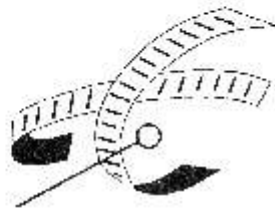


FINAL PROGRAMME



RASMUS

INFANT VISION ROTTERDAM

3rd Meeting of the Child Vision Research Society

on the occasion of the

25th Anniversary of the Medical Faculty

Erasmus University Rotterdam

June 12, 13 and 14, 1991

on

**NORMAL AND ABNORMAL VISUAL DEVELOPMENT IN
INFANTS AND CHILDREN**

Aim:

The main objective of this meeting is to provide an opportunity for exchange of knowledge, experience and ideas between clinicians and basic scientists. Participation from a wide range of scientific fields is encouraged including physiology, psychology, and neurophysiology and from the medical specialities of pediatrics, neurology and ophthalmology.

Fees:

Dfl. 370.-, payable to "Stichting Infant Vision Rotterdam", account no: 44.87.37.027, AMRO Bank, P.O.Box 25228, 3001 HE Rotterdam, The Netherlands. (The postgiro acc. no of the bank is: 3016).

Venue:

Medical Faculty Building, Lecture Hall 5,
Erasmus University Rotterdam,
Dr. Molewaterplein 50, 3015 GH Rotterdam, The Netherlands.

The meeting will begin at 9.00 a.m. on Wednesday June 12, and will continue until 5.15 p.m. on Friday June 14.

The registration desk is situated near Lecture Hall 7, and will be open on Tuesday June 11 between 4.00 and 6.00 p.m. and throughout the meeting from Wednesday June 12, 8.00 a.m. onwards.

During the meeting the telephone number of the registration desk will be (31-10) - 408 8080.

Messages can also be sent in care of the Local Organiser:

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WEDNESDAY JUNE 12

09.00 **Opening:** Prof. Dr. K. Kerrebijn, Dean of the Medical Faculty EUR.

Morning session: Periventricular Leucomalacia / Brainlesions
Chair: Levene, M.I. / Dubowitz, L.M.S.

09.00 Levene, M.I. (Leeds, U.K.):

Pathophysiology of cerebral bloodflow and brain lesions in the neonatal period.

09.40 De Vries, L.S., Eken, P., Dubowitz, L.M.S. (Utrecht, The Netherlands):

Pitfalls in diagnosing periventricular leucomalacia using cranial ultrasound.

10.00 Eken, P., Van Nieuwenhuizen, O., DeVries, L.S., Zwaan-van Ditmarsch, H., Spckreijse, H. (Utrecht, The Netherlands): **Correlation of cranial ultrasound and cerebral visual impairment in 54 at-risk neonates: a prospective study.**

10.10 Cioni, G., Bartalena, L., Biagioni, E., Boldrini, A. (Pisa, Italia):

Neuroimaging and functional outcome of neonatal brain lesions.

10.40 - 11.10 Coffee

11.10 Dubowitz, L.M.S. (London, U.K.):

Correlation of early imaging and physiological findings with later visual outcome.

11.30 Pike, M.G., Holmstrom, G., DeVries, L.S., Pennock, J., Drew, K., Sonksen, P.M., Dubowitz, L.M.S. (London, U.K.): **Patterns of visual impairment associated with lesions of the pre-term brain.**

11.45 de Schonen, S., Mancini, J., Deruelle, C. (Marseille, France):

Late effects on face processing of unilateral brain lesions sustained before age one.

12.05 Jan, J.E. (Vancouver, Canada):

The visual behaviour of visually impaired children, how it does reflect visual loss.

12.25 - 12.45 General Discussion

12.45 - 14.00 Lunch

Afternoon session : Development Retina / Retinopathy of Prematurity (ROP)

Chair: Fielder A.R. / Dobson V.

14.00 Hendrickson, A. (Seattle, U.S.A.):

The development of human retina comparing central to peripheral.

14.40 Hainline, L., Riddell, P., Grose-Fifer, J., Abramov, I. (Brooklyn, U.S.A.):

The development of convergence and accommodation.

15.00 Fielder, A.R. (Birmingham, U.K.):

Visual impairment: Natural history.

15.15 Robinson, J., Moseley, M.J., Fielder, A.R. (Birmingham, U.K.):

Light and the neonatal eye.

15.30 - 16.00 Tea

16.00 Tan, K.E.W.P. (Amsterdam, The Netherlands)

Overview aetiology, incidence and treatment of Retinopathy of Prematurity.

16.20 Dobson, V. (Pittsburgh, U.S.A.):

Posterior pole status and grating visual acuity at 12 months following cryotherapy for Retinopathy of Prematurity.

16.45 Van Nouhuys, C.E. (Nijmegen, The Netherlands):

Familial exudative vitreoretinopathy and retinopathy of prematurity: similarities and differences.

17.00 - 17.30 General Discussion

THURSDAY JUNE 13

Morning session: Anatomical development /Eye movements

Chair: Hendrickson, A.

- 09.00 Garey, L.J., Yan, X.X. (London, U.K.):
Prenatal development of GABA-immunoreactive neurons in human striate cortex.
- 09.25 Apkarian, P.A. (Amsterdam, The Netherlands):
VEP- detection and development of aberrant optic pathway projections in the albino neonate.
- 09.45 Hoffmann, K.-P., Distler, C. (Bochum, Germany):
Development of visual pathways underlying motion analysis.
- 10.30 - 11.00 Coffee
- 11.00 Westall, C., Shute, R. (Cardiff, U.K.)
Effect of orthoptic treatment on OKN asymmetries in young children.
- 11.20 Jacobs, M., Harris, C., Shawkat, F., Taylor, D. (London, U.K.):
The electro-oculographic assessment of normal and abnormal eye movements in infants and young children.
- 11.35 Held, R. (Cambridge, U.S.A):
Two stages in the development of binocular vision and eye alignment.
- 12.05 Bloch, H. (Paris, France):
The onset of eye-head coordination in newborns: consequences upon the organization of visual space.
- 12.25 Jouen, F., Lepecq, J.C., Gapenne, O. (Paris, France):
Early visual vestibular relations in newborn infants: Evidence of impulsive and sustained head response patterns.
- 12.45 - 13.00 General Discussion
- 13.00 - 14.00 Lunch

Afternoon session

- 14.00 - 17.30 **Poster Session**
Visual screening techniques, approaches in rehabilitation of visual capacities in visually or otherwise handicapped children.

Evening

- 18.00 pm - 22.30 **Buffet dinner at the Museum Boymans - Van Beuningen**

THURSDAY JUNE 13

Afternoon session

- 14.00 - 17.30 **Poster Session**
Visual screening techniques, approaches in rehabilitation of visual capacities in visually or otherwise handicapped children.
- 15.30 Van Wulfften Palthe, T., Van Hof-van Duin, J. (Rotterdam, The Netherlands):
VIDEO presentation Lecture Hall 7
Behavioural assessment of visual functions in infants and children.
Instructions for use.
1. Laurin, L., Lovasik, J.V., Bolduc, M., Lavellée, D. (Montreal, Canada):
Clinical evaluation of a paediatric refractometer (Topcon PR-1000).
 2. Angi, M.R. (Padua, Italy):
Equalized videorefractoscope.
 3. Saunders, K.J., Westall, C.A. (Cardiff, U.K.):
Refracting children without tears.
 4. Hodi, S., Wood, I.C.J. (Manchester, U.K.):
Preliminary refractive findings of longitudinal study of infants from birth to 1 year of age.
 6. Stiers, P., Tack, M., De Clerck, A., Buyck, A., Vandenbussche, E., De Cock, P., Missotten, L., Knops, J. (Louvain, Belgium): **On the validation of a new apparatus to assess visual acuity in infants.**
 7. Cocker, K.D., Fielder, A.R., Moseley, M.J., Robinson, J. (Birmingham, U.K.):
Miniature dataloggers: Applications in child vision research.
 8. Cocker, K.D., Moseley, M.J., Fielder, A.R., Barbur, J.L. (Birmingham, U.K.):
The pupil grating response in infants.
 9. Holmström, G., Azazi, M., Jacobsson, L., Kugelberg, V., Lennerstrand, G., Sachs, D., Suule, J. (Stockholm, Sweden): **A population based prospective study over the development of ROP in children in the Stockholm area in Sweden. Preliminary results.**
 10. Ipata, A.E., Cioni, A.E., Boldrini, A., Bottai, P., Cipolloni, C., Van Hof-van Duin, J. (Pisa, Italy):
Visual acuity in low and high-risk neonates.
 11. Bottai, P., Cioni, G., Ipata, A.E., Salvadori, P., Van Hof-van Duin, J. (Pisa, Italy):
Visual assessment and MRI findings in infancy.
 12. Atkinson, J., Braddick, O.J., Anker, S., Hood, B., Wattam-Bell, J., Weeks, F., Rennie, J., Coughtrey, H. (Cambridge, U.K.): **Visual development in the VLBW infant.**
 13. Apkarian, P., Mirmiran, M., Tijssen, R. (Amsterdam, The Netherlands):
Maturation of the luminance evoked potential: effects of behavioural state and temporal responsivity.
 14. Ossenblok, P., De Munck, J.C., Gilhuis, M., Spekreijse, H. (Amsterdam, The Netherlands):
Maturation of the extrastriate activity of the pattern onset EP.
 15. Maillette de Buy Wenniger, L., Botman, A., Lantau, V.K. (Amsterdam, The Netherlands):
Lea Hyvarinen (L.H.) against Amsterdam Picture Chart (A.P.C.).

16. Neu, B., Sireteanu, R. (Frankfurt, Germany):
Monocular acuity assessment in preschool children: Experiments with the Teller and Keeler acuity cards in comparison to the Landolt C test.
17. Pott, J.W.R., Van Hof-van Duin, J. (Rotterdam, The Netherlands):
The Rotterdam C-Chart: Norm values and interocular acuity difference in 5 year old children.
18. Pott, J.W.R., Oosterveen, D.K., Van Hof-van Duin, J. (Rotterdam, The Netherlands):
Screening for suppression in young children.
19. Schmidt, P.P. (Columbus, U.S.A.):
Detecting children at risk for amblyopia, refractive error and strabismus.
20. Vital Durand, F., Robin, C. (Bron, France):
Is amblyopia always prevented by visual check-up before one year of age?
21. Hohmann, A. (Paderborn, Germany):
Success of amblyopia therapy in young children.
22. Rydberg, A., Ericson, B., Lennerstrand, G., Lindstedt, E., Jacobson, L. (Göteborg, Sweden):
Assessment of vision in children with low vision and normal vision age 0-6 years.
23. Van Moll-Ramirez, N., Verbunt, H., Van der Pas, J. (Grave, The Netherlands):
Visual assessment of pre-verbal visually handicapped children.
24. Sjöström, A., Abrahamsson, M., Sjöstrand, J. (Göteborg, Sweden):
Developmental changes in infantile cataract.
25. Sonksen, P. M., Petrie, A., Drew, K. (London, U.K.):
A developmentally based programme to promote visual development in severely visually impaired babies and its evaluation.
26. Keeffe, J. (Balwyn, Australia):
Implications of low vision on children's reading and cognitive ability.
27. Hyvärinen, L., Stenström, I., Björkman, J., Lindquist, O., Cedermark, G., (Espoo, Finland):
Assessment of vision of multihandicapped children.
Video: Pupil sizes and activity in a mentally retarded 18-month old boy.
28. Oduwaiye, K.A., Woodhouse, J.M., Bachelor, B., Megji, S., Jones, N., Adoh, T.A., Unwin, N. (Cardiff, U.K.):
Measuring visual acuity in toddlers and multiple handicapped children.
29. Vanderkelen, R., Vandenbussche, E. (Louvain, Belgium):
The use of gratings to assess visual acuity in mentally retarded low vision children.
30. Vandenbussche, E., Vanderkelen, R., Maes, H. (Louvain, Belgium):
A perimeter designed to assess the visual field in mental retarded low vision children.
31. Woodhouse, J.M., Meades, S., Leat, S.J., Saunders, K.J. (Cardiff, U.K.):
Reduced accommodation in Down's syndrome.
32. Dekker, R., Hoekstra, S. (Doorn, The Netherlands):
The intelligence test for visually impaired children: Research results and clinical experience.

34. Luna, B., Dobson, V., Guthrie, R.D. (Pittsburgh, U.S.A.):
Grating acuity and visual field development in infants with Bronchopulmonary Dysplasia.
35. Schenk-Rootlieb, A.J.F., Van Nieuwenhuizen, O., Van Zoggel, J., Schiemaek, N., Van der Graaf, Y., Eken, P., Wittebol-Post, D., Willems, J. (Utrecht, The Netherlands):
Cerebral visual disturbance in cerebral palsy.
36. Horowitz, L.J., Oosterveld, W., Adrichem, R. (Haarlem, The Netherlands):
Effectiveness of sensory integration therapy on vestibular and ocular functions in children - A report on 2 aspects of ENG eye pursuits: pendulum tracking and ocular motor praxis.
37. Hood, B. (Cambridge, U.K.):
Development of selective visual attention.
38. Deruelle, C., De Schonen, S. (Marseille, France):
Configurational and componential visual pattern processing by infants: hemispheric specialization.
39. Rieth, C., Neu, B., Sireteanu, R. (Frankfurt, Germany):
Lang-test in a "Preferential Looking" variation: Comparison to established stereotests.
40. Pothoff, R.D. (Lubeck, Germany):
Recovery of color and form perception due to a specific therapy after lesions of the visual cortex.
41. Pott, J.W.R., Van Hof-van Duin, J. (Rotterdam, The Netherlands):
Color vision with the Farnsworth D-15 Test in normal and very low birthweight (VLBW) children at 5 years of age.
42. Hermans, J., Van Hof-van Duin, J. (Rotterdam, The Netherlands):
Visual acuity in Low Birth Weight (1500 - 2500 g) neonates.

FRIDAY JUNE 14

Morning session: The development of spatial vision
Chair: Atkinson, J.

09.00 Vital Durand, F. (Bron, France):

Is the development of grating resolution linear or not during the first year of human infants?

09.15 Van Hof-van Duin, J., Heersema, D.J., Groenendaal, F., Baerts, W., Fetter, W.P.F. (Rotterdam, The Netherlands):
Grating acuity and visual field development in low-risk preterm infants during the first year after term.

09.30 Wattam-Bell, J. (Cambridge, U.K.):

Displacement limits for the discrimination of motion direction in infants.

09.45 Atkinson, J., Braddick, O.J. (Cambridge, U.K.):

Segmentation of oriented textures in 4 months post-term infants: evidence for functioning of intracortical mechanisms.

10.00 Sireteanu, R., Rieth, C. (Frankfurt, Germany):

Texture segregation based on line orientation develops late in childhood.

10.15 - 10.30 General Discussion

10.30 - 11.00 Coffee

11.00 - 12.00

Round Table Discussion on Brain Mapping and Cortical Development.

Chair: Van Hof-van Duin, J.

Questions

a: How to relate underlying visual processes to behavioural and electrophysiological measures of vision.

b: Subcortical versus cortical vision.

Speakers:

Spekreijse, H., Ossenblok, P. (Amsterdam, The Netherlands):

The pattern onset EP changes shape between child and adulthood.

Atkinson, J. (Cambridge, U.K.):

Two vision systems: possible models of early visual development.

Discussants:

Dubowitz, L.M.S.

Jan, J.E.

Hoffmann, K.-P.

Cioni, G.

De Vries, L.

Taylor, D.

12.00 - 12.30 General Discussion

12.30 - 13.45 Lunch