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Author: Wink, Steven

Title: Systems microscopy to unravel cellular stress response signalling in drug induced liver injury

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List of publications

Quantitative high content imaging of cellular adaptive stress response pathways in toxicity for chemical safety assessment.

Wink S, Hiemstra S, Huppelschoten S, Danen E, Niemeijer M, Hendriks G, Vrieling H, Herpers B, van de Water B. *Chem Res Toxicol*. 2014 Mar 17;27(3):338-55. doi: 10.1021/tx4004038. Epub 2014 Feb 5. Review.
PMID: 24450961

Activation of the Nrf2 response by intrinsic hepatotoxic drugs correlates with suppression of NF- κ B activation and sensitizes toward TNF α -induced cytotoxicity.

Herpers B, Wink S, Fredriksson L, Di Z, Hendriks G, Vrieling H, de Bont H, van de Water B. *Arch Toxicol*. 2015 May 31. [Epub ahead of print]
PMID: 26026609

Drug-induced endoplasmic reticulum and oxidative stress responses independently sensitize toward TNF α -mediated hepatotoxicity.

Fredriksson L, Wink S, Herpers B, Benedetti G, Hadi M, de Bont H, Groothuis G, Luijten M, Danen E, de Graauw M, Meerman J, van de Water B. *Toxicol Sci*. 2014 Jul;140(1):144-59. doi: 10.1093/toxsci/kfu072. Epub 2014 Apr 20.
PMID: 24752500

Alternative signalling network activation through different insulin receptor family members caused by pro-mitogenic antidiabetic insulin analogues in human mammary epithelial cells.

Ter Braak B, Wink S, Koedoot E, Pont C, Siezen CL, Van der Laan JW, Van de Water B. *Breast Cancer Res*. 2015 Jul 19;17:97. doi: 10.1186/s13058-015-0600-5.
PMID: 26187749

Toxicogenomics directory of chemically exposed human hepatocytes.

Grinberg M, Stöber RM, Edlund K, Rempel E, Godoy P, Reif R, Widera A, Madjar K, Schmidt-Heck W, Marchan R, Sachinidis A, Spitkovsky D, Hescheler J, Carmo H, Arbo MD, van de Water B, Wink S, Vinken M, Rogiers V, Escher S, Hardy B, Mitic D, Myatt G, Waldmann T, Mardinoglu A, Damm G, Seehofer D, Nüssler A, Weiss TS, Oberemm A, Lampen A, Schaap MM, Luijten M, van Steeg H, Thasler WE, Kleinjans JC, Stierum RH, Leist M, Rahnenführer J, Hengstler JG. *Arch Toxicol*. 2014 Dec;88(12):2261-87. doi: 10.1007/s00204-014-1400-x. Epub 2014 Nov 16.
PMID: 25399406

3D cell culture improves liver-specific characteristics of HepG2 cells: a gene expression analysis-based comparison HepG2 spheroids and other liver models.

Sreenivasa Ramaiahgari¹, Steven Wink¹, Maarten Coonen^{2,3}, Mackenzie Hadi³, John Meerman¹, Mirjam Luijten⁴, Geny Groothuis⁵, Danyel Jennen^{2,3}, Joost van Delft^{2,3}, Leo Price¹ and Bob van de Water¹
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⁵Division of Pharmacokinetics, Toxicology and Targeting, Department of Pharmacy, University of Groningen, Groningen, The Netherlands.
Manuscript in preparation

High Content Imaging-based BAC-GFP Toxicity Pathway Reporters to Assess Chemical Adversity Liabilities.

Steven Wink^{*†}, Steven Hiemstra^{*†}, Suzanna Huppelschoten^{*}, Bram Herpers^{*}, Bob van de Water^{*§}

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Submitted to Archives of Toxicology (November 2015)

Automated live cell imaging of adaptive stress responses for assessment of drug-induced liver injury (DILI) liabilities.

Steven Wink*‡, Steven W. Hiemstra*‡, Suzanna Huppelschoten‡*, Janna E. Klip*, Bob van de Water*§

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Manuscript in preparation

User friendly high-content imaging big-data analysis on a single desktop: R package H5CellProfiler.

Steven Wink, Joost Beltman and Bob van de Water

Division of Toxicology, Leiden Academic Centre for Drug Research, Leiden University, Leiden, The Netherlands

Manuscript in preparation

Functional analysis of high-content high-throughput imaging data.

Xiaoqi Jiang^a, Steven Wink^b, Annette Kopp-Schneider^a

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Submitted to Journal of Applied Statistics (November 2015)

Curriculum Vitae

Steven Wink was born in Warnsveld, the Netherlands, on April 2nd 1980. He went to the Scholengemeenschap Lelystad, where he obtained his VWO diploma in 2000.

In 2000, he started his study Life Science & Technology at the Technical University of Delft and Leiden University. After completion of his first semester he worked as a full time post-office servant followed by independent travel through Europe by bicycle. From 2001 to 2002 he took up residence in Basel, Switzerland, where he worked just across the border in Germany as a waiter and as a German-English translator. After two years studying earth sciences and biology in Utrecht he came back to his study Life Science & Technology. During his studies he worked part time as a junior researcher at a small biotech company where he was involved in optimizing sludge reduction by aquatic worms.

For his master thesis he modeled the kinetics of storage metabolites during dynamic feast famine cycles, based on ¹³C intermittent feeding experiments with *Penicillium chrysogenum*. He obtained his master in biochemical engineering in 2011.

In 2011 he started working as a PhD student at the Leiden Academic Center for Drug Research at the Leiden University, on the project "Automated High Content Imaging of Cell Organelle Morphometry and Function in Cellular Stress Responses". This project was carried out under the supervision of prof. dr. Bob van de Water.

From January 2016 he will work as a business intelligence consultant for Dimensional Insight in Leiden.