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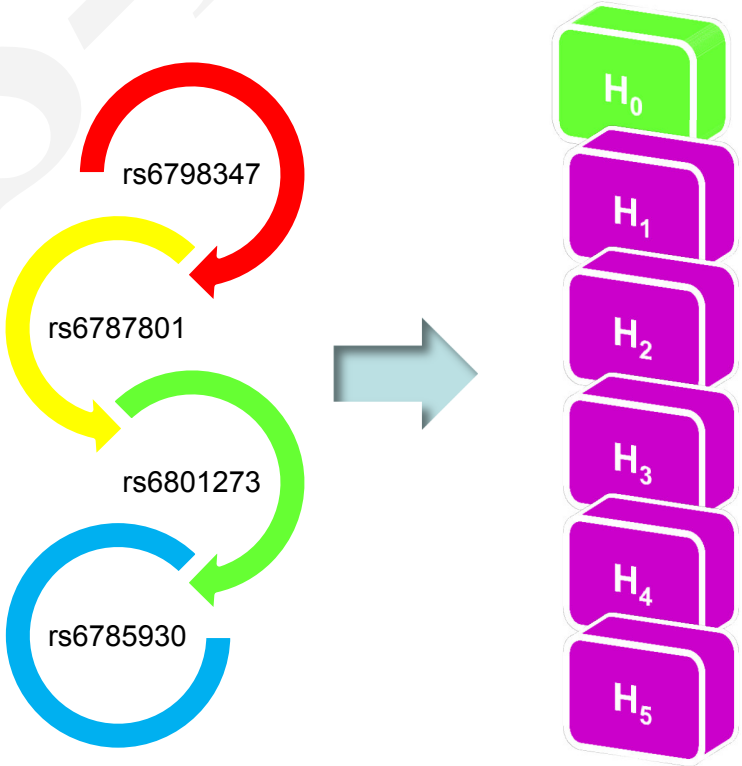
Haplotype of platelet receptor *P2RY12* gene is associated with residual clopidogrel on-treatment platelet reactivity

Key words: P2RY12, CYP2C19, Haplotype, Single nucleotide polymorphism (SNP), Clopidogrel, Thrombelastography

Research Summary

This research investigated a possible association between common variations of the P2RY12 and the residual clopidogrel on-treatment platelet reactivity after adjusting for the influence of CYP2C19.

- **SNPs studied:**
  - ***P2RY12*** **:**
    - ✓ rs6798347
    - ✓ rs6787801
    - ✓ rs6801273
    - ✓ rs6785930
    - ✓ rs2046934
  - ***CYP2C19:*** *2,*3,*17



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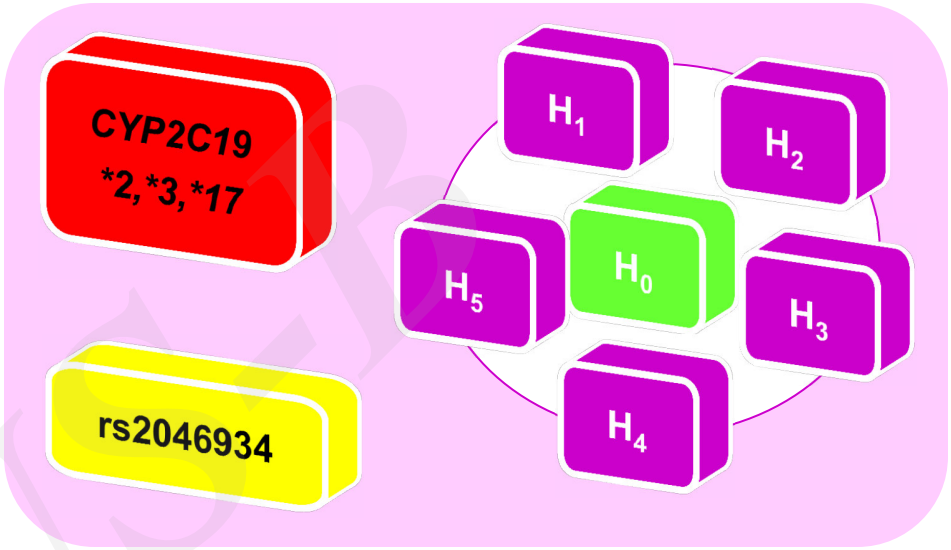
Research Summary

- **Main points:**
  - Combination of *P2RY12* variations instead of rs2046934 significantly related to Clopidogrel on-treatment platelet reactivity after adjusting for CYP2C19 effects
    - H_1 (vs H_0) ↓ HTPR
  - *Subgroups defined by Smoking enhanced the significance*
    - *in non-smoker subgroup:*
      - H_1 (vs H_0) ↓ HTPR
      - H_2 (vs H_0) ↓ HTPR



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High Clopidogrel on-Treatment Platelet Reactivity(HTPR)