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List of publications

Dalm S., De Kloet E. R. And Oitzl M. S. (2012) Post-training reward partially restores chronic stress induced effects in mice. *PLoS One*. 2012; 7(6):e39033.

Korosi A., Scheenen W. J. J. M., Derks N. M., Kuperman Y., Groenink L., **Dalm S**., Roubos E. W., Olivier B., Chen A. and Kozicz T. Glucocorticoids modulate the activity of urocortin 1 neurons in the mouse midbrain. *In preparation.*

Dalm S., Schwabe L., De Kloet E. R. and Oitzl M. S. (2009) Post-training self administration of sugar facilitates cognitive performance of male C57BL/6J mice in two spatial learning tasks. *Behavioral Brain Research* 198 (1): 98-104.

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Schwabe L., **Dalm S**., Schächinger H., Oitzl M. S. (2008) Chronic stress modulates the use of spatial and stimulus-response learning strategies in mice and man. *Neurobiology of Learning and Memory* 90 (3): 495-503.

Dalm S., Brinks V., van der Mark M. H., de Kloet E. R., Oitzl M. S. (2008) Non-invasive stress-free application of glucocorticoid ligands in mice. *Journal of Neuroscience Methods* 170 (1): 77-84.

Brinks V., **Dalm S**., and Oitzl M. S. Genetic mouse models of neurobehavioral disorders: Stress-related psychiatric disorders. In Wim E. Crusio, Frans Sluyter, and Robert T. Gerlai (eds). *Handbook of Behavioral Genetics of the Mouse.* Elsevier, Amsterdam. (*Submitted)*

Dalm S., Enthoven L., Meijer O. C., van der Mark M., Karssen A. M., de Kloet E. R. and Oitzl M. S. (2005) Age related changes in hypothalamic-pituitary-adrenal axis activity of male C57BL/6J mice.
Neuroendocrinology 81: 372-280.

Grootendorst J., Enthoven L., **Dalm S**., de Kloet E. R. and Oitzl M. S. (2004) Increased corticosterone secretion and early-onset of cognitive decline in female apolipoprotein E-knockout mice. *Behavioral Brain Research* 148: 167-177.

Enthoven L., **Dalm S**., de Kloet E. R., Oitzl M. S. (2004) Swim posture does not affect performance in the water maze. *Brain Research* 203: 36-41.

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Grootendorst J., de Kloet E. R., **Dalm S**. and Oitzl M. S. (2001) Reversal of cognitive deficit of apolipoprotein E-knockout mice after exposure to a common environmental experience. *Neuroscience* 108: 237-247.

Grootendorst J., de Kloet E. R., Vossen C., **Dalm S.** and Oitzl M. S. (2001) Repeated exposure to rats has persistent genotype-dependent effects on learning and locomotor activity of apolipoprotein E-knockout and C57BL/6J mice. *Behavioural Brain Research* 125 (1-2): 249-259.

Grootendorst J., Oitzl M. S., **Dalm S**., Schachner M., de Kloet E. R. and Sandi C. (2001) Stress alleviates the reduced expression of cell adhesion molecules (NCAM, L1), and deficits in learning and corticosterone regulation of apolipoprotein E-knockout mice. *European Journal of Neuroscience* 14 (9): 1505-1514.

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Fluttert M., **Dalm S.** and Oitzl M.S. (2000) A refined method for blood sampling by tail incision in rats. *Laboratory Animals* 34 (4): 372-378.

Dalm S. (2000) Morris water maze: al zwemmend leert men. *Biotechniek* 39 (6); 232-235.

Scholarship

KNAW, Dr.J.L. Dobberke Stichting voor Vergelijkende Psychologie
Title: Chronic stress and multiple memory systems in mice (2007)

Poster presentations

Dalm S., Schwabe L., de Kloet E. R. and Oitzl M. S.
'Chronic stress and the modulation of spatial and stimulus-response learning in mice.'

- 6th Endo-Neuro-Psycho-Meeting, June 2007, Doorwerth, Netherlands.

Dalm S., De Kloet E. R. and Oitzl M. S.
'A mouse model of chronic psychological stress: endocrine, emotional and cognitive alterations in male C57BL/6J mice.'

- LACDR Spring Symposium, April 2007, Amsterdam, Netherlands.

Dalm S., De Kloet E. R. and Oitzl M. S.
'Mifepristone alters neuroendocrine regulation and facilitates behaviour via recurrent blockade/activation of glucocorticoid receptors.'

- 37th International Society of Psychoneuroendocrinology meeting (ISPNE), August 2006, Leiden, Netherlands; awarded the 2nd poster prize.

Dalm S., de Visser L., Spruijt B. M., de Kloet E. R. and Oitzl M. S.
'Stress, glucocorticoid receptors: differential effects on reward.'

- 5th Endo-Neuro-Psycho-Meeting, June 2006, Doorwerth, Netherlands.

Dalm S., De Kloet E. R. and Oitzl M. S.
'Recurring blockade/activation of glucocorticoid receptors in C57BL/6J mice: shifts in neuroendocrine regulation and facilitation of behavior.'

- FENS, July 2006, Vienna, Austria.
- LACDR Spring Symposium, April 2006, Amsterdam, Netherlands.

Dalm S., Engst E., de Kloet E. R. and Oitzl M. S.
'The antiglucorticoid antagonist Mifepristone alters steroid signaling and coping styles in mice.'

- EBBS, September 2005, Dublin, Ireland.

- 7th International Behavioral and Neural Genetics Society **(**IBANGS), June 2005, Sitges, Spain.
- 4th Endo-Neuro-Psycho-Meeting, May-June 2005, Doorwerth, Netherlands.

Revsin Y., **Dalm S.**, Saravia F. E., Oitzl M. S., De Nicola A. F., de Kloet E. R.
'HPA axis regulation in type 1 diabetes.'

- 41st Annual Meeting of the European Association for the Study of Diabetes (EASD), September 2005, Athens, Greece.
- 4th Endo-Neuro-Psycho-Meeting, May-June 2005, Doorwerth, Netherlands.

Oitzl M. S., **Dalm S**., Beleta Rancano H., and de Kloet E. R.
'Endocrine and behavioural effects of acute and repeated administration of the antiglucocorticoid RU486 in male C57BL/6J mice.'

- Neurobiology of the CRH neuropeptide family, January 2005, Nijmegen, Netherlands.
- Federation of European Neurosciences (FENS), July 2004, Lissabon, Portugal.
- 3rd Endo-Neuro-Psycho-Meeting, June 2004, Doorwerth, Netherlands.
- LACDR Spring Symposium, April 2004, Amsterdam, Netherlands.

Dalm S., De Kloet E. R. and Oitzl M. S.
'Facilitation of reward enhances cognitive performance and is context-dependent.'

- 35th EBBS, September 2003, Barcelona, Spain.

Dalm S., Enthoven L., van der Mark M., de Kloet E. R. and Oitzl M. S.
'Aging affects the circadian rhythm of the Hypothalamic-Pituitary-Adrenal axis in mice.'

- 2nd Endo-Neuro-Psycho-Meeting, June 2003, Doorwerth, Netherlands

Dalm S., De Kloet E. R. and Oitzl M. S.
'Cognition and emotion in a dysregulated glucocorticoid system.'

- ULLA Summerschool, August 2003, Paris, France

Dalm S., De Kloet E. R. and Oitzl M. S.
'Quantification of swim patterns in the Morris water maze.'

- 19th Low Countries Meeting, 1999, Nijmegen, Netherlands.
- 2nd Measuring Behavior, August 1998, Groningen, Netherlands.

Invited oral presentations

'Mouse model of chronic psychological stress: endocrine, cognitive and emotional disturbances.'

- Tagung experimentell arbeiten der Psychologen (TeaP). Opening of the IRTG, Trier University, July 2007, Trier, Germany
- Behavioral Genetics seminar, March 2007, Wageningen, Netherlands.
- Institute for Pharmaceutical Sciences, Rudolf Magnus Institute of Neuroscience, January 2007, Utrecht, Netherlands.

'Stress and glucocorticoid receptors: differential effects on reward.'

- 5th Endo-Neuro-Psycho-Meeting, June 2006, Doorwerth, Netherlands.

'De muis als datapunt binnen EthoVision.'

- Seminar on behavioral analysis software, Noldus B.V., 2003, Wageningen, Netherlands.

'Corticosteroids: Learning and memory.'

- Course on Depression, organized by the "Neurofarmacologische Vereniging", per invitation from Lundbeck B.V., 1999 Gent, Belgium.

'Morris water maze: al zwemmend leert men.'

- 37e Biotechnische dagen, 1999, Ede, Netherlands.

Curriculum Vitae

Sergiu Dalm werd geboren op 09 Augustus 1973 te Delft, Nederland. In 1992 behaalde hij zijn HAVO diploma aan het Maascollege in Maassluis. Aansluitend zette hij zijn studie voort aan de Hoge School voor Laboratorium Onderwijs te Delft, waar hij zijn artikel 12 certificaat verwierf. De bijbehorende 9-maanden stage werd uitgevoerd in het kader van een samenwerkingsproject tussen TNO Preventie en Gezondheid (Prof. Dr. L. Havekes, Dr. M. Mulder), en de afdeling Medische Farmacologie (LACDR / LUMC, Universiteit van Leiden; Prof. Dr. E.R. de Kloet, Prof. Dr. M. S. Oitzl, Dr. J. Grootendorst), gerelateerd aan het thema 'Apolipoproteine-E, Alzheimer en Cognitie'. Hij is met succes in 1997 afgestudeerd. Vervolgens werkte hij als research technician bij de afdeling Medische Farmacologie aan het project 'Stress effects on cognitive performance of apolipoprotein E-knockout mice'. In September 2002 begon hij bij hetzelfde instituut aan zijn promotieonderzoek waarvan de resultaten staan beschreven in dit proefschrift. Dit onderzoek was onderdeel van het ASPASIA project "Cognition and positive emotions in a dysregulated glucocorticoid system".

In Januari 2008 is Sergiu Dalm in dienst getreden bij Quintiles B.V., een bedrijf dat wereldwijd uiteenlopende klinische onderzoeksdiensten levert voor biotechnische en farmaceutische klanten. Tot eind Augustus 2010 is hij gedetacheerd geweest bij het voormalige Centocor B.V. te Leiden, heden ten dage Janssen Biologics B.V. en onderdeel van Janssen Pharmaceutical companies of Johnson & Johnson, alwaar hij de functie van Trial Document Specialist en Quality Compliance Associate vervulde. Sinds September 2010 is hij werknemer bij Janssen Biologics B.V. als Quality Monitoring and Compliance Associate in samenwerking met Global Clinical Operations.

Dankwoord

Het doel is bereikt, het proefschrift is af. Tijdens mijn avonturen als student, research analist en PhD-student heb ik vele mensen mogen ontmoeten. Het is de wisselwerking geweest met al die mensen, die er toe heeft geleid dat ik op de afgelopen periode met plezier kan terugkijken.

Het onderzoek heeft plaatsgevonden bij de afdeling Medische Farmacologie van de Universiteit van Leiden. Allereerst dank ik mijn promotores Ron de Kloet en Melly Oitzl met de mogelijkheid die ze mij hebben geboden om het onderzoek uit te kunnen voeren zoals beschreven staat in dit proefschrift. Het aantal publicaties en dit proefschrift geven aan dat de samenwerking succesvol is geweest. Het onderwerp 'stress' zal voor altijd in mijn geheugen gegrift blijven, samen met de 'voldoening' die het afronden van mijn proefschrift geeft. Dank jullie wel.

De samenwerkingen met Leonie de Visser (Universiteit van Utrecht, Prof. Dr. B. M. Spruijt) en Lars Schwabe (Universiteit van Trier, Duitland, Prof. Dr. H. Schächinger) wil ik graag benadrukken:
Leonie – Dank voor je inzet en inzicht toendertijd. Ik heb er mede door geleerd dat wat men 'buitenshuis' meemaakt effect heeft op de 'thuissituatie', en het klopt nog steeds, de 2 belangrijkste receptoren in de hersenen zijn de MR en GR ;) Succes en veel plezier toegewenst met je carriere en privedoelstellingen.
Lars – It has been a pleasure working with you. Thanks for the nice and open discussions we had regarding stress and learning and memory performance. Also, the drinks we had in Gouda and in Trier, good memories. I wish you all the best in your future career and private life.

Voor mijn vrienden, kennissen en familie die betrokken waren bij de tot standkoming van dit proefschrift, zie hier, het is dan toch af J. Dank jullie wel.

De twee personen die me hebben gesteund en die ik kon benaderen wanneer nodig voor mijn thesis en prive, Leo en Petra. We hebben de voorbije jaren een hoop mooie gebeurtenissen mogen zien en meemaken bij elkaar. Enorm bedankt dusver en ik kijk uit naar wat we verder gaan meemaken, samen en met de kids. Bedankt!!!

Als laatste genoemd, mijn nummer 1...Luka mijn zoon. Jouw aanwezigheid zorgt voor plezier in mijn leven en leert me wat er echt toe doet. Ons avontuur gaat verder...

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