



## 「A world of zero cancer risk created by rejuvenation using cell lineage conversion」

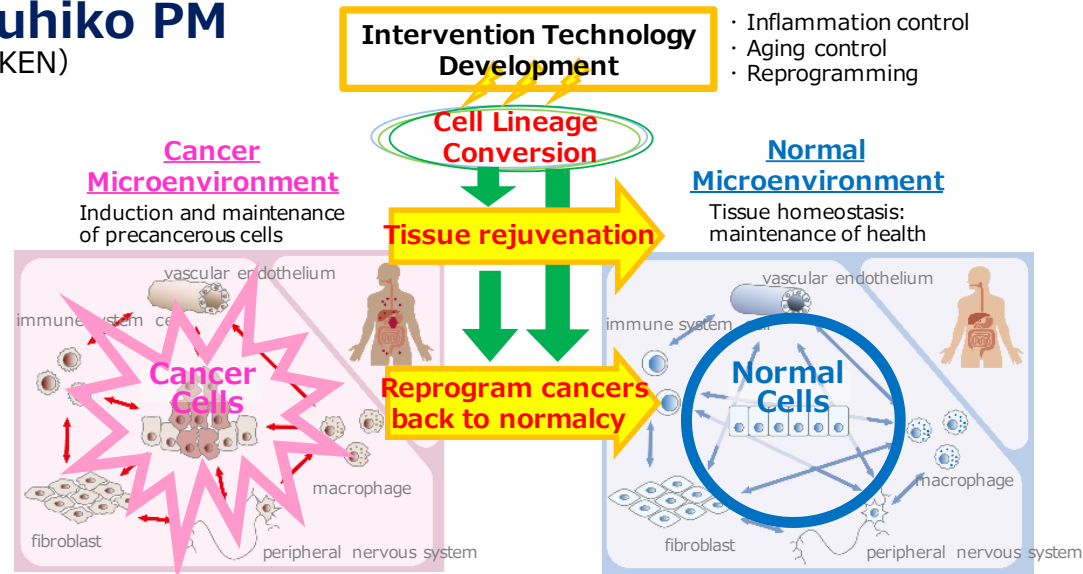
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- Intervention Technology Development**
- Inflammation control
  - Aging control
  - Reprogramming

### Outline of P&D Project

Chronic inflammation, which causes aging and cancer, can be a "double-edged sword" because it has the potential to cause "cell lineage conversion" such as cell rejuvenation.

By applying the mechanism of the reprogramming in the cells of regenerative medicine, We will develop a technology to "reverse cancer tissues to normal tissues" via cell lineage conversion. Our interdisciplinary approach involves a multi-racial, large-scale clinical studies based on the Japan/US cooperation.



Multiracial, large-scale verification  
(Diverse cohort across the races and the regions)



### Expected Breakthroughs by 2040

- Elucidating the molecular mechanism how chronic inflammation facilitates tissue rejuvenation and cell lineage conversion. By activating this mechanism in cancer tissues, cancer cells and their microenvironment will be reversed to normal to disrupt their growth.
- Achieving cancer prevention by intervening precancerous tissues and restore them to zero cancer risk.
- Global implementation of newly developed medical and preventive technologies.