SNP-HLA Reference Consortium : HLA and SNP data sharing for promoting HLA centric analyses in genomics

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SNP-HLA Reference Consortium

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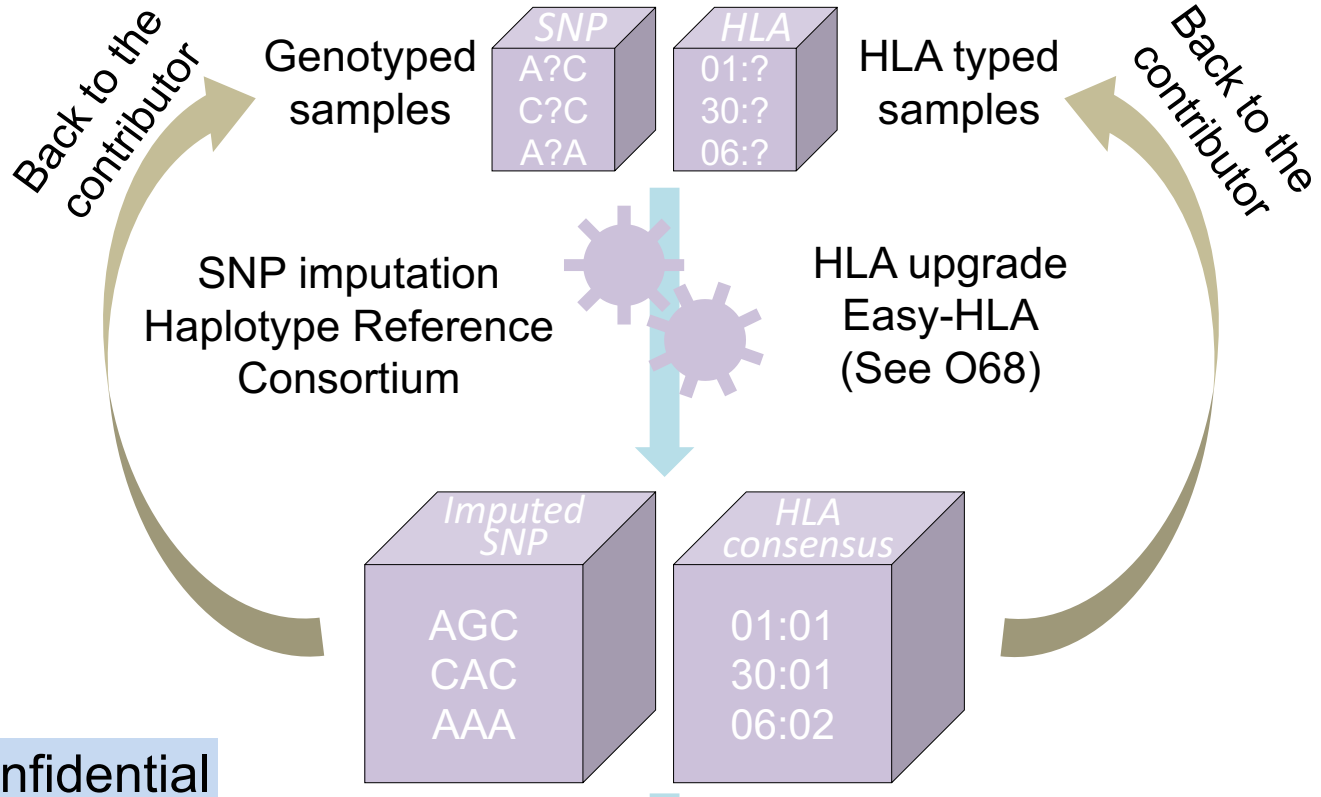
HLA and SNP data sharing for promoting HLA centric analyses in genomics

Access large SNP-HLA dataset to build suitable reference panels



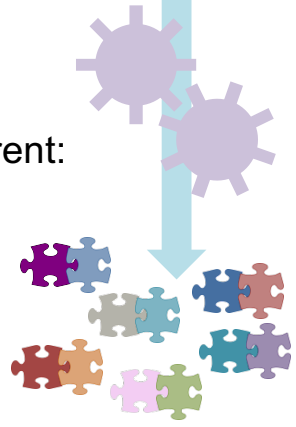
Confidential

Make available diverse reference panels for HLA imputation

Public

Reference panels with different:

- ethnicity
- genotyping chip
- genotyping resolution



Training

Time and resource consuming

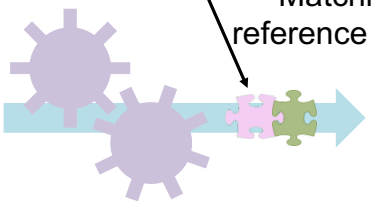
Example reference building:

917 samples
29,960 SNPs
252 HLA alleles 4d

➔ >30,000 CPU-hours

Data to impute

Genotypes			HLA allele
A	G	C	?
C	A	C	?
A	A	A	?



Imputation

HLA allele
01:01
30:01
06:02

HLA alleles are inferred from the SNPs using a large HLA reference panel

The community needs access to large and diverse dataset
Please, share your HLA and SNP data

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Zheng et al., Pharmacogenomics J., 2014; Pappas et al., Pharmacogenomics J., 2017; Gourraud et al., PloS one, 2014; McCarthy et al., Nat. Gen., 2016