



GLOBAL WELLNESS
SUMMIT 2019

The Future is Catching Us: Rejuvenation Medicine

Dr. Chris Renna, Founder, LifeSpan Medicine, US

The future is catching us:
REJUVENATION MEDICINE

Talk by Dr Chris Renna, DO

LIFESPAN
m e d i c i n e

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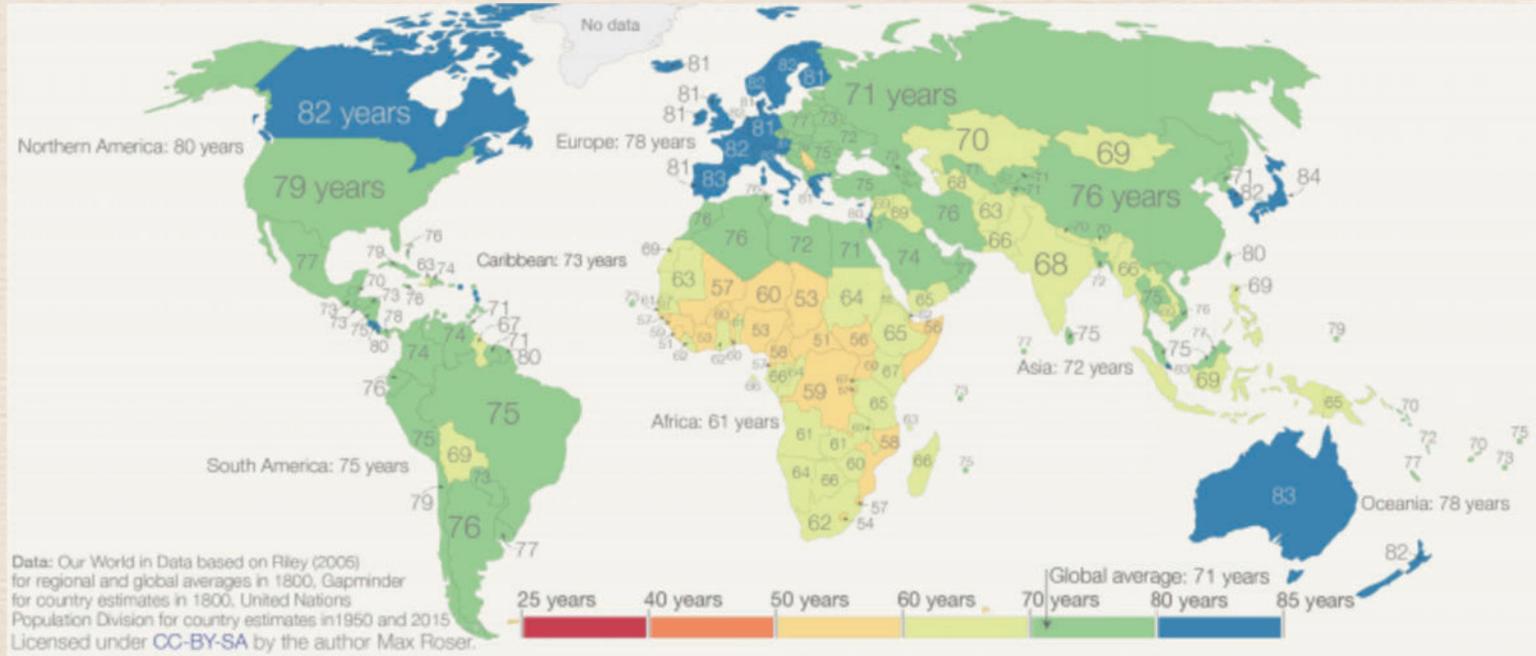
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Global Life Expectancy



The future of predicting longevity: Studying the Epigenetic Clock



EPIGENETICS:

The Symphony of Life

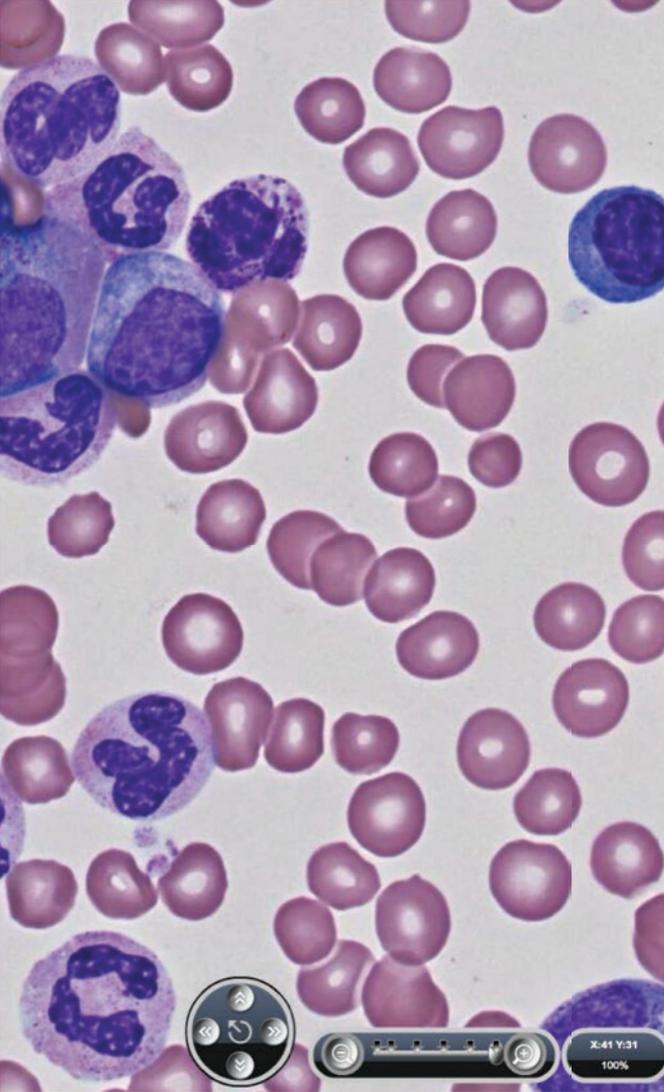
Genes are the instruments and you are the conductor.

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Find ways to positively affect epigenetics to improve your health and prolong your life.



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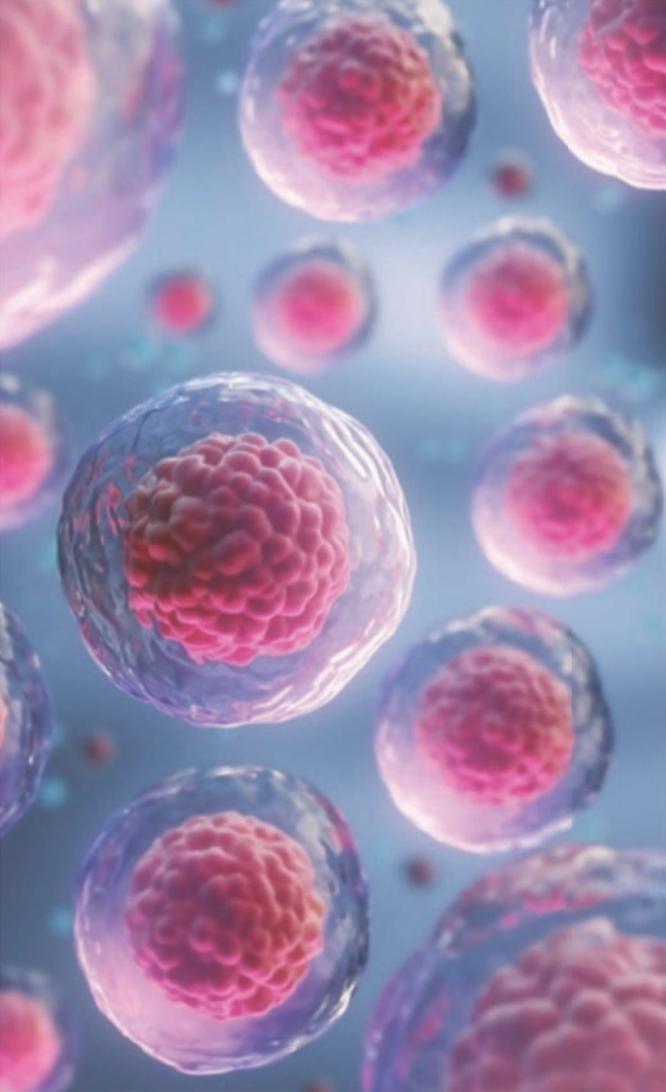


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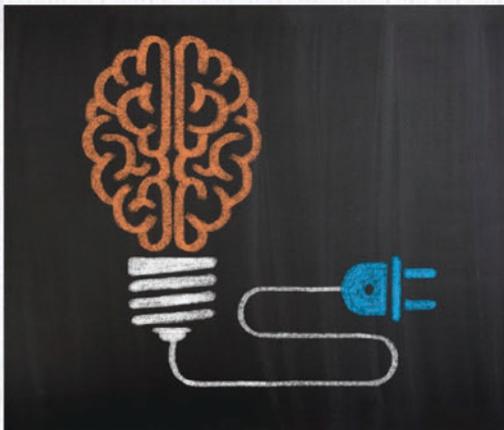
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Regenerative medicine

Rejuvenative medicine

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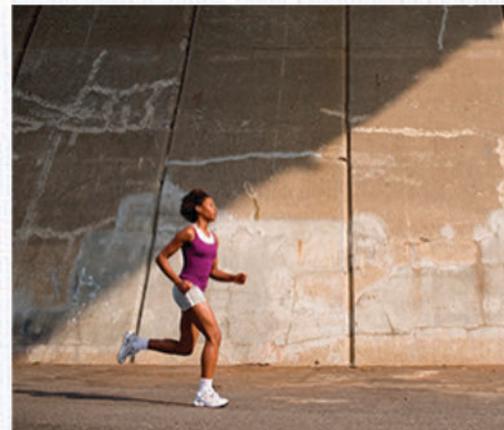




Genomic Testing



Peptides



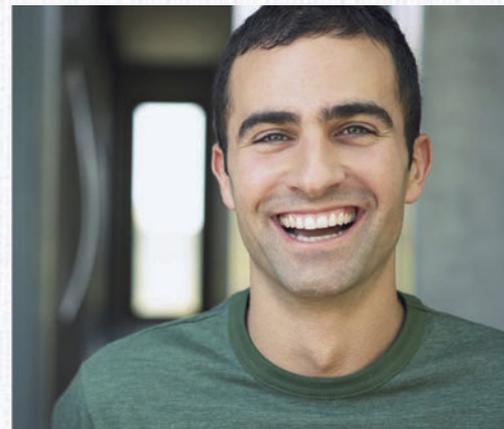
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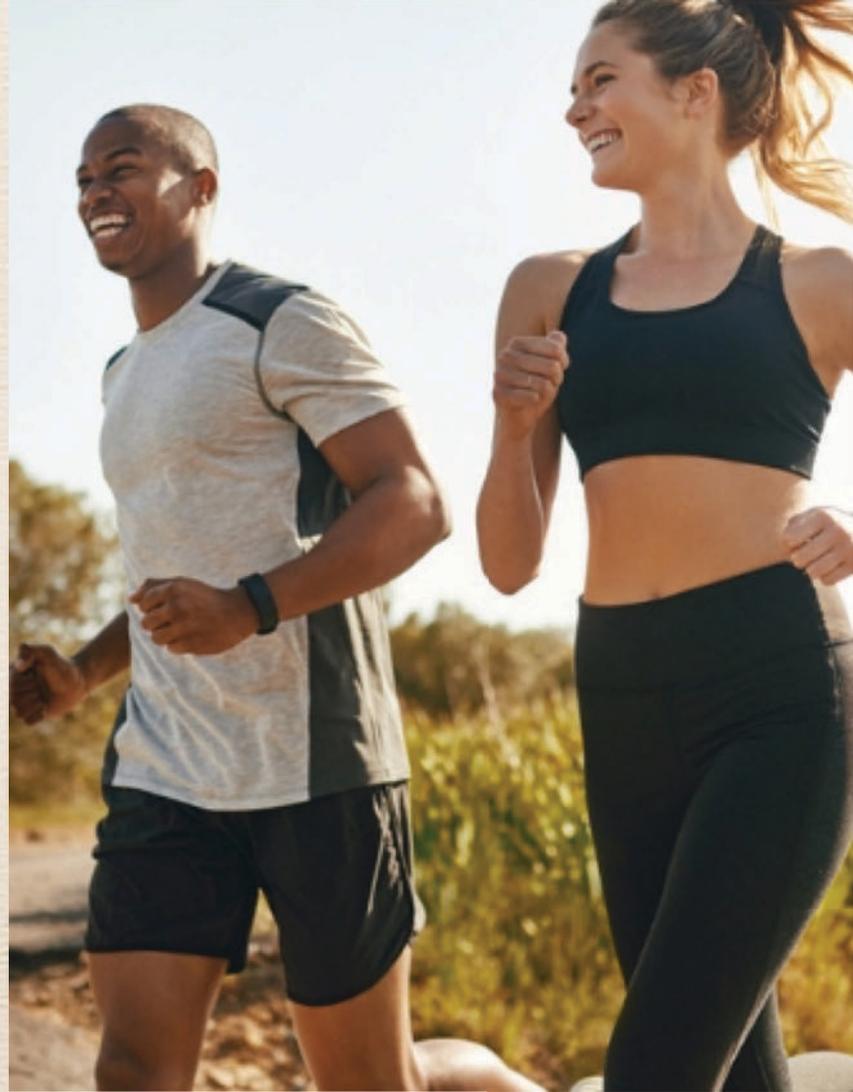
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Compound (chemical class)	Sources	Medication/supplement name(s)	Effects on organism	Clinical trial phase	Targets	Side effects
Aspirin	Meadow sweet Willow bark Blueberry Broccoli Cauliflower Eggplant Kiwi Grapes	Ecotrin Aspirin 81 Aspirin low Aspirin low strength	Anti-inflammation Anti-cancer Anti-stress	Pain reliever/fever reducer (FDA-approved) T2D (phase 3/4) Heart disease (phase 3/4) Atherosclerosis (phase 4) Cancers (phases 1/2/3/4) Obesity (phase 1)	COX-1, COX-2, PTGS2, NF-κB, AMPK	Diarrhea Headache Loss of appetite Vomiting Weight gain
Curcumin (polyphenol)	Curry spice Ginger Turmeric	Theracurmin Meriva Longvida BCM-95	Anti-inflammation Anti-cancer Anti-atherogenic Anti-diabetic Anti-depressant Neuro-protective Anti-stress	GRAS by FDA AD (phase 2) Cancer (phase 2)	NF-κB, COX-1, COX-2, TNF-α, p53, PPARγ, TR, Nrf2, FAK, Src, GSK3, AP1, TOR, LOX, AMPK	Flatulence Nausea Diarrhea
Epigallocatechin gallate	Green tea Apples Blackberry Carob flour	Green tea extract	Anti-inflammation Anti-cancer Anti-amiloid Anti-atherogenic Anti-obesity Anti-diabetic Neuro-protective Anti-stress	GRAS by FDA AD (phase 2/3)	Bcl2, NOS2, LamR, EGFR, Telomerase, Topoisomerase II, DNMT1	Headache Nervousness Vomiting Diarrhea Irritability Irregular heartbeat Dizziness
Fisetin (flavonoid)	Acacias parrot tree Honey locust onion Strawberry Apple Grapes	Fisetin	Anti-inflammation Anti-cancer Anti-atherogenic Anti-obesity Anti-diabetic Anti-oxidant CR mimetic Anti-stress	Preclinical studies	Akt, Cdk6, mTOR, PI3 K, ERK	Not reported
Melatonin (biogenic amine)	Tomato Cereal Walnut Olive oil Strawberry Milk Wine Beer	Melatonin Circadin Clocktonin	Neuro-protective Anti-stress Anti-migraine Sedation Sleep quality Anti-depressive Anti-stress	GRAS by FDA Cancers (phases 1/2/3/4) Glucose tolerance (phase 3) Insomnia (phase 2) T2D (phase 2) Alzheimer's disease (phase 2)	MT1, MT2, MT3, GPR50	Headache Depression Sleepiness Dizziness Irritability
Metformin (biguanide)	Chemically synthesized	Act Metformin Bio-metformin Fortamet Glucophage Glumetza Metformin Riomet	Anti-inflammation Anti-cancer Anti-atherogenic Anti-diabetic Anti-depressant Neuro-protective Cardio-protective CR mimetic	T2D (phase 4) Obesity (phase 4) Impaired glucose tolerance (phase 4)	AMPK	Lactic acidosis Diarrhea Nausea Vomiting Flatulence
Quercetin (flavonoid)	Greens Berries Tomato Broccoli Onions Tea leaves	Quercetin	Anti-atherogenic Anti-inflammation Cardio-protective Anti-oxidant	GRAS by FDA T2D (phase 1) CVD (phase 1)	SIRT1, PLA2, PI3K, pp60src Phosphotransferase, Protein kinases, Cyclic GMP phosphodiesterases	Not reported
Resveratrol (polyphenol)	Grapes Wine Rasperry Plums Acai Peanuts	Resveratrol	Anti-inflammation Anti-cancer Anti-atherogenic Anti-obesity Neuro-protective Cardio-protective CR mimetic Anti-stress	GRAS by FDA AD (phase 3) Cognitive impairment (phase 4)	Sirt2, p53 AMPK, PGC1-α	Intestinal upset Nausea
Rapamycin	<i>Streptomyces hygroscopicus</i>	Rapamycin Sirolimus Rapamun	Anti-inflammation Anti-cancer Anti-amiloid Anti-atherogenic Neuro-protective Cardio-protective CR mimetic Anti-stress	CVD (phase 3) Tuberculous sclerosis (phase 3) Cancers (phases 1/2/3/4)	mTOR	Suppression of immune system Hepatotoxicity
Statins	Oyster Mushrooms Red yeast rice Soy products Grains Cauliflower Onion Apple Orange	Atorvastatin Fluvastatin Lovastatin Pitavastatin Pravastatin Rosuvastatin Simvastatin	Anti-hyperlipidemic Cardio-protective Anti-diabetic Anti-atherogenic Anti-inflammation Anti-Alzheimer's	Hypercholesterolemia (FDA-approved) CVD (phase 4) Myocardial infarction (phase 4) Sexual dysfunction (phase 4) T2D (phase 4) Schizophrenia (phase 4)	Hydroxy-methylglutaryl-CoA reductase	Headache Depression Sleepiness Dizziness Diarrhea Memory loss Diabetes

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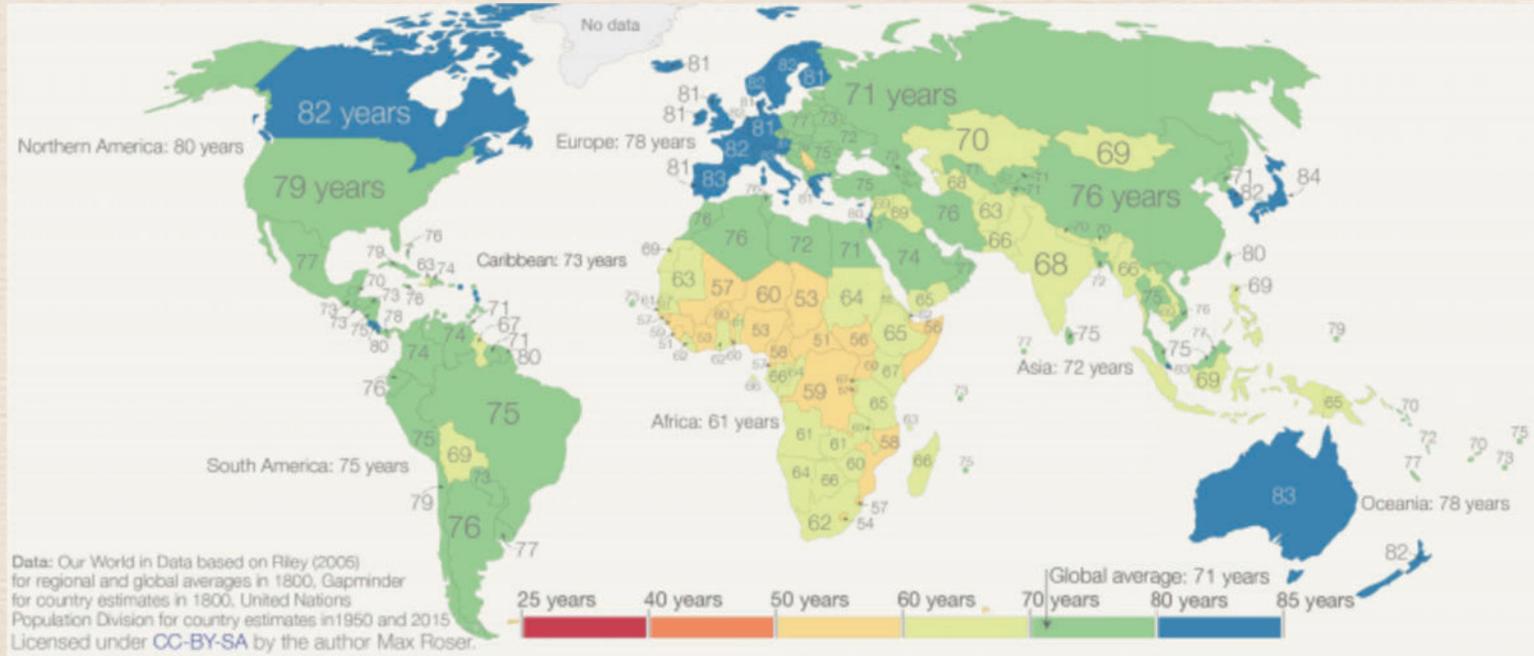
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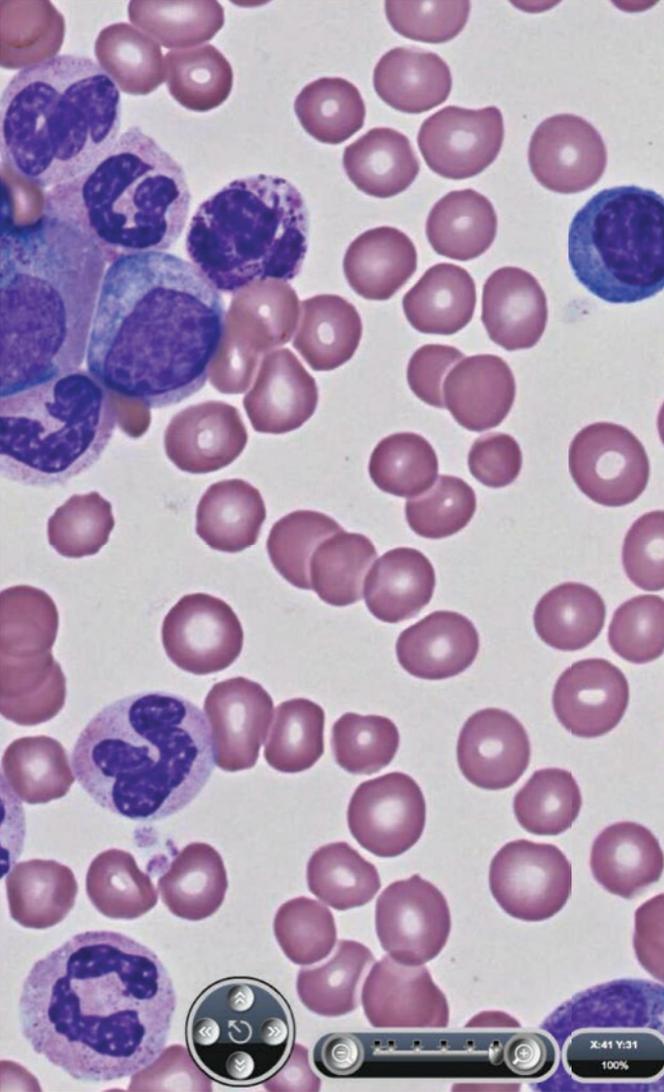
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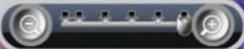


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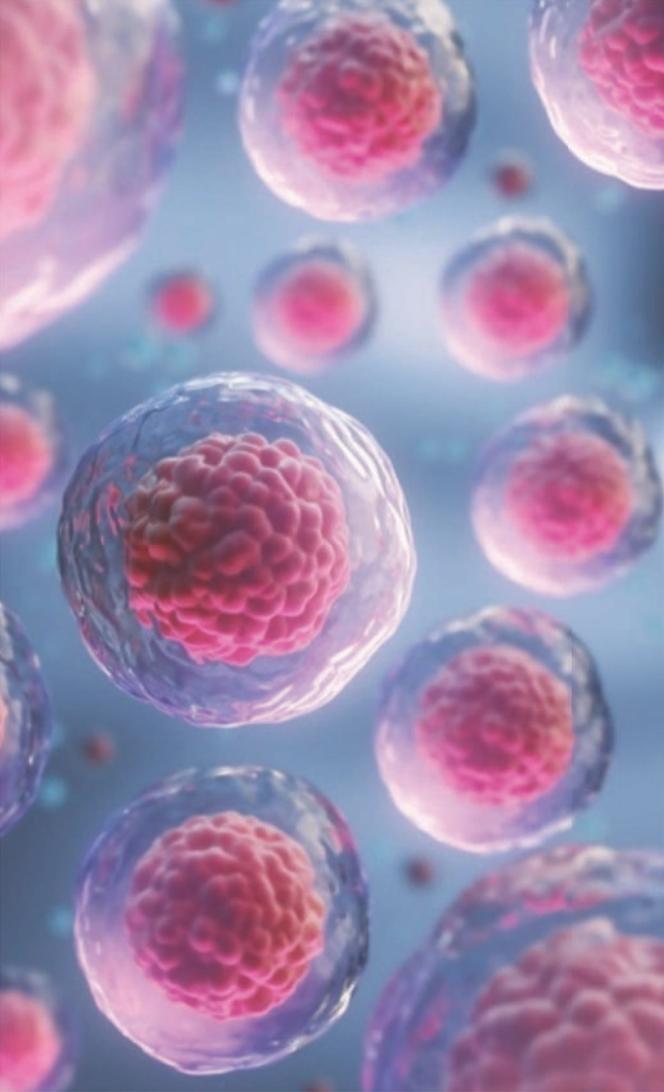


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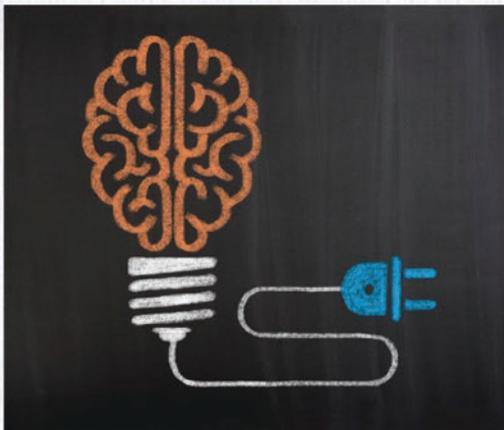
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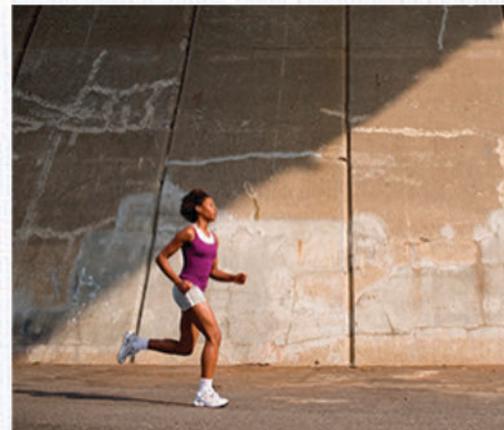




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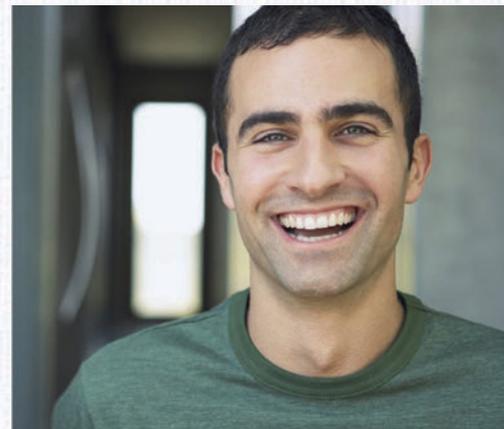
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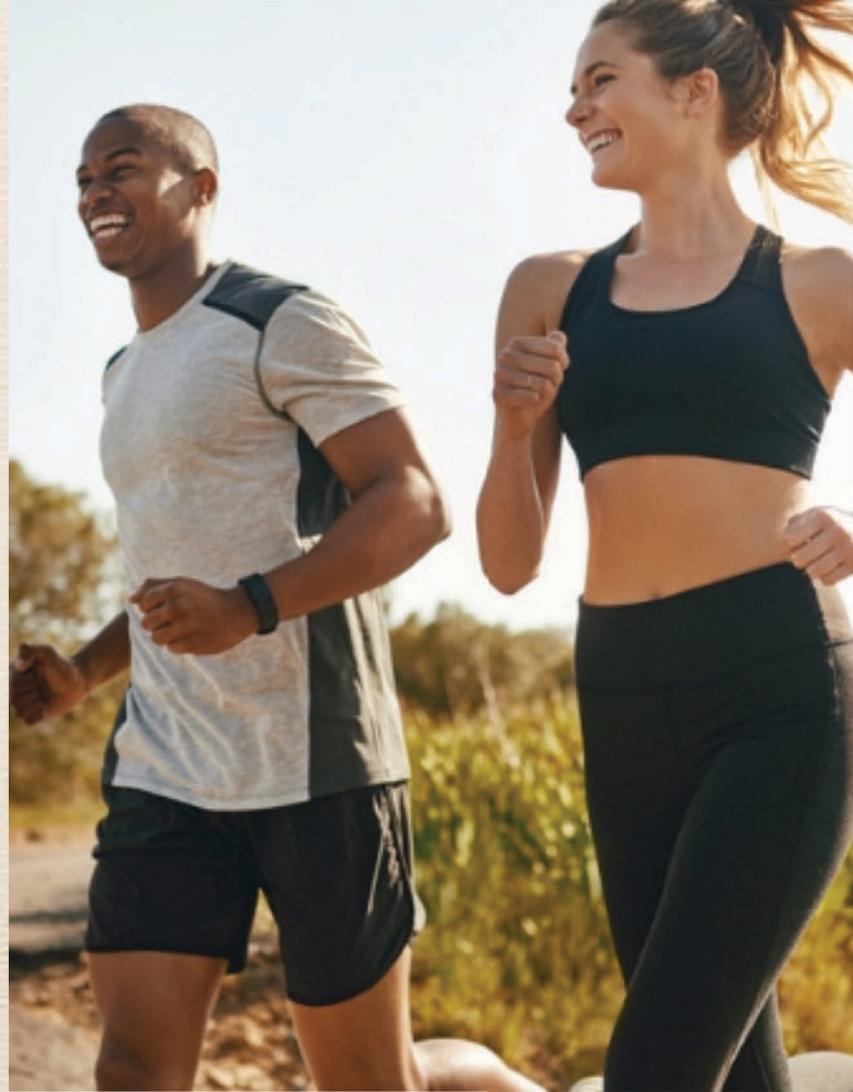
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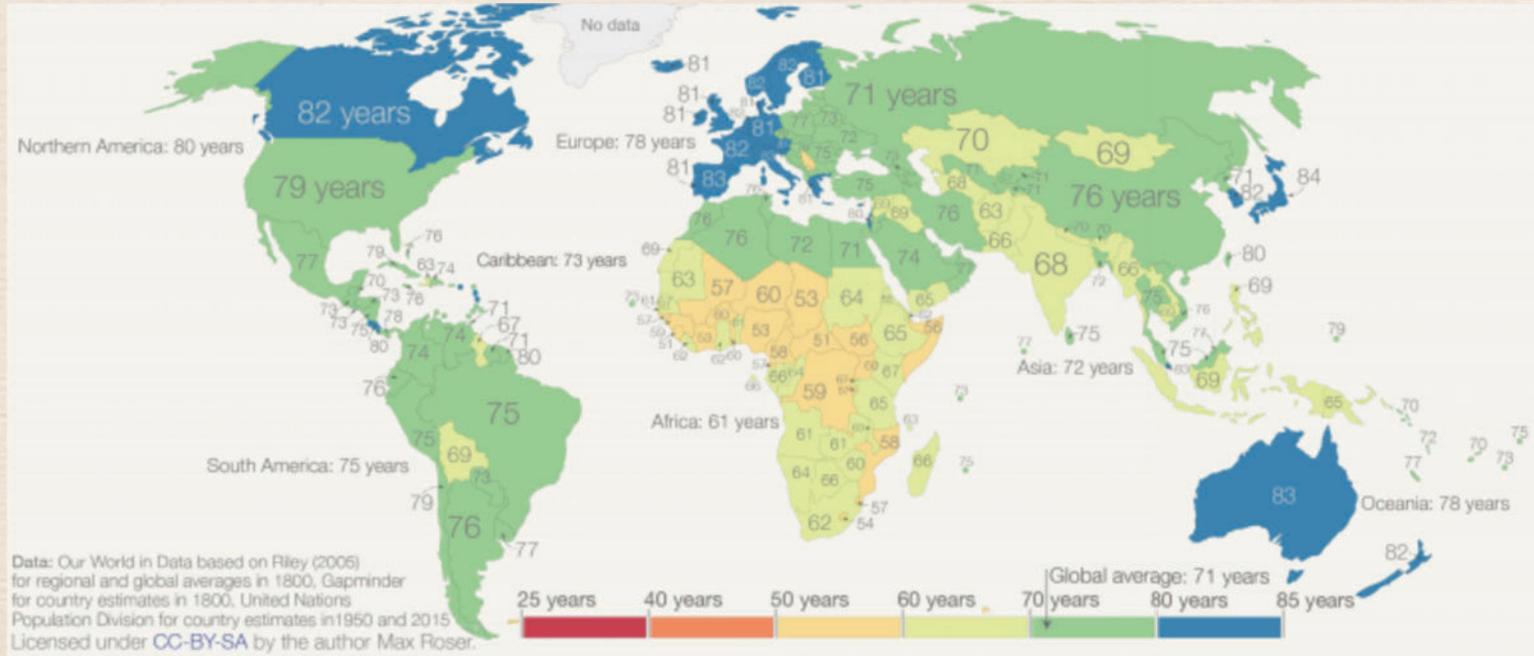
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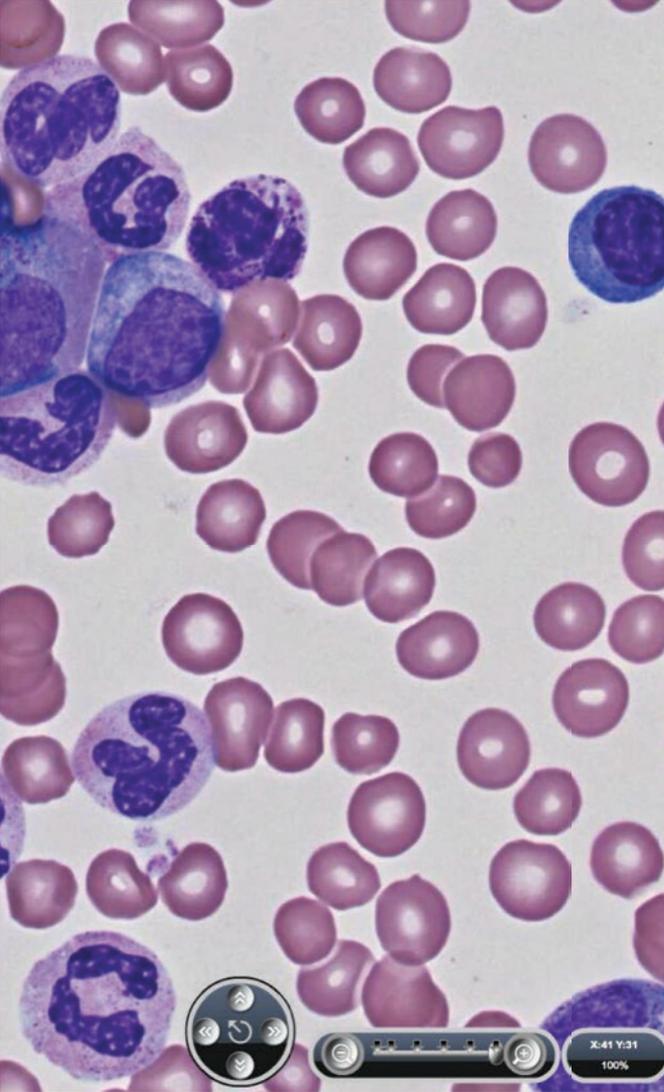
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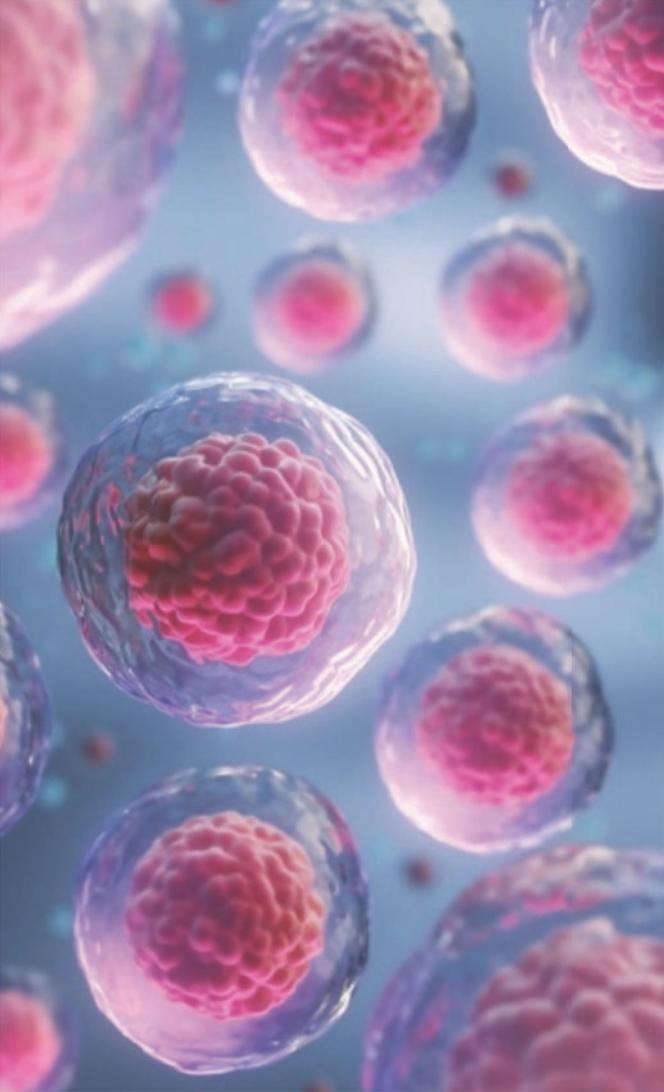


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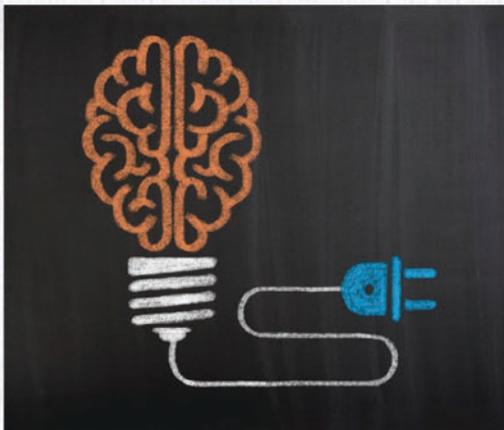
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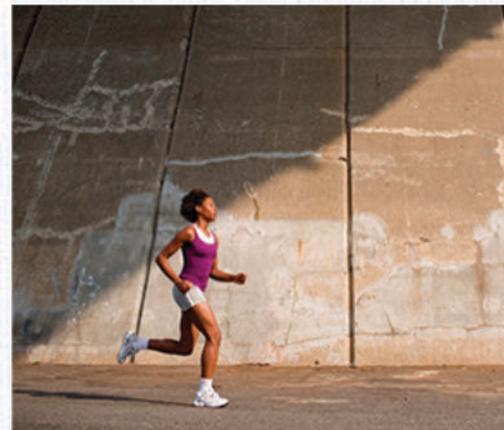




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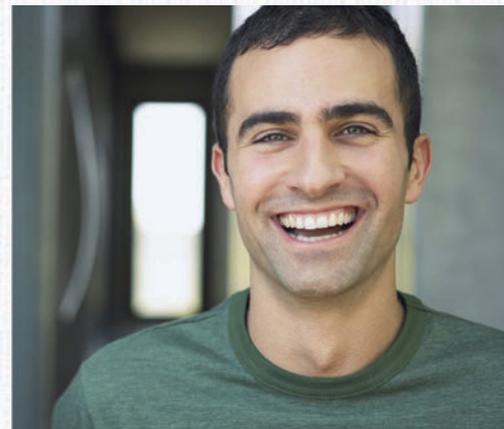
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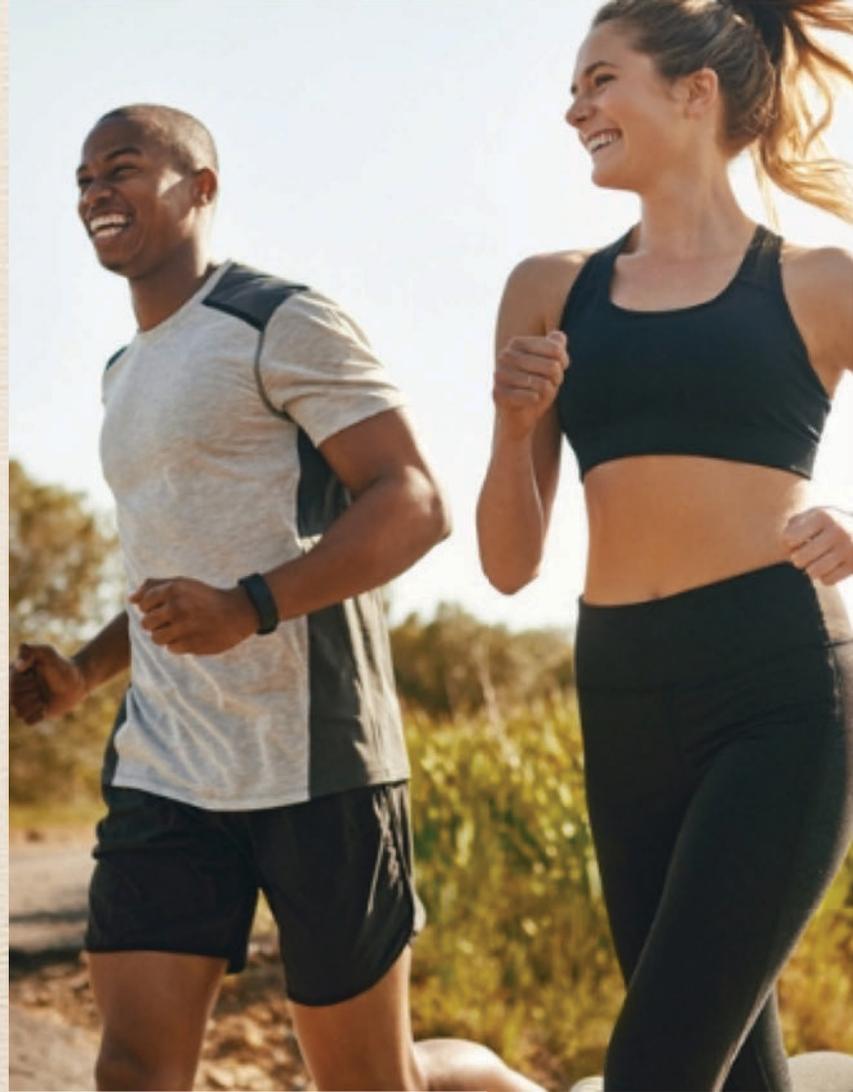
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