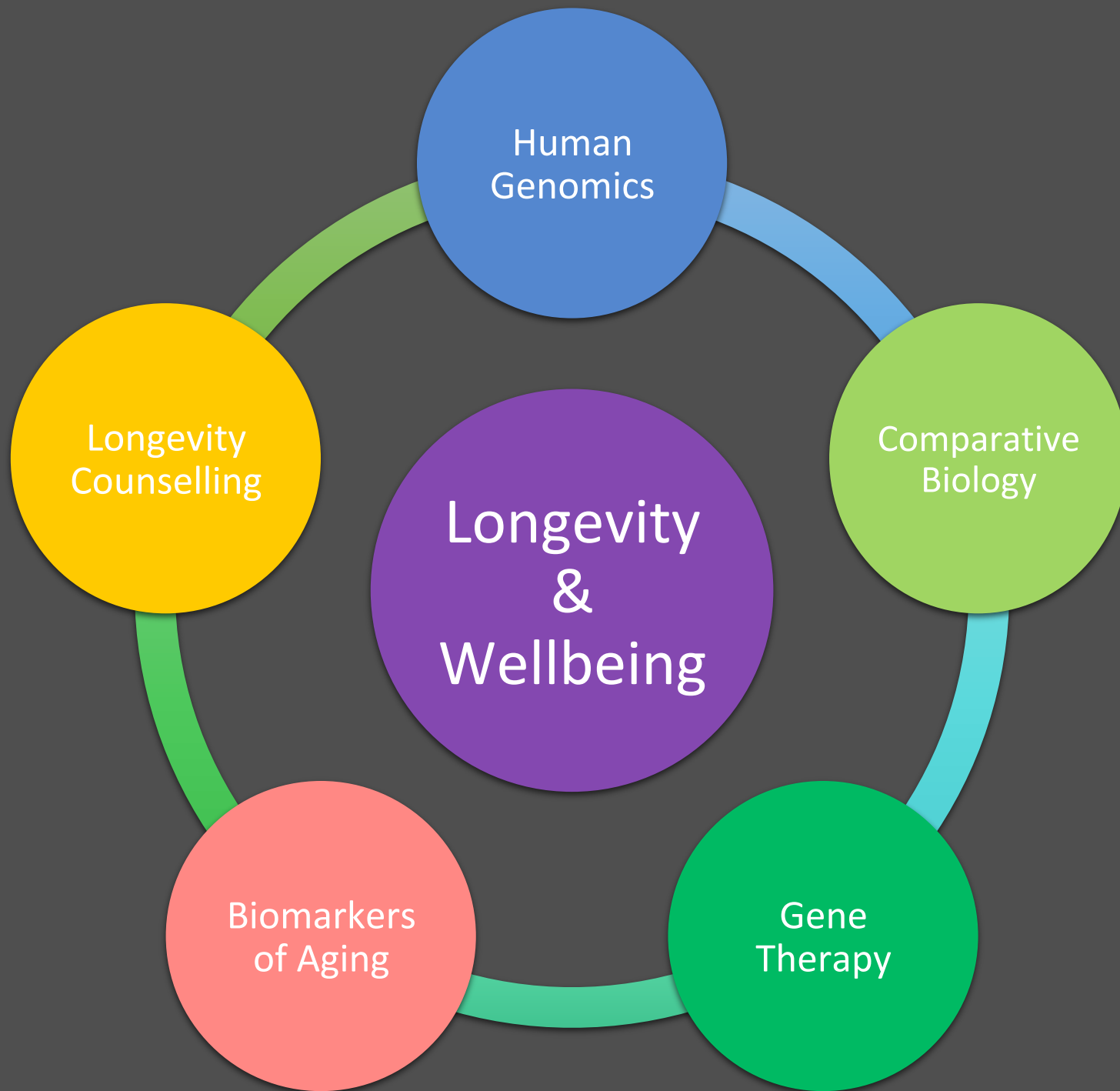




Creating Longevity & Wellbeing

Liz Parrish



Enabling
Longevity &
Wellbeing



BioViva

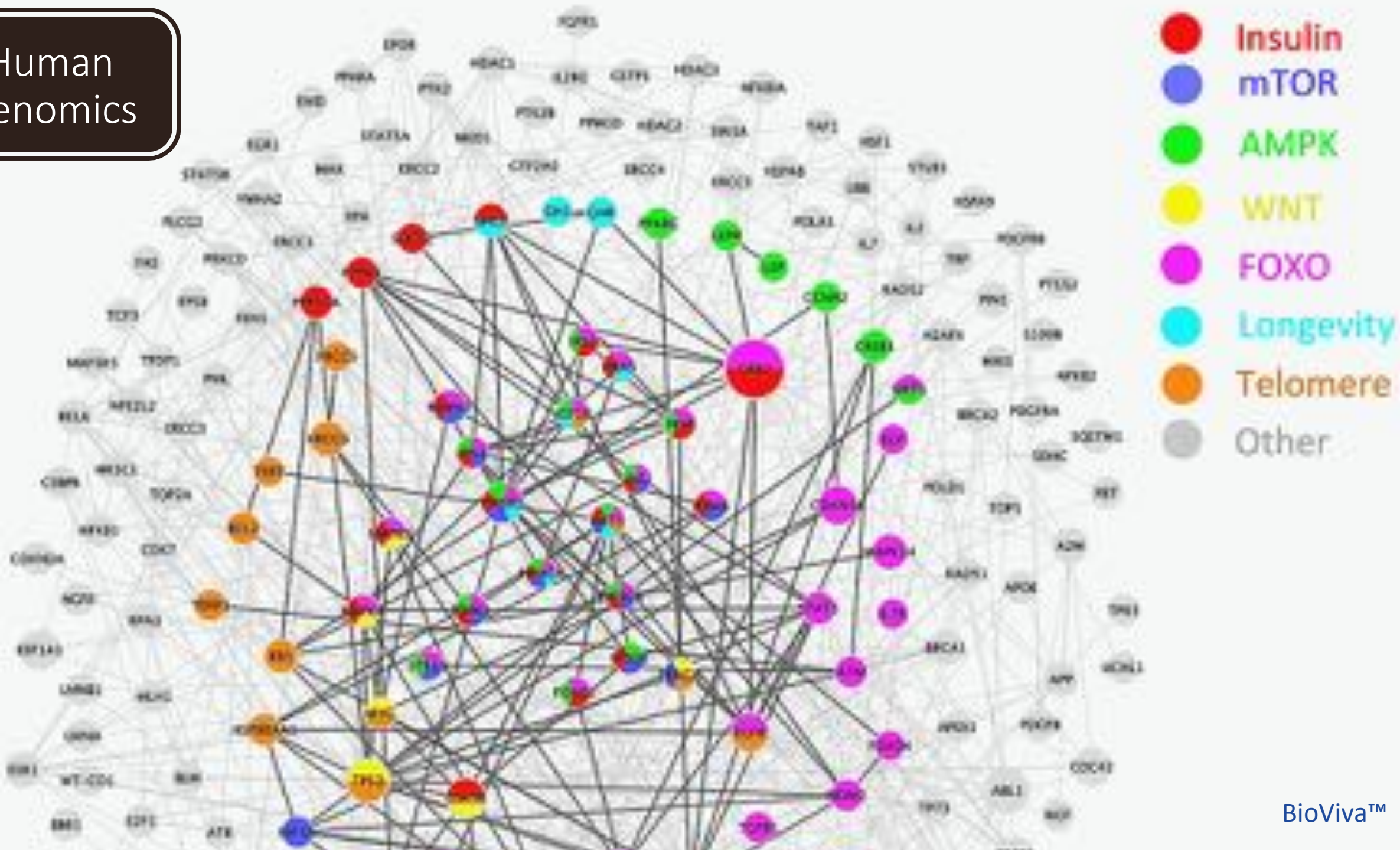
Human Longevity
Genomics

Enabling
Longevity &
Wellbeing



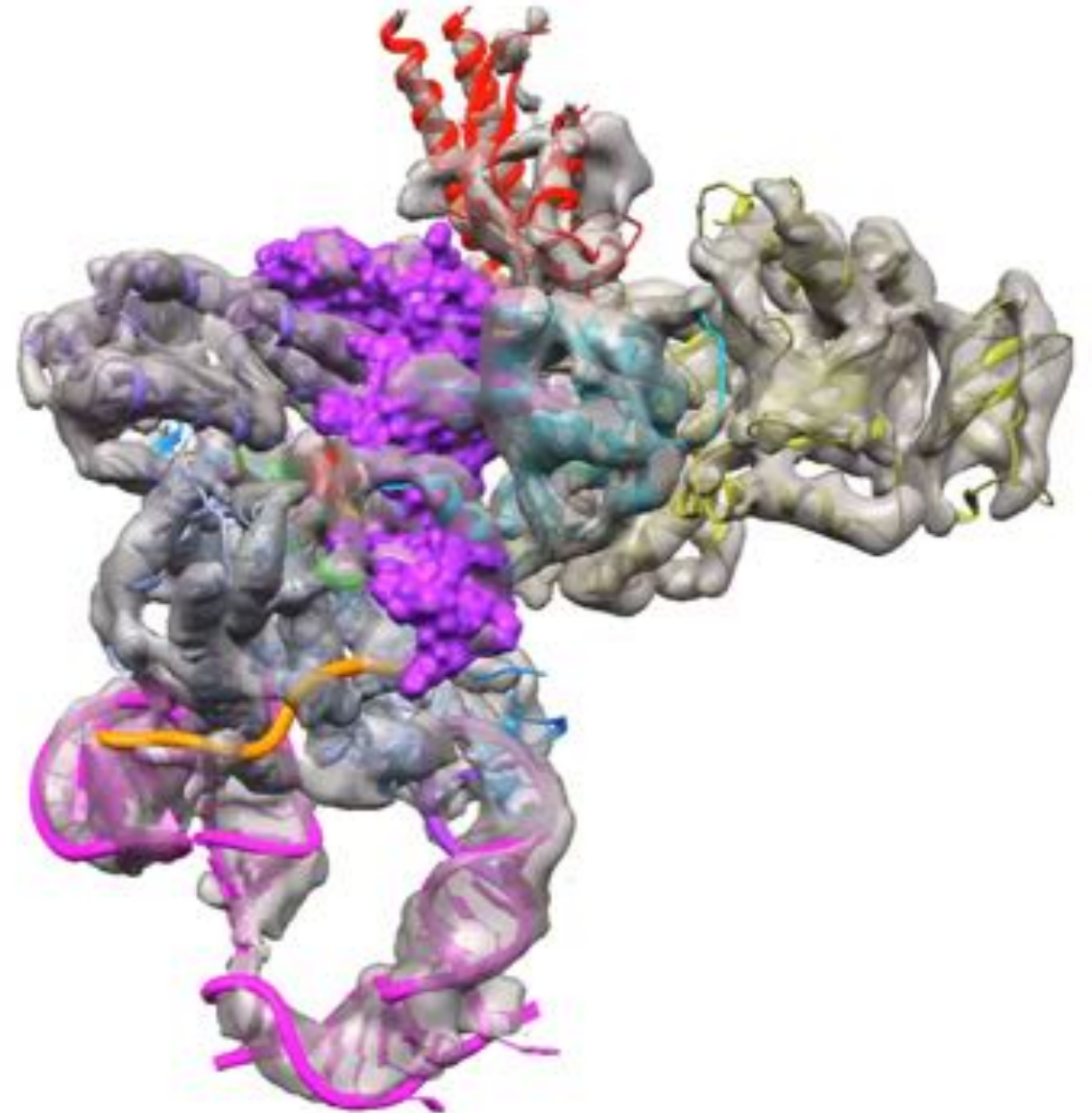
BioViva

Human Genomics

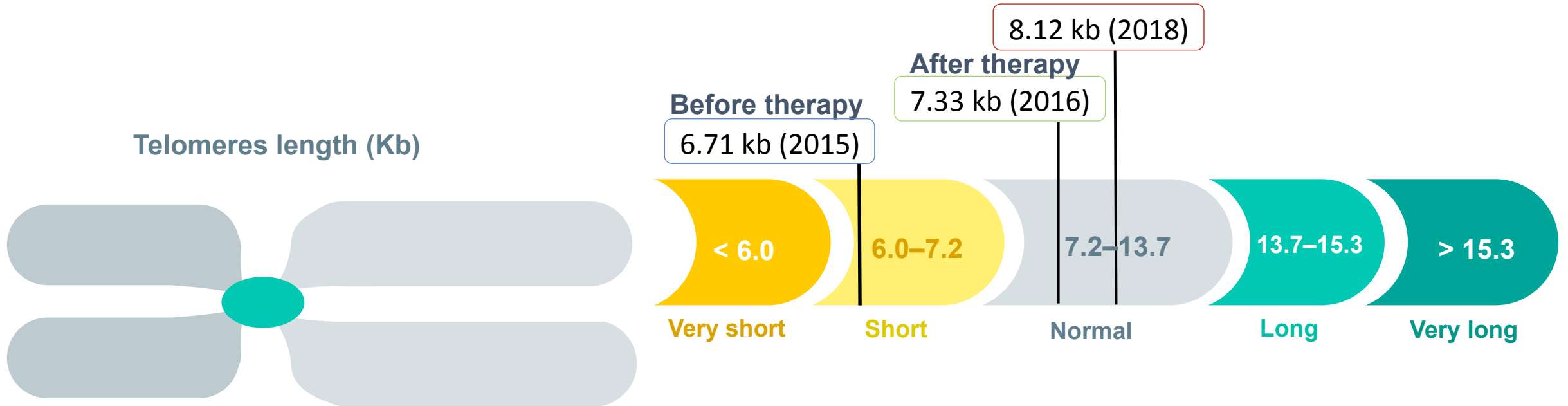


Telomerase

- Repairs telomeres
- Affects mitochondrial health
- Improves genomic stability
- Reduces senescence
- Prevents cancer
- Protects against biological aging



Median Telomere Length Before And After Gene Therapy

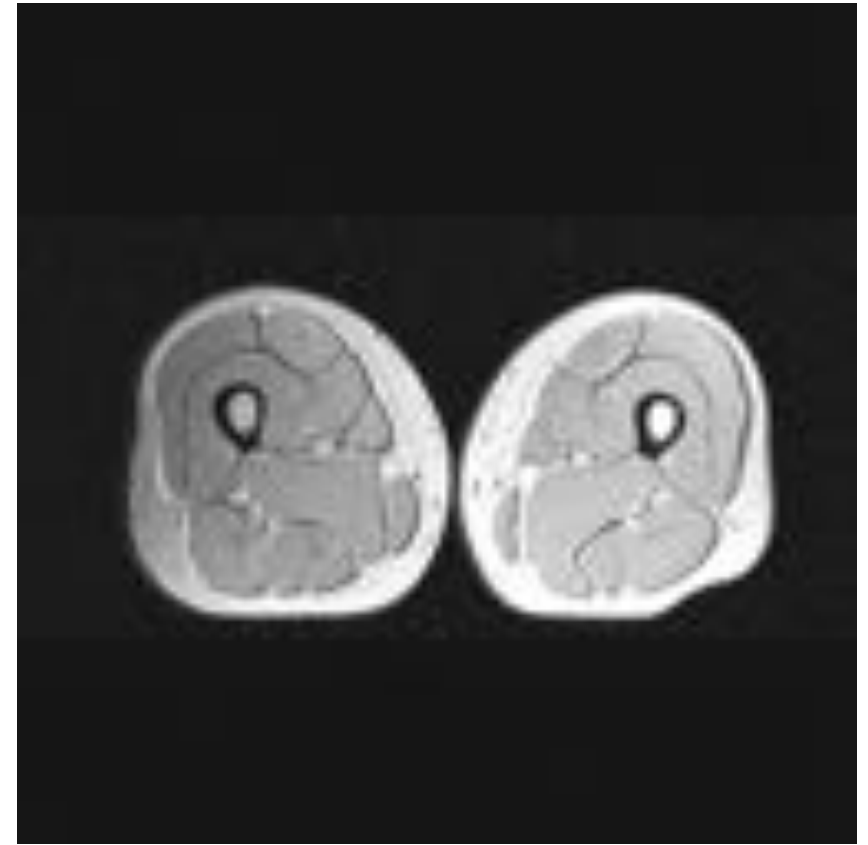
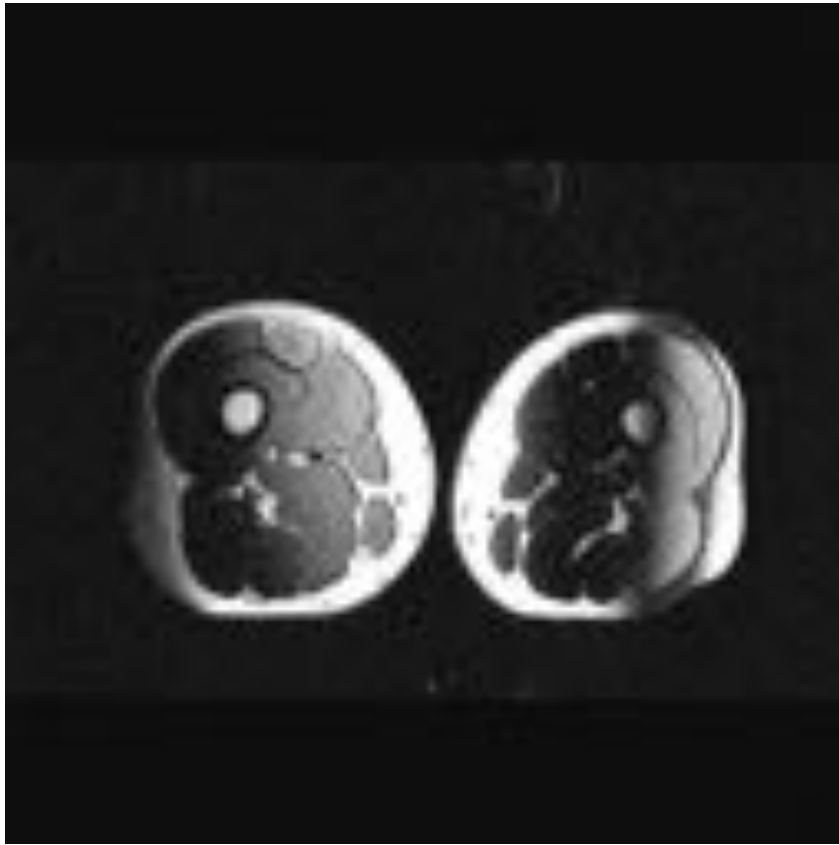


Patient: Elizabeth Parrish
Age at treatment: 44

Follistatin

- Repairs muscle stem cell communication
- Improves numbers of myofibers
- Increases muscle mass and quality
- Reduces frailty
- Prevents sarcopenia
- Protects against biological aging

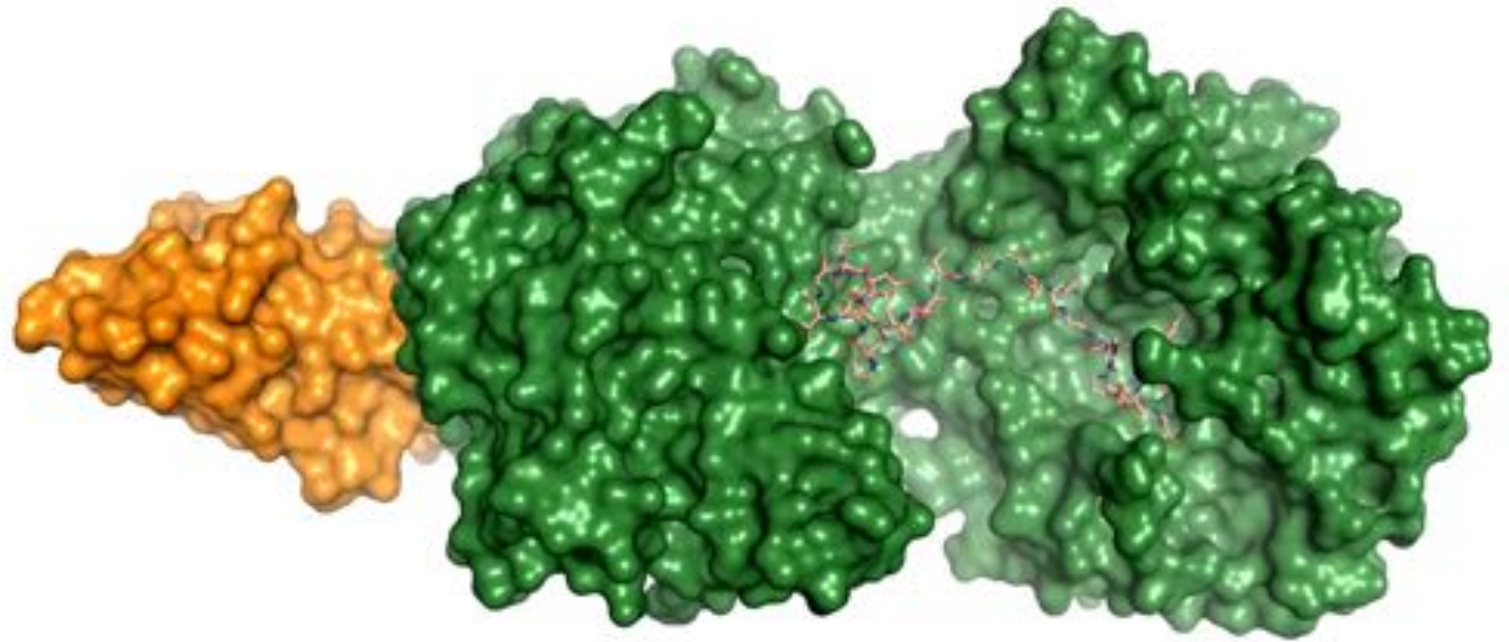




MRI Scans

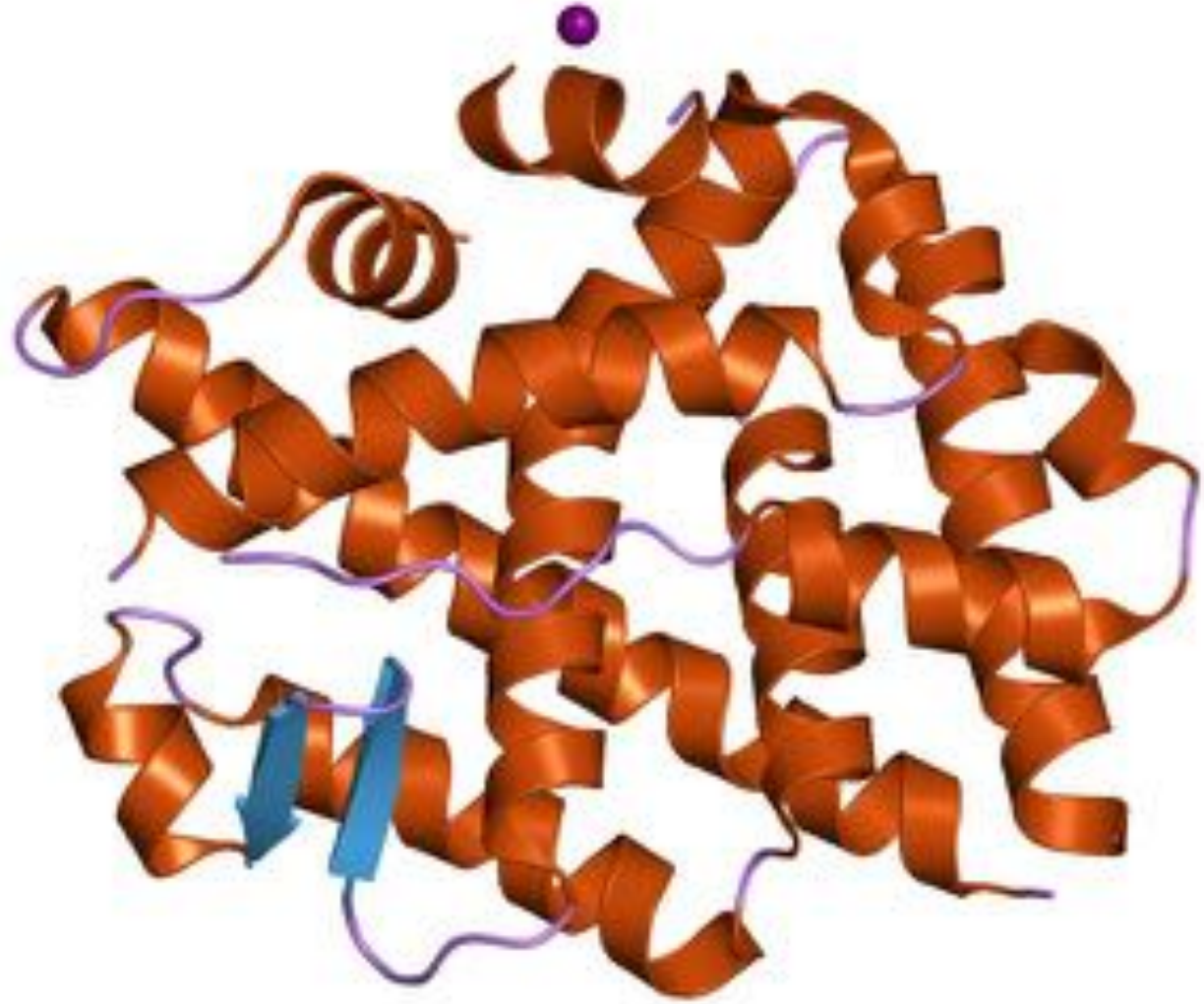
Klotho

- Improves brain function
- Assists other anti-aging proteins, including FGF21 & FGF23
- Suppresses growth pathways
- Clears damage caused by oxidative stress
- Protects against kidney and cardiovascular disease
- Extends lifespan in mice



PGC-1 α

- Improves mitochondrial quality and quantity
- Reduces white fat
- Increases brown fat and muscles
- Maintains proteostasis in neurons and cardiac cells
- Protects against liver damage
- Extends lifespan in model organisms



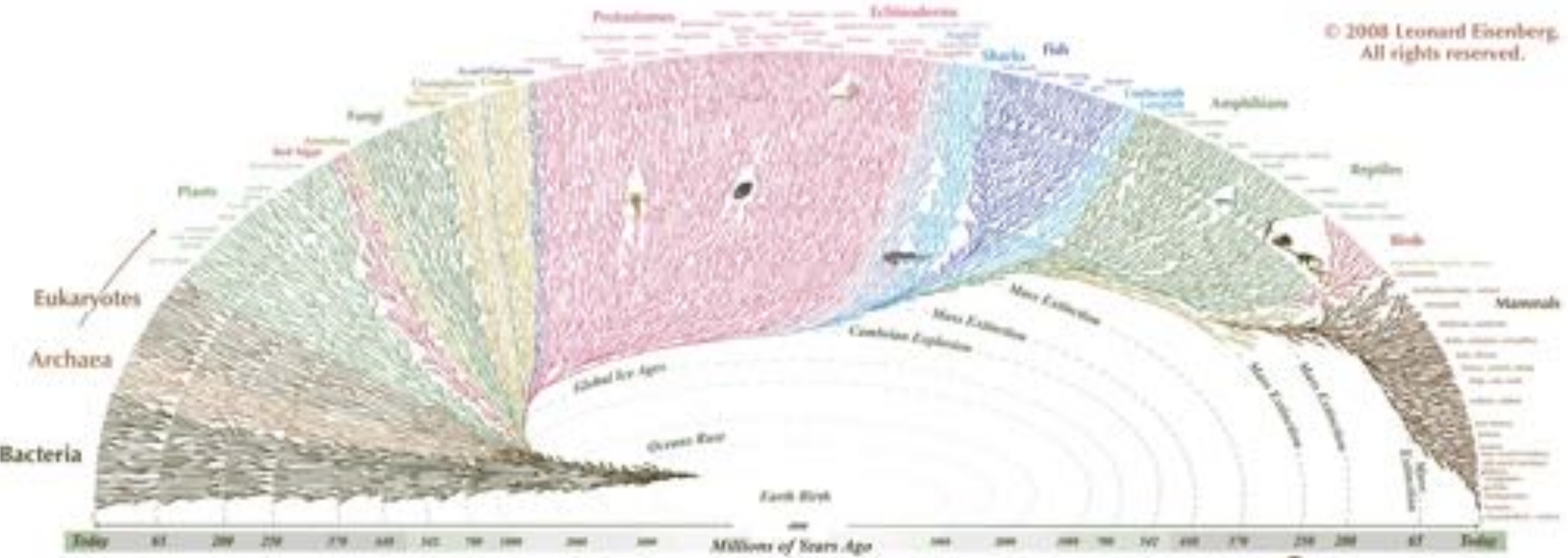
Comparative Biology

Enabling
Longevity &
Wellbeing



BioViva

© 2008 Leonard Eisenberg. All rights reserved.



Comparative Genomics

Gene Therapy

Enabling
Longevity &
Wellbeing



BioViva

Gene Therapy

Adeno-associated virus

- Used in over 140 clinical trials worldwide
- Targets tissues including heart, liver, lung, pancreas, central nervous system, skeletal muscle, photoreceptor cells, and more
- Treating diseases including Hemophilia, congestive heart failure, arthritis, age-related macular degeneration, Alzheimer's disease, Parkinson's disease, and more

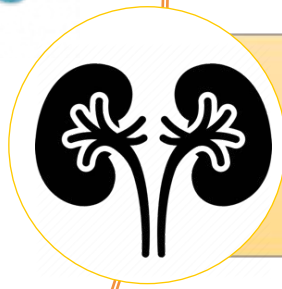




Alzheimer's Telomerase Trial



Follistatin Muscle Regeneration



Klotho Kidney Regeneration



Telomerase Whole Body Regeneration



INTEGRATED
HEALTH SYSTEMS™

Three steps to a healthy you



APPLY



SCHEDULE



CONSULT WITH
A DOCTOR



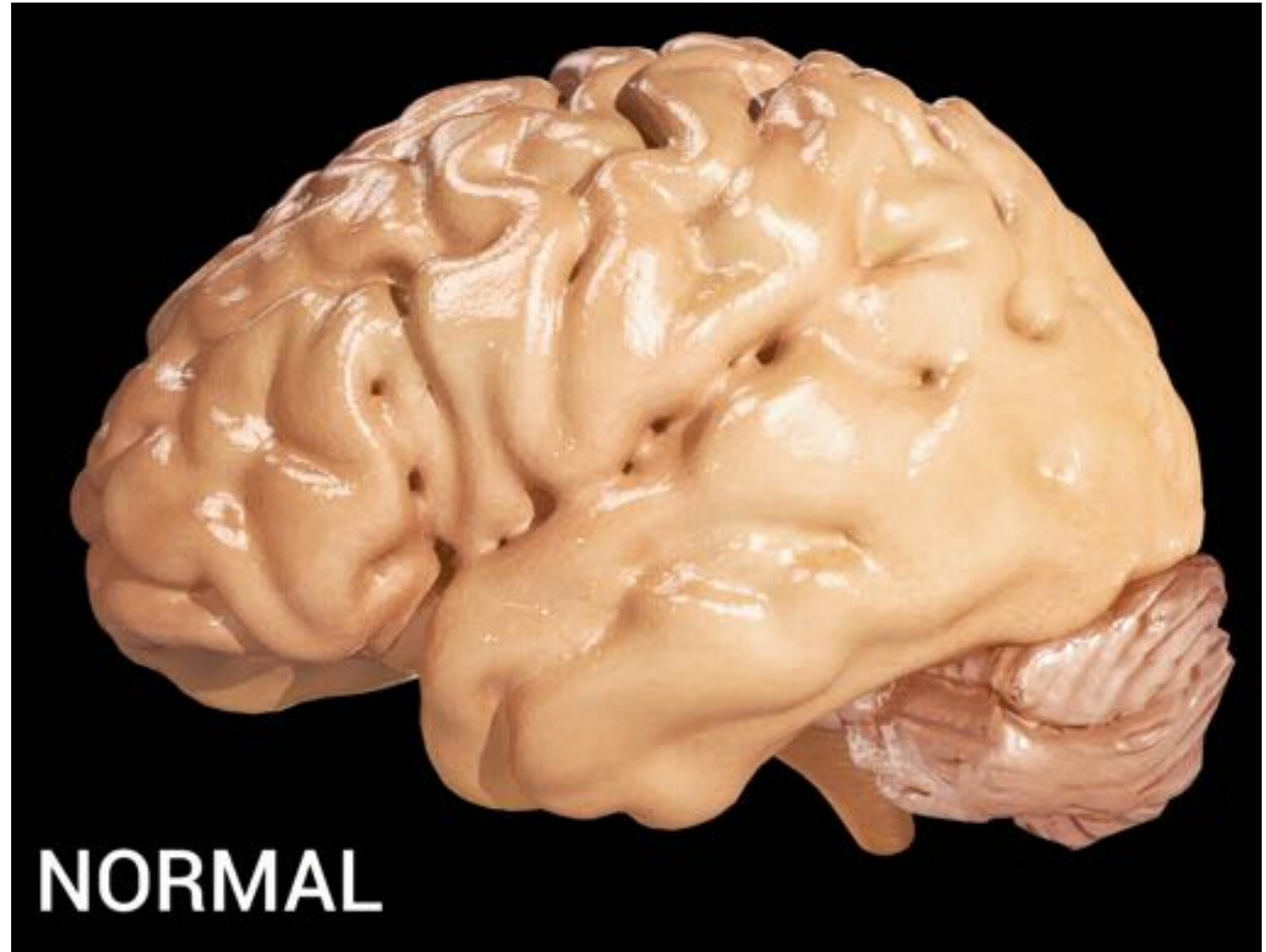
APPLY FOR TREATMENT



INTEGRATED HEALTH
SYSTEMS

Gene Therapy For Everyone

Integrated Health Systems, in partnership with MaxLife Foundation, is funding a trial to rejuvenate microglial cells using telomerase gene therapy.





BioViva



RUTGERS

BioViva and Rutgers University Join Forces
to Create a Vaccine Against Aging

BioViva's R&D: Think Bigger, Better, & More Versatile



Many genes in one vector



No genomic integration



Multiple tissue targets



It can be delivered in multiple ways



High tissue uptake, and low dose requirement



Negligible Immune response

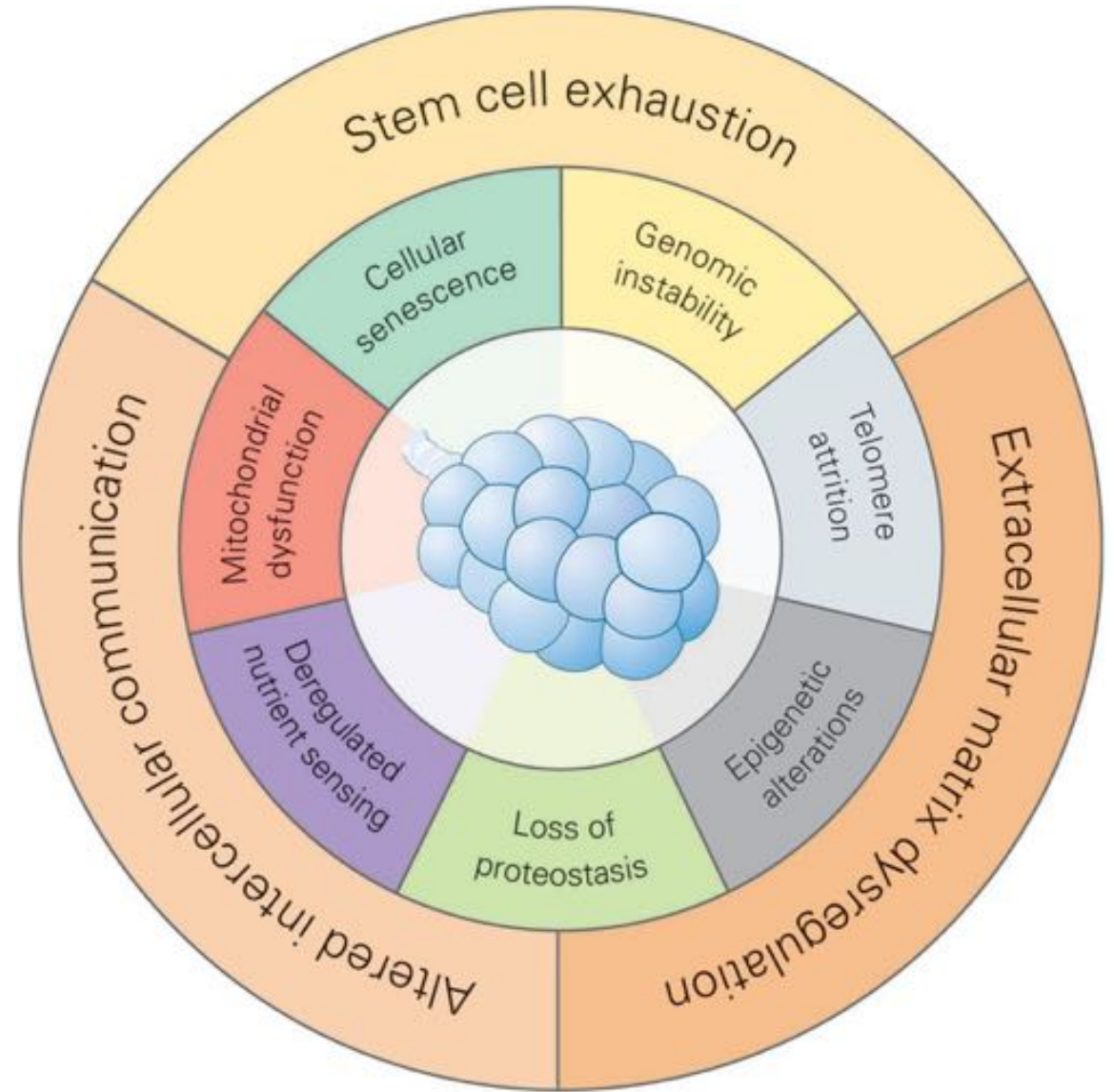
Biomarkers of Aging

Enabling
Longevity &
Wellbeing

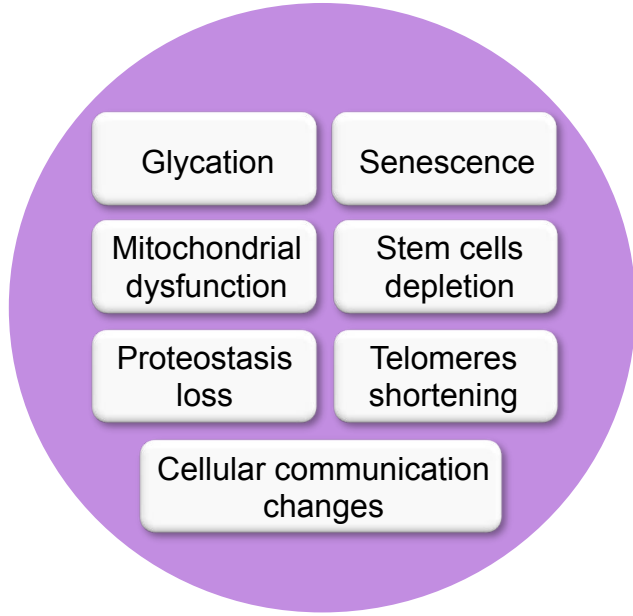


BioViva

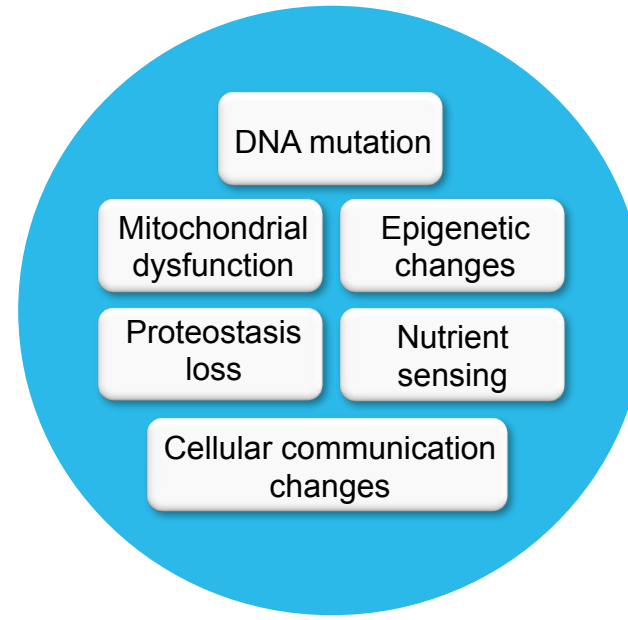
The Hallmarks of Aging



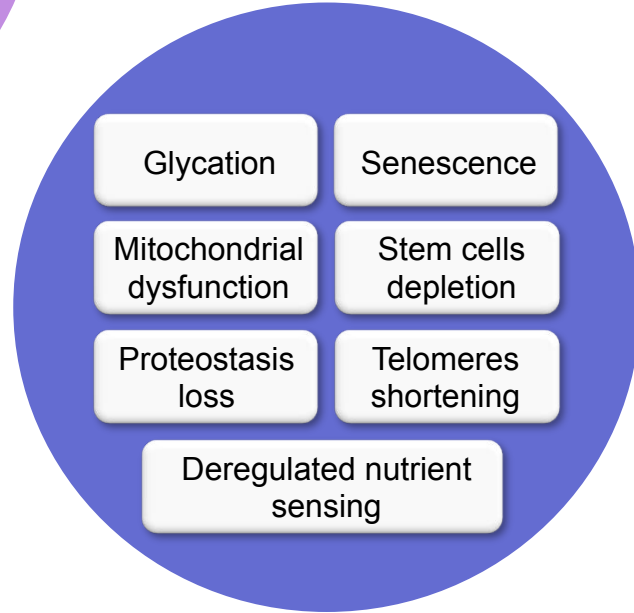
Cardiovascular diseases



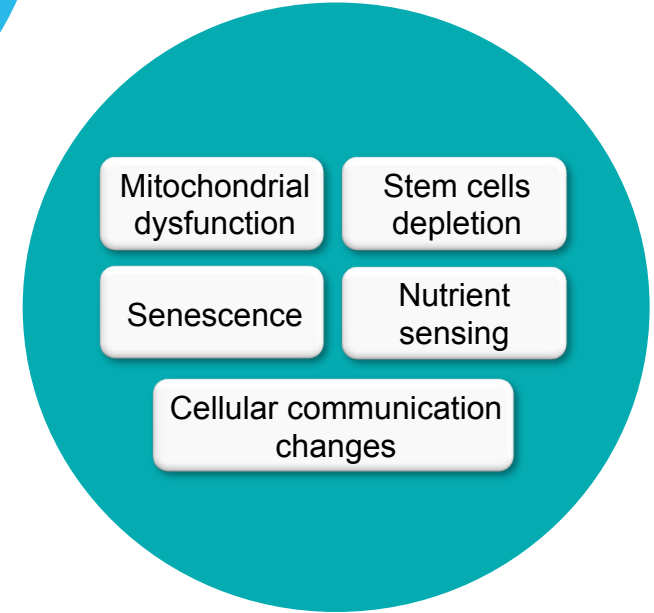
Cancer



Dementia



Diabetes



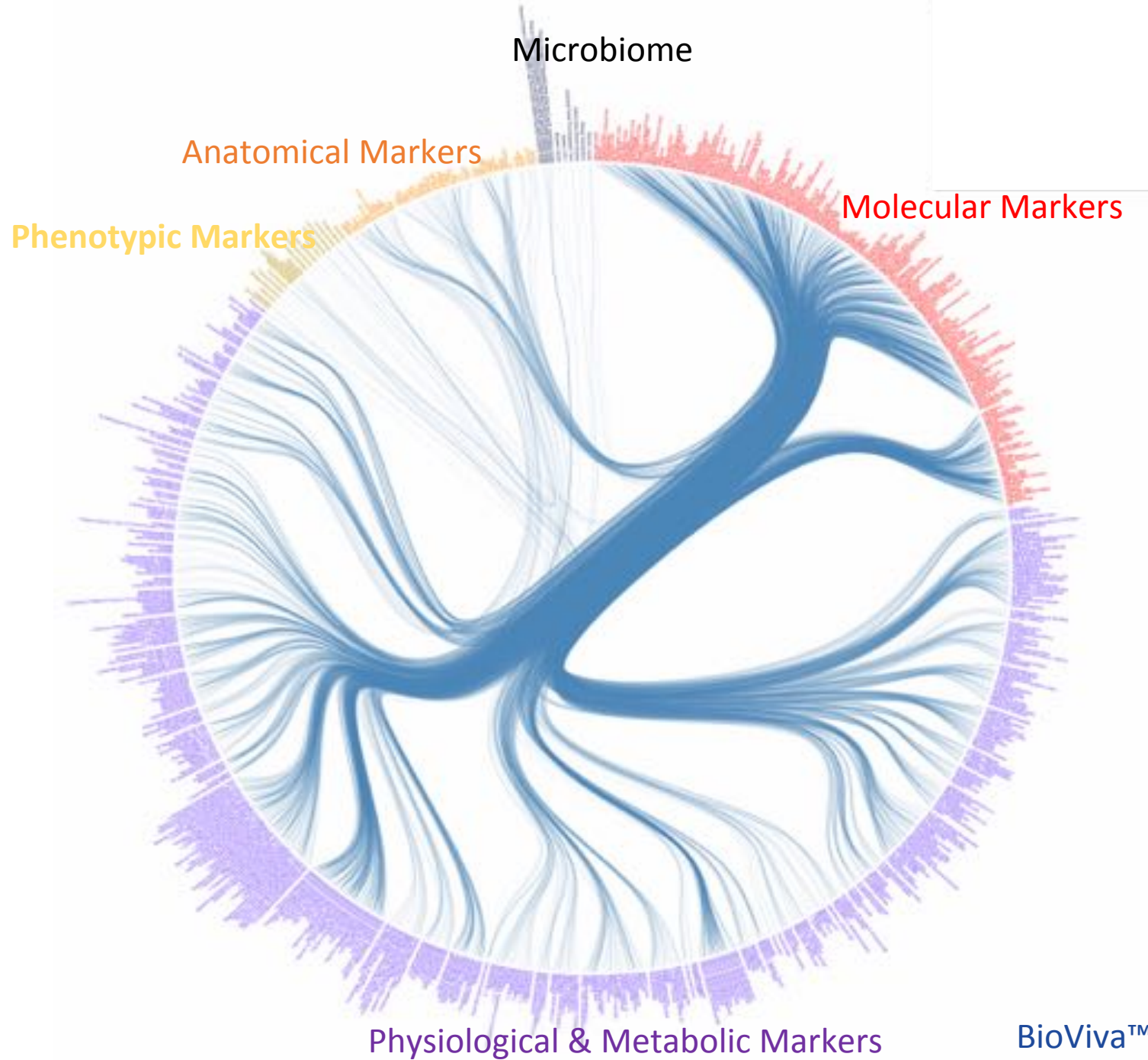
Bioinformatics Platform Connecting -
The Hallmarks of Aging, and Diseases

Enabling Longevity

Enabling
Longevity &
Wellbeing



Bioinformatics Platform





MapMyHealth

- Genetic Health Risks related to +200 diseases
- +30 Wellness traits, including Lactose Intolerance, Deep Sleep and Diet
- Reactions to +100 medications



MapMyFitness

- DNA-based Fitness test of the elite athlete and fitness enthusiast.
- Assess innate potential to torch fat, build muscle, maintain BMI, eat right and more.
- Identify personal risk factors for injuries, stress, and muscle regeneration



MyDNAge

- Precisely measure your biological age at the molecular level
- This The epigenetic clock DNA methylation signature has outperformed other biomarkers in predicting age
- Identify lifestyle interventions to slow down the epigenetic clock



MyFullGenome

- 30x Entire genome and mitochondrial genome sequencing gives you an unparalleled access to your health, your family traits and predisposition
- Discover the source of all genetic diseases, disorders, risks, including rare diseases
- An investment for life: Sequence your genome once and learn more as science progresses

GENOMIC COUNSELLING

The background of the image features a row of seven black silhouettes of people in various jumping and dancing poses, set against a warm, golden-brown sunset sky. The overall mood is one of joy and vitality.

Creating Longevity & Wellbeing For All



BioViva