



Fred Boehm <fredboe@umich.edu>

FMD MR analysis: SNP rsids

6 messages

Fred Boehm <fredboe@umich.edu>

Wed, Mar 15, 2023 at 9:30 AM

To: Xiang Zhou <xzhousph@umich.edu>, "Ganesh, Santhi" <sganesh@med.umich.edu>

Cc: Chang Xu <xuchang@umich.edu>, "Yang, Min-Lee" <mlyang@med.umich.edu>, "Gupte, Trisha" <gtrisha@med.umich.edu>

Hi, Santhi,

I'd like to do the MR analysis with the SNP instruments that you suggested yesterday. Can you remind me - where can I find that list of SNPs?

Thanks again!

fred

Ganesh, Santhi <sganesh@med.umich.edu>

Wed, Mar 15, 2023 at 9:34 AM

To: Fred Boehm <fredboe@umich.edu>, Xiang Zhou <xzhousph@umich.edu>

Cc: Chang Xu <xuchang@umich.edu>, "Yang, Min-Lee" <mlyang@med.umich.edu>, "Gupte, Trisha" <gtrisha@med.umich.edu>

Hi Fred,

The 4 SNPs are in the paper, Table 1

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8521585/>

If you want the PRS-FMD that Min-Lee has used, perhaps she can share with you directly, as in

<https://pubmed.ncbi.nlm.nih.gov/36374587/>

Santhi

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Yang, Min-Lee <mlyang@med.umich.edu>

Wed, Mar 15, 2023 at 1:20 PM

To: "Ganesh, Santhi" <sganesh@med.umich.edu>, Fred Boehm <fredboe@umich.edu>, Xiang Zhou <xzhousph@umich.edu>

Cc: Chang Xu <xuchang@umich.edu>, "Gupte, Trisha" <gtrisha@med.umich.edu>

Hi Fred,

I used files in "/exports/home/mlyang/Work/GWAS_data/FMD_metaGWAS_French/meta_analyse_FMD_FUMA_FR_MAYO_DEFINE_POL_MGI_FEIRI_HRC_all_2020-08-12.tab" to select the top FMD SNPs. Note that this file was sent from our international collaborators. From this file and using a $p < 1e-6$ criteria, the

attached file includes the variants "before LD clumping". After the LD clumping, there are 7 SNPs left, which I highlighted in yellow.

However, upon further review, I have discovered that our international collaborators for the meta-analysis have only made the multifocal FMD GWAS results available to the public at http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST90026001-GCST90027000/GCST90026612/. This is different from the overall FMD GWAS results we used for our previous analyses.

Santhi, given this information, should we use the multifocal FMD data they have made to the public instead of the overall FMD one we previously received from our collaborators? As we are currently in the process of revision of BP GWAS paper, we can update my PRS and MR analysis accordingly.

Please let me know.

Thanks!
Min-Lee

From: Ganesh, Santhi <sganesh@med.umich.edu>


Sent: Wednesday, March 15, 2023 6:34 AM

To: Fred Boehm <fredboe@umich.edu>; Xiang Zhou <xzhousph@umich.edu>

Cc: Chang Xu <xuchang@umich.edu>; Yang, Min-Lee <mlyang@med.umich.edu>; Gupte, Trisha <gtrisha@med.umich.edu>

Subject: RE: FMD MR analysis: SNP rsids

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 **FMD_top_snp.xlsx**
13K

Ganesh, Santhi <sganesh@med.umich.edu>

Wed, Mar 15, 2023 at 2:59 PM

To: "Yang, Min-Lee" <mlyang@med.umich.edu>, Fred Boehm <fredboe@umich.edu>, Xiang Zhou <xzhousph@umich.edu>

Cc: Chang Xu <xuchang@umich.edu>, "Gupte, Trisha" <gtrisha@med.umich.edu>

Thanks for summarizing this Min-Lee.

Agree that we should use the public released FMD GWAS/meta summary statistics, to avoid issues of needing permissions to use the completed, published GWAS. Anyways, multifocal FMD is a more uniform phenotype and the effects for the top loci were stronger in this subgroup, suggesting the heterogeneity in the overall FMD GWAS/meta was an issue.

Santhi

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Yang, Min-Lee <mlyang@med.umich.edu>

Wed, Mar 15, 2023 at 3:28 PM

To: "Ganesh, Santhi" <sganesh@med.umich.edu>, Fred Boehm <fredboe@umich.edu>, Xiang Zhou <xzhousph@umich.edu>

Cc: Chang Xu <xuchang@umich.edu>, "Gupte, Trisha" <gtrisha@med.umich.edu>

Thanks for your responses to this question, Santhi!

Fred, for your analysis, please use the following data in this link instead

http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST90026001-GCST90027000/GCST90026612/

And the top SNP they reported in the paper

https://static-content.springer.com/esm/art%3A10.1038%2Fs41467-021-26174-2/MediaObjects/41467_2021_26174_MOESM4_ESM.xlsx

Thank you!

Best,

Min-Lee

From: Ganesh, Santhi <sganesh@med.umich.edu>

Sent: Wednesday, March 15, 2023 11:59 AM

To: Yang, Min-Lee <mlyang@med.umich.edu>; Fred Boehm <fredboe@umich.edu>; Xiang Zhou <xzhousph@umich.edu>

Cc: Chang Xu <xuchang@umich.edu>; Gupte, Trisha <gtrisha@med.umich.edu>

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Fred Boehm <fredboe@umich.edu>

Wed, Mar 15, 2023 at 3:35 PM

To: "Yang, Min-Lee" <mlyang@med.umich.edu>, "Ganesh, Santhi" <sganesh@med.umich.edu>, Xiang Zhou <xzhousph@umich.edu>

Cc: Chang Xu <xuchang@umich.edu>, "Gupte, Trisha" <gtrisha@med.umich.edu>

That makes good sense, Min-Lee! Thanks to you and Santhi for the recommendations!!

fred

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