte J, Fielitz K, Heilmann M, Morik K, Schramm A. Robust Selection of Cancer Survival Signatures from High-Throughput Genomic Data Using Two-Fold Subsampling. *Plos One*, 2014 Oct 8;9(10):e108818 (IF: 3.234, rank: 9/57).

51. Beckers A, Van Peer G, Carter D, Althoff K, Cheung B, Schulte J, **Mestdagh P**, Vandesompele J, Marshall G, De Preter K, Speleman F. MYCN-targeting miRNAs are predominantly downregulated during MYCN driven neuroblastoma tumor formation. *Oncotarget*, 2014 Sep 16 (IF: 6.359, rank: 21/211).
52. Van Deun J, **Mestdagh P**, Sormunen R, Pyfferoen L, Vermaelen K, Vandesompele J, Bracke M, De Wever O, Hendrix A. The Impact of Disparate isolation Methods for Extracellular Vesicles on Downstream RNA profiling. *J Extracell Vesicles*. 2014 Sep 18;3 (no IF yet).
53. Lapeire L, Hendrix A, Lambein K, Van Bockstal M, Braems G, Van Den Broecke R, Limame R, **Mestdagh P**, Vandesompele J, Vanhove C, Maynard D, Lehuédé C, Muller C, Valet P, Gespach C, Bracke M, Cocquyt V, Denys H, De Wever O. Cancer-associated adipose tissue promotes breast cancer progression by paracrine Oncostatin M and Jak/STAT3 signaling. *Cancer Res*. 2014 Dec 1;74(23):6806-19 (IF: 9.329, rank: 11/211)
54. Durinck K, Wallaert A, Van de Walle I, Van Loocke W, Volders PJ, Vanhauwaert S, Geerdens E, Benoit Y, Van Roy N, Poppe B, Soulier J, Cools J, **Mestdagh P**, Vandesompele J, Rondou P, Van Vlierberghe P, Taghon T, Speleman F. The Notch driven long non-coding RNA repertoire in T-cell acute lymphoblastic leukemia. *Haematologica*. 2014 Dec;99(12):1808-16. (IF: 5.868, rank: 6/68)
55. **Mestdagh P**, Vandesompele J, Brusselle G, Vermaelen K. Non-coding RNAs and respiratory disease. *Thorax*. 2014 Nov 5. pii: thoraxjnl-2014-206404. (IF: 8.290, rank: 3/58)
56. Palagani A, Op de Beeck K, Naulaerts S, Diddens J, Sekhar Chirumamilla C, Van Camp G, Laukens K, Heyninck K, Gerlo S, **Mestdagh P**, Vandesompele J, Berghe WV. Ectopic microRNA-150-5p transcription sensitizes glucocorticoid therapy response in MM1S multiple myeloma cells but fails to overcome hormone therapy resistance in MM1R cells. *PLoS One*. 2014 Dec 4;9(12):e113842. (IF: 3.234, rank: 9/57)
57. Volders PJ, Verheggen K, Menschaert G, Vandepoele K, Martens L, Vandesompele J, **Mestdagh P**. An update on LNCipedia: a database for annotated human lncRNA sequences. *Nucleic Acids Res*. 2015 Jan 28;43(Database issue):D174-80 (IF: 9.202, rank: 18/289)
58. Timmermans S, Van Hauwermeiren F, Puimège L, Dejager L, Van Wonterghem E, Vanhooren V, **Mestdagh P**, Libert C, Vandenbroucke RE. Determining differentially expressed miRNAs and validating miRNA-target relationships using the SPRET/Ei mouse strain. *Mamm Genome*. 2015 Feb;26(1-2):94-107. (IF: 2.078, rank: 199/289)
59. Hemmesi K, Squadrito ML, **Mestdagh P**, Conti V, Cominelli M, Piras IS, Sergi LS, Piccinin S, Maestro R, Poliani PL, Speleman F, De Palma M, Galli R. miR-135a Inhibits Cancer Stem Cell-Driven Medulloblastoma Development by Directly Repressing Arhgef6 Expression. *Stem Cells*. 2015 Jan 31. (IF: 5.902, rank: 3/21)
60. Rihani A, Van Goethem A, Ongenaert M, De Brouwer S, Volders PJ, Agarwal S, De Preter K, **Mestdagh P**, Shohet J, Speleman F, Vandesompele J, Van Maerken T. Genome wide expression profiling of p53 regulated miRNAs in neuroblastoma. *Sci Rep*. 2015 Mar 12;5:9027. doi: 10.1038/srep09027. (IF: 5.228, rank: 7/63)
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