

Abstracts

adjusting for current age, gender, and race finds a significant odds ratio of 2.03 (p-value <0.01, 95% CI 1.32-3.11).

Conclusion Despite a lower risk of HZ among Blacks in the general population, our study found similar HZ prevalence between Blacks and non-Blacks. Additionally, our study found a significant relationship between higher SLE disease damage and HZ, consistent with findings in other SLE cohorts. Our results emphasize the need to identify HZ early among patients with dark skin, and promote HZ vaccination among those at highest risk.

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THE MOLECULAR ENDOTYPES OF TYPE 1 AND TYPE 2 SLE

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Objective To characterize the molecular landscape of patients with Type 1 and Type 2 systemic SLE erythematosus (SLE) by analyzing gene expression profiles from peripheral blood.

Methods Full transcriptomic RNA sequencing was carried out on whole blood samples from 18 subjects with SLE selected by manifestations of Type 1 and Type 2 SLE as determined by SLE Disease Activity Index (SLEDAI) and Polysymptomatic Distress (PSD) score, respectively. The top 5,000 row variance genes were analyzed by a suite of gene expression technologies to generate gene coexpression modules which were functionally annotated and correlated to various demographic traits, clinical features and laboratory assays.

Results Stable k-means clustering of gene coexpression modules effectively segregated Type 1 from Type 2 SLE. Unique Type 1 SLE enrichments included IFN, neutrophils, monocytes, IL-1, TNF, cell cycle, and neurotransmitter pathways, whereas unique Type 2 SLE enrichments included B cells, plasma cells, Ig chains, and neuromuscular pathways. Enrichment of the IFN signature was not observed in Type 2 SLE. Gene expression patterns of some Type 2 SLE patients were identified amongst gene expression profiles reported in the literature for inactive SLE and idiopathic fibromyalgia (FM) patients.

Conclusion A suite of orthogonal gene coexpression technologies successfully identified unique transcriptional patterns that segregate Type 1 SLE from Type 2 SLE, and further identified Type 2 molecular features in patients with inactive SLE or FM.

Clinical Research in SLE

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RACIAL DIFFERENCES IN CLINICAL TRIAL PERCEPTIONS AMONG A LARGE, PREDOMINANTLY BLACK COHORT OF PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IN THE SOUTHEASTERN UNITED STATES

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Background Black patients have higher incidence and severity of systemic lupus erythematosus (SLE) and worse outcomes as

Abstract 625 Table 1 2021 Georgians Organized Against Lupus (GOAL) Clinical Trial-Related Survey Responses, by Race.

Survey Response	Black N=569 N (%)	Non-Black N=139 N (%)	p- value
1.Which of the following is a lupus clinical trial? Pick only one answer.			
A study comparing a new lupus drug to a placebo (inactive medication)	185 (34)	99 (72)	<0.001
A survey about lupus symptoms	140 (26)	10 (7)	
A blood draw to look for genes related to lupus	59 (11)	7 (5)	
A study where researchers follow patients with lupus to see what risk factors are associated with heart disease	163 (30)	21 (15)	
2.Which sources of information about a research study that involves taking a new drug to see if it works for lupus are trustworthy to you? Choose all that apply.			
My rheumatologist	512 (90)	133 (96)	0.034
My primary care doctor	256 (45)	56 (40)	0.32
My other doctors (for example, dermatologist or nephrologist)	159 (28)	49 (35)	0.09
My lupus support group	145 (26)	15 (11)	<0.001
My family members	72 (13)	10 (7)	0.071
My friends	34 (6)	4 (3)	0.15
My church or religious group	20 (4)	1 (1)	0.082
Local organizations (for example, Georgia chapter of the Lupus Foundation of America)	141 (25)	45 (32)	0.068
Social media	22 (4)	2 (1)	0.16
News media	37 (7)	9 (7)	0.99
Government	41 (7)	15 (11)	0.16
3.Have you ever been asked to participate in a research study that involves taking a new drug to see if it works for lupus?			
Yes	105 (19)	18 (13)	0.22
No	422 (75)	114 (82)	
Unsure	35 (6)	7 (5)	
4.Have you ever participated in a research study that involves taking a new drug to see if it works for lupus?			
Yes	54 (10)	8 (6)	0.36
No	484 (86)	122 (88)	
Unsure	28 (5)	8 (6)	
5.Would you be comfortable participating in a research study that involves taking a new drug to see if it works for lupus in the future?			
Yes	158 (28)	41 (30)	0.10
No	186 (33)	33 (24)	
Unsure	223 (39)	65 (47)	
6.I would feel more comfortable participating in a research study that involves taking a new drug to see if it works for lupus if members of the research team are the same race as me.			
Yes	133 (24)	13 (10)	<0.001
No	230 (41)	89 (67)	
Unsure	195 (35)	30 (23)	
7.I would feel more comfortable participating in a research study that involves taking a new drug to see if it works for lupus if the study is focused on members of my race.			