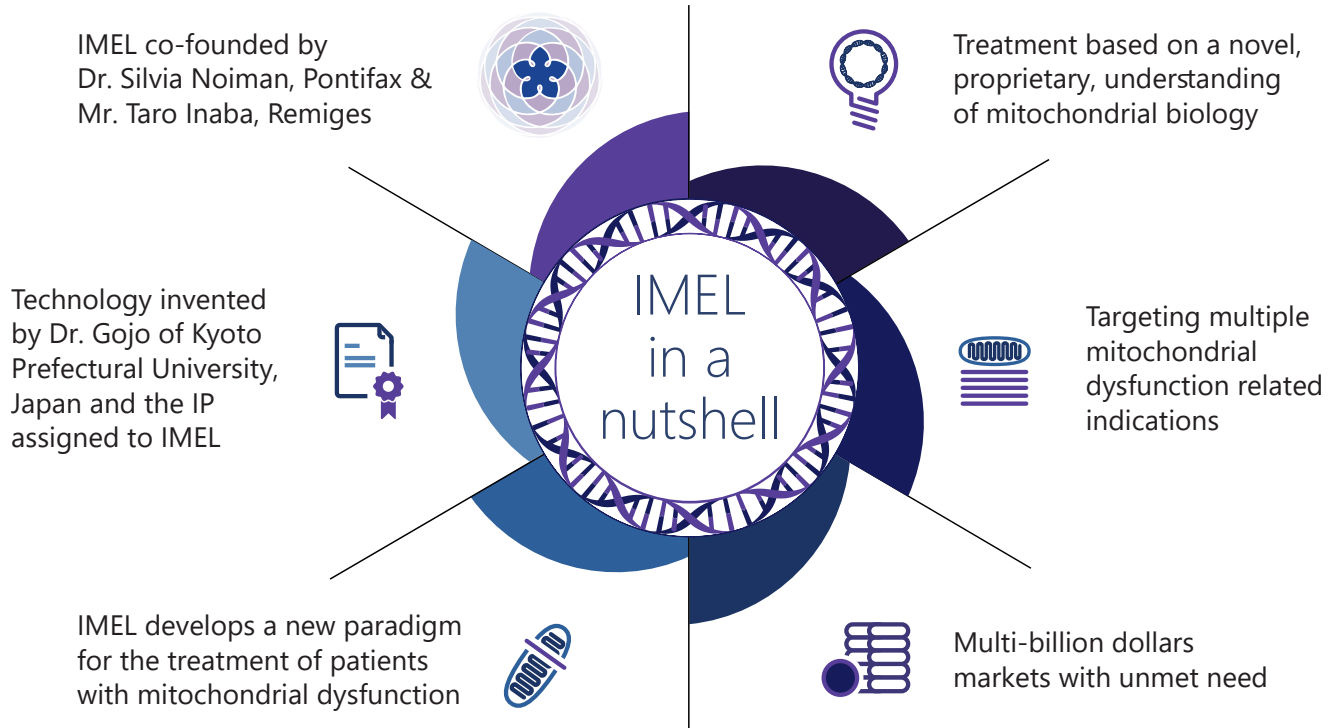


# IMEL Biotherapeutics Mitochondrial Rescue Therapy

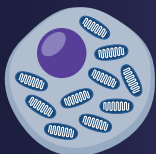


Maeda et al. Scientific Reports 2020; 10 (1): 1-10; Maeda et al. Scientific Reports, 2021; 11(1): 1-16

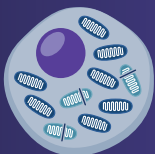
## Mitochondrial dysfunction mechanism

- Mitochondrial dysfunction occurred due to genetic or acquired processes
- Mutation(s) in mitochondrial DNA (mtDNA) or reduction in mtDNA copy levels are inherited or result from increased oxidative stress in patients
- Aging processes include altered mitochondrial dynamics & protein synthesis, mitophagy, reactive oxygen species and mtDNA damage

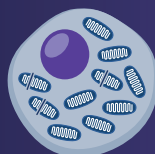
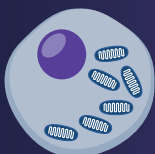
### Functional



### Genetic dysfunction



### Acquired dysfunction



## Mitochondrial dysfunction indications

### Mitochondrial diseases

> 100 genetic disorders are characterized by defective oxidative phosphorylation

Multisystemic disease presentations

### Aging related indications

Mitochondrial dysfunction is one of the cellular and molecular hallmarks of aging

Mitochondrial dysfunction is driving the dysregulation of the immune system during aging and cancer

Leigh syndrome  
MELAS  
LHON  
cPEO  
MERRF  
KSS  
TK2  
NARP  
MNGIE  
Luft Disease  
Bath Syndrome  
Friedreich's Ataxia



Alzheimer's disease  
Immunosenescence  
Pulmonary fibrosis  
Chronic kidney disease (CKD)  
Chronic obstructive pulmonary disease (COPD)  
Metabolic disease  
Cardiovascular disease  
Liver disease

# IMEL's breakthrough technology



We develop cell-based mitochondria rescue therapy to treat all mitochondrial dysfunction



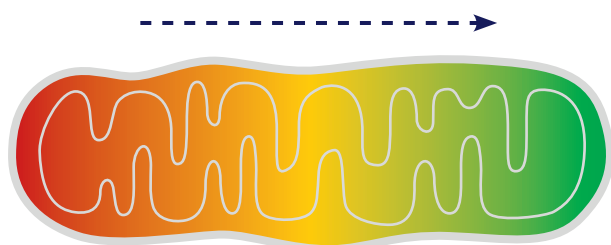
We use novel biological insight to change the proportion of healthy to dysfunctional mitochondria within cells of the target tissues



We replace the "dead batteries" of the cell to restart cell & tissue functionality

**Dysfunctional**

**Functional**



# IMEL's products: Autologous mitochondrial replaced cells (MirC) for cell-based therapy

**06**

**Monitor**  
subject  
recovery



**01**

**Collect** blood  
cells via  
apheresis



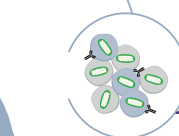
**05**

**Infuse**  
Mitochondria  
replaced  
product



**02**

**Select**  
target cells



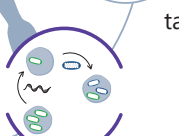
**04**

**Prepare** cell-  
based product  
for treatment



**03**

**Replace** target  
cells with  
healthy donor  
mitochondria



## Investors and Directors

**PONTIFAX**

Pontifax is a venture capital firm focusing on groundbreaking innovations in life sciences

Founded in 2004, Pontifax manages over \$1.2B with a portfolio 100 companies

**REMIGES**  
VENTURES

Remiges is a US-Japanese venture capital firm focused on biotechnology and pharmaceutical companies

Founded in 2014, Remiges is developing IP from the Japanese academia

**Korea Investment**  
Partners Co., Ltd.

Korea Investment Partners Co. (KIP) is South Korea's largest venture capital firm manages total of \$3B in assets

Founded in 1986, KIP strategy is to foster startups to grow into middle-market companies through IPOs

**Consensus**  
Business Group

Consensus Business Group (CBG) is a UK-based investment group, led by Tchenguiz family

CBG investment portfolio > \$700M in technologies, funds, incubators, and other initiatives

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