1. **No.**

   FP01803048

2. **Title**

   Impact of smoking and genetic factor on cornary spasm and microvascular dysfunction after bioresorbable stent implantation

3. **Period**

   2016-2018

4. **Summary**

   In the first place, the aim of this study was to evaluate the vasomotor activity such as coronary spasm and microvascular dysfunction after implantation of a bioabsorbable coronary stent in patients with coronary artery disease, including the impact of the smoking on coronary spasm after stent implantation. Although the plan of this study was changed due to the discontinued sale of bioabsorbable stent, I sincerely appreciate the Smoking Research Foundation for the support to continue our study. We reported that myocardial ischemia and recurrent angina may be caused by the presence of coronary spasm or microvascular dysfunction after a second drug-eluting stent implantation without in-stent restenosis and that the deficient activity of the acetaldehyde dehydrogenase (ALDH2) enzyme due to genetic polymorphism of ALDH2 may be associated with exacerbated myocardial injury in patients with acute myocardial infarction. In the final year, we suggest that the KUMADAI-Mg alloy may become one of the materials of the bioabsorbable medical equipment with a more excellent biocompatibility compared with the existing medical materials from the view point of strong, bioabsorption, and decreased inflammation. We thank the Smoking Research Foundation.