

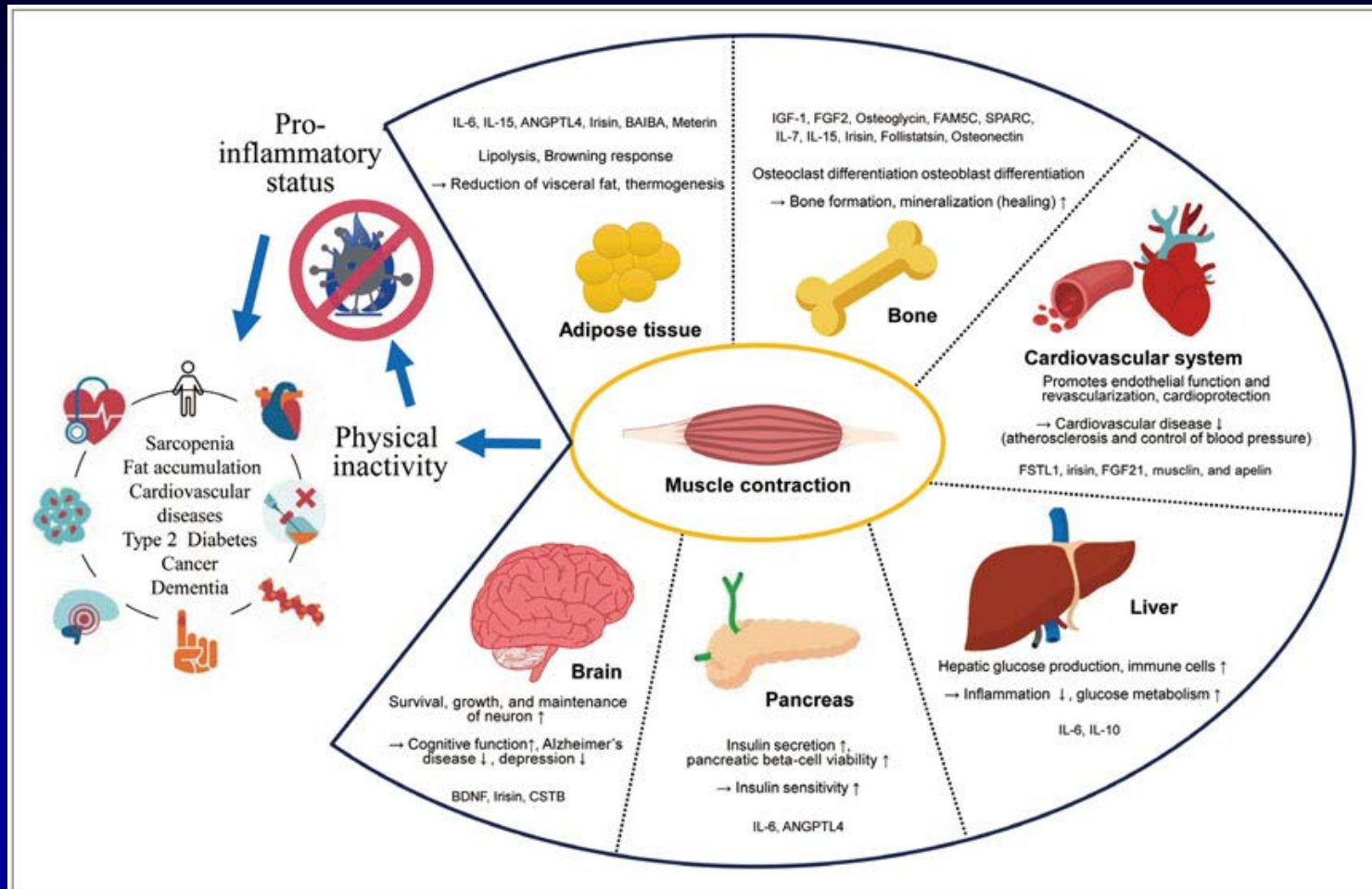
Exercise: Key Tactic for Work-Life Balance!

Gregory A. Schmidt, MD
Professor, University of Iowa

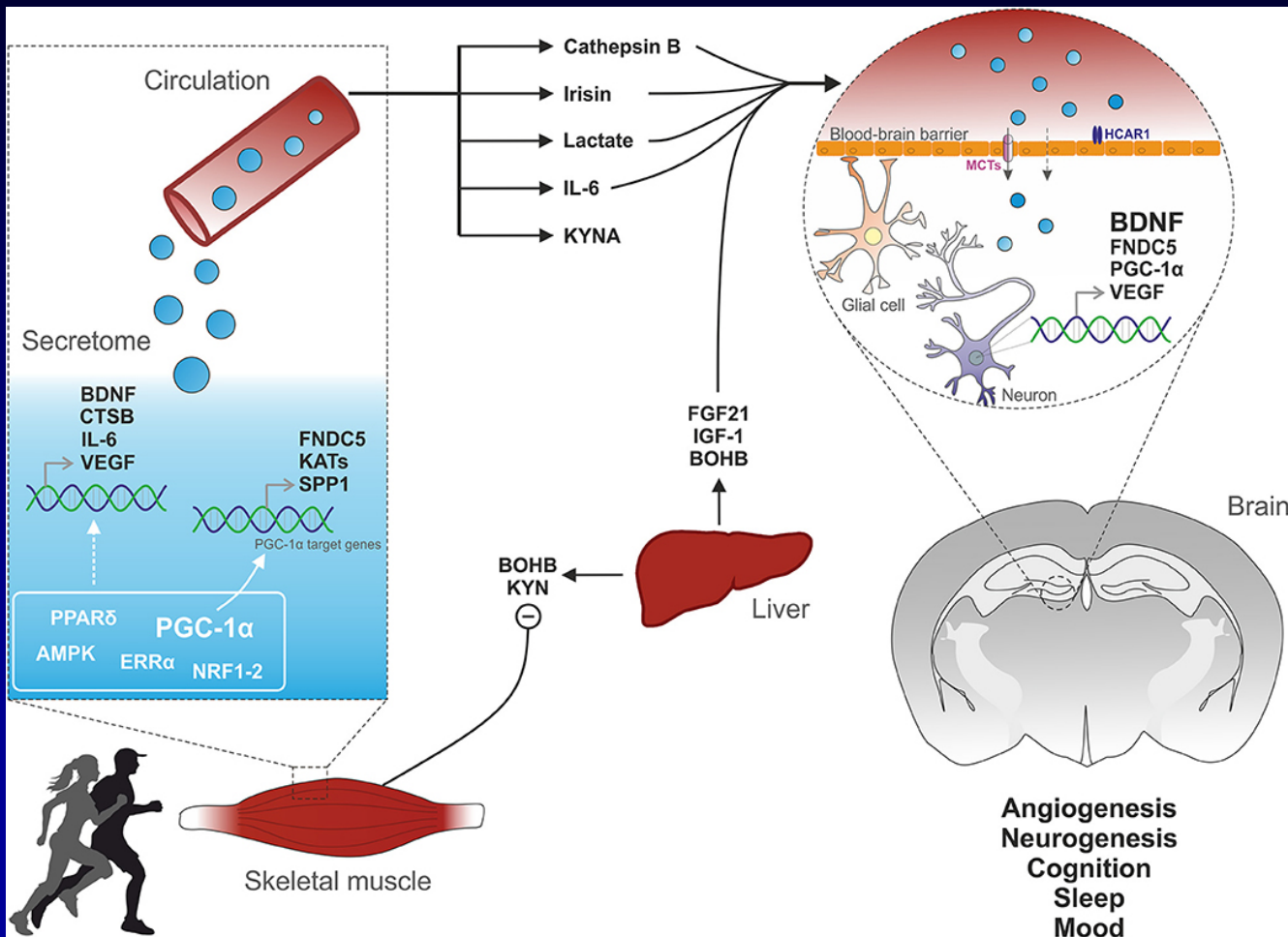




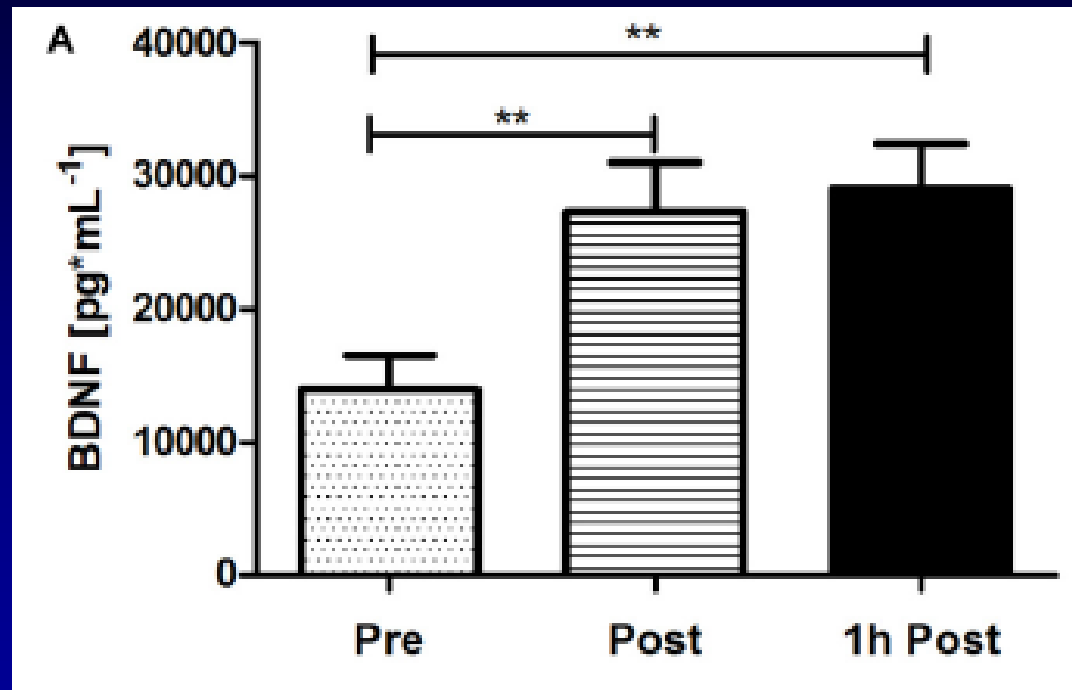
Myokines



Muscle-Brain Crosstalk



BDNF: Sprint Interval Exercise



Kujach S, et.al: Front Neurosci 2019

Stroop Test

Stroop Test

Say the names of the colors you see, not the colors you read. Go down the list as fast as you can.

blue

red

green

orange

blue

green

red

orange

green

red

yellow

blue

orange

blue

green

blue

red

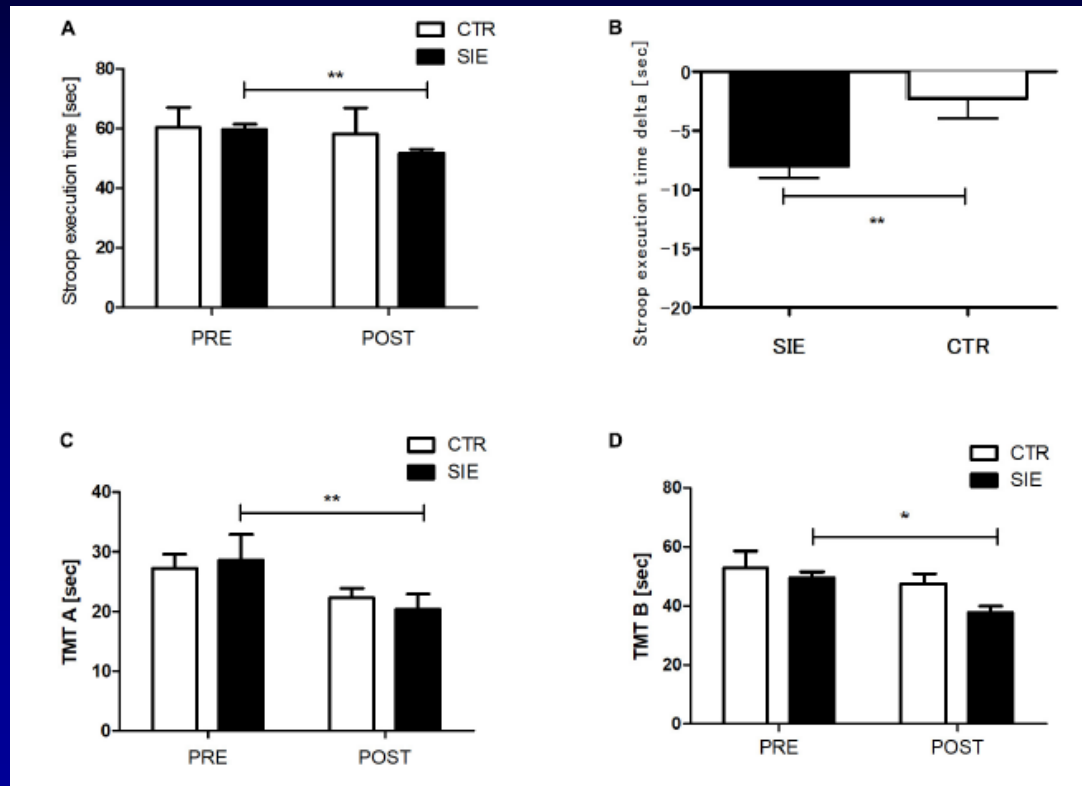
orange

yellow

green

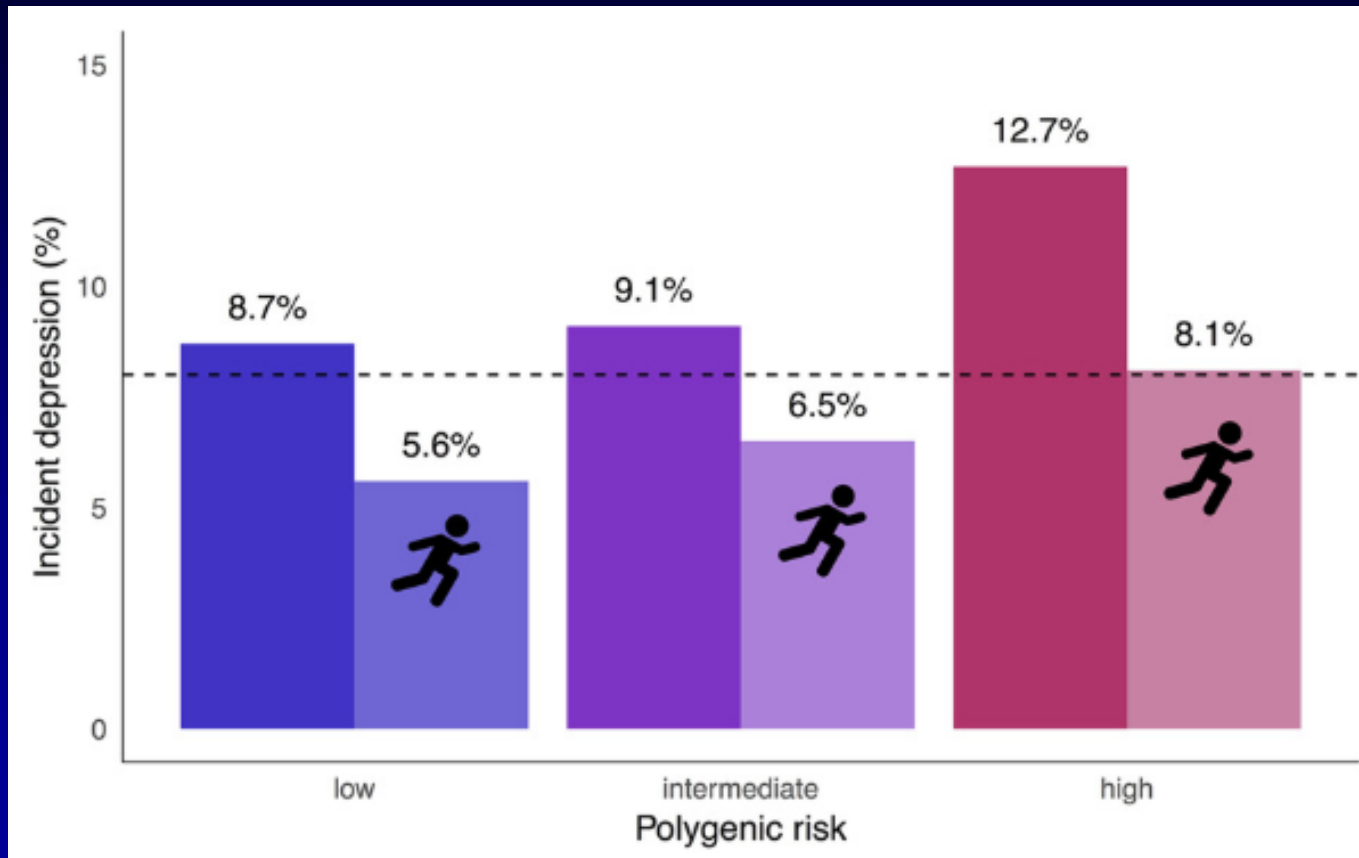
blue

Sprint-Interval Exercise Improves Cognition



Kujach S, et.al: Front Neurosci 2019

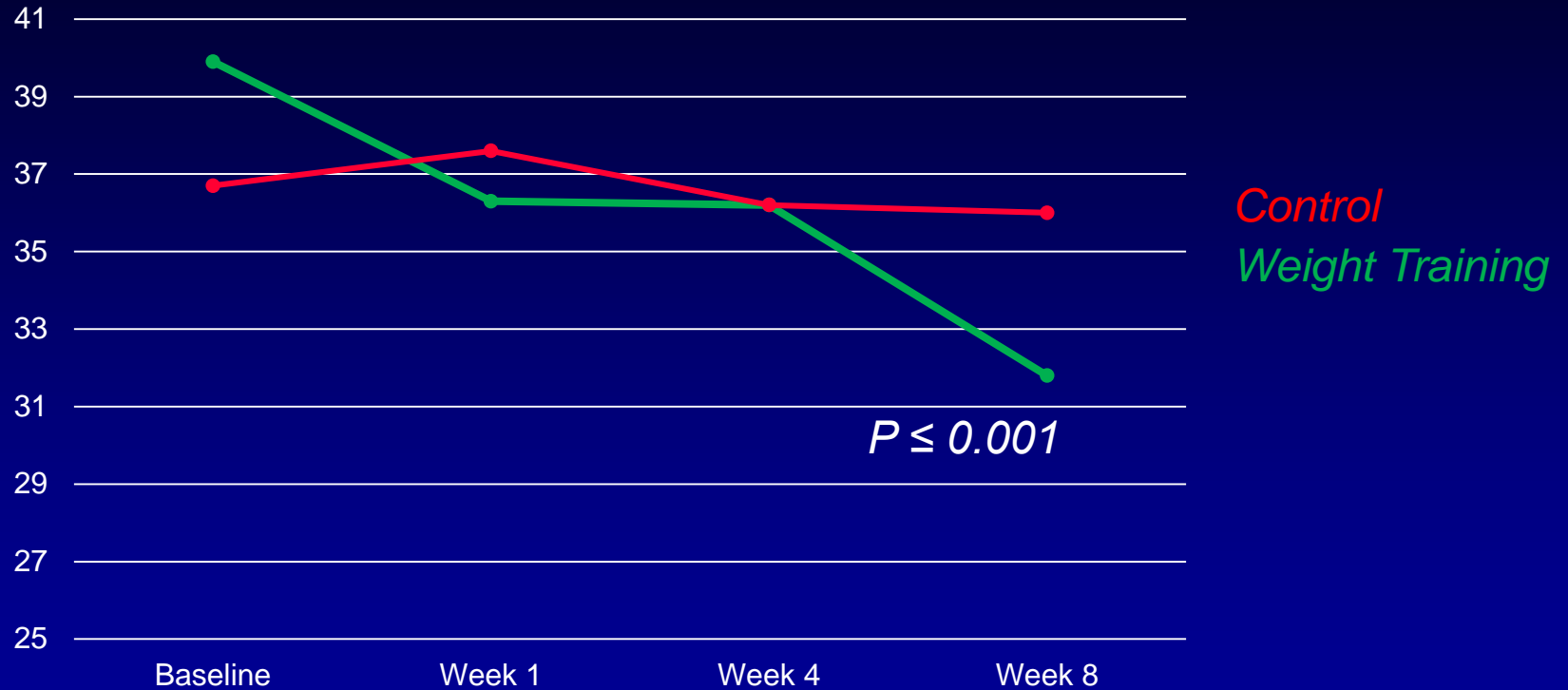
Exercise Offsets Genetic Risk



Choi KW, et.al: Depress Anxiety 2020; 37:106



Anxiety Symptoms (STAI-Y2)



Barbell squat; bench press; deadlift; shoulder raise; barbell rows; lunges; curls; abdominal crunches

Scientific Reports 2020; (2020) 10:17548

Exercise is Brain Healthy

- Cognition
- Memory
- Attenuates stress-related memory (PTSD)
- Depression: prevent and treat
- Acute and chronic pain
- Delays degeneration in diabetes, Alzheimer's, and MS

Residents Lose Fitness

Internal Medicine; 3 Programs

(waist circumference; BMI; resting HR; VO₂ max)

Surgery Residents: more hours, higher BMI, lower VO₂ max

Exercise Habit	Prior to Residency, n (%)	During Residency, n (%)	P Value
Almost never or less than once a week	11 (9)	45 (36)	< .001
Once a week	18 (15)	29 (24)	
2 or 3 times a week	50 (41)	42 (35)	
Almost every day	42 (34)	5 (4)	

Fitness -- Chronological Age

Characteristic	No.	Mean Difference	SD	P Value
All Residents	125	5.6	11.12	< .001
Sex				
Male	82	6.8	12.24	.07
Female	43	3.4	8.24	

Daneshvar F, et.al: J Grad Med Educ 2017; 9:97

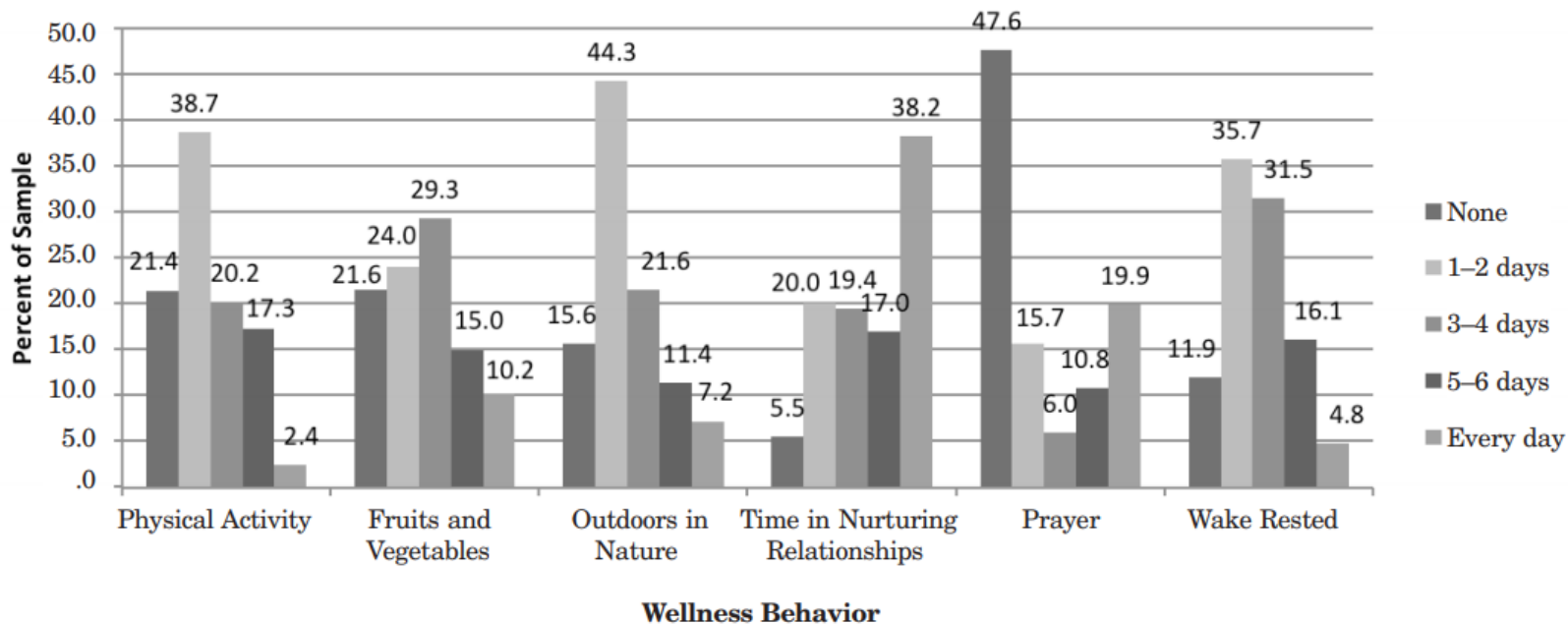
Perrin DL, et.al: Can J Surg 2018; 61:12617



Residents: Wellness is Lacking

Family Medicine R1s

Figure 1: Frequency of Daily Wellness Behaviors



My Story



Apple Cider Century





Overcoming Barriers



Weather







Weather Tactics

➤ The Bike

- Commuter features
- Slicks, treads, fat bikes, and studs
- Fenders
- Bar mitts

➤ Clothing

- Layers
- Specialized cold gear
- Chemical hot packs





Flood of 2008



More Floods



Sweat

- You won't really sweat
- Pack clothes
- Backup set in office/locker

Pain



Pain

- My muscles hurt
- My joints ache
- I don't like to feel short of breath
- I'm too heavy



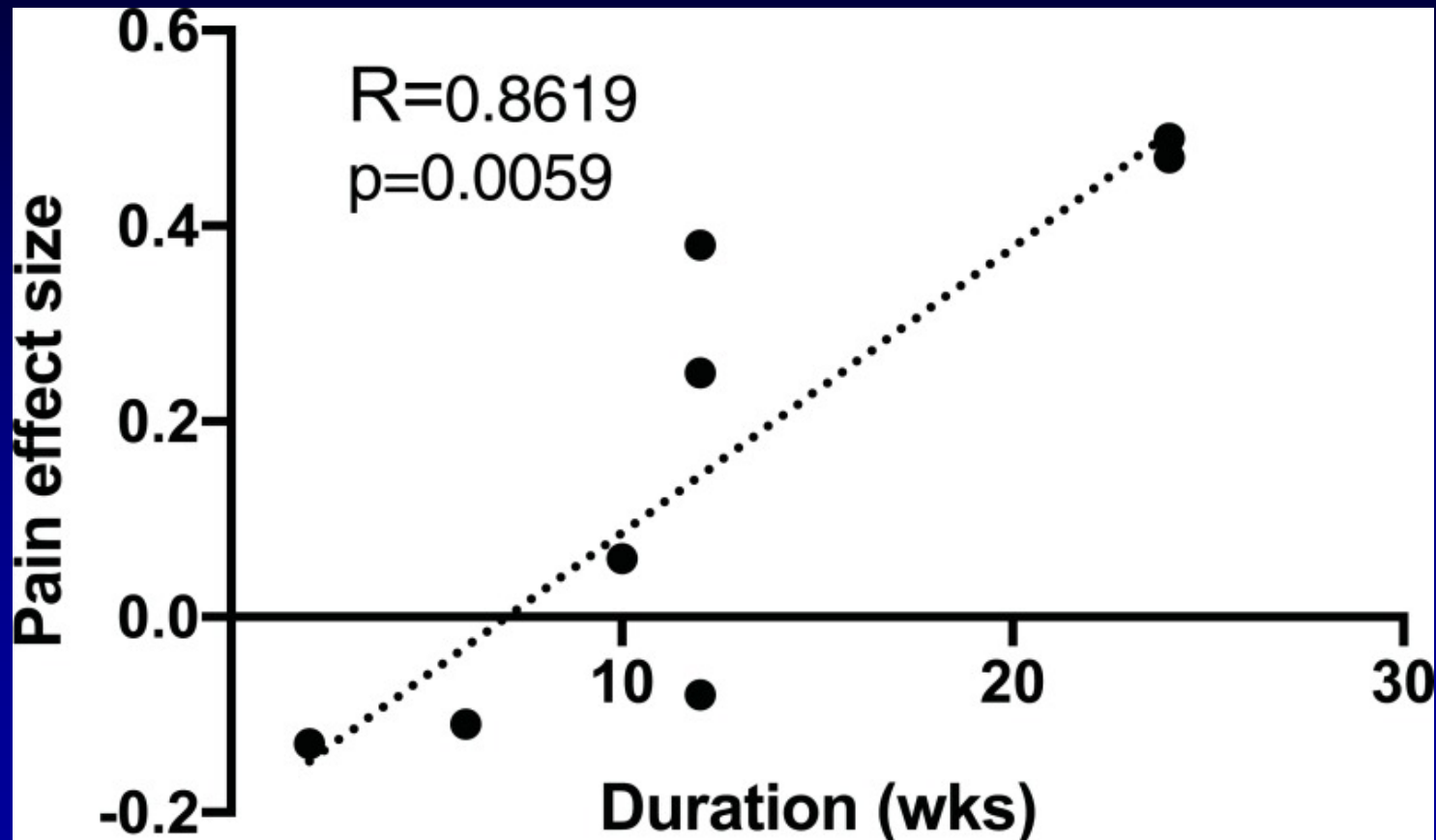
Schmidt, Gregory A, 02242278
Acc: RAD5004850
Study Desc: RIGHT CLAVICLE AP & AXIAL
Series Desc: W CLAVICLE AXIAL Right
4 - 1 (ALL)
Lossy (1:12)
kVp 65.9
Exposure In mAs 7
Acquisition Time 9:46:49 PM

8/1/2019 9:46 PM
UNIVERSITY OF IOWA HOSPITALS ETC2
C:33616 W:60304
Zoom: 34%



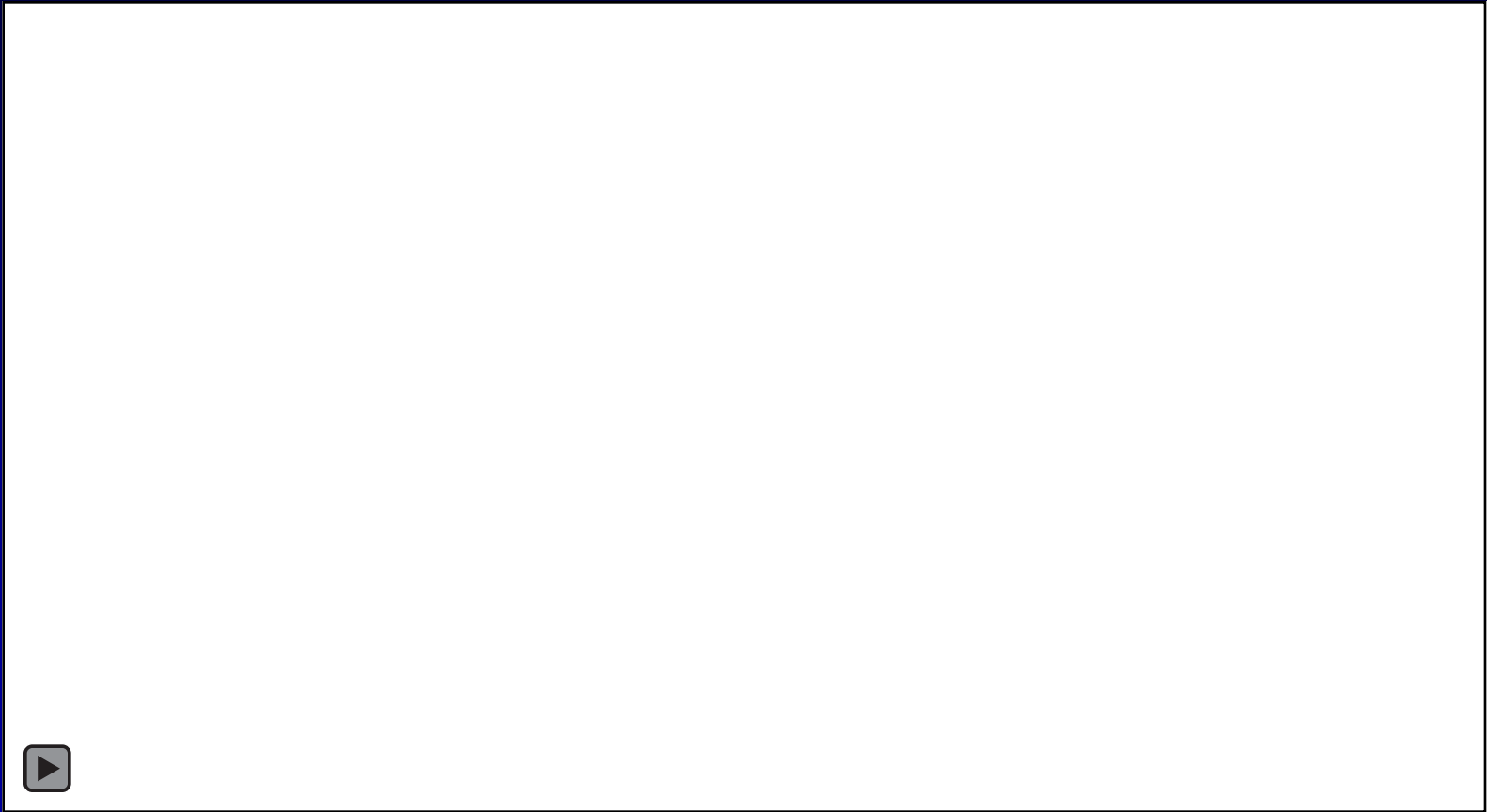


Exercise-Induced Hypoalgesia



Polaski AM, et.al: PLoS One 2019; 14:e0210418

HIIT



Pain and HIIT

- 30 healthy, but sedentary, young adults
- Interviews: “I couldn’t do it” “It sounds awful”
- Exercise sessions: Moderate, sustainable cycling vs HIIT
- During: Subjects gasped “not having fun”
- Afterwards: “Not so bad!” Rated HIIT the most pleasant regimen
- Long-range: Most incorporated HIIT into exercise and reported feeling more engaged and motivated during HIIT

Stork MJ, et.al: Psychol Sport Exer 2020; 51:101788

Time



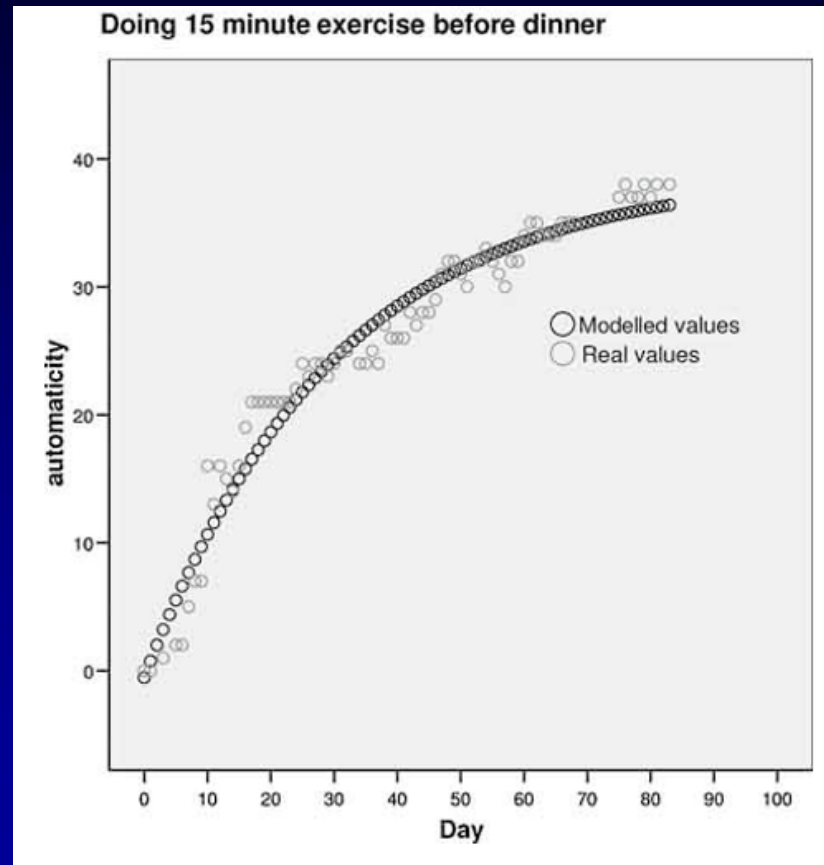
Building Healthy Habits

- Tie a new habit to an existing habit
- Start small
- Do it every day
- Make it easy (clear obstacles)
- Reward yourself

Parker-Pope T: NYT Feb 18, 2020



Good Habits Require Patience

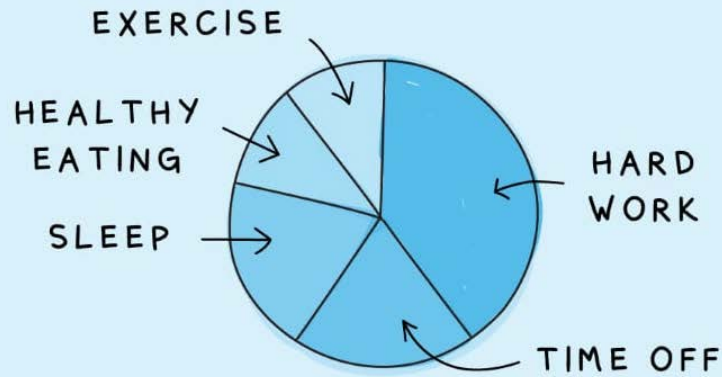


Lally P, et.al: Eur J Social Psych 2009; 40:998

WHAT I THOUGHT WOULD
MAKE ME PRODUCTIVE



WHAT ACTUALLY DOES



Work













Overview

Analysis

Summit

Heart Rate

Est Power Curve

Est 25W Distribution



Gregory Schmidt - Ride

f t share 5 0



6:21 PM on Thursday, January 2, 2020

Really January??

Add a description



Add Others

STRAVA LABS
View Flybys

24.99 mi 1:39:40 1,132 ft
Distance (?) Moving Time Elevation

108 w 648 kJ
Estimated Avg Power Energy Output

	Avg	Max	Show More
Speed	15.0mi/h	34.9mi/h	
Elapsed Time	1:50:05		

Strava Android App



Segments

Learn more about segments

Name	Time	Speed	Power	VAM	HR
------	------	-------	-------	-----	----

Social Networks

- Strava
- Cycling clubs (BIC)
- Local bike shops
- Weekly rides
- Specialty rides
- Alcohol-fueled rides
- Charity rides
- Peloton (and similar)



Gravel







Wellness:
Nurturing Relationships
Time in Nature

The Wild Turkeys









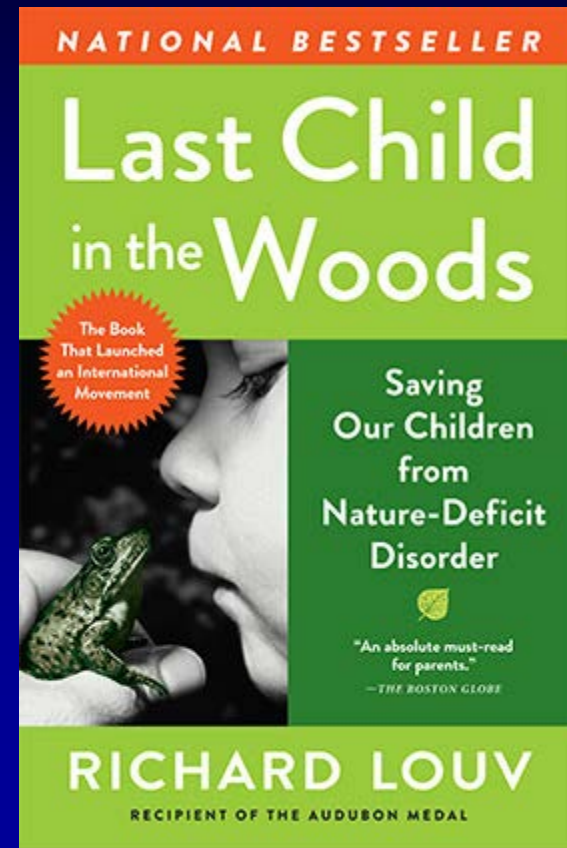






Nature

“Nature is not only nice to have, but it’s a have-to-have for physical health and cognitive functioning”
– Richard Louv, who coined the term “Nature Deficit Disorder”



It's scenic. You're not supposed to drive here at 60 miles an hour. To do the scenery half justice, people should drive at 20 or under; to do it full justice, they should get out and walk." – Peter Norbeck, founder, Custer State Park

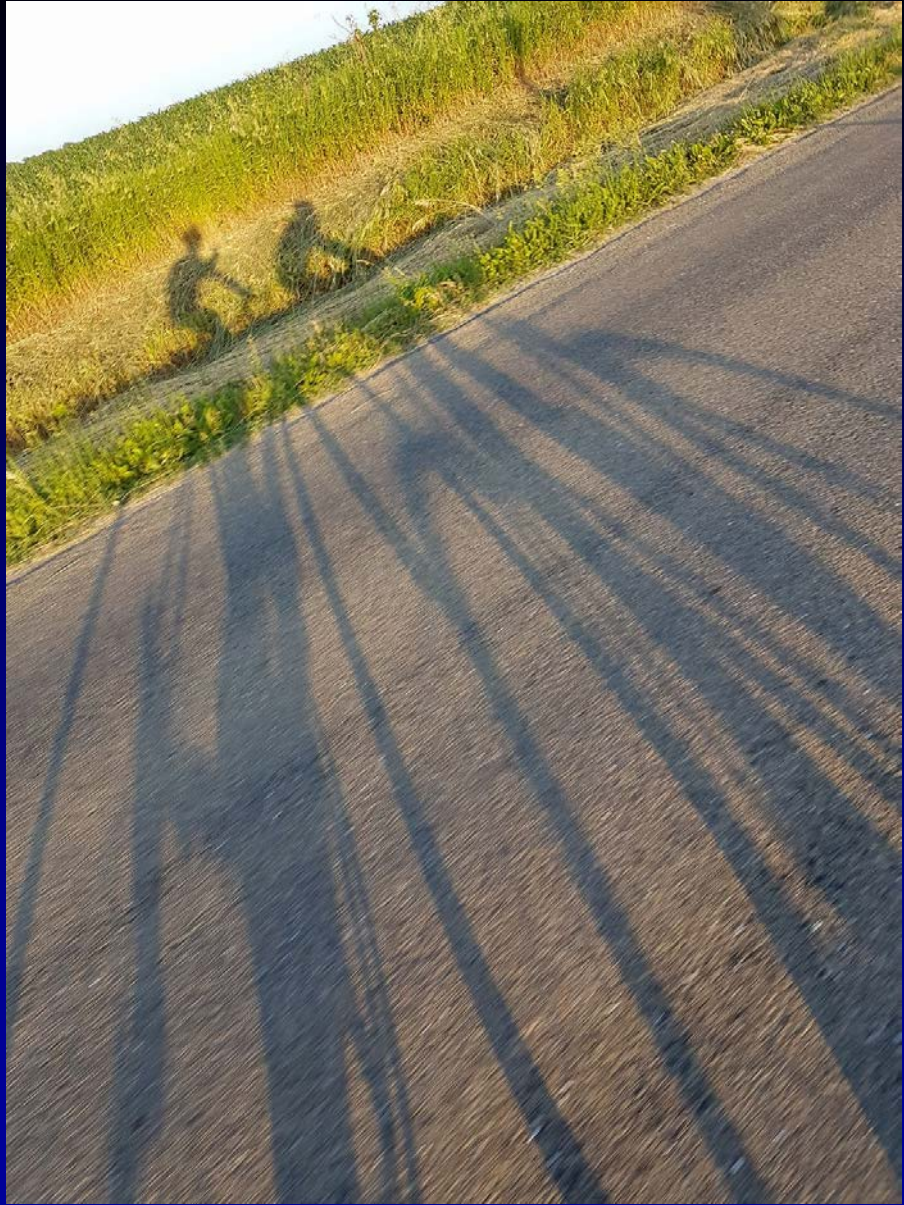


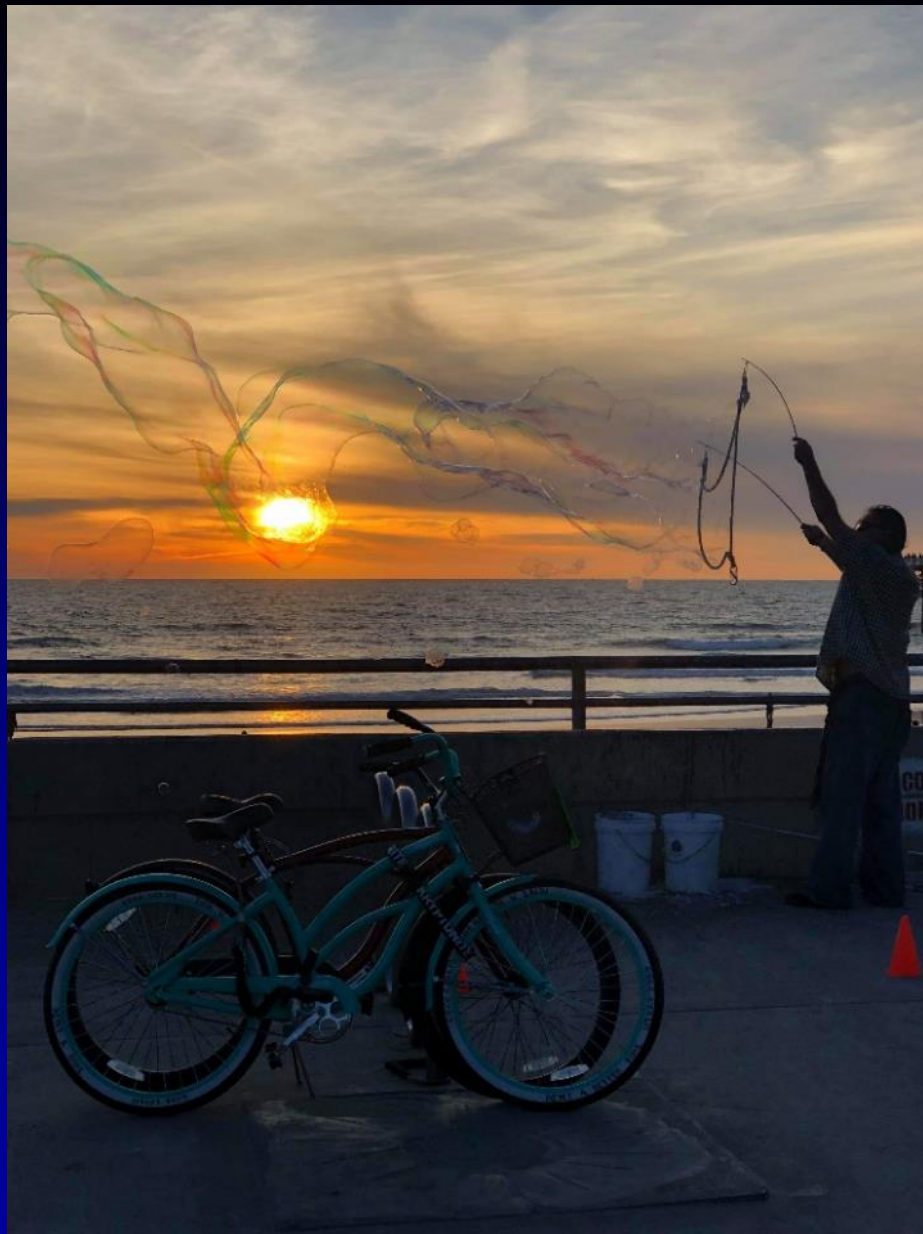






























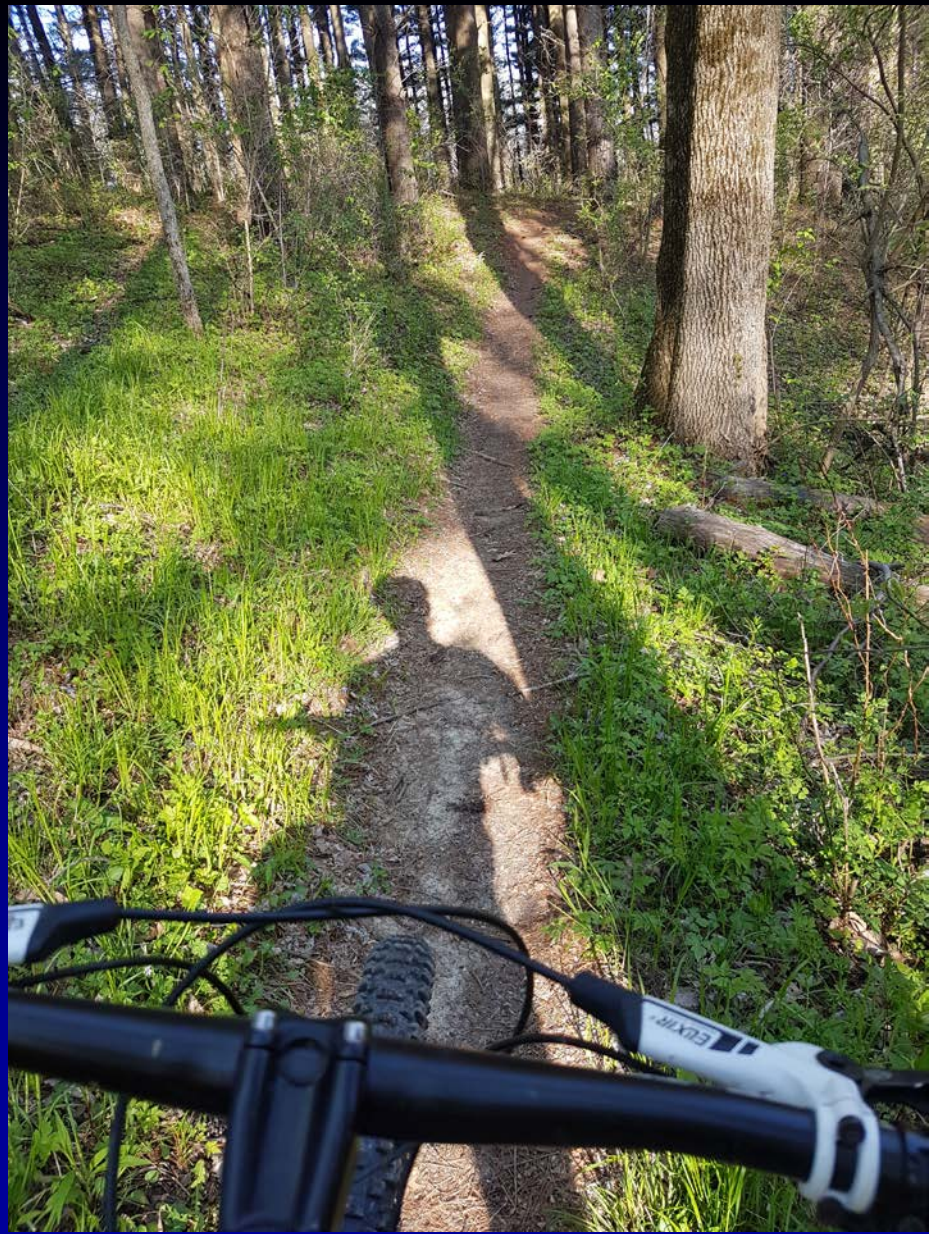














Cross Capable





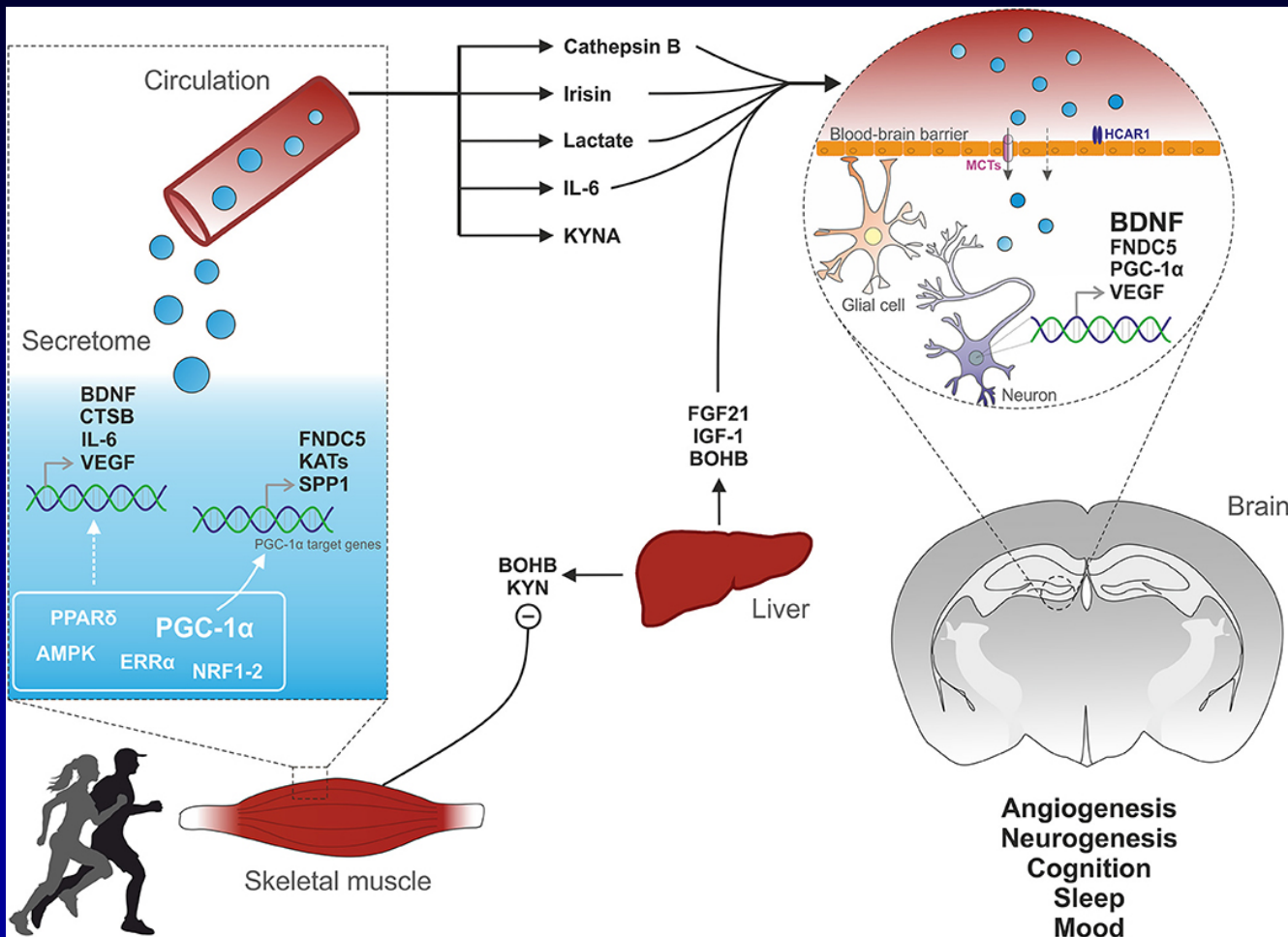








Muscle-Brain Crosstalk



Building Healthy Habits

- Tie a new habit to an existing habit
- Start small
- Do it every day
- Make it easy (clear obstacles)
- Reward yourself
- Music
- Leverage social networks



