1. No.
   2020Y003

2. Title
   Analysis of a Novel Protein that Underlies Turnover of Cigarette Smoke-induced Senescent Cells in Respiratory Tract

3. Period
   2020-2022

4. Summary
   In this project, I had found out mechanistic insights on role of Dpcd: [1] Dpcd formed condensates *in vitro* in a redox dependent manner. [2] Dpcd was involved in regeneration of actin architecture, which was damaged by cigarette-smoke. [3] Dpcd condensate was assembled at the damaged site of actin architecture *in vivo*. [4] After the regeneration of actin architecture, a part of the ciliated cells was escaped from the tissue. This process was independent of apoptosis. At this time, I have not mentioned about relationship between the regeneration of actin architecture and the escape of ciliated cells. By the way, I have discovered the possibility that Dpcd may protect actin architecture from environmental stress in trachea. In future work, I will examine physiological function of Dpcd in terms of protection of cytoskeleton.