

# European Society of Ophthalmology



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**European Leadership Development Program Class of 2017-2019**  
**Project Abstract**

The European Society of Ophthalmology requests a brief abstract of the project that each EuLDP participants has worked on during the program. The compiled abstracts will be included on the SOE website and will be given to incoming EuLDP classes as background material. Please e-mail your abstract to E-mail: [secretariat@soevision.org](mailto:secretariat@soevision.org)

*Please include the headings if appropriate: **Title, Purpose, Methods, Results and Conclusion***

## **Title of Project: Northern Finland Birth Cohort (NFBC) Eye Study**

**Purpose:** The purpose of NFBC Eye Study is to conduct a randomised glaucoma screening trial in a Northern Finland birth cohort.

**Methods:** Northern Finland Birth Cohort (NFBC) 1966 Study was started in the two Northernmost provinces in Finland (Oulu and Lapland). Altogether 12 231 children were born into the cohort, 12 058 of them live-born. The original data have been supplemented by data collected with postal questionnaires and clinical examinations at the ages of 1, 14, 22 and 31 years, and various hospital records and national register data.

The NFBC cohort were randomised to two equal-sized trial arms: ocular screening and no screening. All participants were sent a baseline questionnaire concerning their history on eye diseases. Those randomised to the screening arm were invited to ocular screening, i.e., basic eye examination, visual field tests and investigations with both traditional and modern imaging techniques.

**Results:** Questionnaires were sent to 10 300 subjects of whom 6 868 responded. The eye examinations of the cohort were completed in 3080 subjects.

**Conclusion:** The trial offers a unique opportunity to conduct the first randomised glaucoma screening trial in the world in an unselected population and to evaluate also the cost-effectiveness of both screening and diagnostics. The cohort is unique as the subjects have been followed since their birth. In addition, the study highlights the relationship, e.g., between birth weight and growth patterns during early life to eye diseases, especially programmed aging, presbyopia etc. as well as risk factors and their value in predicting future glaucoma and other eye abnormalities.