

CCL5: Early GENIE data on a possible beacon marker

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15th July 22

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Disclaimer

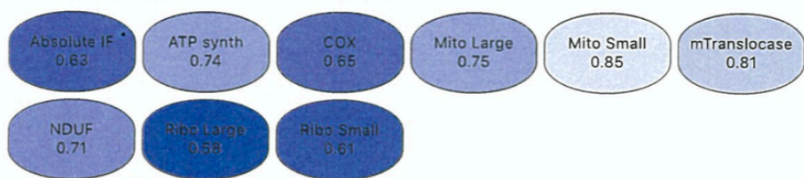
Director of Colab Services Ltd- Laboratory facilitation service based in the UK also servicing Europe

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Beacon Markers

1. Metabolism- Blue= MHM

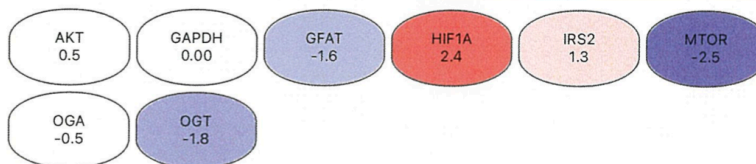


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Beacon Markers

2. Insulin- HIF1A and IRS2

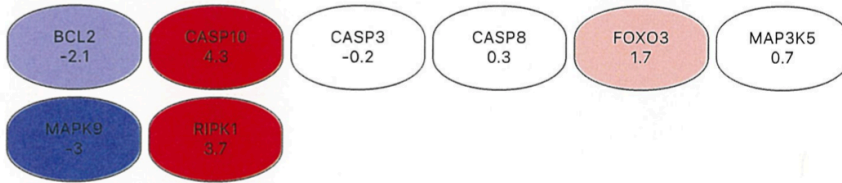


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Beacon Markers

3. Apoptosis

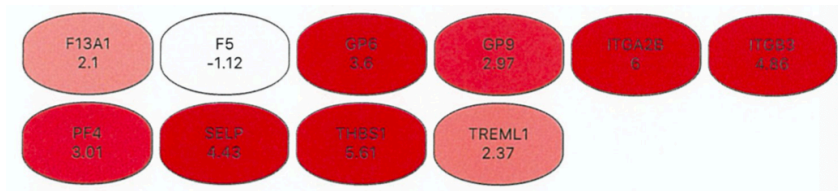


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Beacon Markers

4. Coagulation

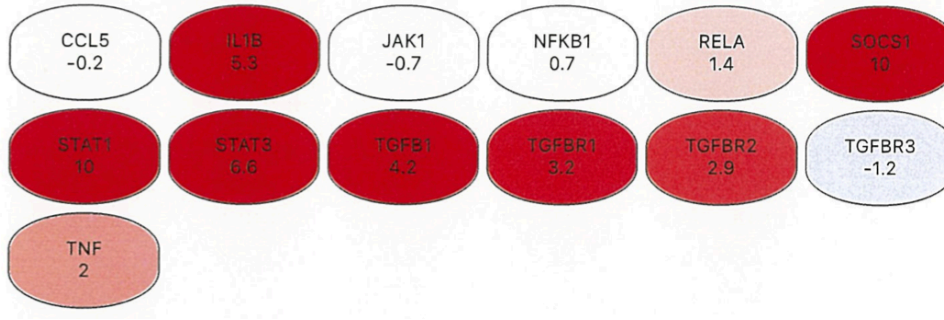


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Beacon Markers

5. Cytokines

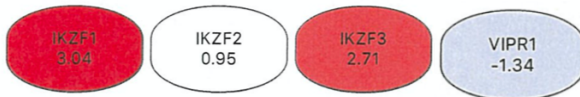


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Beacon Markers

8. Ikaros



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Beacon Markers

9. MAPK



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Beacon Markers

10. Toll Receptors

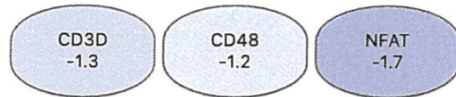


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Beacon Markers

12. T Cells

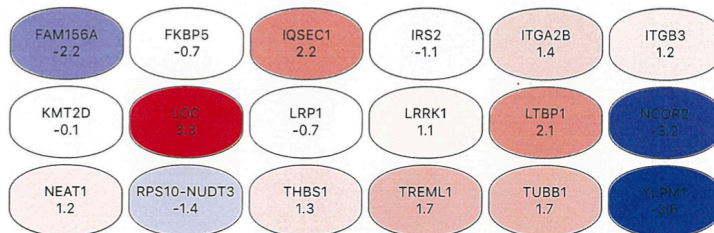


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Beacon Markers

13. CIRS Biomarkers



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Beacon Markers

15. PTSD



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Beacon Markers

17. Cytoskeleton



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GENIE

16) Histamine
Inflammatory vasodilator

CCL5
0.00

HDC
-0.6

CC Motif
Chemokine
Ligand 5

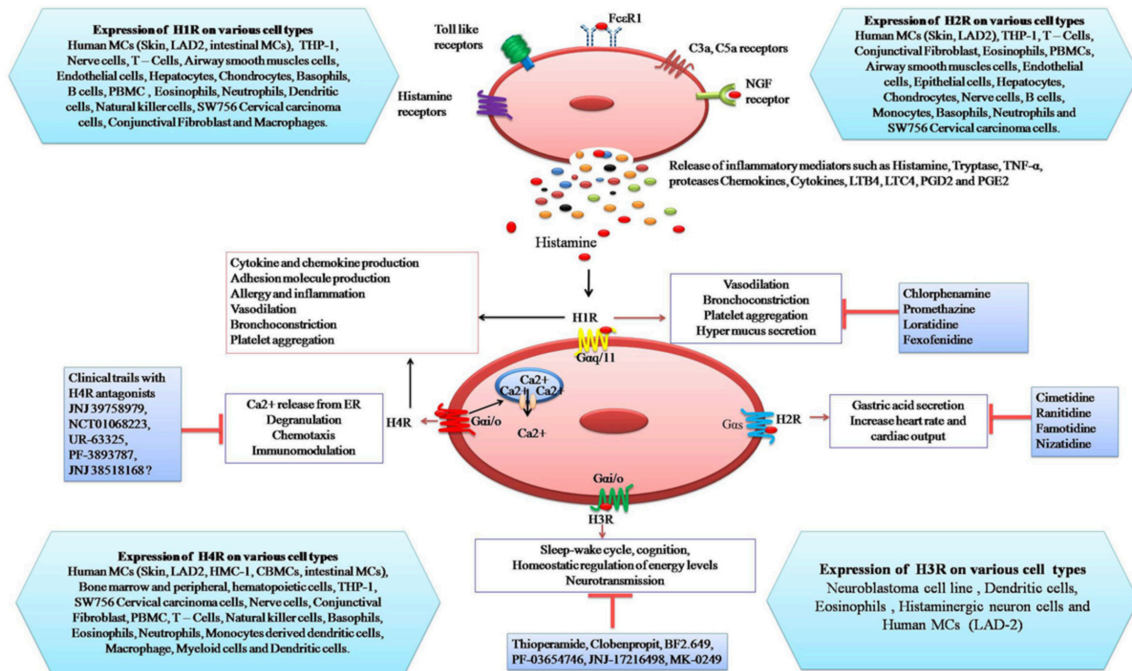
Histamine
Decarboxylase

Stimulates
basophils,
activates
eosinophils & NK
cells to release
histamine

Catalyses
biosynthesis of
histamine from
histidine

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Histamine Receptors

Differential Expression influenced by genetics, microbiota, gender, age, auto-immunity, cancer, gut, pulmonary and other inflammatory conditions

H1- Pro-inflammatory	H2- Anti-inflammatory	H3- Neurons	H4
Increases intracellular Ca ⁺⁺ levels, induces production of platelet activating factor, contraction of smooth muscle of respiratory tract, enhances B cells, chemokine production & IL31	Airway mucus production, vascular permeability, gastric acid, relaxation of smooth muscle cells in blood cells, airways & uterus	CNS regulation of energy, sleep-wake cycle, cognition, leptin/insulin, inflammation. Rhinitis associated with low norepinephrine due to H3 over-stimulation	Increased MAPK activation & enhanced Ca ⁺⁺ release, increased eosinophils, adhesion molecules & cytoskeletal re-arrangement, increased expression of IL6, TNF α , CCL5, I18, MIP1a & MCP1, Th17, JAK/STAT, NFkB

Elden Berla Thangam et al. *The Role of Histamine and Histamine Receptors in Mast Cell-Mediated Allergy and Inflammation: The Hunt for new Therapeutic Targets* Frontiers in Immunology, 13 Aug 2018

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GENIE Studies

GENIE Location	MHM	CCL5	HDC	Both CCL5/HDC
125 GENIE- Canada	60	15 (10=MHM)	20 (9=MHM)	3 (2=MHM)
40 GENIE- Europe	33	8 (6=MHM)	4 (4=MHM)	0

GENIE Location	Coagulation	Coagulation	CCL5 group
125 GENIE- Canada	8 = >4	16 = >2	N/A
40 GENIE- Europe	13 = >4	17 = >2	4 of 8 = 50%

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GENIE Studies

GENIE Location	RELA	RELA +CCL5	RELA + HDC
125 GENIE- Canada	12	3/15	1/20
40 GENIE- Europe	11	5/8	2/4

GENIE Location	NFkB	NFkB +CCL5	NFkB+HDC
125 GENIE- Canada	14 up-regulated	All 15 down-regulated	3 up-regulated
40 GENIE- Europe	8 up-regulated	1 up-regulated	1 up-regulated

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GENIE Studies

GENIE Location	Tubulins	Tubulins + >2+ Coag
125 GENIE- Canada	19 TUBBA4A/ 10 TUBB1	16 (11 either TUBA4 or TUBB, 4 both)
40 GENIE- Europe	10 TUBBA4A/10 TUBB1	19 (9 TUBBA4A/10TUBB1, 7 both)

GENIE Location	TGFb1	TGFBR3	TGFb1 + CCL5	TGFBR3 + CCL5
125 GENIE- Canada	17	17	6/15	12/15 (+3 borderline)
40 GENIE- Europe	16	7	6/8	3/8

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GENIE Studies

GENIE Location	VIPR1	VIPR1- (mismatch) plus HDC/CCL5 +
125 GENIE- Canada	34 down-regulated	25
40 GENIE- Europe	21 down-regulated	6

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Thank you

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Marcia Cash

The Surviving Mold Community

To make contact or for any questions, please email louise@colabeu.com

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Additional References

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