



THE CLUSTER
CONSORTIUM



**VERSUS
ARTHRITIS**



Experiment/Analysis Name	Output and Type of Data	Timepoints	Tissue	Cell Population	Treatment	Analysis platform	No of Samples (whole numbers)	No of Patient (whole numbers)
CLUSTER Diagnosis Trajectory	Clinical	T1 to 3 years (includes some half year)	N/A	N/A	Any treatment including no treatment	N/A	N/A	1184
CLUSTER MTX Trajectory	Clinical	T1, T2 and anything inbetween and up to 14 month after MTX	N/A	N/A	Methotrexate for arthritis	N/A	N/A	1898
CLUSTER ETN Trajectory	Clinical	T1, T2 and anything inbetween and up to 14 month after ETN	N/A	N/A	Etanercept for arthritis	N/A	N/A	1003
CLUSTER MTX Topological	Clinical	At MTX start	N/A	N/A	Methotrexate for arthritis	N/A	N/A	2915
CLUSTER MTX	Clinical	T1,T2	N/A	N/A	Methotrexate for arthritis	N/A	N/A	2899
CLUSTER MTX GWAS	GWAS	tbc	DNA	N/A	Methotrexate for arthritis	tbc	tbc	tbc
CLUSTER MTX outcome data for GWAS	Clinical	tbc	N/A	N/A	Methotrexate for arthritis	N/A	N/A	tbc
CLUSTER Non-European susceptibility GWAS	GWAS	tbc	DNA	N/A	tbc	tbc	tbc	tbc
CLUSTER Non-European	Clinical	tbc	N/A	N/A	tbc	N/A	N/A	tbc
CLUSTER MTX PBMC RNASeq	Transcriptomics RNASeq	T1	PBMC	CD4	Methotrexate for arthritis	NovaSeq6000	89	86
	Transcriptomics RNASeq	T1	PBMC	CD8	Methotrexate for arthritis	NovaSeq6000	87	85
	Transcriptomics RNASeq	T1	PBMC	CD14	Methotrexate for arthritis	NovaSeq6000	81	80
	Transcriptomics RNASeq	T1	PBMC	CD19	Methotrexate for arthritis	NovaSeq6000	86	83
	Transcriptomics RNASeq	T1	PBMC	tPBMC	Methotrexate for arthritis	NovaSeq6000	84	82
	Clinical	T1, T2	N/A	N/A	Methotrexate for arthritis	N/A	N/A	102



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GREAT
ORMOND
STREET
HOSPITAL
CHARITY

Olivia's VISION

Experiment/Analysis Name	Output and Type of Data	Timepoints	Tissue	Cell Population	Treatment	Analysis platform	No of Samples (whole numbers)	No of Patient (whole numbers)
CLUSTER MTX PBMC Flow Cytometry	Flow Cytometry	T1	PBMC	tPBMC	Methotrexate for arthritis	LSRII - FlowJo	96	98
	Clinical	T1, T2	N/A	N/A	Methotrexate for arthritis	N/A	N/A	102
CLUSTER MTX Serum Proteomics	Proteomics	T1	Serum	N/A	Methotrexate for arthritis	SWATH-MS	73	73
	Clinical	T1, T2	N/A	N/A	Methotrexate for arthritis	N/A	N/A	73
CLUSTER PBMC/SFMC Paired CiteSeq	Transcriptomics, Proteomics	T1	PBMC, SFMC	tPBMC/tSFMC	Methotrexate for arthritis	10X Genomics 3' CellPlex	12	6
	Clinical	T1, T2	N/A	N/A	Methotrexate for arthritis	N/A	N/A	6
CLUSTER TNFi	Clinical	T1,T2	N/A	N/A	Anti-TNF for arthritis	N/A	N/A	2401
CLUSTER TNFi PBMC RNASeq	Transcriptomics RNASeq	T1	PBMC	CD4	Anti-TNF for arthritis	NovaSeq6000	25	25
	Transcriptomics RNASeq	T1	PBMC	CD8	Anti-TNF for arthritis	NovaSeq6000	22	22
	Transcriptomics RNASeq	T1	PBMC	CD14	Anti-TNF for arthritis	NovaSeq6000	23	23
	Transcriptomics RNASeq	T1	PBMC	CD19	Anti-TNF for arthritis	NovaSeq6000	20	20
	Transcriptomics RNASeq	T1	PBMC	tPBMC	Anti-TNF for arthritis	NovaSeq6000	34	29
	Clinical	T1, T2	N/A	N/A	Anti-TNF for arthritis	N/A	N/A	37
CLUSTER TNFi PBMC Flow Cytometry	Flow Cytometry	T1	PBMC	tPBMC	Anti-TNF for arthritis	LSRII - FlowJo	33	34
	Clinical	T1, T2	N/A	N/A	Anti-TNF for arthritis	N/A	N/A	37
CLUSTER TNFi Serum Proteomics	Proteomics	T1	Serum	N/A	Anti-TNF for arthritis	SWATH-MS	37	37
	Clinical	T1, T2	N/A	N/A	Anti-TNF for arthritis	N/A	N/A	37
CLUSTER PBMC/SFMC Paired RNASeq	Transcriptomics RNASeq	any	PBMC	CD4	Any for arthritis	NovaSeq6000	40	45
	Transcriptomics RNASeq	any	PBMC	CD8	Any for arthritis	NovaSeq6000	41	41
	Transcriptomics RNASeq	any	PBMC	CD14	Any for arthritis	NovaSeq6000	32	32
	Transcriptomics RNASeq	any	PBMC	CD19	Any for arthritis	NovaSeq6000	40	40
	Transcriptomics RNASeq	any	PBMC	tPBMC	Any for arthritis	NovaSeq6000	45	45
	Transcriptomics RNASeq	any	SFMC	CD4	Any for arthritis	NovaSeq6000	43	43
Transcriptomics RNASeq	any	SFMC	CD8	Any for arthritis	NovaSeq6000	44	44	



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CLUSTER PBMC/SFMC Paired RNASeq	Transcriptomics RNASeq	any	SFMC	CD14	Any for arthritis	NovaSeq6000	37	37
	Transcriptomics RNASeq	any	SFMC	CD19	Any for arthritis	NovaSeq6000	26	26
	Transcriptomics RNASeq	any	SFMC	tSFMC	Any for arthritis	NovaSeq6000	47	45
	Clinical	any	N/A	N/A	Any for arthritis	N/A	N/A	45
CLUSTER PBMC/SFMC Paired Flow Cytometry	Flow Cytometry	any	PBMC	PBMC	Any for arthritis	LSRII - FlowJo	43	45
	Flow Cytometry	any	SFMC	SFMC	Any for arthritis	LSRII - FlowJo	44	45
	Clinical	any	N/A	N/A	Any for arthritis	N/A	N/A	45
CLUSTER Refractory MTX Exome	Whole Exome Sequencing	NA	DNA	N/A	Any for arthritis	NovaSeq - VarSeq	99	99
	Clinical	NA	N/A	N/A	Any for arthritis	N/A	N/A	83
CLUSTER JIA-Uveitis TNFi PBMC RNASeq	Transcriptomics RNASeq	T1, T2, T3	PBMC	CD4	Anti-TNF for JIA-uveitis	NovaSeq6000	13	13
	Transcriptomics RNASeq	T1, T2, T3	PBMC	CD8	Anti-TNF for JIA-uveitis	NovaSeq6000	13	13
	Transcriptomics RNASeq	T1, T2, T3	PBMC	CD14	Anti-TNF for JIA-uveitis	NovaSeq6000	2	2
	Transcriptomics RNASeq	T1, T2, T3	PBMC	CD19	Anti-TNF for JIA-uveitis	NovaSeq6000	10	10
	Transcriptomics RNASeq	T1, T2, T3	PBMC	tPBMC	Anti-TNF for JIA-uveitis	NovaSeq6000	12	12
	Clinical		N/A	N/A	Anti-TNF for JIA-uveitis	N/A	N/A	20
CLUSTER JIA-Uveitis TNFi Flow Cytometry	Flow Cytometry	T1, T2, T3	PBMC	tPBMC	Anti-TNF for JIA-uveitis	LSRII - FlowJo	7	7
	Clinical	tbc	N/A	N/A	Anti-TNF for JIA-uveitis	N/A	N/A	20
CLUSTER JIA-Uveitis TNFi Serum Proteomics	Proteomics	T1	Serum	N/A	Anti-TNF for JIA-uveitis	SWATH-MS	25	25
	Clinical	tbc	N/A	N/A	Anti-TNF for JIA-uveitis	N/A	N/A	25
CLUSTER JIA-Uveitis IL6i Flow Cytometry	Flow Cytometry	T1, T2, T3	PBMC	tPBMC	Anti-IL6 for JIA-uveitis	LSRII - FlowJo	3	3
	Clinical	tbc	N/A	N/A	Anti-IL6 for JIA-uveitis	N/A	N/A	8
CLUSTER JIA-Uveitis IL6i PBMC RNASeq	Transcriptomics RNASeq	T1, T2, T3	PBMC	CD4	Anti-IL6 for JIA-uveitis	NovaSeq6000	3	3
	Transcriptomics RNASeq	T1, T2, T3	PBMC	CD8	Anti-IL6 for JIA-uveitis	NovaSeq6000	2	2
	Transcriptomics RNASeq	T1, T2, T3	PBMC	CD14	Anti-IL6 for JIA-uveitis	NovaSeq6000	3	3
	Transcriptomics RNASeq	T1, T2, T3	PBMC	CD19	Anti-IL6 for JIA-uveitis	NovaSeq6000	3	3
	Transcriptomics RNASeq	T1, T2, T3	PBMC	tPBMC	Anti-IL6 for JIA-uveitis	NovaSeq6000	5	5



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Experiment/Analysis Name	Output and Type of Data	Timepoints	Tissue	Cell Population	Treatment	Analysis platform	No of Samples (whole numbers)	No of Patient (whole numbers)
	Clinical	tbc	N/A	N/A	Anti-IL6 for JIA-uveitis	N/A	N/A	8
CLUSTER JIA-Uveitis IL6i Serum Proteomics	Proteomics	T1	Serum	N/A	Anti-IL6 for JIA-uveitis	SWATH-MS	12	12
	Clinical	tbc	N/A Clinical	N/A	Anti-IL6 for JIA-uveitis	N/A	N/A	12
CLUSTER JIA-Uveitis Nanostring	Transcriptomics Nanostring	T1	Whole blood	N/A	Anti-TNF for JIA-uveitis	Nanostring	tbc	tbc
	Transcriptomics Nanostring	T1	Whole blood	N/A	Anti-IL6 for JIA-uveitis	Nanostring	tbc	tbc
CLUSTER JIA-Uveitis DNA Methylation	Epigenomics DNA methylation	Any	PBMC	CD4	Any	Infinium EPIC array	tbc	tbc
	Epigenomics DNA methylation	Any	PBMC	CD8	Any	Infinium EPIC array	tbc	tbc
CLUSTER JIA-Uveitis Genetics	GWAS genotyping	tbc	Whole blood	N/A	tbc	Genotyping- Illumina	3076	3076
Legacy RNASeq	RNASeq	tbc	PBMC	tPBMC	tbc	HiSeq2500	44	44
	Clinical	tbc	N/A	N/A	tbc	N/A	N/A	44

Key

PBMC = peripheral blood mononuclear cell

SFMC = synovial fluid mononuclear cell

T1 = time point 1 (baseline)

T2 = time point 2 (follow-up)

T3 = time point 3 (follow-up)

N/A = Not Applicable

tbc = to be confirmed