



























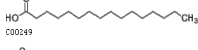
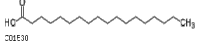



Table S3. Differential metabolites of serum and synovial fluid samples from RA-Cold and RA-Hot patients detected by GC/MS

Groups	Sample Type	Metabolite Name	CAS NO.	Formula	Exact mass	Structure	Concentration (matrice)		
							Normal	Cold-RA	Hot-RA
Normal vs RA-hot	Serum	Acetohydroxamic acid	546-88-3	C ₂ H ₃ NO ₂	75.032		1006095.33	1005162.63	993834.75
Normal vs RA-hot	Serum	Alpha tocophereol	1959/2/9	C ₂₉ H ₅₀ O ₂	430.72		52803	83831.5	65121.25
Normal vs RA-hot	Serum	Beta-alanine	107-95-9	C ₃ H ₇ NO ₂	89.0477		74753	78244.88	55264.17
Normal vs RA-hot	Synovial fluid	Cholesterol	57-88-5	C ₂₇ H ₄₆ O	386.355		4692091.11	0	5378448.72
Normal vs RA-hot	Synovial fluid	D (+)altrose	1990-29-0	C ₆ H ₁₂ O ₆	180.063		32289778.18	29992401.63	25658031.13
Normal vs RA-hot	Synovial fluid	D-allose	2595-97-3	C ₆ H ₁₂ O ₆	180.063		2259120.53	1840082.95	1376830.33
Normal vs RA-hot	Serum	DL-isoleucine	443-79-8	C ₆ H ₁₃ NO	131.095		65812.33	102672.13	137339
Normal vs RA-hot	Synovial fluid/Serum	L-(+) lactic acid	79-33-4	C ₃ H ₆ O ₃	90.0317		13368294.82	19850532.19	23661202.27
Normal vs RA-hot	Serum	L-alanine	56-41-7	C ₃ H ₇ NO ₂	89.0477		833952.33	916189.63	926338.92
Normal vs RA-hot	Synovial fluid	Palmitic acid	1957/10/3	C ₁₆ H ₃₂ O ₂	256.24		5417091.69	5216692.15	4764318.79
Normal vs RA-cold	Synovial fluid	Cholesterol	57-88-5	C ₂₇ H ₄₆ O	386.355		4692091.11	0	5378448.72
Normal vs RA-cold	Synovial fluid/Serum	D (+)altrose	1990-29-0	C ₆ H ₁₂ O ₆	180.063		32289778.18	29992401.63	25658031.13
Normal vs RA-cold	Synovial fluid	D-allose	2595-97-3	C ₆ H ₁₂ O ₆	180.063		2259120.53	1840082.95	1376830.33
Normal vs RA-cold	Synovial fluid/Serum	L-(+) lactic acid	79-33-4	C ₃ H ₆ O ₃	90.0317		13368294.82	19850532.19	23661202.27
Normal vs RA-cold	Synovial fluid	L-pyroglutamic acid	98-79-3	C ₅ H ₇ NO ₃	129.043		1648197.4	1666824.72	1555451.01
Normal vs RA-cold	Synovial fluid/Serum	Oleic acid	112-80-1	C ₁₈ H ₃₄ O ₂	282.256		930273.73	45755.17	22725.21
Normal vs RA-cold	Synovial fluid	Palmitic acid	1957/10/3	C ₁₆ H ₃₂ O ₂	256.24		5417091.69	5216692.15	4764318.79
Normal vs RA-cold	Synovial fluid/Serum	Psicose	551-68-8	C ₆ H ₁₂ O ₆	180.063		99696.56	901211.6205	230747.72
Normal vs RA-cold	Synovial fluid	Talose	2595-98-4	C ₆ H ₁₂ O ₆	180.063		3628214.333	4344456.875	2882035.17
RA-Hot vs RA-cold	Synovial fluid/Serum	L-(+) lactic acid	79-33-4	C ₃ H ₆ O ₃	90.0317		13368294.82	19850532.19	23661202.27
RA-Hot vs RA-cold	Serum	Acetohydroxamic acid	546-88-3	C ₂ H ₃ NO ₂	75.032		1006095.33	1005162.63	993834.75
RA-Hot vs RA-cold	Serum	Alpha tocophereol	1959/2/9	C ₂₉ H ₅₀ O ₂	430.72		52803	83831.5	65121.25
RA-Hot vs RA-cold	Serum	Benzyl alcohol	100-51-6	C ₇ H ₈ O	108.058		/	/	/
RA-Hot vs RA-cold	Serum	Beta-alanine	107-95-9	C ₃ H ₇ NO ₂	89.0477		74753	78244.88	55264.17
RA-Hot vs RA-cold	Synovial fluid	Cholesterol	57-88-5	C ₂₇ H ₄₆ O	386.355		4692091.11	0	5378448.72
RA-Hot vs RA-cold	Synovial fluid	D (+)altrose	1990-29-0	C ₆ H ₁₂ O ₆	180.063		32289778.18	29992401.63	25658031.13

RA-Hot vs RA-cold	Synovial fluid	D-allose	2595-97-3	$C_6H_{12}O_6$	180.063		2259120.53	1840082.95	1376830.33
RA-Hot vs RA-cold	Serum	DL-isoleucine	443-79-8	$C_6H_{13}NO$	131.095		65812.33	102672.13	137339
RA-Hot vs RA-cold	Synovial fluid	Palmitic acid	1957/10/3	$C_{16}H_{32}O_2$	256.24		5417091.69	5216692.15	4764318.79
RA-Hot vs RA-cold	Synovial fluid	Stearic acid	1957/11/4	$C_{18}H_{36}O_2$	284.272		2886873.88	3002380.67	2691662.12
RA-Hot vs RA-cold	Synovial fluid	Talose	2595-98-4	$C_6H_{12}O_6$	180.063		5003009.24	4658396.49	4355762.05