

Supplementary Table 1. Effect of rheumatoid arthritis (RA) and *MUC5B* on risk of interstitial lung disease (ILD), accounting for competing risks (non-ILD related death).

	Population	<i>MUC5B</i>	RA	RA and <i>MUC5B</i>
Risk of ILD in men				
Lifetime risk, %	1.5 %	4.8 %	8.5 %	19.5 %
HR (95% CI)	Reference	3.20 (2.84-3.62)	6.00 (4.66-7.73)	11.7 (8.52-16.1)
p-value	-	4.13×10^{-79}	7.21×10^{-44}	1.79×10^{-51}
Risk of ILD in women				
Lifetime risk, %	1.1 %	2.9 %	4.6 %	14.1 %
HR (95% CI)	Reference	2.64 (2.25-3.09)	4.54 (3.57-5.77)	12.6 (9.49-16.7)
p-value	-	1.64×10^{-33}	2.68×10^{-35}	8.91×10^{-70}

Supplementary Table 2. Characteristics of the epidemiological and disease-based cohorts, and hospital biobanks (marked with an asterisk) in the FinnGen dataset used in the study.

	Interstitial lung disease			Rheumatoid arthritis			Mean age at recruitment	Mean age at the end of follow-up or death
	Number of controls	Number of cases	Prevalence	Number of controls	Number of cases	Prevalence		
AURIA BIOBANK*	31371	208	0.66 %	30433	1146	3.63 %	62.8	64.0
BIOBANK OF CENTRAL FINLAND*	7957	54	0.67 %	7547	464	5.79 %	58.6	59.6
BIOBANK OF EASTERN FINLAND*	9798	62	0.63 %	9456	404	4.10 %	62.2	63.1
BLOOD SERVICE BIOBANK	34330	14	0.04 %	34315	29	0.08 %	43.6	44.7
BOREALIS BIOBANK*	8657	96	1.10 %	8372	381	4.35 %	62.6	63.8
HELSINKI BIOBANK*	60819	502	0.82 %	59440	1881	3.07 %	56.9	58.3
TAMPERE BIOBANK*	20147	218	1.07 %	19725	640	3.14 %	56.7	58.1
TERVEYSTALO BIOBANK	6644	11	0.17 %	6498	157	2.36 %	51.0	50.7
THL BIOBANK ATBC	8446	102	1.19 %	8472	76	0.89 %	62.9	77.0
THL BIOBANK BOTNIA	11441	40	0.35 %	11348	133	1.16 %	51.5	68.3
THL BIOBANK COROGENE	4377	69	1.55 %	4346	100	2.25 %	65.8	75.6
THL BIOBANK FINHEALTH 2017	5719	15	0.26 %	5648	86	1.50 %	54.6	57.4
THL BIOBANK FINRISK 1992	4760	32	0.67 %	4685	107	2.23 %	44.2	69.7
THL BIOBANK FINRISK 1997	6799	48	0.70 %	6712	135	1.97 %	48.3	68.9
THL BIOBANK FINRISK 2002	6689	34	0.51 %	6605	118	1.76 %	47.9	64.8
THL BIOBANK FINRISK 2007	4969	27	0.54 %	4896	100	2.00 %	51.2	63.6
THL BIOBANK FINRISK 2012	5093	12	0.24 %	5021	84	1.65 %	51.1	58.8
THL BIOBANK HEALTH 2000	6293	19	0.30 %	6190	122	1.93 %	55.7	72.0
THL BIOBANK HHS	3253	39	1.18 %	3266	26	0.79 %	47.5	79.0
THL BIOBANK MIGRAINE	7700	28	0.36 %	7610	118	1.53 %	44.8	58.6
THL BIOBANK SUPER	8249	16	0.19 %	8222	43	0.52 %	46.9	49.3
THL BIOBANK T1D	9891	28	0.28 %	9701	218	2.20 %	32.7	52.0
THL BIOBANK TWINS	11003	98	0.88 %	10892	209	1.88 %	48.5	68.9
Other	7602	193	2.48 %	7703	92	1.18 %	54.8	58.8

Supplementary Table 3. Diseases excluded from the study. We excluded from all analyses 11,808 individuals without rheumatoid arthritis who had at least one record for any of these diseases.

	Hospital discharge registry			Hospital discharge registry codes to exclude ICD-9	Cause of death registry			Cause of death registry codes to exclude ICD-9	Kela* reimbursement codes
	ICD-10	ICD-9	ICD-8		ICD-10	ICD-9	ICD-8		
Systemic lupus erythematosus	M32	7100	7431		M32	7100	7431		
Inflammatory bowel disease									
Crohn disease	K50	555	5630		K50	555	5630		
Ulcerative colitis	K51	556	5631 or 569	5564A	K51	556	5631 or 569	5564A	
IBD patients in Kela*-register									208 or 209
Systemic sclerosis	M34	7101	7340		M34	7101	7340		
Ankylosing spondylitis	M45	7200	7124		M45	7200	7124		
Dermatopolymyositis									
Juvenile dermatomyositis	M330	7103A			M330	7103A			
Other dermatomyositis	M331	7103B	7160		M331	7103B	7160		
Polymyositis	M332	7104	7161		M332	7104	7161		
Dermatopolymyositis, unspecified	M339				M339				
Myositis	M60	7280	732		M60	7280	732		

*KELA = the Social insurance Institute of Finland

Supplementary Methods

Diseases

FinnGen is a collection of prospective epidemiological and disease-based cohorts and hospital biobank samples, aiming for a collection of 500,000 genotype samples from Finnish individuals by 2023. The study uses FinnGen data freeze 7. Further information about the subcohorts included in FinnGen can be found in **Supplementary Table 2**.

Age at RA onset was defined through the first registered diagnosis in the registries (age ≥ 16 at diagnosis accepted as case). Age at ILD diagnosis was defined through the first registered diagnosis in the registries (at death, if death was the only event; age ≥ 16 at diagnosis accepted as case, with 8 individuals excluded due to diagnosis under age 16). 630 individuals were excluded due to no further healthcare contacts with ILD within 5 years after the initial diagnosis (individuals with ILD death as first event considered as cases). Competing risks were defined as any non-ILD related cause of death identified from the registry on causes of death. We excluded from all analyses a further 11,808 individuals without RA who had at least one record for any of the following diseases: systemic lupus erythematosus, inflammatory bowel disease, systemic sclerosis, ankylosing spondylitis, dermatopolymyositis, or myositis (**Supplementary Table 3**). The full FinnGen Data Freeze 7 consists of 306,418 adults (age ≥ 18), and with the exclusions listed above, the final sample size was 293,972.

Genotyping and imputation

The samples are genotyped with Illumina and Affymetrix arrays (Illumina Inc., San Diego, and Thermo Fisher Scientific, Santa Clara, CA, USA). Individuals with ambiguous gender, high genotype missingness ($>5\%$), excess heterozygosity ($+4SD$) and non-Finnish ancestry were excluded, as well as all variants with high missingness ($>2\%$), low Hardy–Weinberg equilibrium p-value ($<1e-6$) and minor allele count (MAC < 3). Array data pre-phasing was carried out with Eagle 2.3.527 with the number of conditioning haplotypes set to 20,000. The genotypes have been imputed with using the SISu v3 population-specific reference panel developed from high-quality data for 3,775 high-coverage (25–30x) whole-genome sequencing in Finns. The detailed genotype imputation workflow can be found at <https://dx.doi.org/10.17504/protocols.io.xbgfijw>. The dataset uses genome build 38 (hg38). Variant extraction from VCF files with PLINK v2.00a2.3LM.45 using --export A. The HWE p-value for rs35705950 was 0.18.

Replication in UK Biobank

UK Biobank is a prospective cohort study comprising approximately 500,000 individuals from across the United Kingdom, aged between 40 and 69 at recruitment. The cohort contains deep phenotyping, including biological measurements, lifestyle factors, and blood biomarkers. The dataset has been imputed using the merged UK10K and 1000 Genomes (phase 3) reference panels.¹ Details on the cohort, as well as data generation and imputation have been previously described.² RA was defined as at least two contacts with ICD-10 codes beginning with M05 (seropositive RA) or M06 (seronegative RA) in the inpatient hospital data (data field 41270; age for earliest visit from data field 41280). The sample size in the UK Biobank analysis was 343,676 (White British individuals unrelated based on KING kinship coefficient <0.0442). We identified 1,911 RA cases (1,368 women), with their mean age at RA onset at 58.5 years (s.d. 8.9 years). This analysis was conducted with the UK Biobank Resource under Application Number 22627.

Statistical analysis

With age as time scale, all regression models were stratified by sex, adjusting for ten principal components of ancestry, as well as genotyping array (FinnGen and UK Biobank), cohort (FinnGen), and batch (UK Biobank). The proportional hazards assumption was evaluated by Schoenfeld residuals and log–log inspection. Meta-analysis was performed by inverse-variance weighting. Competing risk models were performed by fitting the Fine and Gray proportional subdistribution hazards regression model using the R package *cmprsk*. Function *crr()* was used for obtaining sex-specific effect sizes with 95% confidence intervals (CIs) with the covariates inputted as a numerical covariate matrix. The lifetime risks were estimated with *cuminc()*, which estimates the cumulative incidence functions from the output generated by *crr()*. All tests were two-tailed.

Supplementary References

1. Huang, J., *et al.* Improved imputation of low-frequency and rare variants using the UK10K haplotype reference panel. *Nat Commun* **6**, 8111 (2015).
2. Bycroft, C., *et al.* The UK Biobank resource with deep phenotyping and genomic data. *Nature* **562**, 203–209 (2018).

FinnGen Rheumatology Clinical Expert Group

Kari Eklund	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Antti Palomäki	Hospital District of Southwest Finland, Turku, Finland
Pia Isomaki	Pirkanmaa Hospital District, Tampere, Finland
Laura Pirilä	Hospital District of Southwest Finland, Turku, Finland
Oili Kaipiainen-Seppänen	Northern Savo Hospital District, Kuopio, Finland
Johanna Huhtakangas	Northern Savo Hospital District, Kuopio, Finland
Ali Abbasi	AbbVie, Chicago, IL, United States
Jeffrey Waring	AbbVie, Chicago, IL, United States
Fedik Rahimov	AbbVie, Chicago, IL, United States
Apinya Lertratanakul	AbbVie, Chicago, IL, United States
Nizar Smaoui	AbbVie, Chicago, IL, United States
Anne Lehtonen	AbbVie, Chicago, IL, United States
Adam Platt	AstraZeneca, Cambridge, United Kingdom
David Close	AstraZeneca, Cambridge, United Kingdom
Marla Hochfeld	Celgene, Summit, NJ, United States/Bristol Myers Squibb, New York, NY, United States
Natalie Bowers	Genentech, San Francisco, CA, United States
Sarah Pendergrass	Genentech, San Francisco, CA, United States
Onuralp Soylemez	Merck, Kenilworth, NJ, United States
Kirsi Kalpala	Pfizer, New York, NY, United States
Nan Bing	Pfizer, New York, NY, United States
Xinli Hu	Pfizer, New York, NY, United States
Kirsi Auro	GlaxoSmithKline, Brentford, United Kingdom
Dawn Waterworth	Janssen Biotech, Beerse, Belgium
Andrea Ganna	Institute for Molecular Medicine Finland, HiLIFE, Helsinki, Finland, Finland
Anne Kerola	University of Helsinki
Hanna-Kaisa Heikkilä	Pirkanmaa Hospital District, Tampere, Finland
Javier Gracia Tabuenca	University of Tampere
Johanna Hiltunen	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Johanna Paltta	Hospital District of Southwest Finland, Turku, Finland
Juha Sinisalo	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Jukka Koskela	Institute for Molecular Medicine Finland, HiLIFE, Helsinki, Finland, Finland
Nina Mars	Institute for Molecular Medicine Finland, HiLIFE, Helsinki, Finland, Finland
Tarja Laitinen	University of Tampere
Tuulikki Sokka-Isler	Jyväskylä Central Hospital
Vincent Llorens	Institute for Molecular Medicine Finland, HiLIFE, Helsinki, Finland, Finland

FinnGen

Steering Committee

Aarno Palotie Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Mark Daly Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland

Pharmaceutical companies

Bridget Riley-Gills	AbbVie, Chicago, IL, United States
Howard Jacob	AbbVie, Chicago, IL, United States
Dirk Paul	AstraZeneca, Cambridge, United Kingdom
Heiko Runz	Biogen, Cambridge, MA, United States
Sally John	Biogen, Cambridge, MA, United States
Robert Plenge	Celgene, Summit, NJ, United States/Bristol Myers Squibb, New York, NY, United States
Mark McCarthy	Genentech, San Francisco, CA, United States
Julie Hunkapiller	Genentech, San Francisco, CA, United States
Meg Ehm	GlaxoSmithKline, Brentford, United Kingdom
Kirsi Auro	GlaxoSmithKline, Brentford, United Kingdom
Caroline Fox	Merck, Kenilworth, NJ, United States
Anders Mälarstig	Pfizer, New York, NY, United States
Katherine Klinger	Sanofi, Paris, France
Deepak Raipal	Sanofi, Paris, France
Tim Behrens	Maze Therapeutics, San Francisco, CA, United States
Robert Yang	Janssen Biotech, Beerse, Belgium
Richard Siegel	Novartis, Basel, Switzerland

University of Helsinki & Biobanks

Tomi Mäkelä	HiLIFE, University of Helsinki, Finland, Finland
Jaakko Kaprio	Institute for Molecular Medicine Finland, HiLIFE, Helsinki, Finland, Finland
Petri Virolainen	Auria Biobank / University of Turku / Hospital District of Southwest Finland, Turku, Finland
Antti Hakanen	Auria Biobank / University of Turku / Hospital District of Southwest Finland, Turku, Finland
Terhi Kilpi	THL Biobank / The National Institute of Health and Welfare Helsinki, Finland
Markus Perola	THL Biobank / The National Institute of Health and Welfare Helsinki, Finland
Jukka Partanen	Finnish Red Cross Blood Service / Finnish Hematology Registry and Clinical Biobank, Helsinki, Finland
Anne Pitkäranta	Helsinki Biobank / Helsinki University and Hospital District of Helsinki and Uusimaa, Helsinki
Juhani Junntila	Northern Finland Biobank Borealis / University of Oulu / Northern Ostrobothnia Hospital District, Oulu, Finland
Raisa Serpi	Northern Finland Biobank Borealis / University of Oulu / Northern Ostrobothnia Hospital District, Oulu, Finland
Tarja Laitinen	Finnish Clinical Biobank Tampere / University of Tampere / Pirkanmaa Hospital District, Tampere, Finland

Johanna Mäkelä Finnish Clinical Biobank Tampere / University of Tampere / Pirkanmaa Hospital District, Tampere, Finland
Veli-Matti Kosma Biobank of Eastern Finland / University of Eastern Finland / Northern Savo Hospital District, Kuopio, Finland
Urho Kujala Central Finland Biobank / University of Jyväskylä / Central Finland Health Care District, Jyväskylä, Finland

Other Experts/ Non-Voting Members

Outi Tuovila Business Finland, Helsinki, Finland
Raimo Pakkanen Business Finland, Helsinki, Finland

Scientific Committee

Pharmaceutical companies

Jeffrey Waring Abbvie, Chicago, IL, United States
Ali Abbas Abbvie, Chicago, IL, United States
Mengzhen Liu Abbvie, Chicago, IL, United States
Ioanna Tachmazidou Astra Zeneca, Cambridge, United Kingdom
Chia-Yen Chen Biogen, Cambridge, MA, United States
Heiko Runz Biogen, Cambridge, MA, United States
Shameek Biswas Celgene, Summit, NJ, United States/Bristol Myers Squibb, New York, NY, United States
Julie Hunkapiller Genentech, San Francisco, CA, United States
Meg Ehm GlaxoSmithKline, Brentford, United Kingdom
Neha Raghavan Merck, Kenilworth, NJ, United States
Adriana Huertas-Vazquez Merck, Kenilworth, NJ, United States
Anders Mälarstig Pfizer, New York, NY, United States
Xinli Hu Pfizer, New York, NY, United States
Katherine Klinger Sanofi, Paris, France
Matthias Gossel Sanofi, Paris, France
Robert Graham Maze Therapeutics, San Francisco, CA, United States
Tim Behrens Maze Therapeutics, San Francisco, CA, United States
Beryl Cummings Maze Therapeutics, San Francisco, CA, United States
Wilco Fleuren Janssen Biotech, Beerse, Belgium
Dawn Waterworth Janssen Biotech, Beerse, Belgium
Nicole Renaud Novartis, Basel, Switzerland
Ma'en Obeidat Novartis, Basel, Switzerland

University of Helsinki & Biobanks

Samuli Ripatti Institute for Molecular Medicine Finland, HiLIFE, Helsinki, Finland
Johanna Schleutker Auria Biobank / Univ. of Turku / Hospital District of Southwest Finland, Turku, Finland
Markus Perola THL Biobank / The National Institute of Health and Welfare Helsinki, Finland
Mikko Arvas Finnish Red Cross Blood Service / Finnish Hematology Registry and Clinical Biobank, Helsinki, Finland
Olli Carpén Helsinki Biobank / Helsinki University and Hospital District of Helsinki and Uusimaa, Helsinki

Reetta Hinttala Northern Finland Biobank Borealis / University of Oulu / Northern Ostrobothnia Hospital District, Oulu, Finland
Johannes Kettunen Northern Finland Biobank Borealis / University of Oulu / Northern Ostrobothnia Hospital District, Oulu, Finland
Johanna Mäkelä Finnish Clinical Biobank Tampere / University of Tampere / Pirkanmaa Hospital District, Tampere, Finland
Arto Mannermaa Biobank of Eastern Finland / University of Eastern Finland / Northern Savo Hospital District, Kuopio, Finland
Jari Laukkanen Central Finland Biobank / University of Jyväskylä / Central Finland Health Care District, Jyväskylä, Finland
Urho Kujala Central Finland Biobank / University of Jyväskylä / Central Finland Health Care District, Jyväskylä, Finland

Clinical Groups

Neurology Group

Reetta Kälviäinen	Northern Savo Hospital District, Kuopio, Finland
Valtteri Julkunen	Northern Savo Hospital District, Kuopio, Finland
Hilkka Soininen	Northern Savo Hospital District, Kuopio, Finland
Anne Remes	Northern Ostrobothnia Hospital District, Oulu, Finland
Mikko Hiltunen	Northern Savo Hospital District, Kuopio, Finland
Jukka Peltola	Pirkanmaa Hospital District, Tampere, Finland
Pentti Tienari	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Juha Rinne	Hospital District of Southwest Finland, Turku, Finland
Roosa Kallionpää	Hospital District of Southwest Finland, Turku, Finland
Ali Abbasi	AbbVie, Chicago, IL, United States
Adam Ziemann	AbbVie, Chicago, IL, United States
Jeffrey Waring	AbbVie, Chicago, IL, United States
Sahar Esmaeeli	AbbVie, Chicago, IL, United States
Nizar Smaoui	AbbVie, Chicago, IL, United States
Anne Lehtonen	AbbVie, Chicago, IL, United States
Susan Eaton	Biogen, Cambridge, MA, United States
Heiko Runz	Biogen, Cambridge, MA, United States
Sanni Lahdenperä	Biogen, Cambridge, MA, United States
Janet van Adelsberg	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY, United States
Shameek Biswas	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY, United States
Julie Hunkapiller	Genentech, San Francisco, CA, United States
Natalie Bowers	Genentech, San Francisco, CA, United States
Edmond Teng	Genentech, San Francisco, CA, United States
Sarah Pendergrass	Genentech, San Francisco, CA, United States
Onuralp Soylemez	Merck, Kenilworth, NJ, United States
Kari Linden	Pfizer, New York, NY, United States
Fanli Xu	GlaxoSmithKline, Brentford, United Kingdom
David Pulford	GlaxoSmithKline, Brentford, United Kingdom
Kirsi Auro	GlaxoSmithKline, Brentford, United Kingdom
Laura Addis	GlaxoSmithKline, Brentford, United Kingdom

John Eicher	GlaxoSmithKline, Brentford, United Kingdom
Minna Raivio	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Sarah Pendergrass	Genentech, San Francisco, CA, United States
Beryl Cummings	Maze Therapeutics, San Francisco, CA, United States
Juulia Partanen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland

Gastroenterology Group

Martti Färkkilä	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Jukka Koskela	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Sampsu Pikkarainen	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Airi Jussila	Pirkanmaa Hospital District, Tampere, Finland
Katri Kaukinen	Pirkanmaa Hospital District, Tampere, Finland
Timo Blomster	Northern Ostrobothnia Hospital District, Oulu, Finland
Mikko Kiviniemi	Northern Savo Hospital District, Kuopio, Finland
Markku Voutilainen	Hospital District of Southwest Finland, Turku, Finland
Ali Abbas	AbbVie, Chicago, IL, United States
Graham Heap	AbbVie, Chicago, IL, United States
Jeffrey Waring	AbbVie, Chicago, IL, United States
Nizar Smaoui	AbbVie, Chicago, IL, United States
Fedik Rahimov	AbbVie, Chicago, IL, United States
Anne Lehtonen	AbbVie, Chicago, IL, United States
Keith Usiskin	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY, United States
Tim Lu	Genentech, San Francisco, CA, United States
Natalie Bowers	Genentech, San Francisco, CA, United States
Danny Oh	Genentech, San Francisco, CA, United States
Sarah Pendergrass	Genentech, San Francisco, CA, United States
Kirsi Kalpala	Pfizer, New York, NY, United States
Melissa Miller	Pfizer, New York, NY, United States
Xinli Hu	Pfizer, New York, NY, United States
Linda McCarthy	GlaxoSmithKline, Brentford, United Kingdom
Onuralp Soylemez	Merck, Kenilworth, NJ, United States
Mark Daly	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland

Pulmonology Group

Tarja Laitinen	Pirkanmaa Hospital District, Tampere, Finland
Margit Pelkonen	Northern Savo Hospital District, Kuopio, Finland
Paula Kauppi	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Hannu Kankaanranta	Pirkanmaa Hospital District, Tampere, Finland
Terttu Harju	Northern Ostrobothnia Hospital District, Oulu, Finland
Riitta Lahesmaa	Hospital District of Southwest Finland, Turku, Finland
Nizar Smaoui	AbbVie, Chicago, IL, United States
Alex Mackay	AstraZeneca, Cambridge, United Kingdom
Glenda Lassi	AstraZeneca, Cambridge, United Kingdom
Susan Eaton	Biogen, Cambridge, MA, United States

Steven Greenberg United States	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY,
Hubert Chen	Genentech, San Francisco, CA, United States
Sarah Pendergrass	Genentech, San Francisco, CA, United States
Natalie Bowers	Genentech, San Francisco, CA, United States
Joanna Betts	GlaxoSmithKline, Brentford, United Kingdom
Soumitra Ghosh	GlaxoSmithKline, Brentford, United Kingdom
Kirsi Auro	GlaxoSmithKline, Brentford, United Kingdom
Rajashree Mishra	GlaxoSmithKline, Brentford, United Kingdom
Sina Rüeger Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Cardiometabolic Diseases Group

Teemu Niiranen	The National Institute of Health and Welfare Helsinki, Finland
Felix Vaura	The National Institute of Health and Welfare Helsinki, Finland
Veikko Salomaa	The National Institute of Health and Welfare Helsinki, Finland
Markus Juonala	Hospital District of Southwest Finland, Turku, Finland
Kaj Metsärinne	Hospital District of Southwest Finland, Turku, Finland
Mika Kähönen	Pirkanmaa Hospital District, Tampere, Finland
Juhani Junttila	Northern Ostrobothnia Hospital District, Oulu, Finland
Markku Laakso	Northern Savo Hospital District, Kuopio, Finland
Jussi Pihlajamäki	Northern Savo Hospital District, Kuopio, Finland
Daniel Gordin	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Juha Sinisalo	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Marja-Riitta Taskinen	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Tiinamaija Tuomi	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Jari Laukkanen	Central Finland Health Care District, Jyväskylä, Finland
Benjamin Challis	Astra Zeneca, Cambridge, United Kingdom
Dirk Paul	Astra Zeneca, Cambridge, United Kingdom
Julie Hunkapiller	Genentech, San Francisco, CA, United States
Natalie Bowers	Genentech, San Francisco, CA, United States
Sarah Pendergrass	Genentech, San Francisco, CA, United States
Onuralp Soylemez	Merck, Kenilworth, NJ, United States
Jaakko Parkkinen	Pfizer, New York, NY, United States
Melissa Miller	Pfizer, New York, NY, United States
Russell Miller	Pfizer, New York, NY, United States
Audrey Chu	GlaxoSmithKline, Brentford, United Kingdom
Kirsi Auro	GlaxoSmithKline, Brentford, United Kingdom
Keith Usiskin United States	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY,
Amanda Elliott Finland / Broad Institute, Cambridge, MA, United States	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Joel Rämö Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Samuli Ripatti Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Mary Pat Reeve
Helsinki, Finland
Sanni Ruotsalainen
Finland

Institute for Molecular Medicine Finland, HiLIFE, University of
Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Oncology Group

Tuomo Meretoja

Hospital District of Helsinki and Uusimaa, Helsinki, Finland

Heikki Joensuu

Hospital District of Helsinki and Uusimaa, Helsinki, Finland

Olli Carpén

Hospital District of Helsinki and Uusimaa, Helsinki, Finland

Lauri Aaltonen

Hospital District of Helsinki and Uusimaa, Helsinki, Finland

Johanna Mattson

Hospital District of Helsinki and Uusimaa, Helsinki, Finland

Annika Auranen

Pirkanmaa Hospital District , Tampere, Finland

Peeter Karihtala

Northern Ostrobothnia Hospital District, Oulu, Finland

Saila Kauppila

Northern Ostrobothnia Hospital District, Oulu, Finland

Päivi Auvinen

Northern Savo Hospital District, Kuopio, Finland

Klaus Elenius

Hospital District of Southwest Finland, Turku, Finland

Johanna Schleutker

Hospital District of Southwest Finland, Turku, Finland

Relja Popovic

AbbVie, Chicago, IL, United States

Jeffrey Waring

AbbVie, Chicago, IL, United States

Bridget Riley-Gillis

AbbVie, Chicago, IL, United States

Anne Lehtonen

AbbVie, Chicago, IL, United States

Jennifer Schutzman

Genentech, San Francisco, CA, United States

Julie Hunkapiller

Genentech, San Francisco, CA, United States

Natalie Bowers

Genentech, San Francisco, CA, United States

Sarah Pendergrass

Genentech, San Francisco, CA, United States

Andrey Loboda

Merck, Kenilworth, NJ, United States

Aparna Chhibber

Merck, Kenilworth, NJ, United States

Heli Lehtonen

Pfizer, New York, NY, United States

Stefan McDonough

Pfizer, New York, NY, United States

Marika Crohns

Sanofi, Paris, France

Sauli Vuoti

Sanofi, Paris, France

Diptee Kulkarni

GlaxoSmithKline, Brentford, United Kingdom

Kirsi Auro

GlaxoSmithKline, Brentford, United Kingdom

Esa Pitkänen

Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Finland

Nina Mars

Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Finland

Mark Daly

Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Finland

Ophthalmology Group

Kai Kaarniranta

Northern Savo Hospital District, Kuopio, Finland

Joni A Turunen

Hospital District of Helsinki and Uusimaa, Helsinki, Finland

Terhi Ollila

Hospital District of Helsinki and Uusimaa, Helsinki, Finland

Sanna Seitsonen

Hospital District of Helsinki and Uusimaa, Helsinki, Finland

Hannu Uusitalo

Pirkanmaa Hospital District, Tampere, Finland

Vesa Aaltonen

Hospital District of Southwest Finland, Turku, Finland

Hannele Uusitalo-Järvinen Pirkanmaa Hospital District, Tampere, Finland

Marja Luodonpää	Northern Ostrobothnia Hospital District, Oulu, Finland
Nina Hautala	Northern Ostrobothnia Hospital District, Oulu, Finland
Mengzhen Liu	Abbvie, Chicago, IL, United States
Heiko Runz	Biogen, Cambridge, MA, United States
Stephanie Loomis	Biogen, Cambridge, MA, United States
Erich Strauss	Genentech, San Francisco, CA, United States
Natalie Bowers	Genentech, San Francisco, CA, United States
Hao Chen	Genentech, San Francisco, CA, United States
Sarah Pendergrass	Genentech, San Francisco, CA, United States
Anna Podgornaia	Merck, Kenilworth, NJ, United States
Juha Karjalainen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland / Broad Institute, Cambridge, MA, United States
Esa Pitkänen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland

Dermatology Group

Kaisa Tasanen	Northern Ostrobothnia Hospital District, Oulu, Finland
Laura Huilaja	Northern Ostrobothnia Hospital District, Oulu, Finland
Katariina Hannula-Jouppi	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Teea Salmi	Pirkanmaa Hospital District, Tampere, Finland
Sirkku Peltonen	Hospital District of Southwest Finland, Turku, Finland
Leena Koulu	Hospital District of Southwest Finland, Turku, Finland
Kirsi Kalpala	Pfizer, New York, NY, United States
Ying Wu	Pfizer, New York, NY, United States
David Choy	Genentech, San Francisco, CA, United States
Sarah Pendergrass	Genentech, San Francisco, CA, United States
Nizar Smaoui	Abbvie, Chicago, IL, United States
Fedik Rahimov	Abbvie, Chicago, IL, United States
Anne Lehtonen	Abbvie, Chicago, IL, United States
Dawn Waterworth	Janssen Biotech, Beerse, Belgium

Odontology Group

Pirkko Pussinen	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Aino Salminen	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Tuula Salo	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
David Rice	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Pekka Nieminen	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Ulla Palotie	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Juha Sinisalo	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Maria Siponen	Northern Savo Hospital District, Kuopio, Finland
Liisa Suominen	Northern Savo Hospital District, Kuopio, Finland
Päivi Mäntylä	Northern Savo Hospital District, Kuopio, Finland
Ulvi Gursoy	Hospital District of Southwest Finland, Turku, Finland
Vuokko Anttonen	Northern Ostrobothnia Hospital District, Oulu, Finland
Kirsi Sipilä	Northern Ostrobothnia Hospital District, Oulu, Finland
Sarah Pendergrass	Genentech, San Francisco, CA, United States

Women's Health and Reproduction Group

Hannele Laivuori Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Venla Kurra	Pirkanmaa Hospital District, Tampere, Finland
Oskari Heikinheimo	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Ilkka Kalliala	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Laura Kotaniemi-Talonen	Pirkanmaa Hospital District, Tampere, Finland
Kari Nieminen	Pirkanmaa Hospital District, Tampere, Finland
Päivi Polo	Hospital District of Southwest Finland, Turku, Finland
Kaarlin Mäkkilä	Hospital District of Southwest Finland, Turku, Finland
Eeva Ekholm	Hospital District of Southwest Finland, Turku, Finland
Marja Vääräsmäki	Northern Ostrobothnia Hospital District, Oulu, Finland
Outi Uimari	Northern Ostrobothnia Hospital District, Oulu, Finland
Laure Morin-Papunen	Northern Ostrobothnia Hospital District, Oulu, Finland
Marjo Tuppurainen	Northern Savo Hospital District, Kuopio, Finland
Katja Kivinen Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Elisabeth Widen Helsinki, Finland	Institute for Molecular Medicine Finland, HiLIFE, University of
Taru Tukiainen Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Mary Pat Reeve Helsinki, Finland	Institute for Molecular Medicine Finland, HiLIFE, University of
Mark Daly Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Liu Aoxing Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Eija Laakkonen	University of Jyväskylä, Jyväskylä, Finland
Niko Välimäki	University of Helsinki, Helsinki, Finland
Lauri Altonen	Hospital District of Helsinki and Uusimaa, Helsinki, Finland
Johannes Kettunen	Northern Ostrobothnia Hospital District, Oulu, Finland
Mikko Arvas	Finnish Red Cross Blood Service, Helsinki, Finland
Jeffrey Waring	AbbVie, Chicago, IL, United States
Brigid Riley-Gillis	AbbVie, Chicago, IL, United States
Mengzhen Liu	AbbVie, Chicago, IL, United States
Janet Kumar	GlaxoSmithKline, Brentford, United Kingdom
Kirsi Auro	GlaxoSmithKline, Brentford, United Kingdom
Andrea Ganna Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Sarah Pendergrass	Genentech, San Francisco, CA, United States

FinnGen Analysis working group

Justin Wade Davis	AbbVie, Chicago, IL, United States
Brigid Riley-Gillis	AbbVie, Chicago, IL, United States
Danjuma Quarless	AbbVie, Chicago, IL, United States
Fedik Rahimov	AbbVie, Chicago, IL, United States
Sahar Esmaeeli	AbbVie, Chicago, IL, United States

Slavé Petrovski	Astra Zeneca, Cambridge, United Kingdom
Eleonor Wigmore	Astra Zeneca, Cambridge, United Kingdom
Adele Mitchell	Biogen, Cambridge, MA, United States
Benjamin Sun	Biogen, Cambridge, MA, United States
Ellen Tsai	Biogen, Cambridge, MA, United States
Denis Baird	Biogen, Cambridge, MA, United States
Paola Bronson	Biogen, Cambridge, MA, United States
Ruoyu Tian	Biogen, Cambridge, MA, United States
Stephanie Loomis	Biogen, Cambridge, MA, United States
Yunfeng Huang	Biogen, Cambridge, MA, United States
Joseph Maranville	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY, United States
Shameek Biswas	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY, United States
Elmutaz Mohammed	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY, United States
Samir Wadhawan	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY, United States
Erika Kvistad	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY, United States
Minal Caliskan	Celgene, Summit, NJ, United States/ Bristol Myers Squibb, New York, NY, United States
Diana Chang	Genentech, San Francisco, CA, United States
Julie Hunkapiller	Genentech, San Francisco, CA, United States
Tushar Bhangale	Genentech, San Francisco, CA, United States
Natalie Bowers	Genentech, San Francisco, CA, United States
Sarah Pendergrass	Genentech, San Francisco, CA, United States
Kirill Shkura	Merck, Kenilworth, NJ, United States
Victor Neduvia	Merck, Kenilworth, NJ, United States
Xing Chen	Pfizer, New York, NY, United States
Åsa Hedman	Pfizer, New York, NY, United States
Karen S King	GlaxoSmithKline, Brentford, United Kingdom
Padhraig Gormley	GlaxoSmithKline, Brentford, United Kingdom
Jimmy Liu	GlaxoSmithKline, Brentford, United Kingdom
Clarence Wang	Sanofi, Paris, France
Ethan Xu	Sanofi, Paris, France
Franck Auge	Sanofi, Paris, France
Clement Chatelain	Sanofi, Paris, France
Deepak Rajpal	Sanofi, Paris, France
Dongyu Liu	Sanofi, Paris, France
Katherine Call	Sanofi, Paris, France
Tai-He Xia	Sanofi, Paris, France
Beryl Cummings	Maze Therapeutics, San Francisco, CA, United States
Matt Brauer	Maze Therapeutics, San Francisco, CA, United States
Huilei Xu	Novartis, Basel, Switzerland
Amy Cole	Novartis, Basel, Switzerland
Jonathan Chung	Novartis, Basel, Switzerland

Jaison Jacob	Novartis, Basel, Switzerland
Katrina de Lange	Novartis, Basel, Switzerland
Jonas Zierer	Novartis, Basel, Switzerland
Mitja Kurki	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland / Broad Institute, Cambridge, MA, United States
Samuli Ripatti	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Mark Daly	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Juha Karjalainen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland / Broad Institute, Cambridge, MA, United States
Aki Havulinna	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Juha Mehtonen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Priit Palta	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Shabbeer Hassan	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Pietro Della Briotta Parolo	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Wei Zhou	Broad Institute, Cambridge, MA, United States
Mutaamba Maasha	Broad Institute, Cambridge, MA, United States
Shabbeer Hassan	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Susanna Lemmelä	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Manuel Rivas	University of Stanford, Stanford, CA, United States
Aarno Palotie	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Arto Lehisto	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Andrea Ganna	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Vincent Llorens	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Hannele Laivuori	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Mari E Niemi	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Taru Tukiainen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Mary Pat Reeve	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Henrike Heyne	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland

Nina Mars	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Kimmo Palin	University of Helsinki, Helsinki, Finland
Javier Garcia-Tabuena	University of Tampere, Tampere, Finland
Harri Siirtola	University of Tampere, Tampere, Finland
Tuomo Kiiskinen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Jiwoo Lee	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland / Broad Institute, Cambridge, MA, United States
Kristin Tsuo	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland / Broad Institute, Cambridge, MA, United States
Amanda Elliott	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland / Broad Institute, Cambridge, MA, United States
Kati Kristiansson	THL Biobank / The National Institute of Health and Welfare Helsinki, Finland
Mikko Arvas	Finnish Red Cross Blood Service / Finnish Hematology Registry and Clinical Biobank, Helsinki, Finland
Kati Hyvärinen	Finnish Red Cross Blood Service, Helsinki, Finland
Jarmo Ritari	Finnish Red Cross Blood Service, Helsinki, Finland
Miika Koskinen	Helsinki Biobank / Helsinki University and Hospital District of Helsinki and Uusimaa, Helsinki
Olli Carpén	Helsinki Biobank / Helsinki University and Hospital District of Helsinki and Uusimaa, Helsinki
Johannes Kettunen	Northern Finland Biobank Borealis / University of Oulu / Northern Ostrobothnia Hospital District, Oulu, Finland
Katri Pylkäs	University of Oulu, Oulu, Finland
Marita Kalaoja	University of Oulu, Oulu, Finland
Minna Karjalainen	University of Oulu, Oulu, Finland
Tuomo Mantere	Northern Finland Biobank Borealis / University of Oulu / Northern Ostrobothnia Hospital District, Oulu, Finland
Eeva Kangasniemi	Finnish Clinical Biobank Tampere / University of Tampere / Pirkanmaa Hospital District, Tampere, Finland
Sami Heikkilä	University of Eastern Finland, Kuopio, Finland
Arto Mannermaa	Biobank of Eastern Finland / University of Eastern Finland / Northern Savo Hospital District, Kuopio, Finland
Eija Laakkonen	University of Jyväskylä, Jyväskylä, Finland
Samuel Heron	University of Turku, Turku, Finland
Dhanapakash Jambulingam	University of Turku, Turku, Finland
Venkat Subramaniam Rathinakannan	University of Turku, Turku, Finland
Nina Pitkänen	Auria Biobank / University of Turku / Hospital District of Southwest Finland, Turku, Finland

Biobank directors

Lila Kallio	Auria Biobank / University of Turku / Hospital District of Southwest Finland, Turku, Finland
Sirpa Soini	THL Biobank / The National Institute of Health and Welfare Helsinki, Finland

Jukka Partanen	Finnish Red Cross Blood Service / Finnish Hematology Registry and Clinical Biobank, Helsinki, Finland
Eero Punkka	Helsinki Biobank / Helsinki University and Hospital District of Helsinki and Uusimaa, Helsinki
Raisa Serpi	Northern Finland Biobank Borealis / University of Oulu / Northern Ostrobothnia Hospital District, Oulu, Finland
Johanna Mäkelä	Finnish Clinical Biobank Tampere / University of Tampere / Pirkanmaa Hospital District, Tampere, Finland
Veli-Matti Kosma	Biobank of Eastern Finland / University of Eastern Finland / Northern Savo Hospital District, Kuopio, Finland
Teijo Kuopio	Central Finland Biobank / University of Jyväskylä / Central Finland Health Care District, Jyväskylä, Finland

FinnGen Teams

Administration

Anu Jalanko	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Huei-Yi Shen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Risto Kajanne	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Mervi Aavikko	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland

Analysis

Mitja Kurki	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland / Broad Institute, Cambridge, MA, United States
Juha Karjalainen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland / Broad Institute, Cambridge, MA, United States
Pietro Della Briotta Parolo	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Arto Lehisto	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Juha Mehtonen	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Wei Zhou	Broad Institute, Cambridge, MA, United States
Masahiro Kanai	Broad Institute, Cambridge, MA, United States
Mutaamba Maasha	Broad Institute, Cambridge, MA, United States

Clinical Endpoint Development

Hannele Laivuori	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland
Aki Havulinna	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Finland

Susanna Lemmelä Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Tuomo Kiiskinen Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
L. Elisa Lahtela Helsinki, Finland	Institute for Molecular Medicine Finland, HiLIFE, University of
Matti Peura Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Communication

Mari Kaunisto Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
--------------------------	---

Data Management and IT Infrastructure

Elina Kilpeläinen Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Timo P. Sipilä Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Georg Brein Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Oluwaseun A. Dada Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Awaisa Ghazal Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Anastasia Shcherban Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Genotyping

Kati Donner Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Timo P. Sipilä Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Sample Collection Coordination

Anu Loukola	Helsinki Biobank / Helsinki University and Hospital District of Helsinki and Uusimaa, Helsinki
-------------	--

Sample Logistics

Päivi Laiho Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,
Tuuli Sistonen Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,
Essi Kaiharju Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,
Markku Laukkonen Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,

Elina Järvensivu Helsinki, Finland	THL Biobank / The National Institute of Health and Welfare
Sini Lähteenmäki Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,
Lotta Männikkö Helsinki, Finland	THL Biobank / The National Institute of Health and Welfare
Regis Wong Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,

Registry Data Operations

Hannele Mattsson Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,
Kati Kristiansson Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,
Susanna Lemmelä Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Sami Koskelainen Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,
Tero Hiekkalinna Finland	THL Biobank / The National Institute of Health and Welfare Helsinki,
Teemu Paajanen Helsinki, Finland	THL Biobank / The National Institute of Health and Welfare

Sequencing Informatics

Priit Palta Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Kalle Pärn Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Shuang Luo Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
Vishal Sinha Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,

Trajectory Team

Tarja Laitinen	Pirkanmaa Hospital District, Tampere, Finland
Harri Siirtola	University of Tampere, Tampere, Finland
Javier Gracia-Tabuena	University of Tampere, Tampere, Finland
Mika Helminen	University of Tampere, Tampere, Finland
Tiina Luukkaala	University of Tampere, Tampere, Finland
Iida Vähätalo	University of Tampere, Tampere, Finland

Data protection officer

Tero Jyrhämä Finland	Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki,
-------------------------	---

FinBB - Finnish biobank cooperative

Marco Hautalahti
Laura Mustaniemi
Mirkka Koivusalo
Sarah Smith
Tom Southerington