

Integrated analysis of transcriptomic and epigenomic signatures of peripheral immune cells in the patient of BNT162b2-induced myocarditis

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Longitudinal analysis of PBMCs of the patient with BNT162b2-induced myocarditis



Yoon BK, Oh TG, Bu S, Seo KJ, Kwon SH, Lee JY, Kim Y, Kim JW, Ahn HS, Fang S. The Peripheral Immune Landscape in a Patient with Myocarditis after the Administration of BNT162b2 mRNA Vaccine. Mol Cells. 2022 Oct 31;45(10):738-748. doi: 10.14348/molcells.2022.0031.



## Single-cell RNA analysis of PBMCs (D16 vs. D21)

Monocytes showed the greatest change.



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## Single-cell V(D)J analysis of PBMCs (D16 vs. D21)

TCR analysis showed little difference.



Yoon BK, Oh TG, Bu S, Seo KJ, Kwon SH, Lee JY, Kim Y, Kim JW, Ahn HS, Fang S. The Peripheral Immune Landscape in a Patient with Myocarditis after the Administration of BNT162b2 mRNA Vaccine. Mol Cells. 2022 Oct 31;45(10):738-748. doi: 10.14348/molcells.2022.0031.

- Transcriptomic changes in monocytes at acute myocarditis
  - Down-regulation of JUN/FOS
  - Up-regulation of fatty acid metabolism pathway



0.03

0.01

Hwang N, Huh Y, Bu S, Seo KJ, Kwon SH, Kim JW, Yoon BK, Ahn HS, Fang S. Single-cell sequencing of PBMC characterizes the altered transcriptomic landscape of classical monocytes in BNT162b2-induced myocarditis. Front Immunol. 2022 Sep 26;13:979188. doi: 10.3389/fimmu.2022.979188.

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## Palmitate and insulin synergistically induce IL-6 expression in human monocytes

Robert C Bunn ⊠, Gael E Cockrell, Yang Ou, Kathryn M Thrailkill, Charles K Lumpkin Jr & John L Fowlkes

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## Thank you.

