

Dissecting Adversity – Identifying “what” and “when”

Jonathan D. Turner

PI: Immune Endocrine Epigenetics Research Group

Deputy Head: Allergology Immunology and Inflammation Research Unit

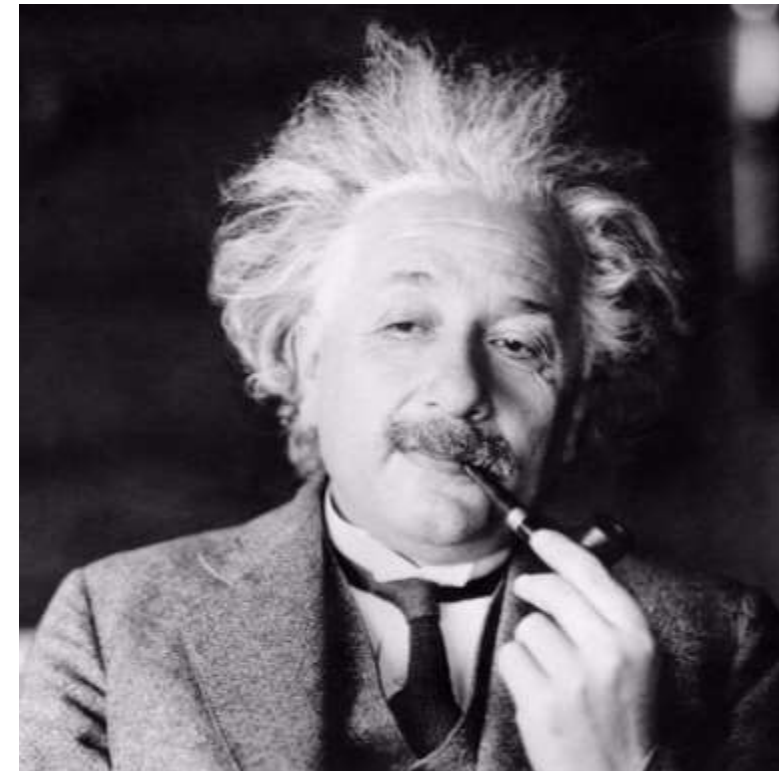
God does not play dice.....

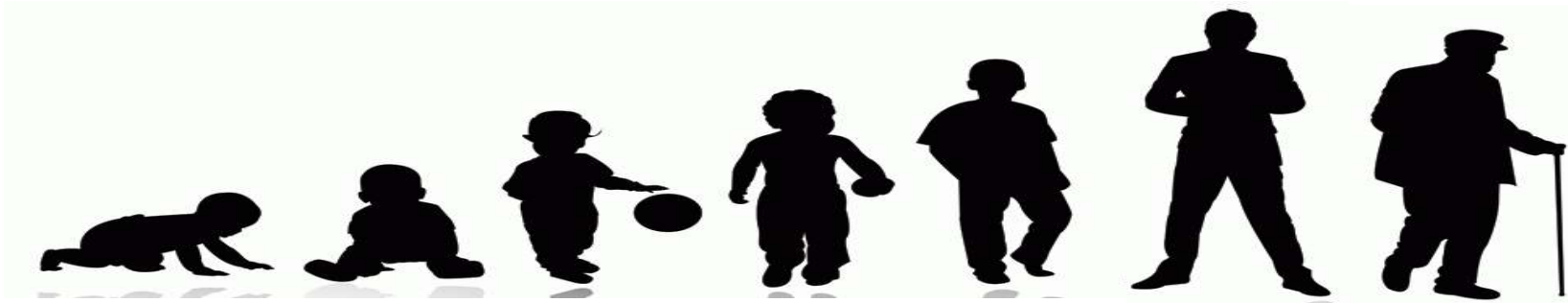
(But he does like to play poker)

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Adversity in the first 1000 days

Social:

Parent death
Parental divorce
Separation/institutionalization

Physical:

Physical, sexual, emotional abuse

Economic:

Low SES

Infection.



Higher risk for chronic diseases



Cardiovascular diseases



Depression



Obesity



Autoimmune diseases

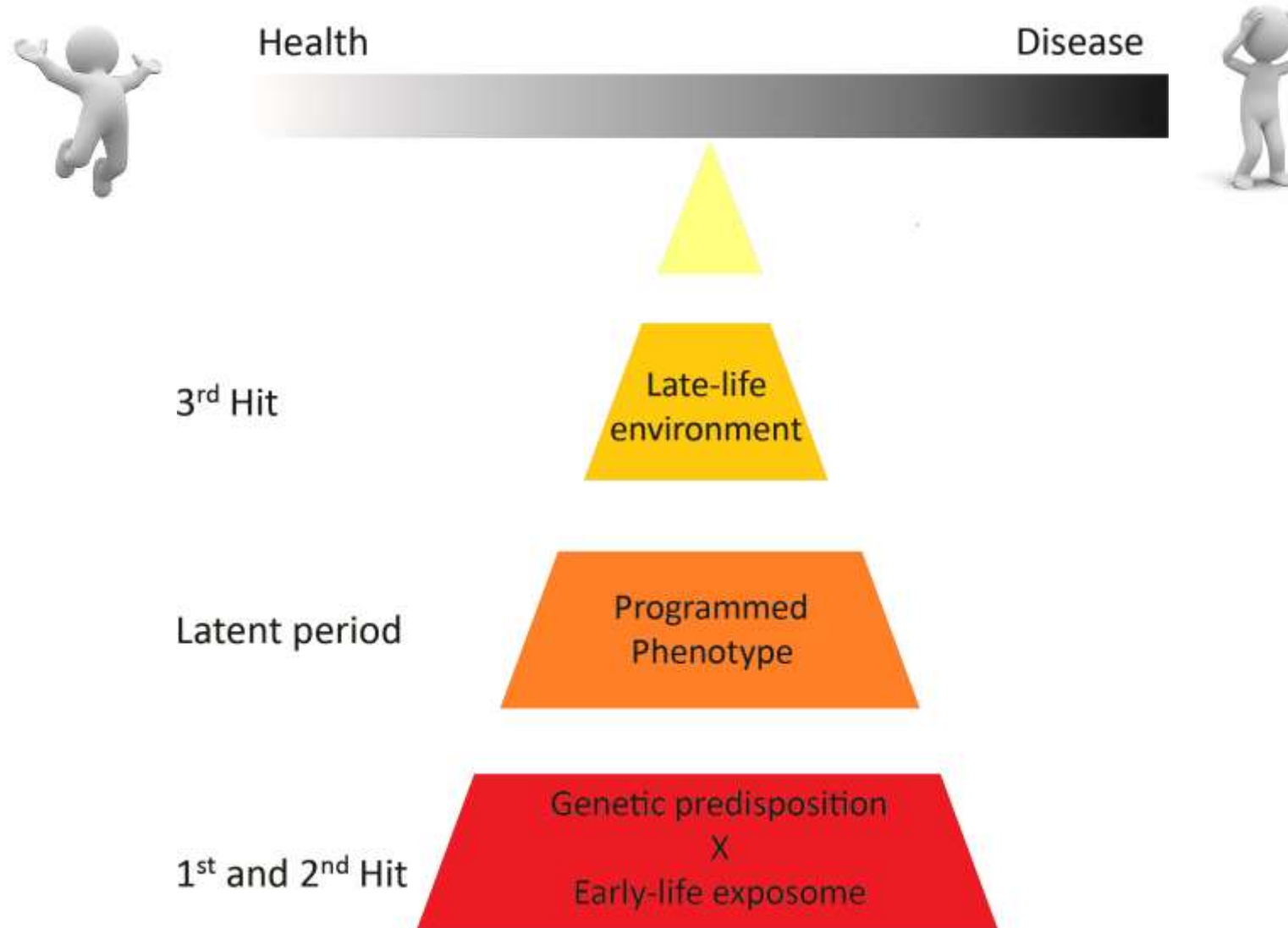


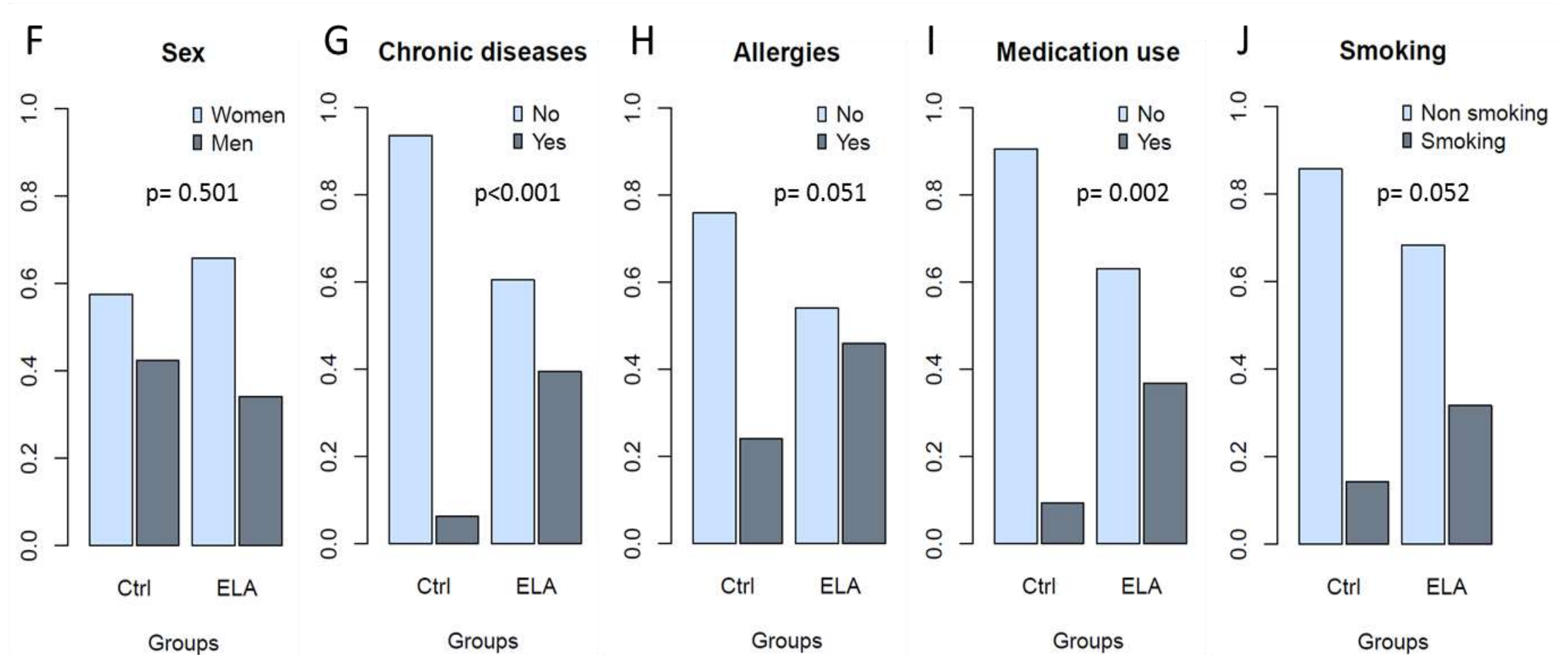
Diabetes Type 2



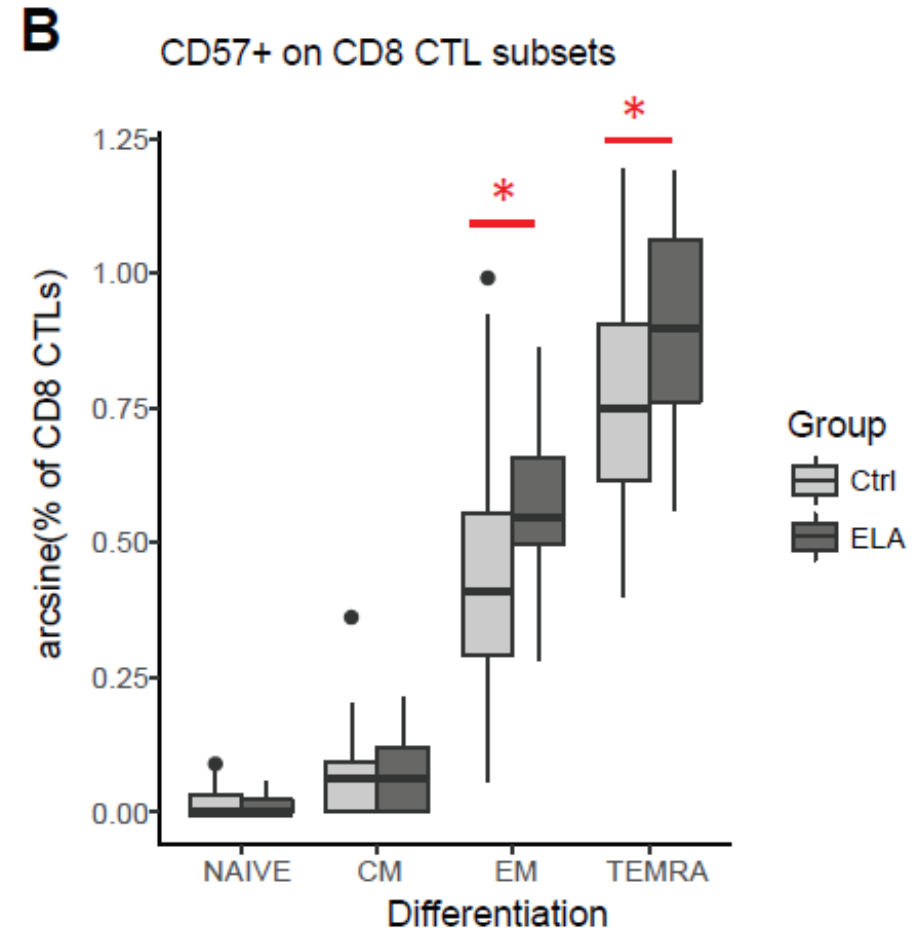
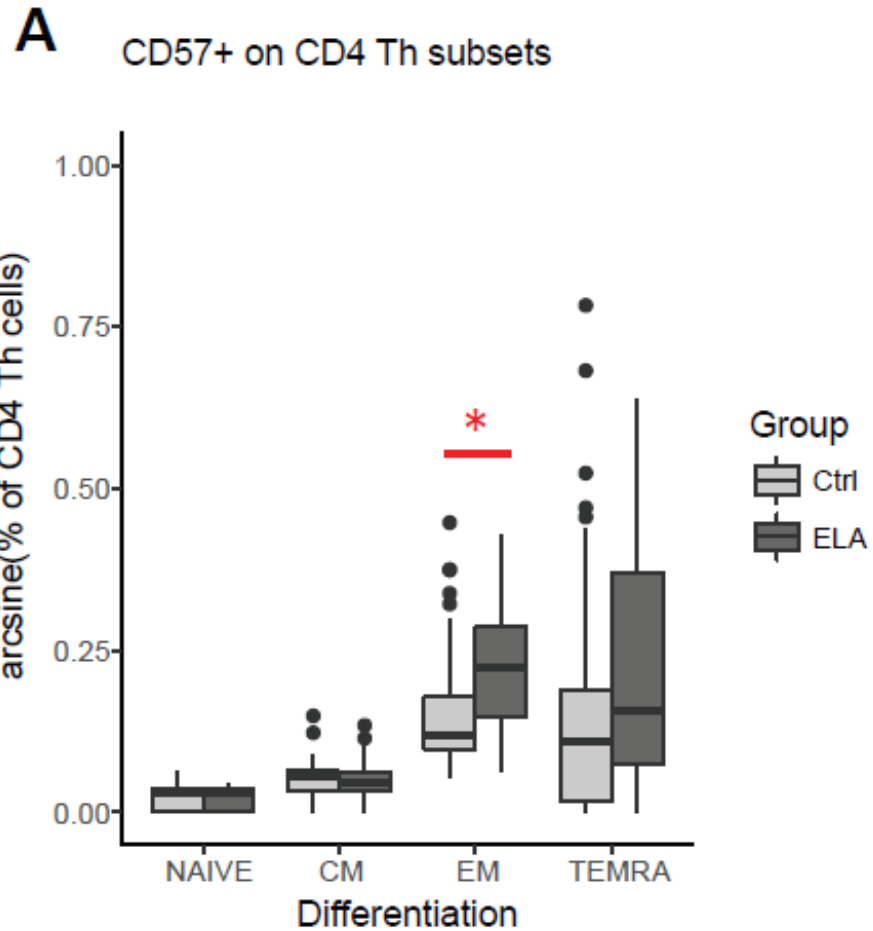
Allergy

The three-hit concept of vulnerability



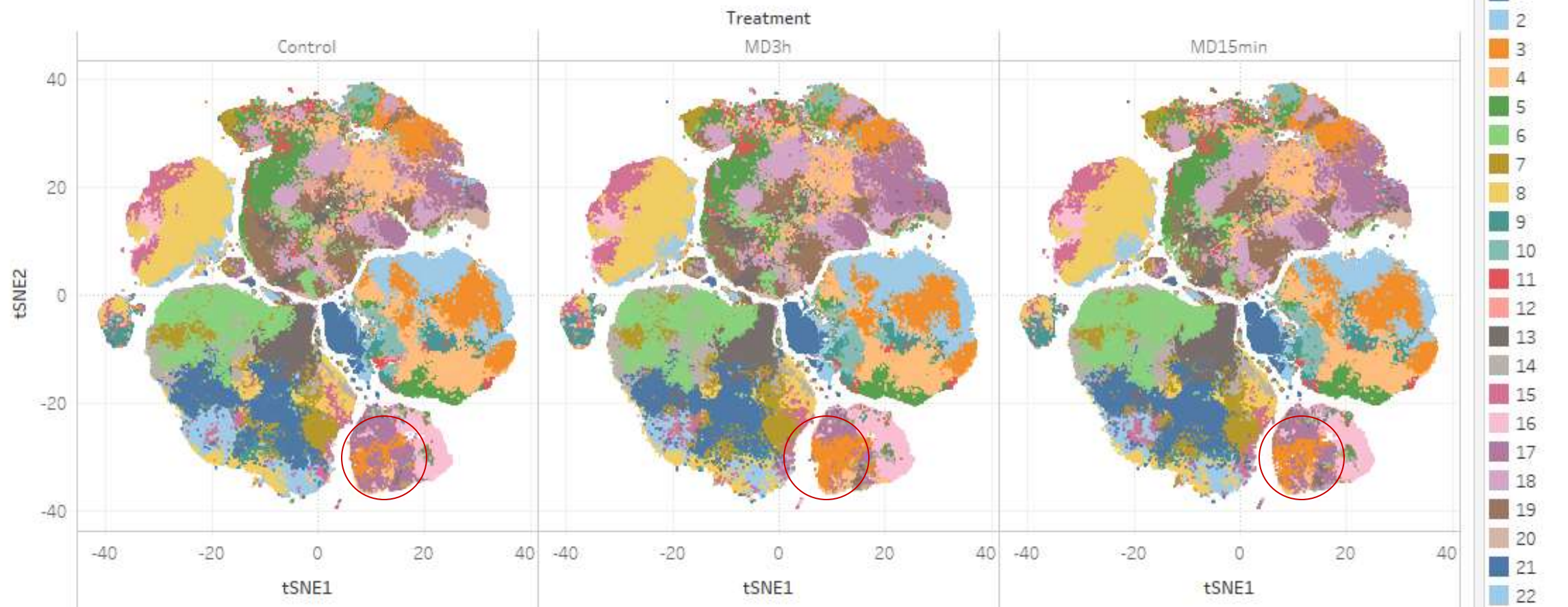


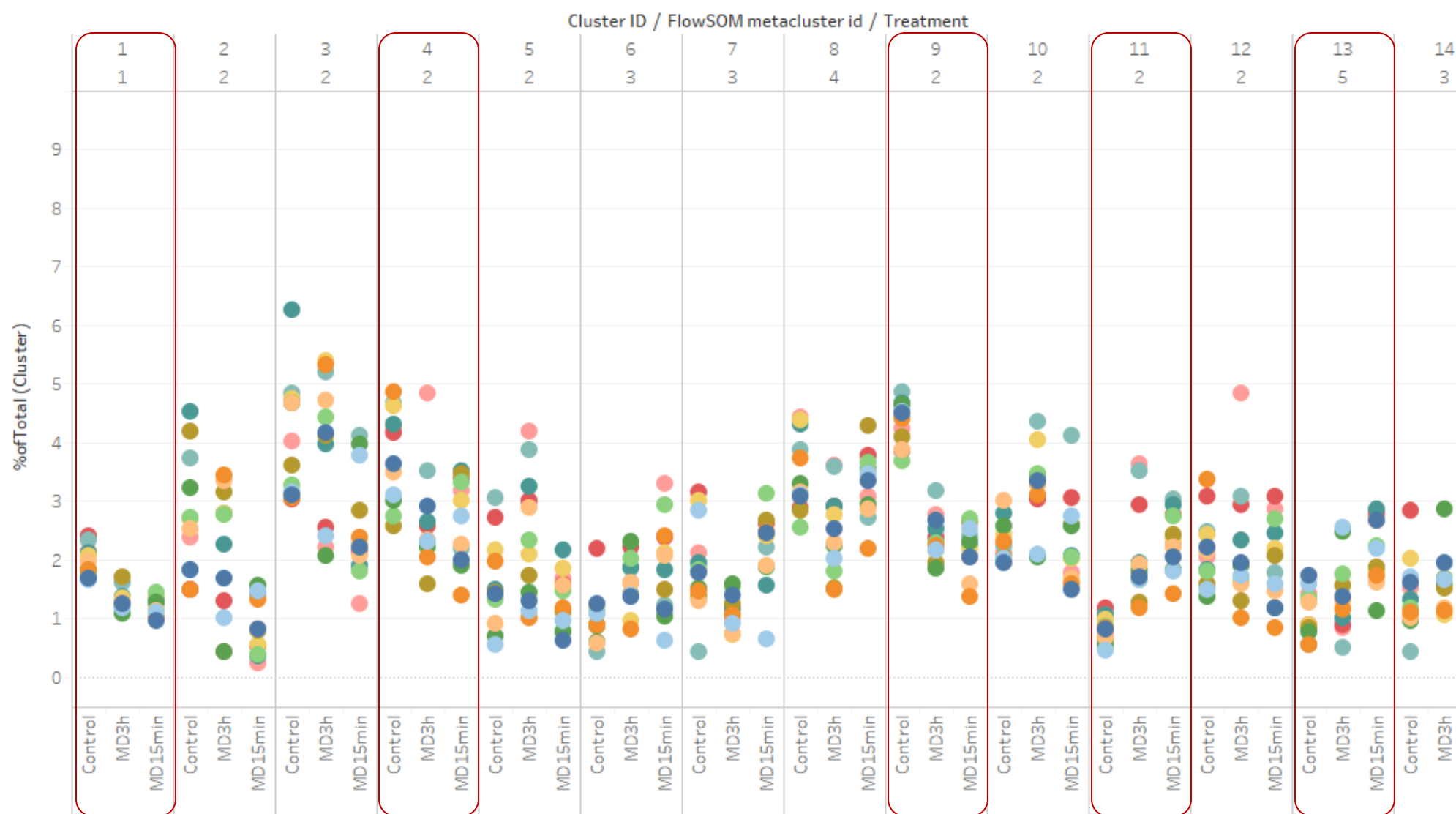
SCID-I	Adoptees N=35	Non-adoptees N=71	Chi ²
Anxiety Disorder	13 (31%)	9 (12.3%)	8.533, p=.003
Mood Disorder	14 (33.3%)	3 (4.1%)	22.281, p<.001
Substance	9 (21.4%)	4 (5.5%)	8.785, p=.003
Abuse	7 (16.7%)	3 (4.1%)	6.828, p=.009
Dependency	3 (7.1%)	1 (1.4%)	3.313, p=.069
Eating Disorders	1 (2.4%)	2 (2.7%)	1.580, p=.209
Acute Stress Disorder	1 (2.4%)	0	2.048, p=.152
PTSD	1 (2.4%)	0	2.048, p=.152
SCID-II	Adoptees N=35	Non-adoptees N=71	Chi ²
Narcissistic	1 (2.4%)	0	2.048, p=.152
Histrionic	0	0	
Dependent	2 (4.8%)	0	4.135, p=.042
Obsessive compulsive	1 (2.4%)	0	2.048, p=.152
Borderline	3 (7.1%)	0	6.263, p=.003
Antisocial	1 (2.4%)	0	2.048, p=.152
NOS	1 (2.4%)	1 (1.4%)	0.266, p=.606
insecure	1 (2.4%)	0	2.048, p=.152



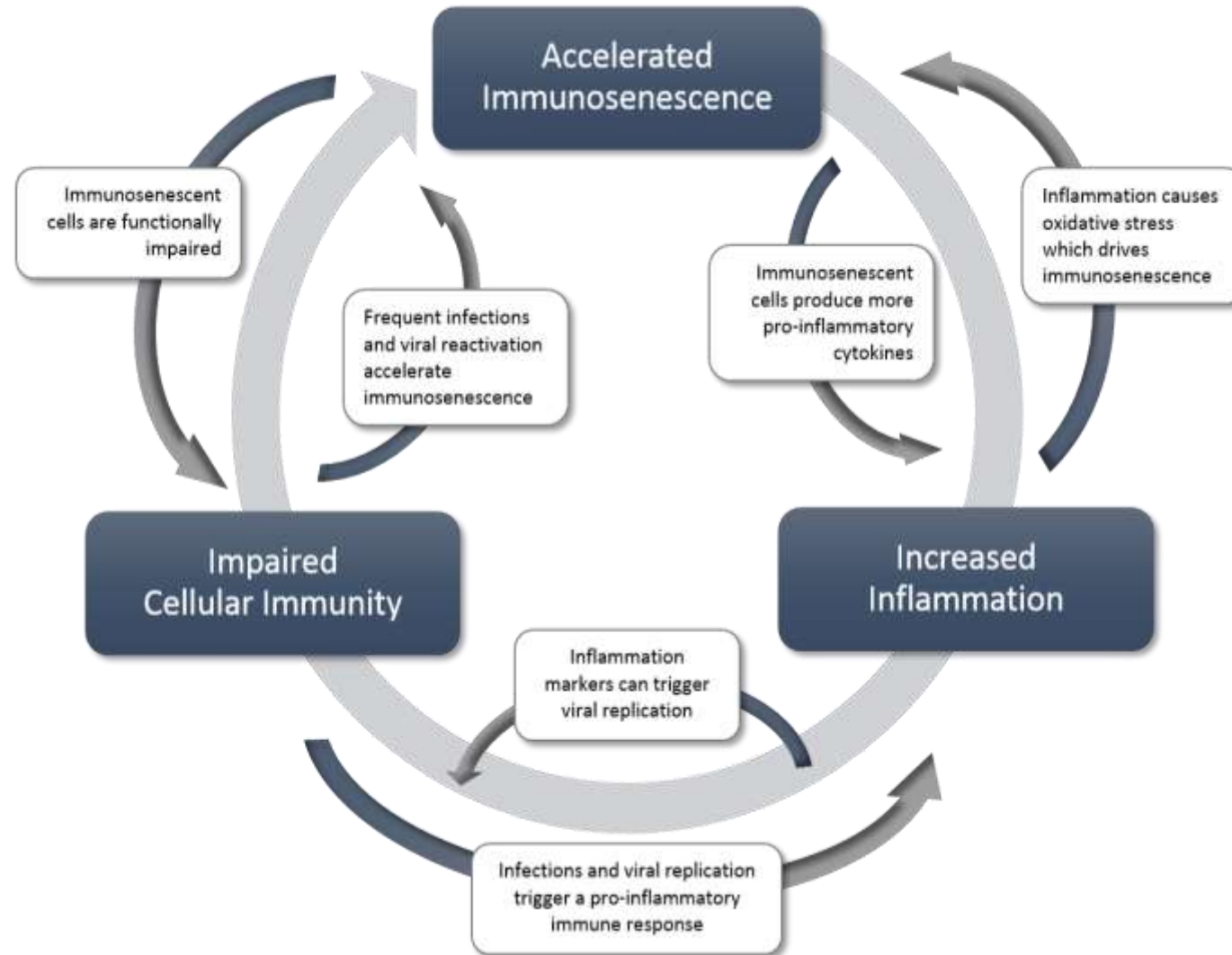
Visualising the complete immune system...

viSNE





ELA Immune Phenotype



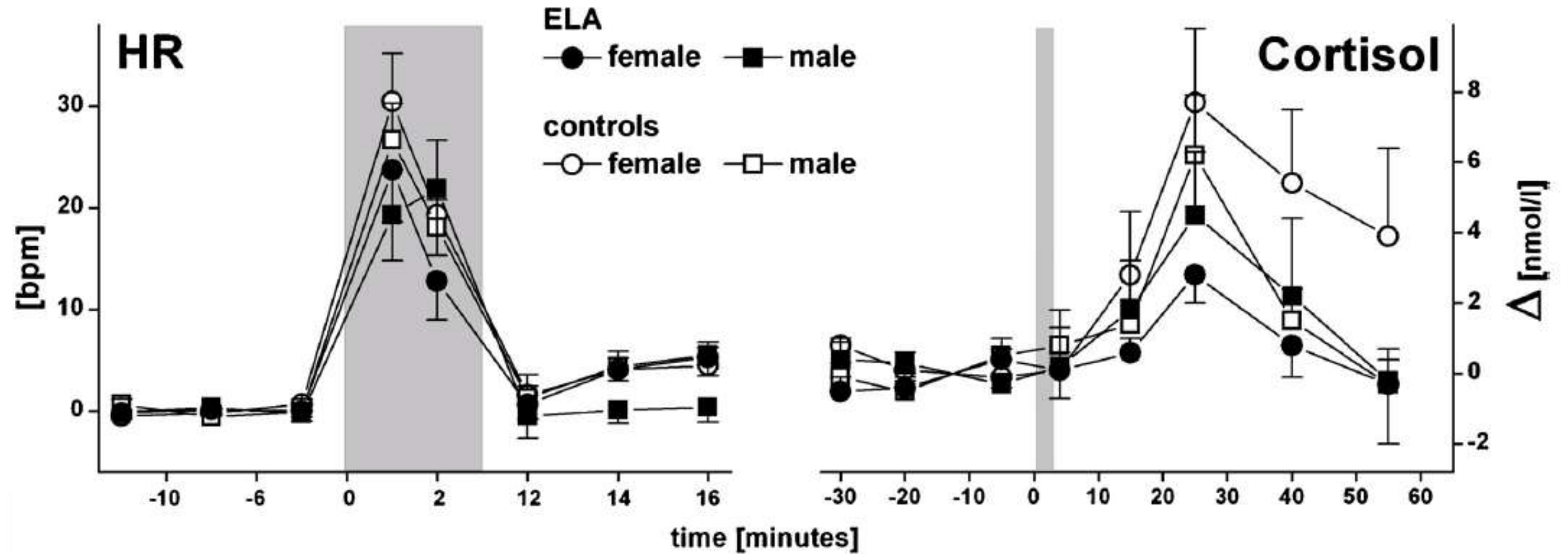


Figure 1

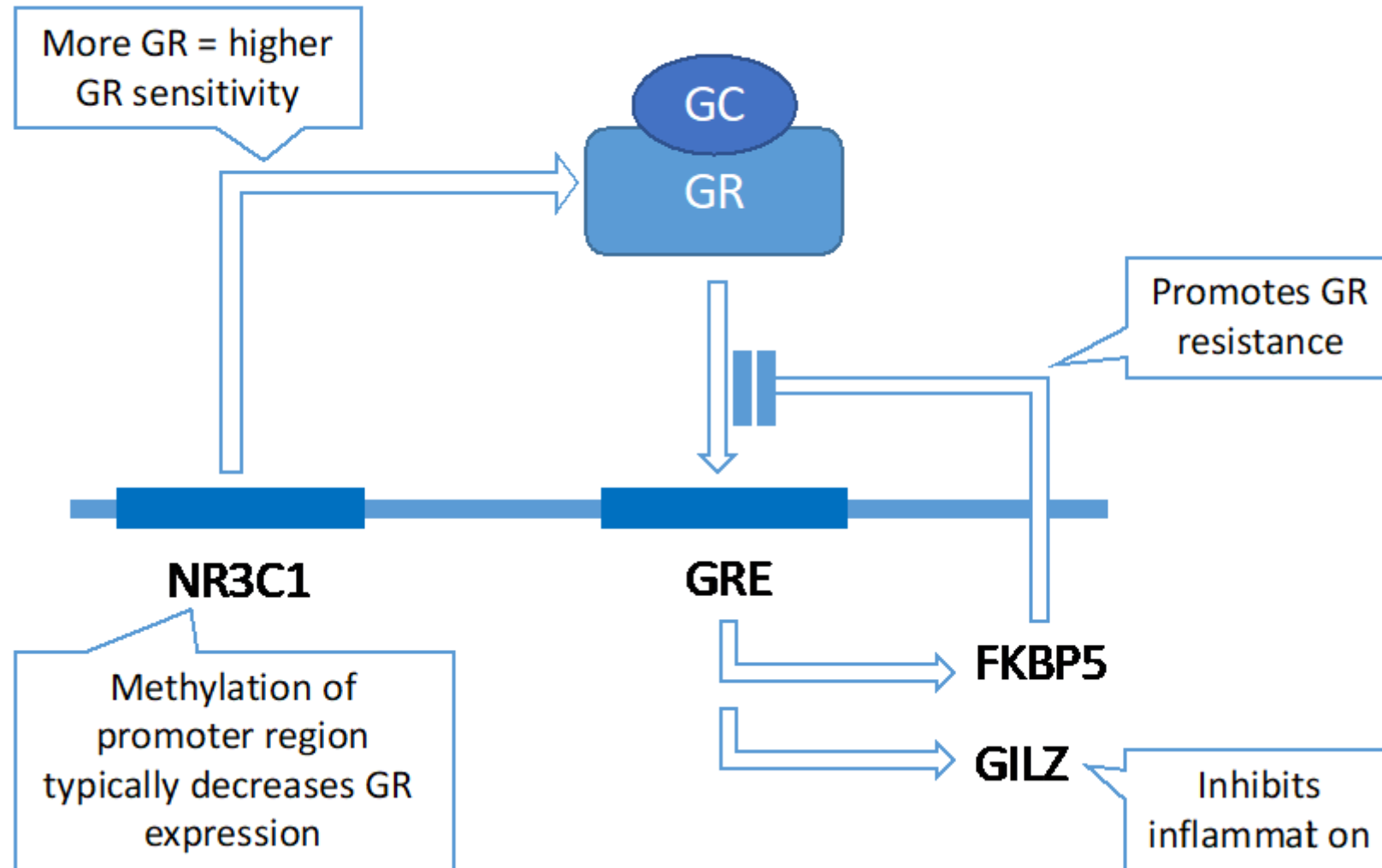
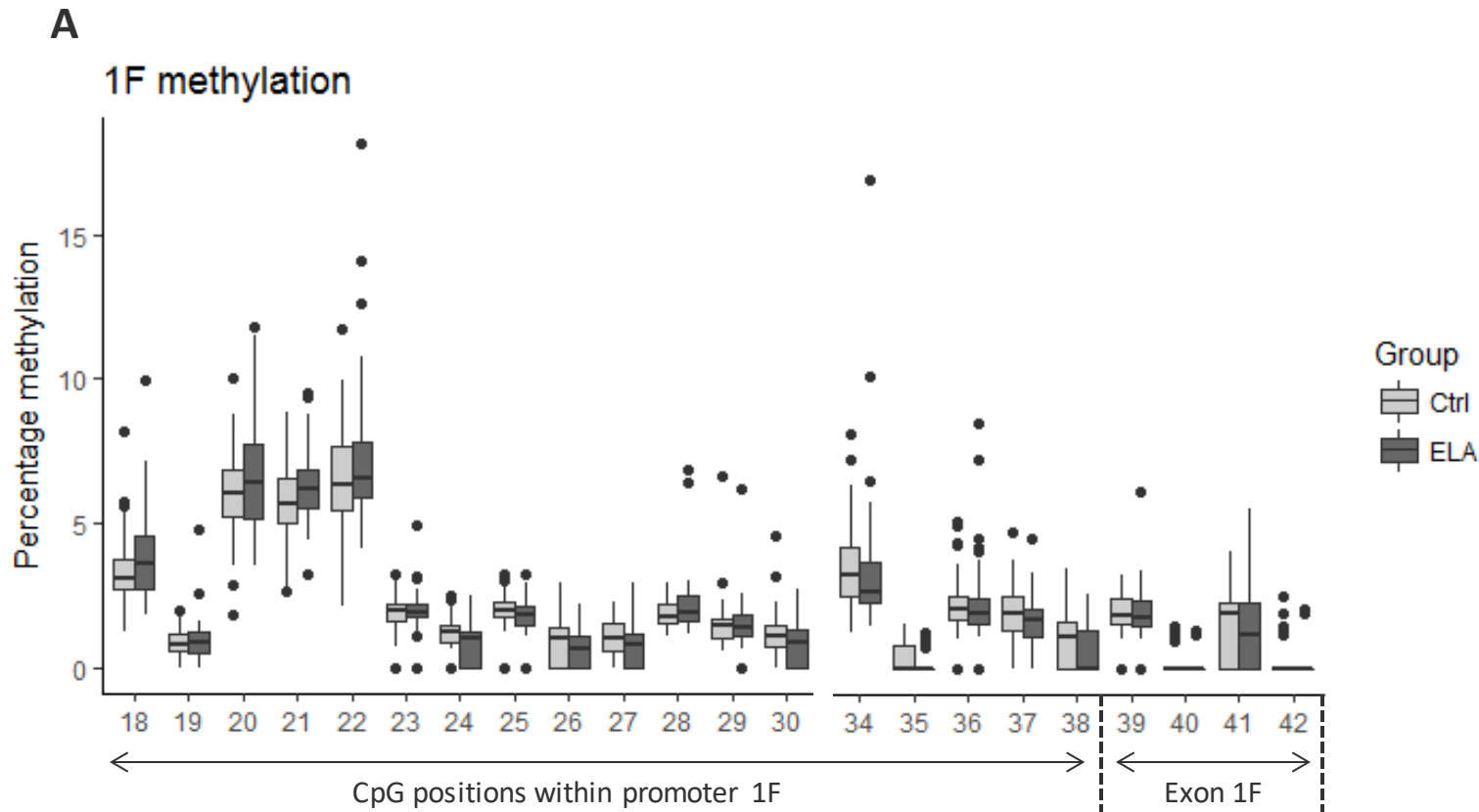
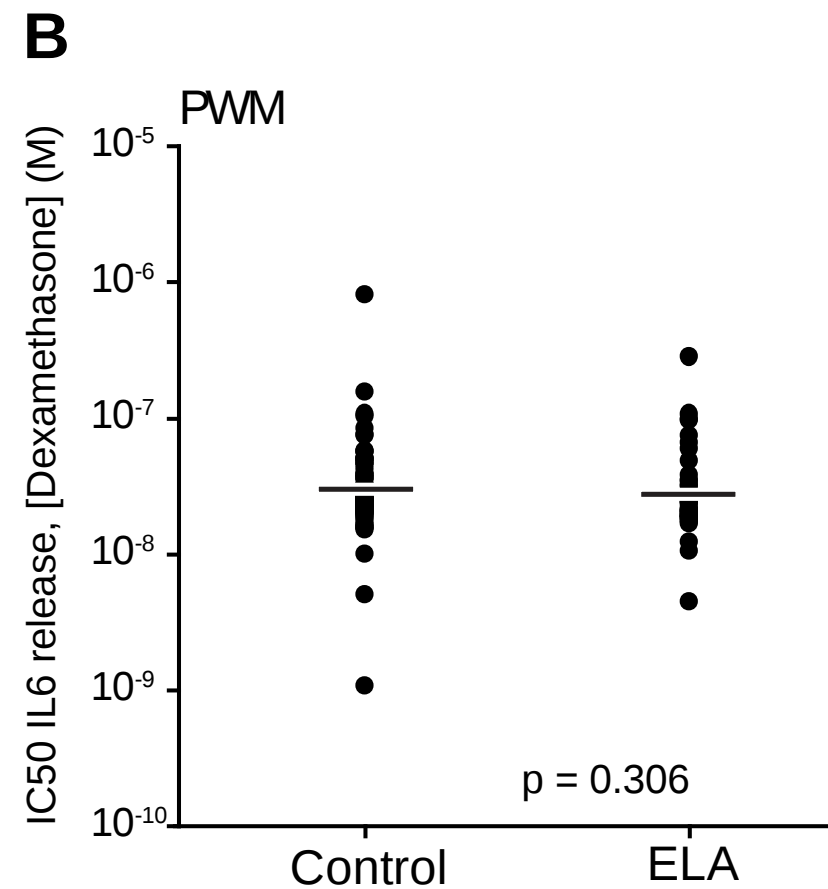
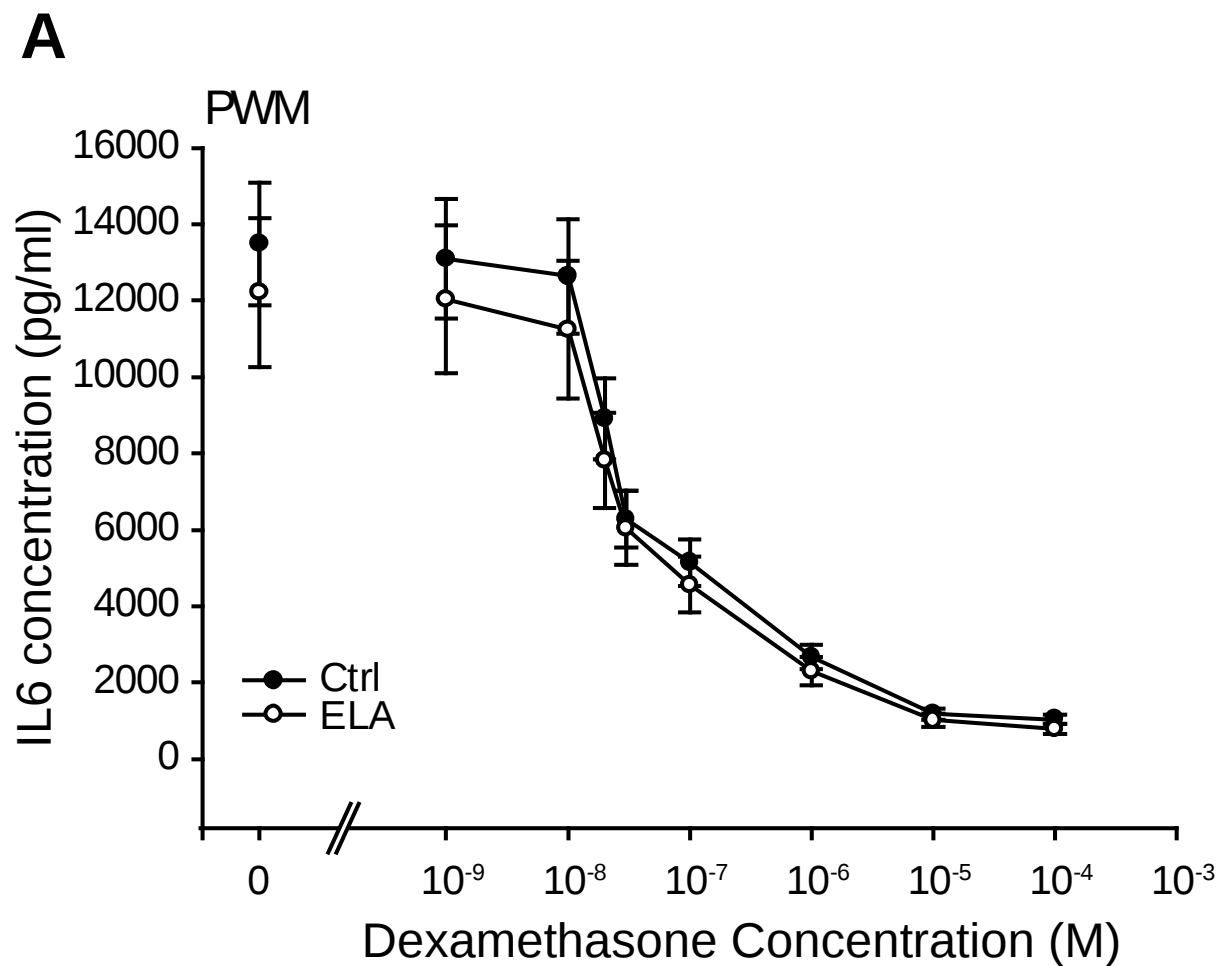


Figure 2. GR DNA methylation levels in Ctrl vs ELA in two first exon regions: 1F (A) and 1H (B).

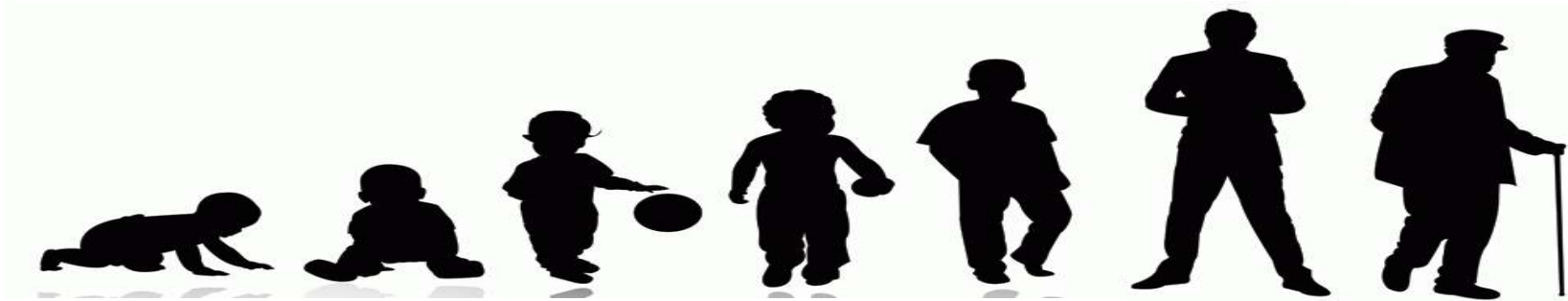


GILZ	**	*	*	***
FKBP5	***	***	***	
GR 1H	***	***		
GR 1F	***			
	Ctrl GR	GR 1F	GR 1H	FKBP5





Two slides removed for IP reasons



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Thank you for your attention!



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Johannes Finke
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CIEC

Myriam Alexandre
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Jean-Yves Ferrand
Roxane Batutu



THANK YOU FOR LISTENING

Jonathan D. Turner

jonathan.turner@lih.lu

Ext 629