



## *The Nine Longevity Fundamentals*



# The Tremendous Potential



- Lifespan: Average is **80** years
- Health span: Limiting conditions start at average age of **63**
- Adhering to the ALI roadmap purposefully (90%)...
  - **The probability of dying from any major disease is essentially eliminated**
- You can live to 100 with robust health
  - **Gaining 20 years of lifespan (80 + 20)**
  - **Gaining 37 years of health span (100 - 63)**
    - Remaining healthy, vigorous and mentally adept

- *Coalition for Radical Life Extension*
- *WHO Information Data*
- *Multiple NIH studies*

# ALI Founders



**Chief Executive Officer**  
John Asher



**Chief Operating Officer**  
debra Borchardt



**Chief Medical Officer**  
Jeffrey L. Boone,  
M.D., M.S.



**Chief Marketing Officer**  
Hube Hopkins



**Chief Revenue Officer**  
John Edwards

# The Nine Longevity Fundamentals



1. **Get 8-9 hours of sleep consistently**
2. **Significantly cut back on sugar, ultra processed and pre-packaged foods (most foods that list ingredients). Eat organic.**
3. **Surveil your biomarkers at appropriate intervals. Manage cancer, CVD, dementia and Type II Diabetes risk as follows:**
  - LDL < 100
  - HDL > 60
  - Triglycerides < 150
  - Glucose < 90 / A1C < 5.7
  - Blood Pressure < 120/80
  - Normal Weight for Height
4. **Replace deficient vitamins, minerals, hormones, peptides and stem cells**
5. **Regular exercise routine (moving every hour, weekly strength training and cardio/walking five days a week)**
6. **Practice continuous calorie restriction (15% below normal weight for height) and periodic fasting (16 hours for 2 consecutive days; every 2 weeks)**
7. **Take Metformin and Rapamycin for tremendous off-label benefits for longevity**
8. **Follow the Mediterranean Diet**
9. **Take eight new supplements tuned for longevity**

# Importance of Sleep

*If there was an amazing breakthrough (new pill)  
that would result in the following 13 benefits*

***based on 17,000 documented studies...***

1. Enhances your memory
2. Makes you more creative
3. Makes you look more attractive
4. Keeps you slim
5. Lowers food cravings
6. Makes you feel happier
7. Protects you from cancer
8. Protects you from Alzheimer's
9. Wards off colds, the flu,  
and COVID-19
10. Lowers risk of heart attack
11. Lowers risk of a stroke
12. Makes you less depressed
13. **Helps you live longer**

***Would you be interested?***

- *Why We Sleep*  
- *American Academy  
of Sleep Medicine*

# Importance of Sleep

***Answer: Consistently getting a full night's sleep***





- *Why We Sleep*  
- *American Academy of Sleep Medicine*

- Documented in more than **17,000** well-scrutinized scientific reports
- Evolution has spent 3,400,000 years designing our bodies to get eight hours of sleep
  - In the last 50 years, humans have gone from 8 ½ to 6 ½ hours of sleep per night
- **Causing a catastrophic impact on:**
  - Our health
  - Our safety
  - Our productivity
  - The education of our children
  - Our life expectancy



# Importance of Sleep

## NBA Player Performance (Golden State Warriors)

### MORE THAN 8 HOURS

-  12% increase in minutes played
-  29% increase in points/minute

### LESS THAN 6 HOURS

-  37% increase in turnovers
-  45% increase in fouls committed

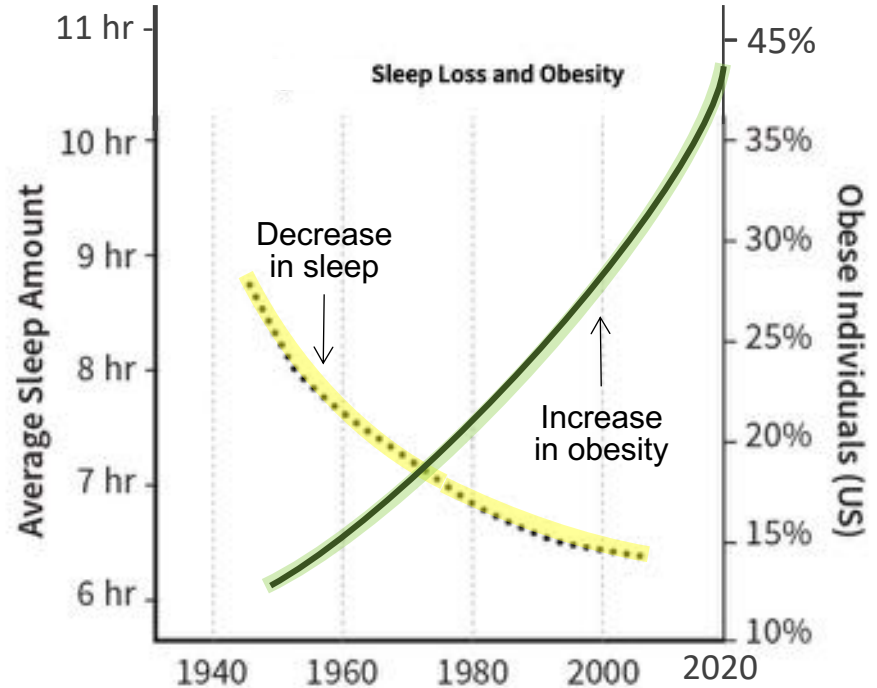
**Sleep 6-8 Hours:  
Normal Performance**

- *Why We Sleep*
- *One of 17,000 sleep studies*
- *American Academy of Sleep Medicine*
- *National Sleep Foundation*

# Sleep Loss and Obesity

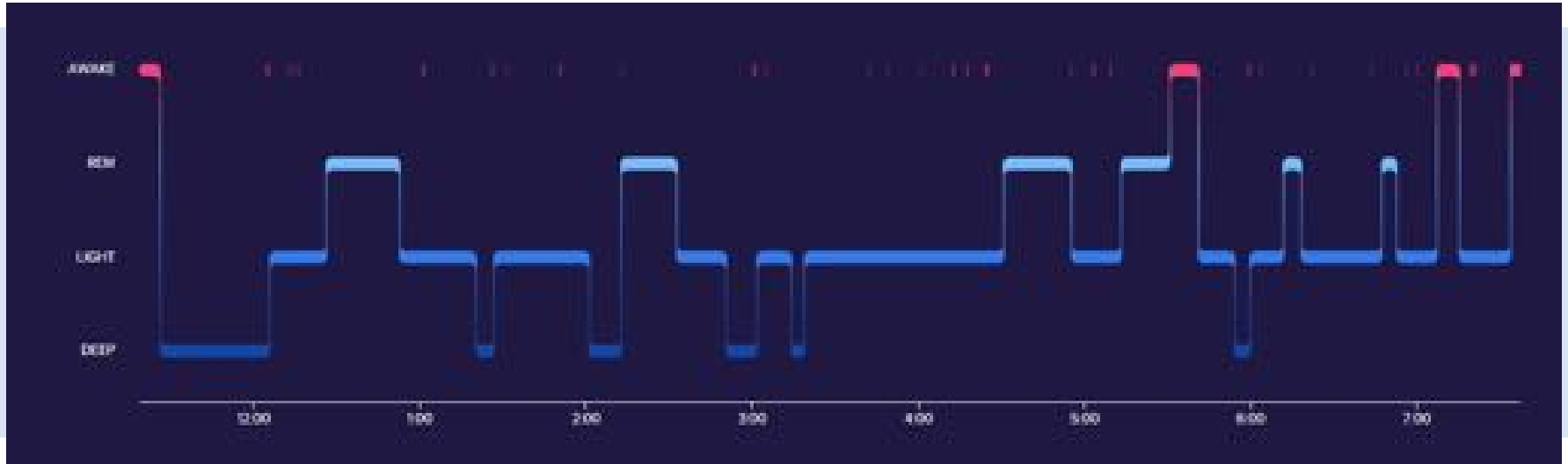


- *Why We Sleep*
- *American Academy of Sleep Medicine*
- *National Sleep Foundation*





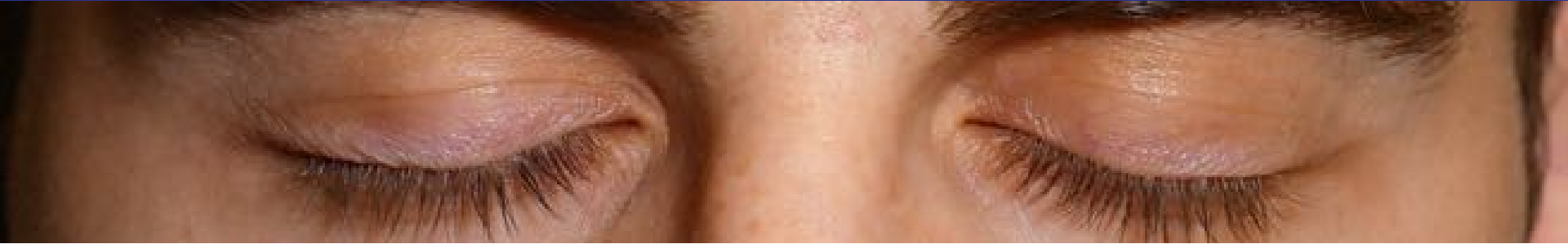
# Sleep Stages Measured By FitBit®



■ Awake – 10%    ■ REM – 20%    ■ Light – 55%    ■ Deep – 15%

- FitBit Data,  
John Asher, 2018

# Rapid Eye Movement (REM) Sleep



## REM sleep is the **mentally restorative** stage

- Information from the previous day is consolidated in long term memory
- Dreaming occurs
- Heart rate and blood pressure increase
- Breathing becomes fast, irregular, and shallow
- Solutions to vexing problems are solved

- *Why We Sleep*
- *American Academy of Sleep Medicine*
- *National Sleep Foundation*
- *NIH Studies*
- *I Am Sleeping Now*

**Why don't you sleep on it!**

# Importance of Deep Sleep

- Deep sleep is the **physically restorative** stage
- In the brain, the **space between cells are regularly washed clean** of dead cells
  - By the glymphatic system
- The **brain cells shrink in size** to let the glymphatic fluid through **(20 times faster)**
  - Only when we are in deep sleep
- Without sufficient deep sleep, dead cells can accumulate in the brain leading to Alzheimer's
  - At death, 50% of adults have dementia

*Deep sleep is incredibly important for longevity*



- *Why We Sleep*
- *American Academy of Sleep Medicine*
- *National Sleep Foundation*
- *NIH Studies*
- *I Am Sleeping Now*

# To Increase Amount of Deep Sleep

- ✓ Go to bed at a consistent time each night
- ✓ Sleep 8 to 9 hours per night
- ✓ Sleep in a cool environment (<65°F)
- ✓ Totally darken the bedroom (or use a sleep mask)
  - Promotes release of melatonin
  - **ANY** light exposure impairs cardiovascular function
- ✓ Use a pink noise generator
  - Enhances deep sleep with lower frequencies
- ✓ Turn off all screens 60 minutes before bedtime
  - Or block the blue light
- ✓ Use a weighted blanket (simulated hug)
  - Serotonin released
  - Cortisol repressed



- *Why We Sleep*
- *American Academy of Sleep Medicine*
- *National Sleep Foundation*
- *NIH Studies*
- *I Am Sleeping Now*
- *Northwestern University Feinberg School of Medicine*

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# The Dangers of Sugar



- There is no biochemical reaction in any animal cell that requires sugar
- Thirty years ago, there was a low-fat/non-fat craze
  - Since disproven
- After food manufacturers removed fat, food tasted horrible
  - They added sugar, salt and food additives

- *The Longevity Paradox*

# Additional Dangers of Sugar



- Sugars also form cross links that connect damaged proteins in our brains
  - Leading to Alzheimer's sooner
- Sugar enables the glycation process
  - Leading to AGE formation
- Can lead to excess weight
  - Fat tissue is inflammatory

- *The Longevity Paradox*

# The Dangers of Sugars - The Stealth Ingredient

- **Foods with lots of sugar**
  - Low fat salad dressing
  - BBQ/Pasta/marinara sauce
  - Whole grain foods
  - Breakfast cereals/granola
  - Fruit juices/enhanced waters
  - Soft drinks/kombucha
  - Baked goods/bread
  - Candy and cakes
  - Flavored coffee
  - Packaged oatmeal
  - Flavored yogurt
  - **Ketchup (25% sugar)**
- **Study of 4,500 people who drink soft drinks daily**
  - 43% higher risk of heart attack
- Limit sugar to 6 teaspoons a day (24 grams)



- CDC Studies
- Grain Brain
- FDA Code of Federal Regulations
- JAMA Public Health
- Royal Society of Public Health



# The Problem with Sugar/Sugar Substitutes



- *Grain Brain*
- *PLOS Medicine study of 100,000 adults*
- *French Institute of Health*

- **Sugar is addictive**
  - For exactly the same reasons and via the same pathway as alcohol
- **The bad bacteria in our microbiome thrive on simple sugar**
- **Sugar and artificial sweeteners kill beneficial gut bacteria (probiotics)**
  - Sweeteners, especially aspartame
    - Linked to 13% increase in cancer

# Poison to the Microbiome



# Use Natural Sweeteners

- **Monk Fruit**

- A melon-like fruit growing on vines in China/Thailand
- **250 times sweeter than sugar**
- **Zero calories**



- **Stevia**

- From a first cousin plant to mums
- 150 times sweeter than sugar
- **Zero calories**

- **Both approved by the FDA as sugar substitutes**

- Grain Brain

# Ingredients in Smucker's Sugar Free Breakfast Syrup

- **Sorbitol** (artificial sweetener)
- **Acesulfame Potassium** (non-nutritive sweetener)
- **Sucralose** (Splenda) (non-nutritive sweetener)
- **Cellulose Gum** (thickening agent)
- **Natural and artificial flavors** (chemicals)
- **Carmel color** (chemical; potentially carcinogenic)
- **Xanthan Gum** (thickening and stabilizing agent)
- **Sorbic Acid** (preservative)
- **Sodium Benzoate** (preservative)
- **Sodium Hex metaphosphate** (emulsifier/texturizer)
- **Phosphoric Acid** (provides a tangy taste)



*An ultra-processed mixture  
of only industrial ingredients*

- The Longevity Paradox

Artificial sweeteners kill certain strains of beneficial bacteria in the gut

# Ultra-Processed Foods



- US Government NOVA Classification System

- 63% of daily calories consumed by people in the US are ultra-processed foods
  - Industrially formulated mixtures with 5 or more ingredients
  - Excessive salt, sugar, saturated fats, oil and food additives (>10,000)
- Examples
  - Packaged food, prepared meals, snacks, fast food, and soft drinks
    - Mass-produced breads and buns
    - Cakes, cake mixes, spreads, candy and cookies
    - Sweetened breakfast cereals and energy drinks
    - Pre-prepared meat and cheeses
    - Pizza, pasta, fish or chicken nuggets and sticks
    - Sausage, burgers, hot dogs, instant soup
    - Baby formula
- 30% of daily calories
  - Processed foods
- 7% of daily calories
  - Unprocessed (natural) or minimally processed foods

# Dangers of Ultra-Processed Foods



- Cooked at a high temperature
  - Generating AGEs
- Full of ultra-processed wheat filler
  - Potentially causing “leaky gut syndrome” leading to 10 diseases and 3 conditions
- Full of manufactured vegetable oils
  - Processed at high temperatures (AGEs)
  - Causing chronic inflammation
- Contains 10,000 different food additives, color and/or nitrates
- High sugar content
  - Kills probiotics
  - Leads to glycation leading to Alzheimer’s
  - Leads to type II diabetes
  - Leads to excess weight
  - Leads to chronic inflammation

- US Government NOVA Classification System



# Ultra Processed Foods

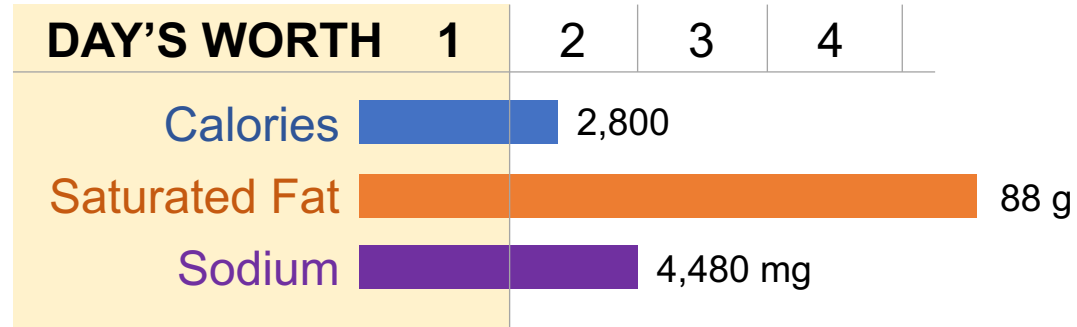


27 Ingredients!

# Dangers of Ultra-Processed Foods

## The Cheesecake Factory Classic Italian Trio

- Fettuccini Alfredo
- Chicken Parmesan
- Baked Rigatoni



It's like eating 3 Pizza Hut Supreme Personal Pan Pizzas PLUS 1 stick of butter



# Food and Beverage Scientists Are Killing Us

- The processing and packaging of ultra-processed foods provide **intense sensory properties**
  - Especially attractive to see, taste, smell and/or touch
- They create **highly profitable products**
  - Low-cost ingredients
  - Long shelf life
  - Powerfully branded
- These foods have an enormous market advantage over natural food providing
  - **Convenience (snacking anywhere, anytime)**
  - **Imperishable**
  - **Ready to consume**
  - **Hyper palatability**
  - **Using persuasive advertising and promotion**
- These foods are designed to **stimulate hormones to encourage eating more**
- **Directly related to the obesity epidemic**



- US Government NOVA Classification System

# The “Dirty Dozen”

## The Pesticides Cannot Be Washed Off

- Celery
- Spinach
- Kale
- Tomatoes
- Potatoes
- Apples
- Peaches
- Strawberries
- Nectarines
- Grapes
- Cherries
- Pears

**Buy Organic**



*Does a non-organic apple a day keep the doctor away?*


**NO! They have:**

- 16 chemicals that are hormone **disrupters**
- 6 chemicals that are known/suspected **carcinogens**
- 5 **neurotoxins**

- USDA/Environmental Working Group (2019)

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# Dangers of High Blood Pressure




- *SPRINT Trial*
- *NIH Studies*
- *Joint National Coalition on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC)*

- Participants with a blood pressure level less than normal (120 mm/hg) had:
  - ✓ **38% lower risk of heart failure**
  - ✓ **43% lower risk of cardiovascular death**
  - ✓ **27% lower overall mortality from all causes**
    - Than people with hypertension stage 2 (over 140 mm/hg)
- This large 5 year FDA study was stopped after 3 years
  - ✓ **For moral, legal and ethical considerations**

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# Important Biomarkers Decreasing Significantly with Age

- Stem cell/exosomes (none by age 80)
- Ability to clean out zombie cells (gone by age 80)
- NAD+ (2% left at age 80)
- Immune system (compromised by age 70)
- Testosterone (reduces 2% per year at age 35)
- Peptides (reduces at 1% per year at age 30)
- Probiotics (95% gone by age 65)
- Muscle mass (50% left by age 80) without strength training
- Collogen lost after age 40 (1% per year)

# Why Take Vitamin D and How Much?



- *The American Journal of Clinical Nutrition*  
- *Life Extension Institute*  
- *Community Health*  
- *Neuropharmacology*

- As we age, the body is less able to convert the sun's rays to vitamin D
- 90% of adults have a Vitamin D insufficiency
  - 71% higher chance of dying from all causes
  - 14x more likely to have a severe case of COVID-19
  - 12x more like to die from COVID-19
- Benefits:
  - Significantly boosts the immune system
  - Promotes (with C) healthy bones
  - Supports cardiovascular health
  - Reduces risk of some cancers
  - Prevents cognitive decline and dementia
  - Vitamin D plus Omega-3 together, 40% reduced incidence of autoimmune diseases
- Typically need 5000 IU to 8000 IU daily to get to optimum level (50-80 ng/ml)



# Hormone Replacement Therapy

## Regenerative Medicine 1.0

- **Hormones decrease in our body with age**
  - Levels, efficacy and cell sensitivity are reduced
    - The second two cannot be measured
- They are fundamental to life
  - Types include amine, peptide, protein and steroid
- **Testosterone, estradiol, progesterone, DHEA and pregnenolone are vital**
  - For men and women staying healthy and vibrant as they age
- Safety demonstrated over decades of use
- Best replacement strategies use **bio-identical hormones**
  - Not artificial

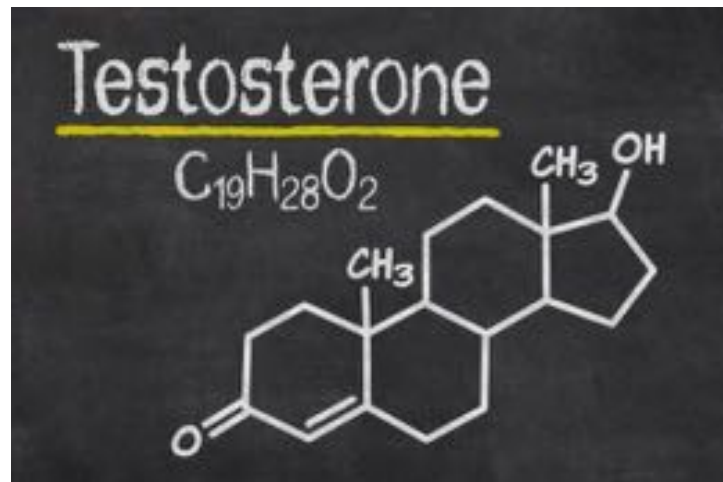


- *Longevity Paradox*
- *Large VA Study*
- *Life Extension Institute*



# Benefits of Testosterone (T) Therapy

- Very large group of male veterans with low T, free of CHD followed for six years.
- Those receiving T at appropriate doses enjoyed:
  - 24% fewer heart attacks
  - 36% fewer strokes
  - 56% fewer deaths from any cause
- Compared to those not receiving testosterone
- Testosterone also decreases beta amyloid formation (less probability of Alzheimer's disease)



- VA Study

# Peptide Therapy



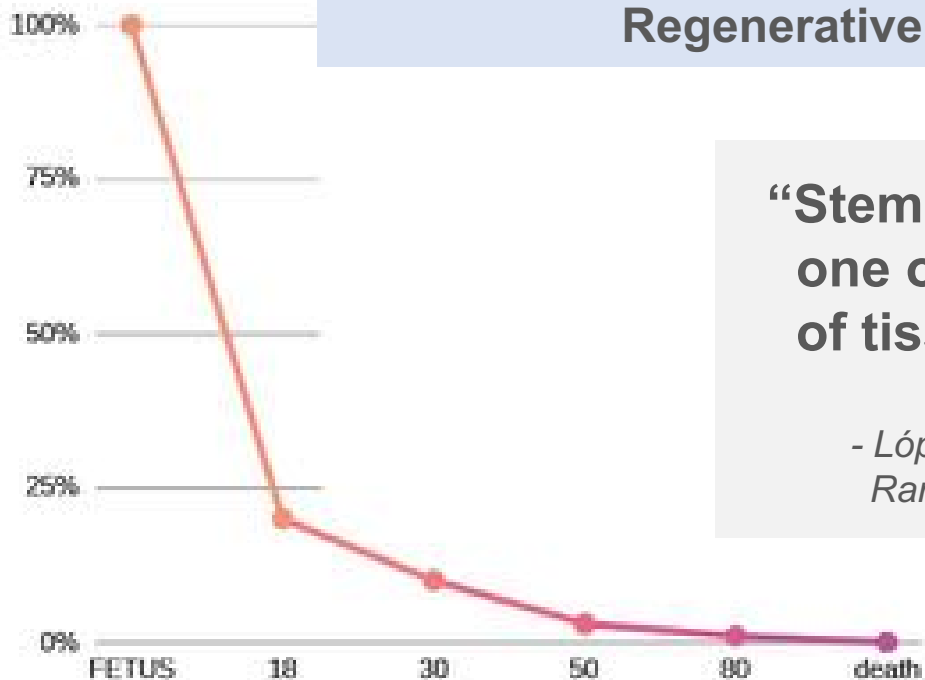
- 60 peptides approved by FDA

## Regenerative Medicine 2.0

- Peptides decrease in our body with age (1% per year at age 30)
- They are fundamental to life
- A peptide is a compound consisting of 2 to 50 amino acids
  - A protein contains 50 or more
- Potential uses
  - Slow down the aging process
  - Reduce inflammation
  - Improve sleep
  - Improve immune function
  - Build muscle
  - Skin health
  - Lengthens telomeres
  - Replaces thymus gland function

# Stem Cell Exhaustion

## Regenerative Medicine 3.0



Percentage of  
Stem Cells  
Left with Aging

**“Stem cell exhaustion...  
one of the ultimate culprits  
of tissue aging.”**

- López-Otín et. al, 2013,  
Rando and Chang, 2012

- Buck Institute

© Dr. Denisa Rensen, Medical Director, Stemaid Institute

# Stem Cell Therapy Has Vast Potential for Repair

- Aging Frailty/Osteoarthritis
- Alzheimer's Disease/ Cognitive Impairment
- Joint Deterioration/Injury
- Chronic Lyme Disease
- Chronic Fatigue Syndrome
- Post Stroke Treatment
- Post Shingles Treatment
- Heart Failure (Not Afib)
- Glaucoma
- Asthma
- Autoimmune Diseases
- **Full Body Rejuvenation**



- Hacking Darwin

# Stem Cell Product Delivery Methods

DELIVERY ROUTE	THERAPEUTIC AREA	MEDICAL CONDITION
Nasal Spray	CNS Ophthalmology	<ul style="list-style-type: none"> <li>Alzheimer's</li> <li>Dementia</li> <li>Glaucoma</li> </ul>
Nebulizer	Pulmonology	<ul style="list-style-type: none"> <li>Lung Fibrosis</li> <li>Asthma</li> </ul>
I.V.	Cardiology	<ul style="list-style-type: none"> <li>Myocardial Infarction</li> <li>CHF</li> </ul>
Topical Cream	Dermatology	<ul style="list-style-type: none"> <li>Skin Conditions</li> <li>Wound/Burn Healing</li> <li>Cosmetics</li> </ul>
Eye Drops	Ophthalmology	<ul style="list-style-type: none"> <li>Corneal Ulcers</li> </ul>
Microneedle/ Subcutaneous Injection	Hair Regrowth	<ul style="list-style-type: none"> <li>Hair Recession</li> </ul>



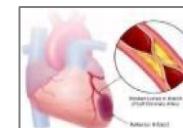
**OPHTHALMIC HEALTH**



**PULMONARY HEALTH**



**BRAIN HEALTH**



**CARDIOVASCULAR HEALTH**



**HAIR REGROWTH**



**WOUNDS/ BURNS**

- Stemedica

# Exosomes

## Regenerative Medicine 4.0

- Exosomes are released by stem cells when replacing damaged cells
  - Sent ahead like precision guided missile JAVELIN
- They show up at the damaged cell with a tool bag of 1,500 “fix-it” tools
  - They apply just the right tools to fix the damage to the cell
- Exosomes are powerful mediators of long-distance cell-to-cell communication
  - They can change behavior of tumors and neighboring cells
- Safer, lower cost, more easily stored and transported than stem cells
- Exosome therapy is an emerging alternative to stem cell therapy

- Buck Institute  
- STEMatica

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# Loss of Muscle Mass as We Age



## Without regular strength training:

After age 40 we lose 1% of our muscle mass per year

After age 70 we lose 1.5% per year

- Strength training strengthens
  - Muscles
  - Bones
  - Tendons
  - Ligaments
- At age 80, we have lost 50% of our muscle
  - Without strength training
- We become vulnerable to external stresses
  - Resulting in frequent falls
  - Weak bones are frequently broken
  - Many frail people never recover
- Medical term: Sarcopenia

- *Power of Ten*
- *Body by Science*
- *Slow Burn, High Intensity Strength Training*



# Gold Standard for Exercise



- *Power of Ten*
- *Body by Science*
- *Slow Burn Fitness Revolution*

- **Cardio**
  - Jogging, running, swimming or cycling for 75 minutes per week  
**OR**
  - Walking quickly for 150 minutes per week  
**OR**
  - High intensity interval workout twice a week
- **Strength training**
  - Twice a week (45 min each)
    - All six major muscle groups
    - Take short and medium muscle fibers to failure
    - 24-48 hour recovery**OR**
  - Once a week (20 minutes)
    - High intensity, slow burn methodology
    - Take short, medium **AND** long muscle fibers to failure
    - 7-day recovery required

# The Benefits of Exercise



- *U.S. Centers for Disease Control and Prevention*
- *Tohoku University Graduate School of Medicine*
- *British Journal of Sports Medicine*

- Our hunter-gatherer ancestors exercised continuously
  - Foraging and hunting using their feet for transportation
- The benefits of exercise on all-cause mortality
  - Strength training once a week (10-17% reduction)
  - Aerobics 5 days a week (20% reduction)
  - Both (40% reduction)
- Exercise revs up and restores the brain for
  - Better functioning
  - Higher end thinking
  - Better brain execution
  - Better decision making
- When we do not exercise, we can become
  - Self-centered
  - Anxious
  - Isolated
  - Emotionally distant
  - Depressed

# Exercise is NOT a Viable Strategy for Weight Loss



- When we exercise, we burn calories
  - Our body makes us hungry to replace the lost energy (calories)
- Reducing how much and what we eat is an effective strategy
  - Emphasize high-volume low-calorie foods
  - Follow the Mediterranean Diet
  - Eat less
    - Lose weight slowly
- Once down to your new weight goal avoid yo-yo diets
  - Returning to the same amount of calories per day you were eating will cause slow weight gain back to the starting weight
  - Reduce calories consumed daily appropriate to maintain the new lower weight
    - Same percentage decrease

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# The Gold Standard for Calorie Restriction (CR)



- Switch  
- Life Extension Institute  
- Radical Life Extension (RLE) Coalition

- Calorie restriction (CR)
  - Results in a significant increase in lifespan (e.g. 25%) for all organisms tested by researchers worldwide over decades
- Determine your “ideal weight range” based on your gender and height (Google it)
  - Determine the mid range
  - Subtract 15% to determine your desired weight to benefit from CR
- Example: at 6’2”, my “ideal weight range” is 156-194
  - The mid-range is 175
  - Less 15% = 149
  - My current steady weight =150
  - The ideal weight to benefit from CR

# The Gold Standard for Fasting

- **Fast for 16 consecutive hours, most days**
  - No calories (black coffee, tea, water are ok)
- Consume a reasonable number of calories during the eight hours
- **Benefits are enormous**
  - Enables autophagy (cellular housekeeping)
    - Removing cellular waste products
  - Boosts AMPK (stimulating energy generating processes)
- Animal models and human studies show robust benefits
  - Inflammation suppressed
  - Weight lost
  - CVD incidence decreased
  - Lowered risk of cognitive decline
  - Reduced cancer incidence
  - Reduced blood pressure



- Life Extension Institute
- RLE Coalition
- Switch

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# Take Metformin to Increase Longevity



- Multiple NIH studies
- American Federation of Aging Research (AFAR)

- An FDA approved drug for treating people with Type II diabetes
- Diabetics not taking Metformin lose 15 years of health span and 10 years of lifespan
- Diabetics taking Metformin live 12 years longer than people who don't have diabetes (90% of Americans)
- Decreases appetite reducing weight loss and levels of triglycerides and Ldl
- Inhibits synthesis of glucose in the liver, enabling pancreas to reduce production of insulin
- The only FDA approved and funded clinical trial to date to assess the off-label benefit for longevity of an existing drug
  - A six-year study of Metformin (started in 2021)
  - TAME (Targeting Aging With Metformin) Study



# Take Rapamycin to Increase Longevity

- Rapamycin leads to 25% longer lives in yeast, fruit flies, worms, mice, rats and dogs (Canadian study)
- By regulating cell growth, Rapamycin is extremely useful where rapid cell growth is the problem (mTOR)
  - As in all major diseases
  - Rapamycin slows mTOR down allowing autophagy
- Prevents senescent cells from releasing inflammatory molecules
- In aging, the immune system is often activated against normal tissue and is inactive towards invaders
  - Rapamycin restores the balance
- Improves immune system in the elderly



- Rapamycin
- Major NIH Study 2009
- Over 12,000 studies in PUBMED

# The Nine Longevity Fundamentals



1. Get 8-9 hours of sleep consistently
2. Significantly cut back on sugar, ultra processed and pre-packaged foods (most foods that list ingredients). Eat organic.
3. Surveil your biomarkers at appropriate intervals. Manage cancer, CVD, dementia and Type II Diabetes risk as follows:
  - LDL < 100
  - HDL > 60
  - Triglycerides < 150
  - Glucose < 90 / A1C < 5.7
  - Blood Pressure < 120/80
  - Normal Weight for Height
4. Replace deficient vitamins, minerals, hormones, peptides and stem cells
5. Regular exercise routine (moving every hour, weekly strength training and cardio/walking five days a week)
6. Practice continuous calorie restriction (15% below normal weight for height) and periodic fasting (16 hours for 2 consecutive days; every 2 weeks)
7. Take Metformin and Rapamycin for tremendous off-label benefits for longevity
8. Follow the Mediterranean Diet
9. Take eight new supplements tuned for longevity



# Summary - What to Eat for a Healthy Gut Microbiome

- Get a higher percentage of protein from
  - Nuts/seeds
  - Mushrooms
  - Vegetables
  - Legumes
- Vegetables and fruit with a low glycemic index (low sugar content)
- Dairy from sources other than most USA cows
- Fish/shellfish (wild caught)
- Poultry (pasture raised with no antibiotics)



- *The Longevity Paradox*

# Summary - What to Eat for a Healthy Gut Microbiome (con't)

- Red meat (grass-finished and grass-fed with no antibiotics or hormones)
  - In limited amounts
- Natural oils (olive, avocado, palm, walnut, flaxseed, hemp, coconut)
- Fermented foods (adds beneficial bacteria to microbiome)
- Organic food (no pesticides or herbicides)



- *The Longevity Paradox*

# Studies of the Mediterranean Diet

- Meta analysis of 50 studies of 535,000 people
  - Increased HDL
  - Decreased weight
  - Lower blood pressure
  - Lower glucose levels
  - Lower triglyceride levels
- Adult life expectancy the highest in the world for those following the diet
  - 46% lower risk of CVD
- 2021 clinical trial
  - Reduced risk of heart attacks and strokes by 31%
- 2020 observation study
  - 25% better chance of living to 70 with no physical or mental impairments

- FDA Clinical Trial
- 5000 PubMed Studies
- Blue Zone Studies

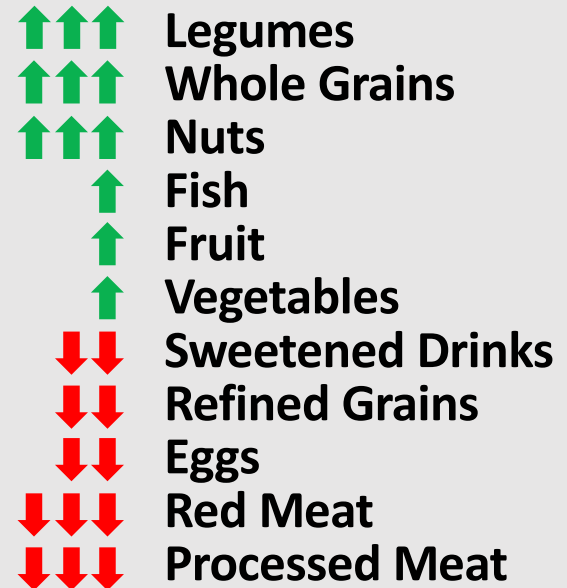
# Optimized Diet = 8-Year Increase in Life Expectancy

Switching to an **optimal diet** from age **60 years** onward is modeled to **increase life expectancy** by:

- **8.0** years for women
- **8.8** years for men

- PLOS ONE Studies, 2022

Life expectancy gains in order of significance





# The Mediterranean Diet Simplified

- Red wine in moderation with major meal of the day
- Major consumption of
  - EVOO
  - Vegetables
  - Whole grains
  - Fruit
  - Legumes
  - Nuts
- Moderate intake of fish with high Omega-3 content
- Low intake of
  - Dairy
  - Poultry
  - Red meat
  - Processed meats
  - Sweets
  - Ultra-processed foods



- FDA Clinical Trial
- 5000 PubMed Studies
- Blue Zone Studies

# The Nine Longevity Fundamentals



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# Slow Down the Four Causes of Aging

1. Clean out “Zombie,” almost senescent (dead) cells with two supplements:
  - Senolytic Activator (\$100/yr)
  - Ageless Cell (\$200/yr)
2. Suppress mTor signaling and increase autophagy (cellular housekeeping) with two supplements, two drugs and periodic fasting:
  - Supplements:
    - AMPK (\$200/yr)
    - Longevity AI (\$200/yr)
  - Fasting two days in a row for 16 hours every two weeks
  - Drugs
    - Metformin
    - Rapamycin



- Life Extension Institute
- NCI
- FDA
- NIH

# Slow Down the Four Causes of Aging

3. **Maintain NAD<sup>+</sup>** with supplements
  - Restore NAD<sup>+</sup> with infusions if over 45
  - Then continue **NAD<sup>+</sup> supplements** (\$100/yr)
  
4. **Restore** immune system with:
  - Two supplements:
    - **Flor assist GI (w/ phage technology)** (\$150/yr)
    - **Immune senescence** (\$200/yr)
  - Get fresh air every day (2 days in a forest/park)
  - Get regular exercise
  - Periodic detox (heavy metals)
  - Peptide: Thymosin Alpha-1
  - Calorie restriction (CR)

**Total: \$1,100/year**

*- Life Extension Institute  
- Comprehensive  
assessment of long-term  
effects of reducing intake  
of energy (CALERIE)*

# The Tremendous Potential



- Lifespan: Average is **80** years
- Health span: Limiting conditions start at average age of **63**
- Adhering to the ALI roadmap purposefully (90%)...
  - **The probability of dying from any major disease is essentially eliminated**
- You can live to 100 with robust health
  - **Gaining 20 years of lifespan (80 + 20)**
  - **Gaining 37 years of health span (100 - 63)**
    - Remaining healthy, vigorous and mentally adept

- *Coalition for Radical Life Extension*
- *WHO Information Data*
- *Multiple NIH studies*

# Follow-On Products and Services

## 1. Presentation Information

- Link to a Copy of the Presentation Slide Deck
- Link to Top Quality Supplements

## 2. Meetings with Asher Certified Longevity Doctors to Discuss

- Annual Concierge Service (4 Quarterly Meetings)
- Full Day Longevity Evaluation (Brain, Body, Heart)

## 3. Powerful Resources

- Referral to a Certified ALI Holistic Longevity Coach
- Introduction to MD at Life Extension Institute for Full Blood Test Plus Hormones with 60-Minute Debrief

## 4. Other Unique Opportunities

- Half Day Presentation or Full Day Workshop for Your People
- ALI Investment Opportunities for Accredited Investors

