Table 1. Population-based studies participating in the E3 consortium

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Study name | Country | Period of first eye examination | Age range | Number of subjects with eye examination | Prospective study ? |
| 1958 British Birth cohort | UK | 2002 | 44-45 | 9,330 | Yes |
| Young Finns Study | Finland | 2010 | 33-48 | 1,684 | Yes |
| Rotterdam Study I | Netherlands | 1990-1993 | 55+ | 6,913 | Yes |
| Twins UK | UK | 1992 | 18+ | 6,247 | Yes |
| MRC Older People Study | UK | 1995-1998 | 75+ | 14,593 | For mortality outcomes |
| POLA | France | 1995-1998 | 60+ | 2,584 | Yes |
| Tromsø Eye Study | Norway | 2001 | 40+ | 6,540 | Yes |
| Rotterdam Study II | Netherlands | 2000-2001 | 55+ | 3,011 | Yes |
| Eureye | Norway, Estonia, UK, France, Italy, Greece, Spain | 2001-2002 | 65+ | 4,753 | No |
| Thessaloniki Eye Study | Greece | 2000-2005 | 60+ | 2,554 | Yes |
| ERF | Netherlands | 2002 | 18+ | 2,940 | Yes |
| KORA | Germany | 2004-2005 | 35+ | 3,078 | No |
| PAMDI | Italy | 2005-2006 | 60+ | 1,162 | No |
| Epic-Norfolk | UK | 2004-2011 | 45+ | 8,623 | No |
| Alienor | France | 2006-2008 | 73+ | 963 | Yes |
| Rotterdam Study III | Netherlands | 2006-2008 | 45+ | 3,682 | Yes |
| Gutenberg Health Study | Germany | 2007-ongoing | 35-74 | 14,700 | Yes |
| Coimbra Eye Study | Portugal | 2009-2013 | 55+ | 6,023 | No |
| Montrachet | France | 2009-2012 | 75+ | 1,153 | Yes |
| Generation R | Netherlands | Ongoing | 0+ | ~6000 | Yes |
| NICOLA | UK | Ongoing | 50+ | ~5,500 | Yes |
| Total |  |  |  | ~ 112,000 |  |

Table 2. Other studies participating in the E3 consortium

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Study name | Country | Period of eye examination | Age range | Number of subjects | Type of study | Types of cases |
| Danish cohort of pediatric diabetes 1987 | Denmark | 1995-2011 | 28-42 | 324 | Longitudinal study | Diabetes |
| AMRO-NL | Netherlands | 1998-2005 | 55+ | 1,194 | Hospital based-cohort | Glaucoma AMD |
| Belfast | UK | 2001 | 50+ | 402 | Case-control | AMD |
| Guernsey AMD case cohort study | UK | 2003 | 50+ | 371 | Case-control | AMD |
| Southampton Rod-cone Dystrophies | UK | 2003 | 10+ | 143 | Case only | Rod-cone Dystrophy |
| Southampton POAG | UK | 2003 | 40+ | 1,618 | Case only | Glaucoma |
| MARS | Germany | 2003-2010 | 60-80 | 1,060 | Hospital-based cohort | AMD |
| Fyns Diabetes Database | Denmark | 2003-2015 | 0+ | 22,089 | Case only | Diabetes |
| Creteil Study | France | 2005 | 55+ | 2,081 | Case-control | AMD |
| CARMA | UK/ Ireland | 2005 | 55+ | 430 | Randomized clinical trial | AMD |
| EUGENDA | Netherlands/ Germany | 2006 | 50+ | 4,800 | Case-control | AMD |
| Southampton nystagmus | UK | 2006 | 0+ | 244 | Case-control | Nystagmus |
| Early Observational Markers Study | UK/ Italy/ Portugal | 2007 | 50+ | 105 | Longitudinal study | AMD |
| CIC XV XX | France | 2008 | 55+ | 794 | Case-control | AMD |
| IVAN Study | UK | 2008 | 50+ | 608 | Longitudinal study | AMD |
| Southampton paediatric eye diseases | UK | 2008 | 0-16 | 474 | Case-control | Paediatric eye diseases |
| Southampton AMD/glaucoma case-control Study | UK | 2009 | 50+ | 56 | Case-control | AMD/  Glaucoma |
| MYST | Netherlands | 2009-2012 | 25+ | 1,200 | Case-control | High myopes |
| Southampton Liver Transplant | UK | 2010 | 50+ | 241 | Cases only | Liver transplant |
| Coimbra-RD | Portugal | 2011-2012 | 40+ | 22,658 | Cases only | Diabetes |
| Total |  |  |  | 60,892 |  |  |

Table 3. Ocular endpoints available in population-based studies

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study name | Vision | Visual fields | Refractive errors | IOP\* | AMD | Glaucoma | Retinal vessels | OCT examinations |
| 1958 British Birth cohort | X |  | X |  |  |  |  |  |
| Young Finns Study |  |  | X |  |  |  | X |  |
| Rotterdam Study I | X | X | X | X | X | X | X | X |
| Twins UK |  |  | X | X | X | X | X | X |
| MRC Older People Study | X |  | X |  | X |  |  |  |
| POLA | X |  | X | X | X |  | X |  |
| Tromsø Eye Study | X |  | X |  | X |  | X | X |
| Rotterdam Study II | X | X | X | X | X |  |  | X |
| Eureye | X |  | X |  | X |  |  |  |
| Thessaloniki Eye Study | X | X | X | X | X | X | X | X |
| ERF | X |  | X | X | X | X | X |  |
| KORA |  |  | X |  |  | X |  |  |
| PAMDI | X |  | X | X | X | X |  |  |
| Epic-Norfolk | X | X | X | X | X | X |  |  |
| Alienor | X |  | X | X | X | X | X | X |
| Rotterdam Study III | X | X | X | X | X | X | X | X |
| Gutenberg Health Study | X | X | X | X | X | X | X | X |
| Coimbra Eye Study | X |  | X | X | X |  |  |  |
| Montrachet | X | X | X | X | X | X | X | X |
| Generation R | X |  | X |  |  |  | X | X |
| NICOLA | X |  | X | X | X | X | X | X |

\*intraocular pressure

Table 4. Other collected data in participating population-based studies

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study name | Socio-demographic | Medical history | Quality of life/Disability | Lifestyle/ environment | Laboratory measurements | Cardiovascular measurements | Neuro-psychiatric  measurements | Omics | Biobanks |
| 1958 British Birth cohort | X | X | X | X | X | X |  | X | X |
| Young Finns Study | X | X | X | X | X | X | X | X | X |
| Rotterdam | X | X | X | X | X | X | X | X | X |
| Twins UK | X | X | X | X | X | X | X | X | X |
| MRC Older People Study | X | X | X | X | X | X | X |  |  |
| POLA | X | X | X | X | X | X |  |  |  |
| Tromsø Eye Study | X | X | X | X | X | X | X |  | X |
| Rotterdam Study II | X | X | X | X | X | X | X | X | X |
| Eureye | X | X | X | X | X | X |  | X | X |
| Thessaloniki Eye Study |  | X |  | X |  | X |  | X | X |
| ERF | X | X |  | X | X | X | X | X | X |
| KORA | X | X | X | X |  | X |  | X | X |
| PAMDI | X | X | X | X | X | X |  |  |  |
| Epic-Norfolk | X | X | X | X | X | X | X | X | X |
| Alienor | X | X | X | X | X | X | X | X | X |
| Rotterdam Study III | X | X | X | X | X | X | X | X | X |
| Gutenberg Health Study | X | X | X | X | X | X | X | X | X |
| Coimbra Eye Study |  | X |  | X | X |  |  |  |  |
| Montrachet | X | X | X | X | X | X | X | X | X |
| Generation R | X | X |  | X | X | X | X | X |  |
| NICOLA | X | X | X | X | X | X | X |  | X |

Table 5. Other collected data in other participating studies

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study name | Socio-demographic | Medical history | Quality of life/Disability | Lifestyle/ environment | Laboratory measurements | Cardiovascular measurements | Neuro-psychiatric  measurements | Omics | Biobanks |
| Danish cohort of pediatric diabetes 1987 |  | X |  | X | X | X |  |  | X |
| AMRO-NL | X | X |  | X |  |  |  | X | X |
| Belfast |  | X |  | X | X | X |  | X | X |
| Guernsey AMD study |  | X |  | X |  |  |  | X | X |
| Southampton Rod-cone Dystrophies |  | X |  | X |  |  |  | X | X |
| Southampton POAG |  | X |  | X |  |  |  | X | X |
| MARS | X | X | X | X | X | X |  | X | X |
| Creteil Study | X | X |  | X |  | X |  | X | X |
| CARMA |  |  |  |  |  |  |  |  |  |
| EUGENDA | X | X |  | X | X |  |  | X | X |
| Southampton nystagmus |  | X |  | X |  |  |  |  | X |
| Fyns Diabetes DataBase |  | X |  | X | X | X |  |  |  |
| Early Observational Markers Study |  |  |  | X |  |  |  |  |  |

Table 5 (continued). Other collected data in other participating studies

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study name | Socio-demographic | Medical history | Quality of life/Disability | Lifestyle/ environment | Laboratory measurements | Cardiovascular measurements | Neuro-psychiatric  measurements | Omics | Biobanks |
| IVAN Study |  | X |  | X |  |  |  | X | X |
| Southampton paediatric eye diseases |  | X |  | X |  |  |  |  | X |
| Southampton AMD/glaucoma case-control Study |  |  |  |  |  |  |  |  |  |
| CIC XV XX | X | X |  | X |  |  |  |  | X |
| MYST | X | X |  | X |  |  |  | X | X |
| Southampton Liver Transplant |  | X |  | X |  |  |  | X | X |
| Coimbra RD |  |  |  |  |  |  |  |  |  |

Table 6. Active E3 workgroups (November 2014)

|  |  |  |
| --- | --- | --- |
| Workgroup | Topic | Leader |
| 1 | Visual impairment | Cécile Delcourt |
| 2 | AMD | Caroline Klaver |
| 3 | Glaucoma | Paul Foster |
| 4 | Diabetic retinopathy | Tunde Peto |
| 5 | Refractive errors | Christopher Hammond |
| 6a | Imaging- retina | Jean-François Korobelnik |
| 6b | Imaging-optic nerve | Nomdo Jansonius |
| 7 | Epidemiological projections | Elena Prokofyeva |
| 8 | Genetic epidemiology | Gabriëlle Buitendijk |
| 9 | Biomarkers | Ruth Hogg and Lionel Bretillon |
| 10 | Retinal vessels | Alireza Mirshahi |

Figure 1. Map of teams participating in the E3 consortium (May 2015)

**1**

**1**

**5**

**1**

**1**

**6**

**1**

**6**

**1**

**1**

**3**

**1**

**n**

Number of participating groups in each European country