

# 12<sup>th</sup>-14<sup>th</sup> July 2023

# Advancing childhood vision and visual impairment research and evidence-based practice

#### **PROGRAMME**

## Wednesday 12th July

#### **DAY ONE**

9.00 – 10.00 Registration and Coffee

10.00 – 1030 Welcome – Institution Lead, Chairs Organising, Scientific Chair and Sponsors

#### Session 1

#### CHILDHOOD VISION DISORDERS: MOLECULAR INSIGHTS, GENOTYPES, PHENOTYPES

**1030 – 1120 Keynote speaker:** Childhood genetic eye disorders: Molecular insights of disease phenotypes directing therapeutic approaches

Mariya Moosajee, Professor of Molecular Ophthalmology, University College London (UCL), Group Leader of Ocular Genomics and Therapeutics, The Francis Crick Institute, Honorary Consultant Ophthalmologist, Genetic Eye Disease, Moorfields Eye Hospital and Great Ormond Street Hospital, Wellcome Trust Clinical Research Development Fellow, UCL Institute of Ophthalmology, London

#### 1120 - 1230 Free papers

1120 – 1135 Visual functions and executive functions in children with Down syndrome; randomized controlled trial with bifocals and unifocals with 1-year follow-up. Christine de Weger, Radboud University Medical Centre Nijmegen, The Netherlands

1135 – 1150 Functional and structural neural adaptations to lifelong lack of cone input and its implications for gene therapy outcomes.

Roni Maimon Mor, University College London, London, UK

1150 – 1205 Exploring neurodevelopmental phenotypes in children with molecularly proven PAX6 mutation Aniridia – a preliminary analysis.

Ngozi Oluonye, Moorfields Eye Hospital/Great Ormond Street Hospital, London, UK

1205 – 1215 The clinical and genetic landscape of a pediatric cohort with inherited retinal dystrophies.

Roberta Nicotra, IRCCS Mondino Foundation, Pavia, Italy

# 1215 - 1225

The relationship between the development of social relationships at school and academic inclusion in adolescents with and without vision impairment

Ifigeneia Manitsa University of Birmingham, Edgbaston, Birmingham, UK

#### 1225 – 1400 LUNCH and POSTERS

1300 - 1400 POSTER SESSION 1

#### Session 2

**1400 – 1430** Invited lecture: "Measuring the burden of childhood visual disability at population level: Lessons from the British Childhood Visual Impairment Studies"

**Ameenat Lola Solebo**, NIHR Clinician Scientist, Department of Population Science UCL GOS Institute of Child Health/ Honorary Consultant Ophthalmologist Great Ormond Street Hospital London UK

## 1430 - 1515 Free papers

1430 – 1445 Visual Outcomes and Clinical features of Infants with History of Intrauterine Exposure to Drugs of Abuse (IUDE) and Nystagmus

Veeral Shah, Cincinnati Children's Hospital and Medical Center, Cincinnati, Ohio, USA

1445-1500 Visual function and neuropsychological assessment in a cohort of patients affected from idiopathic infantile nystagmus

Ilaria Scognamillo, IRCCS Mondino Foundation, Pavia, Italy

1500-1515 Comparing visual functions between children with unilateral cerebral palsy and typically developing peers

Monica Crotti, KU Leuven, Leuven, Belgium

#### 1515 - 1545 TEA AND POSTERS

#### Session 3

#### **OLIVER BRADDICK MEMORIAL SYMPOSIUM**

1545 - 1800

1545 – 1550 Introduction by Institute Lead/ Organising Chair

1550 – 1640 Oliver Braddick Memorial Lecture

**Tessa Dekker**, Associate Professor, Research Associate and Director of Child Vision Lab, UCL Institute of Ophthalmology, Associate Professor Experimental Psychology, Div of Psychology & Lang Sciences, Faculty of Brain Sciences, UCL

1640 - 1715 Comparison of Visual Brain Development in children with Williams Syndrome to children with other genetic or acquired disorders.

**Jan Atkinson,** Emeritus Professor of Psychology, Division of Psychology & Lang Sciences, Faculty of Brain Sciences, Visiting Professor University of Oxford

1715 – 1750 Infancy vision and long-term neurodevelopmental outcomes:

**Elisa Fazzi,** Professor in Child Neurology and Psychiatry, University of Brescia, Civil Hospital Brescia Italy UK

#### **1800 RECEPTION**

#### **DAY TWO**

#### Session 4

#### UNDERSTANDING AND ASSESSMENT OF VISION

#### 0830 - 0955 Free papers

0830-0845 Hyperopia in schoolchildren: investigating the impact on visual function, and determining appropriate methods for detection

Shelley Hopkins, Queensland University of Technology, Australia

0845 – 0900 Analysis of school screening visual outcomes in 4-5 year olds born prematurely at University Hospital Coventry with reference to their gestational age Bukhari Rahilah, University Hospitals Coventry & Warwickshire NHS Trust, Coventry, UK

0900 – 0915 Telemedicine: can paediatric low vision services benefit beyond the COVID-19 pandemic?

Rebecca Leighton, Ulster University, Coleraine, Northern Ireland, UK

0915 – 0930 Parents are often unaware of their children's visual status Dr. Einat Shneor, Hadassah Academic College, Jerusalem, Israel

0930 – 0940 Can children measure their own vision? The feasibility of self-testing for telemedicine.

Michael Crossland, NIHR Moorfields Biomedical Research Centre, London, UK

0940 – 0955 Prolonged development of prior-knowledge-guided vision in healthy children. Georgia Milne, University College London, London, UK

#### 0955 – 1025 COFFEE AND POSTERS

#### Session 5

#### AMBLYOPIA, REFRACTIVE ERRORS AND IMPLICATIONS FOR LEARNING

**1025 – 1055 Invited lecture:** The disruptive effect of crowding on vision in development and amblyopia:

John Greenwood, Associate Professor of Psychology, Experimental Psychology UCL London UK

#### 1055 – 1210 Free papers

1055 – 1110 Personalized versus Standardized Dosing of Occlusion Therapy for Amblyopia: a randomized controlled trial.

Catherine Stewart, Hertfordshire Community NHS Trust, St Albans, UK

1110 - 1125 See and learn: How do basic visual skills relate to arithmetic and reading in elementary school? A screening study

Katharina Limbach, TU Dortmund University, Dortmund, Germany

1125 – 1140 Early literacy skills in children with amblyopia.

Krista Kelly, Retina Foundation of the Southwest, Dallas, Texas, USA

1140 – 1150 Prevalence of refractive, accommodative and binocular vision anomalies in UK primary school children and their association with reading ability.

Brendan Barrett, University of Bradford, Bradford UK

1150 – 1200 Myopia prevalence, refractive status and uncorrected myopia among school students in Germany.

Astrid Hönekopp, TU Dortmund University, Dortmund, Germany

1200 – 1210 Early Glasses Study: baseline refraction and its change, amblyopia and strabismus at age one.

Jordy Steltman, Erasmus University Medical Center, Rotterdam, the Netherlands

**1210 – 1300 Keynote lecture:** Beyond vision: The impact of amblyopia on the development of other sensory and motor systems

**Agnes Wong**, Professor of Ophthalmology and Vision Sciences, University of Toronto Canada (Presenting Virtually Live)

**1300 – 1425** LUNCH AND POSTERS

1330 - 1425 POSTER SESSION 2

Session 6

#### VISUAL IMPAIRMENT AND DEVELOPMENT

**1425** — **1455** Invited lecture: Risk and protective factors in neurodevelopment, autism and mental health in childhood visual impairment: learning from UK cohort studies **Naomi Dale**, Professor of Paediatric Neurodisability, UCL GOS Institute of Child Health / Great Ormond Street Hospital London UK

# 1455 - 1605 Free papers

1455 – 1510 Developing a social skills training program to foster social interaction and social competence in primary school-aged children with congenital visual impairments Martina Finessi, Anglia Ruskin University, Cambridge, UK

1510 - 1525 The Visual Impairment Developmental Autonomy (VIDA) scale: co-design and validation of a patient- and parent-reported outcome measure of adaptive abilities in visually impaired children.

Catalano Guido, University of Pavia, Pavia, Italy.

1525 – 1540 Associations of parent-reported pragmatic language and communication and modified ADOS-2 in children with visual impairment (VI)

Elena Sakkalou, UCL Great Ormond Street Institute of Child Health/ Great Ormond Street Hospital, London, UK

1540 – 1555 Vision-related quality of life and mental health outcomes of children and young people with visual impairment and their carers.

Ana Semrov, UCL Great Ormond Street Institute of Child Health, London, UK

1555 – 1605 Support for families of children with a rare degenerative metabolic disease (Juvenile Neuronal Ceroid Lipofuscinosis, CLN3-disease): a Delphi-study.

Yvonne Kruithof, Bartiméus, Zeist, The Netherlands

#### 1605 - 1635 TEA AND POSTERS

#### Session 7

#### VISUAL IMPAIRMENT, QUALITY OF LIFE AND MENTAL HEALTH

#### 1635 – 1720 Free papers

1635 – 1650 Neurodevelopmental, neurovisual and behavioral features of children affected by Oculocutaneous Albinism.

Erika Loi, University of Brescia, Brescia, Italy

1650 – 1700 The challenges experienced by children and young people with visual impairment accessing education.

Julie-Anne Little, Ulster University, Coleraine, UK

1700 – 1710 How do visually impaired children and their mothers cope with socio-emotional stress? An observational and eye-tracking study.

Federica Morelli, IRCCS Mondino Foundation, Pavia, Italy

1710 – 1720 Sleep in Children with Vision Impairment aged 4-11 years Jessica Hayton, UCL Institute of Education, London, UK

**1720 – 1745** Invited lecture: Quality of life in children with visual impairment. Valerja Tadic, Associate Professor of Psychology, University of Greenwich London UK

# GALA DINNER Roof top garden/ barbeque/ music in historic building, Euston London WC1 (included in registration)

#### **DAY THREE**

#### **Session 8**

#### ASSESSMENT AND MEASUREMENT OF VISION

**0830 – 0920 Keynote lecture:** Using consumer technology to improve vision testing in children **Steven Dakin**, Professor Faculty of Medical and Health Sciences, Optometry and Vision Science, Head of School, School of Optometry & Vision Science, University of Auckland New Zealand. Honorary Professor, Institute of Ophthalmology, Faculty of Brain Sciences, UCL, London.

#### 0920 - 1020 Free papers

0920 – 0935 Measure of Early Vision Use: A new tool for assessing visual ability. Belinda Deramore Denver, Australian Catholic University, Sydney, Australia

0935 – 0950 Spectrum of visual dysfunction detected by a novel testing protocol within the Special School Eye Care Service.

Rachel Pilling, University of Bradford, UK

0950 – 1005 The feasibility and accuracy of school-led checks of vision in UK primary and secondary school children.

Christopher Davey, University of Bradford, Bradford, UK

1005 – 1020 Quantifying altered visual attention in cerebral visual impairment using an eye tracking based visual search task.

Marinke Hokken, Erasmus MC, Rotterdam, the Netherlands

#### 1020 - 1050 COFFEE AND POSTERS

#### Session 9

#### **BRAIN AND VISION**

**1050 – 1120** Invited lecture: Neuroimaging and vision disorders

Corinna Bauer, Assistant Professor in Ophthalmology, Gordon Centre for Medical Imaging, Harvard Medical School USA

# 11.20 – 13.00 Free Papers - Cerebral visual impairment: screening, assessment, diagnostics

1120 - 1135 Developing evidence-based consensus clinical practice guidelines in childhood cerebral visual impairment (CVI), including definition, screening, assessment and diagnosis and classification.

Naomi Dale, Great Ormond Street Hospital, London, UK/ Els Ortibus KU Leuven Belgium and CVI clinical consensus project Europe

1135 - 1150 Prototype tests of vernier acuity, shape discrimination hyperacuity and contour detection threshold compared with questionnaire-derived scores for visual attention, visuospatial and visual recognition abilities in children

Cathy Williams, Bristol Medical School, Bristol, UK

1150 – 1205 Early Years Examination for Cerebral Visual Impairment related dysfunction (EYE-CVI): a feasibility study.

Brendan Barrett and Rachel Pilling, University of Bradford, UK

1205 – 1220 Systematic review of the screening, assessment and diagnosis and classification of children with cerebral visual impairment (CVI).

Corinna Bauer, Harvard Medical School, Harvard, USA, Serena Micheletti University of Brescia, Italy and CVI clinical consensus project Europe

1220 – 1235 Clinical feasibility study of subtyping of childhood cerebral visual impairment: towards understanding of visual neuropsychological profiles and paediatric clinical diagnostics. Naomi Dale, UCL Great Ormond Street Institute of Child Health, Great Ormond Street Hospital, London, UK

1235 – 1250 Cluster analysis of two datasets to explore evidence for sub-types of cerebral visual impairment (CVI) in children

Cathy Williams, Bristol Medical School, Bristol, UK

1250 – 1300 Assessment of Visual Information Processing in Childhood (AVIP-C): a Delphiconsensus study.

Schraauwers, Robin, Bartiméus, Zeist, the Netherlands

#### **1300 – 1410 LUNCH AND POSTERS**

1330 - 1410 POSTER SESSION 3

#### Session 10

# 1410 – 1520 Free papers - Understanding aetiology and mechanisms and natural history

1410 – 1425 Integrity of the inferior longitudinal fasciculus and impaired face recognition in cerebral visual impairment.

Corinna Bauer, Harvard Medical School, Harvard, USA

1425-1440 Genotype for neuroinflammatory response and risk of cerebral visual impairment (CVI): data from a population birth cohort

Cathy Williams, Bristol Medical School, Bristol, UK

1440 – 1455 The natural history of Cerebral Visual Impairment in children with Cerebral Palsy: a longitudinal study

Jessica Galli, University of Brescia, Brescia, Italy

1455 – 1510 Eye tracking-based visual orienting functions add to visual profiling in children with Cerebral Visual Impairment

Marlou Kooiker, Erasmus MC, Rotterdam, the Netherlands & Royal Dutch Visio, Amsterdam, the Netherlands

1510 – 1520 Profile of children with cerebral visual impairment (cvi) examined by optometrists at public hospitals in Malaysia

Nor Bahiyah Tahar, Hospital Tunku Azizah Kuala Lumpur, Malaysia

#### 1520 - 1545 TEA

#### Session 11

#### 1545 – 1645 Free papers - Intervention for CVI

1545 - 1600 The impact of cognitive rehabilitation on functional vision of children with cortical vision loss

Zeynep Turan, Brunel University London, London, UK

1600 – 1615 'My CVI' is a serious game for psycho-education for children with cerebral visual impairment (CVI) in the age of 6-12 years old

Florine Pilon, Bartimeus, Zeist, The Netherlands

1615 - 1630 Rehabilitation of visual field disorders in children with acquired brain lesions: the experience with AVDESK2 and effectiveness after 6 months

Francesca Tinelli, IRCCS Fondazione Stella Maris, Pisa, Italy

1630-1645 "Eyelander": Gamified visual search training for children with hemianopia Timothy Hodgson, University of Lincoln, Lincoln UK

#### **1645 – 1715** Prizes and closing

OPTIONAL EVENING SOCIAL EVENT: Including historic museum, canal boat trip, cocktails and food (not included in registration)

#### **POSTERS**

To be presented during poster sessions: viewing during all refreshment breaks

#### **POSTER SESSION 1**

1. Finding the hard to reach: detecting CVI-related visual dysfunction in children with complex needs in the eye clinic

Rachel Pilling, University of Bradford, UK

 Visual behaviours in cerebral visual impairment: validating a descriptive tool to support diagnosis and monitoring in complex needs children Rachel Pilling, University of Bradford, UK

3. CVI diagnostics and their relationship to learning disabilities Carina Schücker, TU Dortmund University, Dortmund, Germany

4. Development of a practice based protocol of interdisciplinary assessment of cerebral visual impairment (CVI).

Bals, Irmgard, Bartiméus, Zeist, the Netherlands

5. Treatment en guidance of young children with CVI. Roza Minette, Bartimeus, The Netherlands

- 6. A clinical tool to quantitatively assess visuomotor integration in pediatric risk groups.

  Marlou Kooiker, Erasmus MC, Rotterdam, the Netherlands & Royal Dutch Visio, Amsterdam, the Netherlands
- 7. A new non-verbal test for visual attention in young children with (a risk of) CVI Marinke Hokken, Erasmus MC, Rotterdam, the Netherlands
- 8. Functional Eye Gaze in rural Kansas and South/Central America Linda Lawrence, Kansas School for the Blind, USA
- 9. Global form and motion perception subtyping in children with congenital cerebral visual impairment

Hanna Sakki, Clinical Neurosciences, UCL GOS Institute of Child Health, London, UK

10. Motion Coherence Threshold testing – its links with vision performance and learning difficulties

Geoff Shayler, Optometrist

11. A novel multisensory device for the assessment and rehabilitation of perceptual and attention competencies

Marta Guarischi, , IRCCS Mondino Foundation, Pavia, Italy

- 12. Early visual function in HIE infants treated with hypothermia Marta Galanti, IABP Italia ONLUS, Rome , Italy
- 13. Association of neurological conditions and phases of cerebral visual impairment (cvi) children in Malaysia

Duratul 'Ain Hussin, Allied Health Sciences Division Ministry of Health Malaysia, Putrajaya, Malaysia

- 14. Learning disorders in mild to moderate cerebral palsy: the role of neurovisual functions Serena Micheletti, ASST Spedali Civili of Brescia, Brescia, Italy
- 15. A neurodevelopmental case of severe impairments in mid-level vision but intact higher-level vision
  - Sarah Weigelt, TU Dortmund University, Dortmund, Germany
- 16. The relationship between school engagement and social competence in adolescents with and without vision impairment and ways forward Ifigeneia Manitsa University of Birmingham, Edgbaston, Birmingham, UK

#### **POSTER SESSION 2**

- 17. What do Special Educational Needs and Disability Co-Ordinators understand about visual perception?
  - Kathryn Fuller, Newcastle Children's Vision Team, SEND Sensory Service, Newcastle UK
- 18. Making It Easier: Using Simple Phrases to Improve Educational and Clinical Services for Providers
  - Cathy Smyth, Anchor Center for Blind Children, Denver, Colorado, USA
- 19. Development and validation of a questionnaire for assessing Parents' awareness and perception of vision screening and exams for children: a Delphi study Hadas Ben Eli, Hadassah Academic College, Jerusalem, Israel
- 20. The relation between visual function classification system (vfcs) and other relevant variables in children with cerebral palsy
  - Sierra Montse Blasco, Universitat de Barcelona, Barcelona, Spain
- 21. Correlation between structural brain damage and visual function classification system (VFCS) in children with cerebral palsy.
  - Francesca Tinelli, IRCCS Fondazione Stella Maris, Pisa, Italy
- 22. Isolated Foveal Hypoplasia or albinism? VEP and misrouting of the optic pathways Francesca Tinelli, IRCCS Fondazione Stella Maris, Pisa, Italy
- 23. Electrophysiological evaluation of human color vision
  Ana Barbara Ursic, University Medical Centre Ljubljana, Ljubljana, Slovenia
- 24. Evaluating the accuracy of picture and letter visual acuity tests Lowri, Jones, Alder Hey Children's Hospital, Liverpool, UK
- 25. RAPID INFANT RETINOSCOPY made easier with the "super wide field" of LVA lenses David Ehrlich, Birmingham and Midland Eye Centre, Birmingham, UK
- 26. Validating and Training the Use of a Newborn Vision Screening in American Hospitals Cathy Smyth, Anchor Center for Blind Children, Denver, Colorado, USA
- 27. Visual function in children with GNAO1 Syndrome Simona Leone, IAPB Italia ONLUS, Rome, Italy

- 28. Visual function in Smith Magenis Syndrome Simona Leone, IAPB Italia onlus, Italy
- 29. Update on Children and Families affected by the Zika virus in Brazil
  Liana Ventura, Altino Ventura Foundation, Brazil. Presenter: Linda Lawrence, Kansas School
  for the Blind, USA

#### **POSTER SESSION 3**

- 30. Quantification of paediatric facial growth characteristics and their application to improved spectacle frame design in children
  - Alicia Thompson, Association of British Dispensing Opticians, Birmingham, UK
- 31. The Babies in Glasses (BiG) Study: Determining the feasibility and acceptability of early spectacle intervention to babies and parents to improve visual outcomes in infants at risk of perinatal brain insult.
  - Raimonda Bullaj, UCL Great Ormond Street Institute of Child Health, London UK
- 32. The effect of an early visual impairment on the ability to reach objects and crossing the body midline in the peri-personal space
  - Stefania Petri, Istituto Italiano di Tecnologia, Genova, Italy
- 33. Functional Vision Assessment in Young Children with Visual Impairment: a focus on manual skills
  - Tiziana Battistin, Robert Hollman Foundation, Cannero Riviera (VB) and Padova, Italy
- 34. Longitudinal associations and patterns of vocabulary development in two-year-olds with congenital visual impairment
  - Natasha Aleppo, and Steve Rose, Great Ormond Street Hospital NHS Foundation Trust, London, UK
- 35. Evaluation of Physical Activity, Sport Participation and Wellbeing for the Vision Impaired Lisa Flynn, Dublin City University, Dublin, Ireland
- 36. Neurodevelopmental and behavioural phenotypes in septo-optic dysplasia: a clinic series Elaine Clark, Great Ormond Street Hospital NHS Foundation Trust, London, UK
- 37. Rehabilitation of the visually impaired child: an interactive process of family integration for the development of quality of life
  Chiara Mastantuono, Officina dei Sensi, Ascoli Piceno, Italy
- 38. Crowding magnitude can look smaller than it should in children with strabismic amblyopia when assessed with Landolt C charts with fixed arcmin spacings.
  Maria Fronius, Goethe University, Frankfurt am Main, Germany and Sarah Waugh University
  - of Huddersfield, Huddersfield, UK.