
Curriculum vitae

AARNOUD C VAN DER SPOEL

Department of Pediatrics
Department of Biochemistry & Molecular Biology (cross-appointment)
Dalhousie University

Professional appointments

2009 – current	Assistant Professor (tenured), Atlantic Research Centre, Department of Pediatrics, cross-appointment in the Department of Biochemistry & Molecular Biology, Dalhousie University, Halifax, Nova Scotia, Canada
Post-doctoral training	Departments of Pharmacology and Biochemistry, University of Oxford, Oxford, UK.
Graduate training	Department of Genetics, St. Jude Children's Research Hospital, Memphis, Tennessee, USA/ Department of Cell Biology and Genetics, Erasmus University Rotterdam, Rotterdam, The Netherlands

Academic degrees

Ph.D.	Cell Biology and Genetics, Erasmus University, Rotterdam, The Netherlands.
M.Sc.	Medical Biology, University of Utrecht, Utrecht, The Netherlands.

Selected Publications

Sultana S, Truong NY, Vieira D, Wigger JGD, Forrester AM, Veinotte CJ, Berman JN, **van der Spoel AC** (2016). Characterization of the Zebrafish Homolog of beta-Glucosidase 2: A Target of the Drug Miglustat. *Zebrafish* **13**: 177-187.

Sultana S, Reichbauer J, Schüle R, Mochel F, Synofzik M, and **van der Spoel AC**. Lack of enzyme activity in GBA2 mutants associated with hereditary spastic paraplegia/cerebellar ataxia (SPG46). *Biochem Biophys Res Com* **465**: 35-40. (2015)

Ridley CM, Thur KE, Shanahan J, Thillaiappan NB, Shen A, Uhl K, Walden CM, Rahim AA, Waddington SN, Platt FM, **van der Spoel AC**. Beta-glucosidase 2 (GBA2) activity and imino sugar pharmacology. *J Biol Chem* **288**, 26052-26066 (2013).

Platt FM, Boland B, and **van der Spoel AC**. Lysosomal storage disorders: the cellular impact of lysosomal dysfunction. [Review series: The Cell Biology of Disease] *The Journal of Cell Biology*, **199**: 723-734 (2012).

Oko R, Donald A, Xu W, and **van der Spoel AC**. Fusion Failure of Dense-core Proacrosomal Vesicles in an Inducible Mouse Model of Male Infertility. *Cell Tissue Res*. **346**: 119-34 (2011).

van der Spoel AC, Mott R and Platt FM: Pharmacogenetics in mice — Differential sensitivity of mouse strains to an *N*-alkylated imino sugar: glycosphingolipid metabolism and acrosome formation. *Pharmacogenetics*, **9**: 717-31 (2008).

Elliot-Smith E, Speak AO, Lloyd-Evans E, Smith DA, **van der Spoel AC**, Jeyakumar M, Butters TD, Dwek RA, D'Azzo A and Platt FM. Beneficial effects of substrate reduction therapy in a mouse model of GM1 gangliosidosis. *Mol Genet Metabol*, **94**: 204-11 (2008).

Rabionet M, **van der Spoel AC**, Chuang CC, von Tümping-Radosta B, Litjens M, Bouwmeester D, Hellbusch CC, Körner C, Wiegandt H, Gorgas K, Platt FM, Gröne HJ, and Sandhoff R. Male germ cells require polyenoic sphingolipids with complex glycosylation for completion of meiosis: A link to ceramide synthase-3. *J Biol Chem*, **283**: 13357-13369 (2008).

Walden CM, Sandhoff R, Chuang CC, Yildiz Y, Butters TD, Dwek RA, Platt FM, **van der Spoel AC**: Accumulation of Glucosylceramide in Murine Testis, Caused by Inhibition of beta-Glucosidase 2: IMPLICATIONS FOR SPERMATOGENESIS. *J Biol Chem*, **282**: 32655-32664 (2007).

Alexander C Wu, Peter Sutovsky, Wei Xu, **Aarnoud C van der Spoel**, Frances M Platt and Richard J. Oko. The Postacrosomal Assembly of Sperm Head Protein, PAWP, is Independent of Acrosome Formation and Dependent on Microtubular Manchette Transport. *Developmental Biology*, **312**: 471-83 (2007).

Giovanni D'Angelo, Elena Polishchuk, Giuseppe Di Tullio, Michele Santoro, Antonella Di Campi, Gun West, Chia-Chen Chuang, **Aarnoud C. van der Spoel**, Anna Godi, Frances M Platt, Yusuf Hannun, Roman Polishchuk, Peter Mattjus, and Maria Antonietta De Matteis. Non-vesicular transport of glucosylceramide via FAPP2 is required for glycosphingolipid synthesis and membrane transport to the plasma membrane. *Nature*, **449**: 62-67 (2007).

Charlotte M. Walden, Terry Butters, Raymond A. Dwek, Frances Platt and **Aarnoud C. van der Spoel**. Long-Term Non-Hormonal Male Contraception in Mice Using *N*-Butyldeoxynojirimycin. *Human Reproduction* **21**: 1309–1315 (2006).

Van der Spoel, A. C., Jeyakumar, M., Butters, T. D., Charlton, H. M., Moore, H. D., Dwek, R. A. and Platt, F. M. Reversible infertility in male mice following oral administration of alkylated imino sugars: a non-hormonal approach to male contraception. *PNAS* **99**: 17173-17178 (2002).

Van der Spoel, A., Bonten, E. and d'Azzo, A. Processing of lysosomal β -galactosidase. The C-terminal precursor fragment is an essential domain of the mature enzyme. *J Biol Chem* **275**, 10035-10040 (2000).

Van der Spoel, A., Bonten, E. and d'Azzo, A. Transport of human lysosomal neuraminidase to mature lysosomes requires protective protein/cathepsin A. *Embo J* **17**, 1588-1597 (1998).

Bonten, E., **van der Spoel, A.**, Fornerod, M., Grosveld, G. and d'Azzo, A. Characterization of human lysosomal neuraminidase defines the molecular basis of the metabolic storage disorder sialidosis. *Genes & Dev* **10**, 3156-3169 (1996).