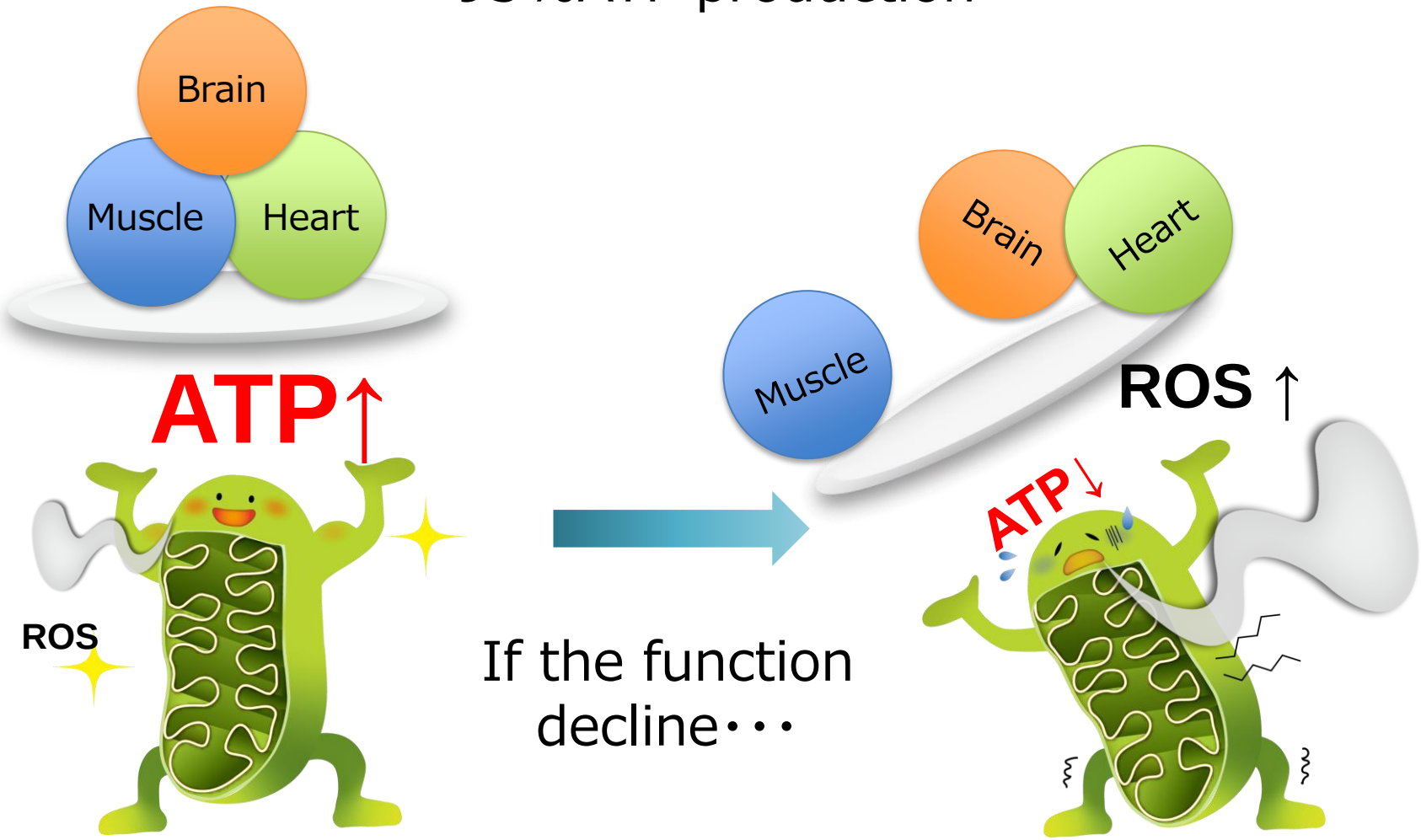
What‘s mitochondria

- Energy plan within the cell
- ~95%ATP production



Mitochondrial disease（broad）& aging (narrow)

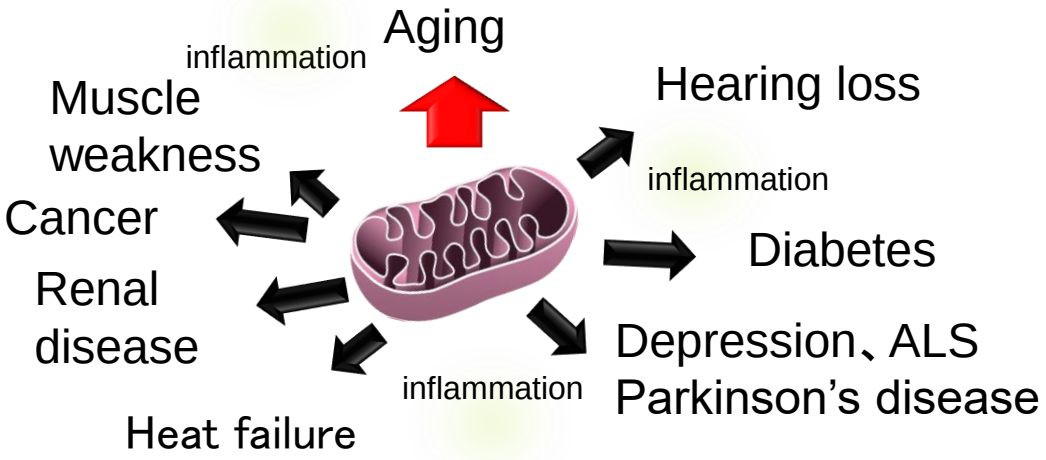
- ATP depletion (hypoxia, ischemia)
- Cell death by ROS

Mitochondrial diseases

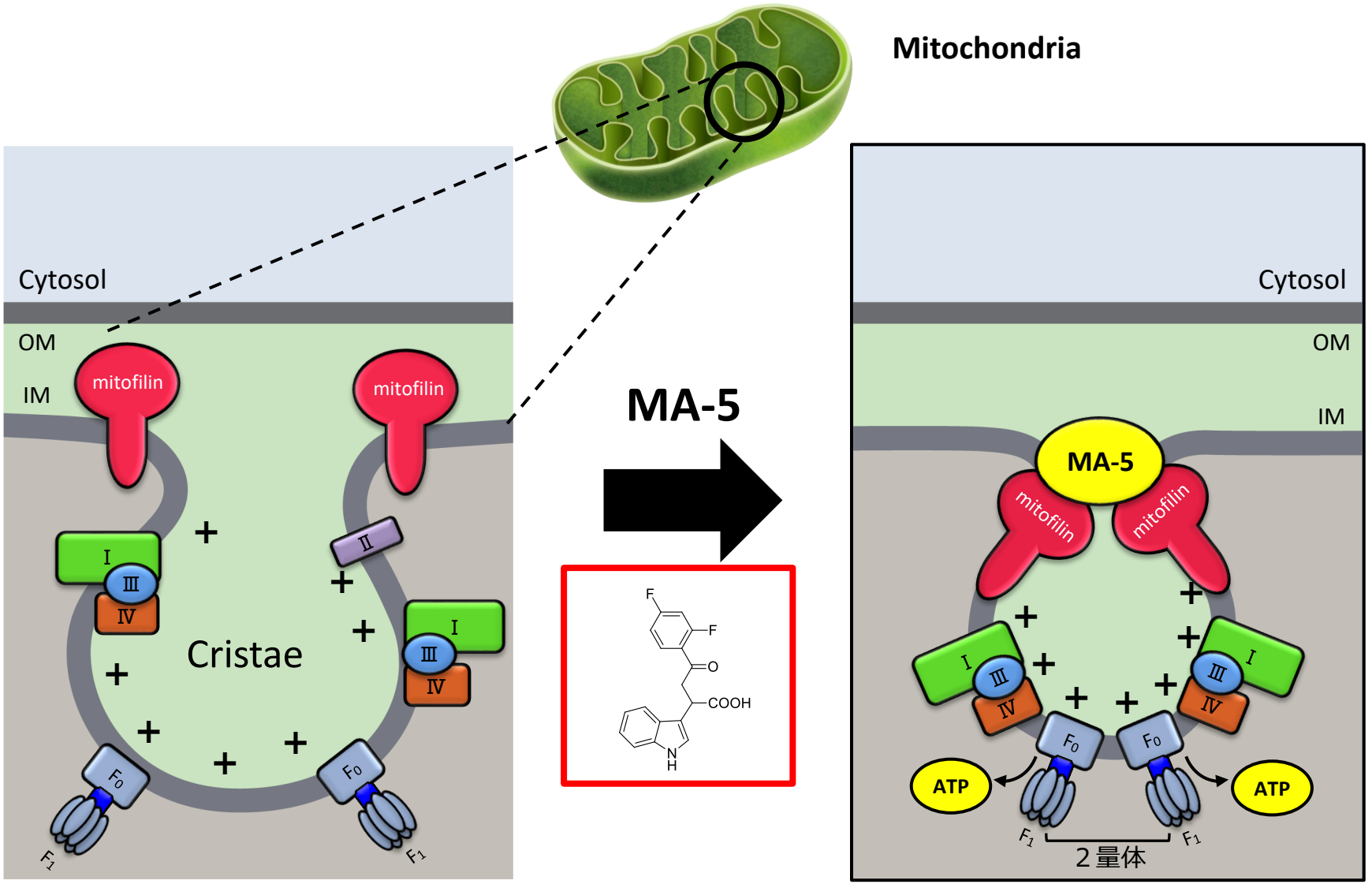
Rare diseases
without effecting drugs

- Leigh syndrome
- MELAS
- Lebe's disase
- KSS syndrome

Aging



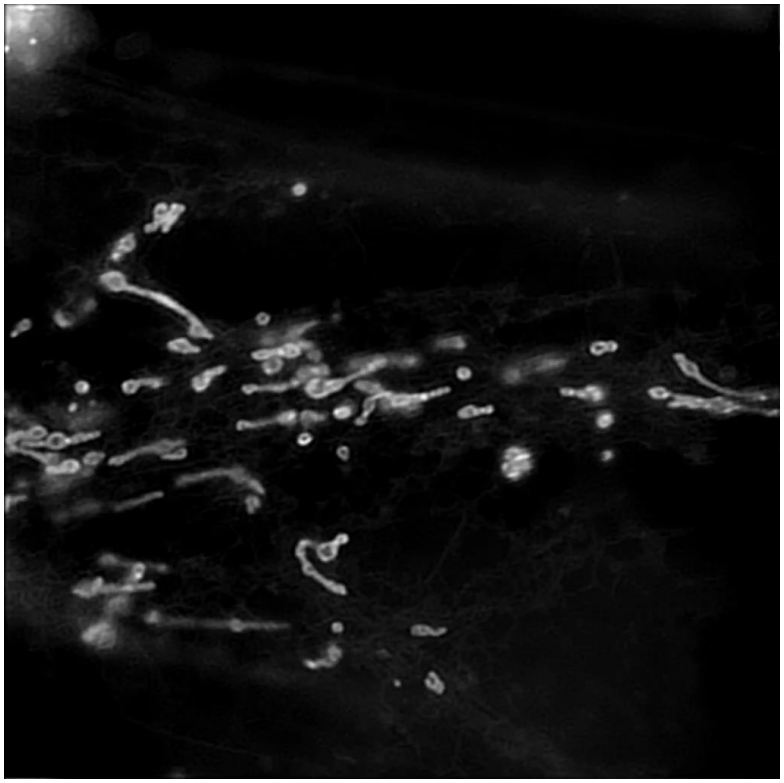
MA-5 facilitates ATP production through accelerating dimerization of ATP synthase binding mitofilin



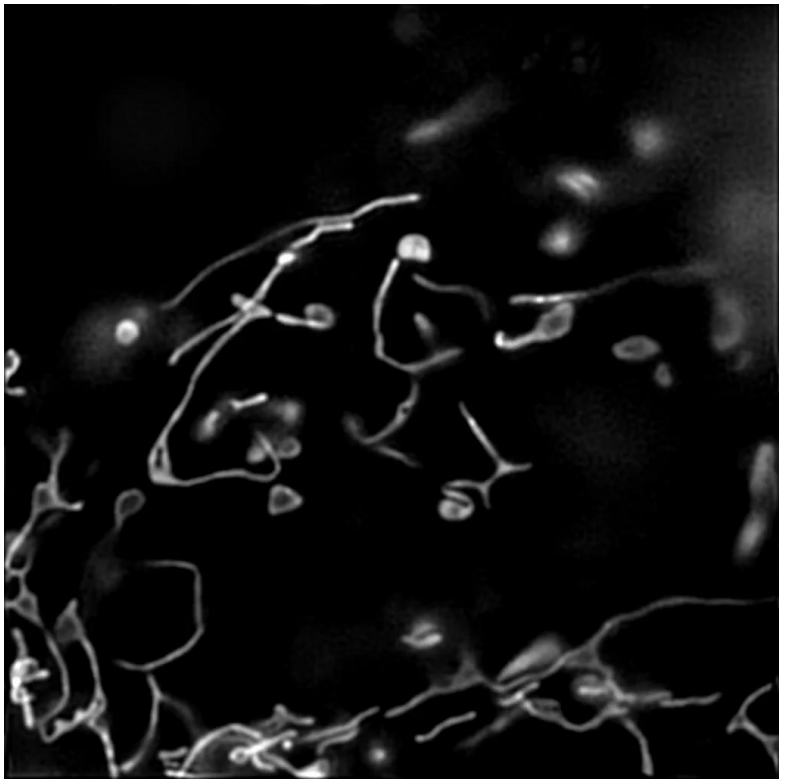
Matsuhashi T. et al. EBioMedicine, 2017

MA-5 improve mitochondrial dynamics

Patient's mitochodria



with MA-5



Matsuhashi T. et al. *EBioMedicine*, 2017

Developing new drug

Clinical trials

Examine the safety and effectiveness in human

Ⅰ	**Phase Ⅰ**	Small number of healthy volunteers Examine the safety and kinetics
Ⅱ	**Phase Ⅱ**	Small number of patients Examine the safety and effectiveness
Ⅲ	**Phase Ⅲ**	Large number of patients Confirm the safety and effectiveness

Improving mitochondrial function helps many age-related diseases