



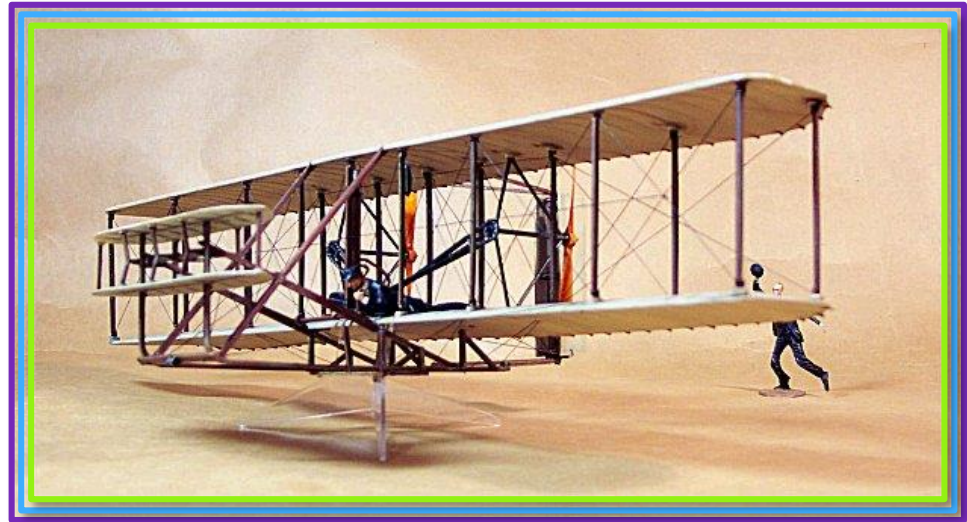
TElocyte

A future beyond Alzheimer's

Summary

- ▶ Telomerase therapy will have a profound effect on age-related diseases
 - ▶ We have good animal data
 - ▶ We are proceeding to human trials

Innovation always - and only - occurs when you change your assumptions.





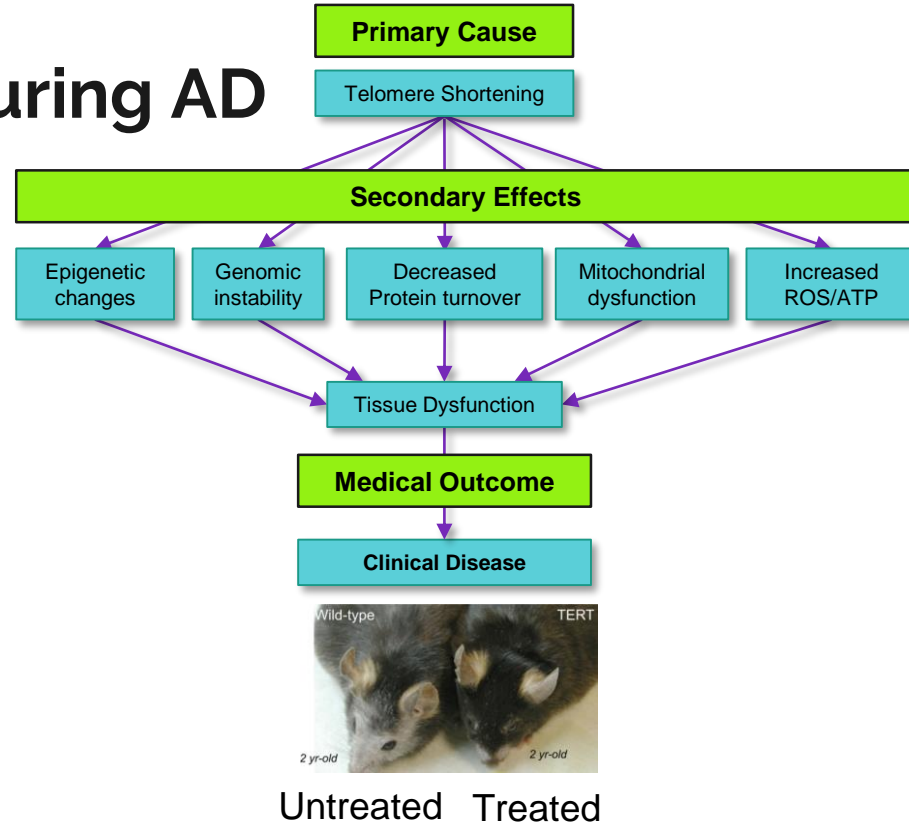
Why Telocyte?

- ▶ Curing Alzheimer's Disease (AD)
 - ▶ 50 million Alzheimer's patients globally
 - ▶ \$800 billion annual cost globally
 - ▶ Brain aging and cell senescence are the primary causes of the disease and we have the technology to reverse both.



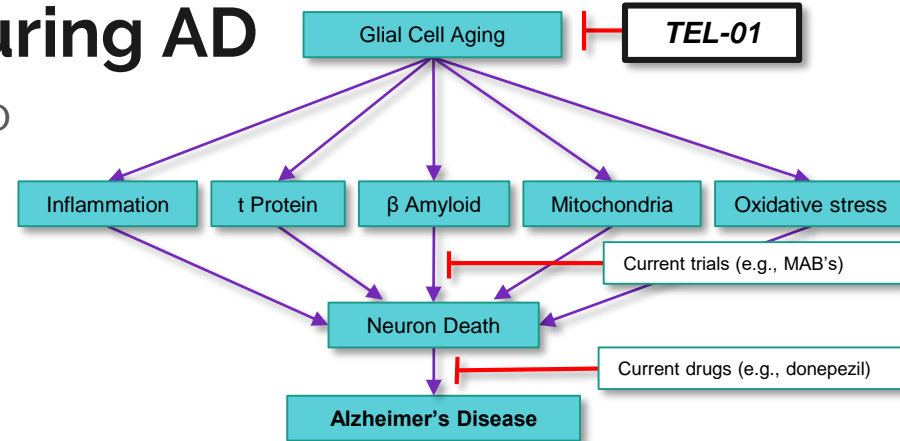
Telocyte approach for curing AD

- ▶ Target Telomere shortening
 - ▶ The primary cause of aging (Fossel, 2004) (López-Otín, Blasco, Partridge, Serrano, & Kroemer, 2013)
- ▶ Rejuvenate cells with Telomerase
 - ▶ Reverses cell failure and resets gene expression, creating young, functional cells (Fossel, 2004) (Jaskelioff et al., 2010)
- ▶ Proof of Concept
 - ▶ Our collaborator, Maria Blasco, CNIO's Director, was the first to show telomerase gene therapy can safely extend healthy mouse lifespan by 24% and reverse behavioural decline without increasing cancer (Bernardes de Jesus et al., 2012)



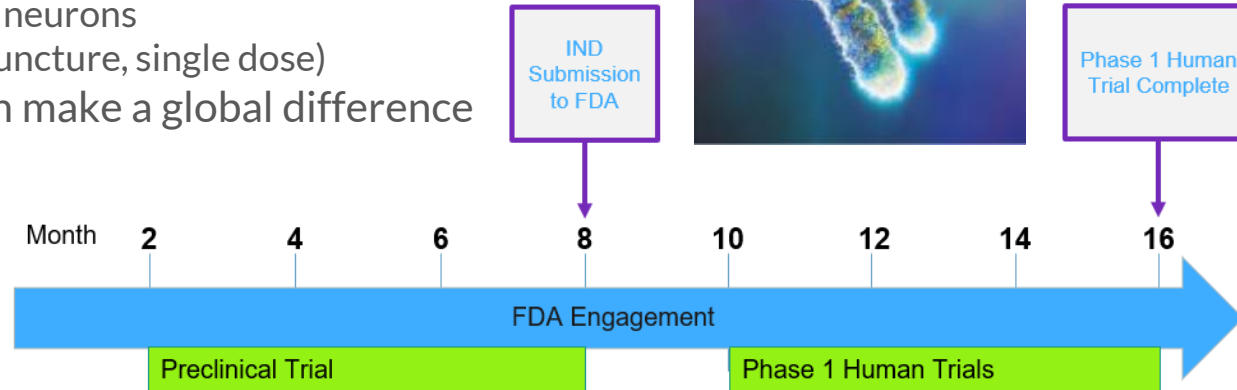
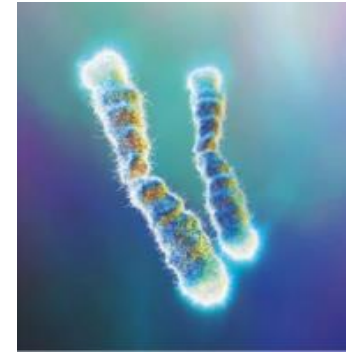
Telocyte approach for curing AD

- ▶ Glial cell dysfunction as the primary cause of AD due to glia cell division causing cell aging (Boccardi, Pelini, Ercolani, Ruggiero, & Mecocci, 2015)
- ▶ Reverse cell aging by resetting gene expression
 - ▶ Glia have reduced β amyloid-binding, phagocytosis, and degradation with age (Hickman, Allison, & Khoury, 2008)



Telocyte approach for curing AD

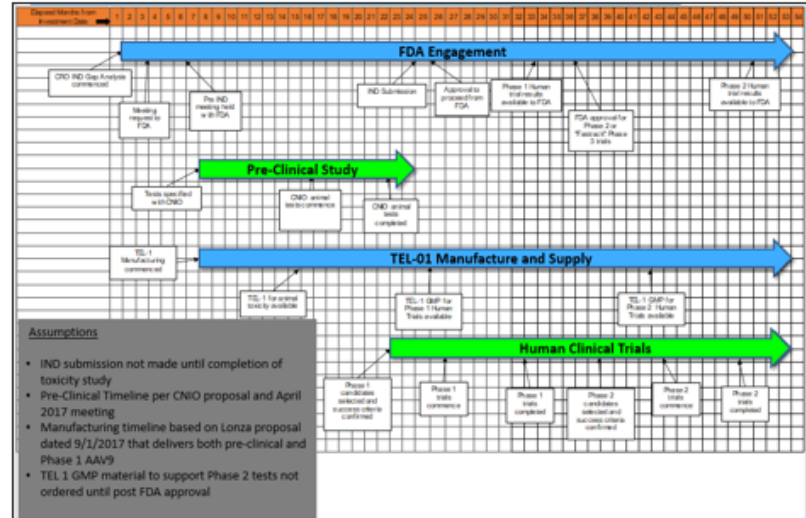
- ▶ Our Product → Gene therapy drug candidate:
 - ▶ Vector: Adeno-associated virus (AAV)
 - ▶ Plasmid: Telomerase (hTERT and CMV)
 - ▶ Target: Glial cells and neurons
 - ▶ Delivery: IT (lumbar puncture, single dose)
- ▶ A modest investment can make a global difference



Telocyte Program Plan & Operating Budget

- ▶ Two-year quarterly Budget and detailed clinical Program

Planned Expenses	Q1	Q2	Q3	Q4	Year One	Q1	Q2	Q3	Q4	Year Two	Total
Fixed Costs											
Salary	87.5	87.5	87.5	87.5	350.0	175.0	175.0	175.0	175.0	700.0	1050.0
Benefits	23.6	23.6	23.6	23.6	94.5	47.3	47.3	47.3	47.3	189.0	283.5
Office / Facilities	3.0	3.0	3.0	3.0	12.0	4.0	4.0	4.0	4.0	16.0	28.0
Subtotal	114.1	114.1	114.1	114.1	456.5	226.3	226.3	226.3	226.3	905.0	1361.5
Variable Costs											
IP & Legal fees	18.8	18.8	18.8	18.8	75.0	18.8	18.8	18.8	18.8	75.0	150.0
Animal & Clinical Trials	215.0	215.0	215.0	215.0	860.0	125.0	125.0	125.0	125.0	500.0	1340.0
Financial services	10.0	10.0	10.0	10.0	40.0	10.0	10.0	10.0	10.0	40.0	80.0
Materials & Manufacture	600.0	600.0	600.0	600.0	2400.0	600.0	600.0	600.0	600.0	2400.0	4800.0
Regulatory Consulting	45.5	45.5	45.5	45.5	182.0	100.0	100.0	100.0	100.0	400.0	582.0
Travel & Living expenses	15.0	15.0	15.0	15.0	60.0	20.0	20.0	20.0	20.0	80.0	140.0
Administrative services & IT	4.0	4.0	4.0	4.0	16.0	4.0	4.0	4.0	4.0	16.0	32.0
Marketing activities	7.5	7.5	7.5	7.5	30.0	7.5	7.5	7.5	7.5	30.0	60.0
Web Site management & Update	1.0	1.0	1.0	1.0	4.0	1.0	1.0	1.0	1.0	4.0	8.0
Subtotal	916.8	916.8	916.8	916.8	3667.0	886.3	886.3	886.3	886.3	3545.0	7212.0
TOTALS											
TOTAL Planned Expenses					4123.5					4450.0	8573.5





Management Team



Founder, President

Michael Fossel MD, PhD

Dr. Fossel is the driving force behind Telocyte and has been the leader in proposing the use of telomerase to treat human disease for the past two decades. Clinical Professor of Medicine (retired), MD and PhD in Neurobiology from Stanford. Author of *The Telomerase Revolution* (*Wall Street Journal* named it one of the best science books of 2015) and Oxford University Press textbook, *Cells, Aging, and Human Disease*.



Founder, CEO

Peter Rayson

Peter T. Rayson is an experienced industry executive who provides leadership and business acumen for Telocyte. Engineering management with ComputerVision, working with Rolls Royce, Airbus, Ford, Jaguar Land Rover. Formerly Associate Director of the Technology Innovation Center at Birmingham City University, stepped down in 2011 when his mother was diagnosed with dementia



COO

Mark Hodges

Mark Hodges is an experienced technology executive who provides effective and inspiring leadership for all Telocyte programs and services. Aerospace, defense, CAD business development, including at ComputerVision with Peter Rayson. General Manager of China Operations, managed 500 engineers across 15 offices for PTC Inc., a listed Boston engineering software firm.



Our Partnerships



Maria Blasco, PhD



Russell Swerdlow, MD



Brian Kaspar, PhD



Suzanne Hendrix, PhD



Mimoun Azzouz, PhD



Joseph Araujo, PhD





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