

## **Significant Role of *Caveolin-1* Genotypes in Taiwan Renal Cell Carcinoma**

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**Backgrounds:** Caveolin-1 (*Cav-1*) is over-expressed in renal cell carcinoma (RCC) patients of poor prognosis. However, whether the over-expression in RCC is associated with inherited genotypes is not clear. **Materials and Methods:** In this study, the association of *Cav-1* genotypes with RCC risk was investigated. Ninety-two RCC patients and 580 of age/gender-matched healthy controls were genotyped for six polymorphic sites at *Cav-1*, rs1997623, rs3807987, rs12672038, rs3757733, rs7804372, and rs3807992. **Results:** The results showed that there were statistically different distributions of the genotypic and allelic frequencies for two of the *Cav-1* polymorphisms investigated among RCC patients and control subjects. As for the haplotype analysis, subjects carrying specific *Cav-1* combinative genotypes showed an increased odds ratio of RCC compared with those of other genotypes. **Conclusion:** In conclusion, this is the first report providing evidence showing that *Cav-1* genotype is associated with RCC. The results showed that the combinative haplotypes can serve as better predictors than single genotypes for Taiwan RCC patients.