ALLERGY, GENETICS

ON THE TASSEOGRAPHY OF LUNG FUNCTION GENES

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Having done lung function testing on hundreds, even thousands of children, I believe that this is not an easy task – it's not only about abdominal mechanics and airway diameter but also about physical fitness – and let's be cruel – also about intelligence. Even worse, I remember a long discussion how to adjust lung function parameter appropriately – should we use standing or sitting height? Two new papers large ignore these questions. But read first what the Charge consortium writes

> In meta-analyses of GWAS results in 20,890 CHARGE participants of European ancestry, we identified genome-wide significant associations with FEV1/FVC for SNPs in seven previously unrecognized independent loci (GPR126, ADAM19, AGER-PPT2, FAM13A, PTCH1, PID1 and HTR4) and with FEV1 for one previously unrecognized independent locus annotated by at least three genes (INTS12-GSTCD-NPNT). The SpiroMeta consortium independently reported genome-wide significant associations of GSTCD, HTR4, AGER, TNS1 and THSD4 with FEV1/FVC and FEV1). Both consortia confirm previous GWAS findings implicating the HHIP region for FEV1/FVC.

Spirometa has the companion paper:

> We … identified associations with FEV1 or FEV1/FVC and common variants at five additional loci: 2q35 in TNS1 (…), 4q24 in GSTCD (…), 5q33 in HTR4 (…), 6p21 in AGER (…) and 15q23 in THSD4 (…).

It looks from table 2 (Charge) that only HHIP and AGER can be replicated (and maybe also the vague INTS12 – GTSCD – NPNT region). HHIP unfortunately seems to be a height associated gene that probably reveals the residual height influence in the analysis. The AGER gene could point towards some fibrotic processes but remains largely in the dark without any functional data. Pretty clear: no asthma genes here, no COPD genes here and severe doubts about a third lung function paper in the NEJM tagging MMP12. Anyway, the intelli-

gence gene did not show up, nay, nay. One of my fellow bloggers is not talking about tasseography but Rorschach test, see what you want to see.