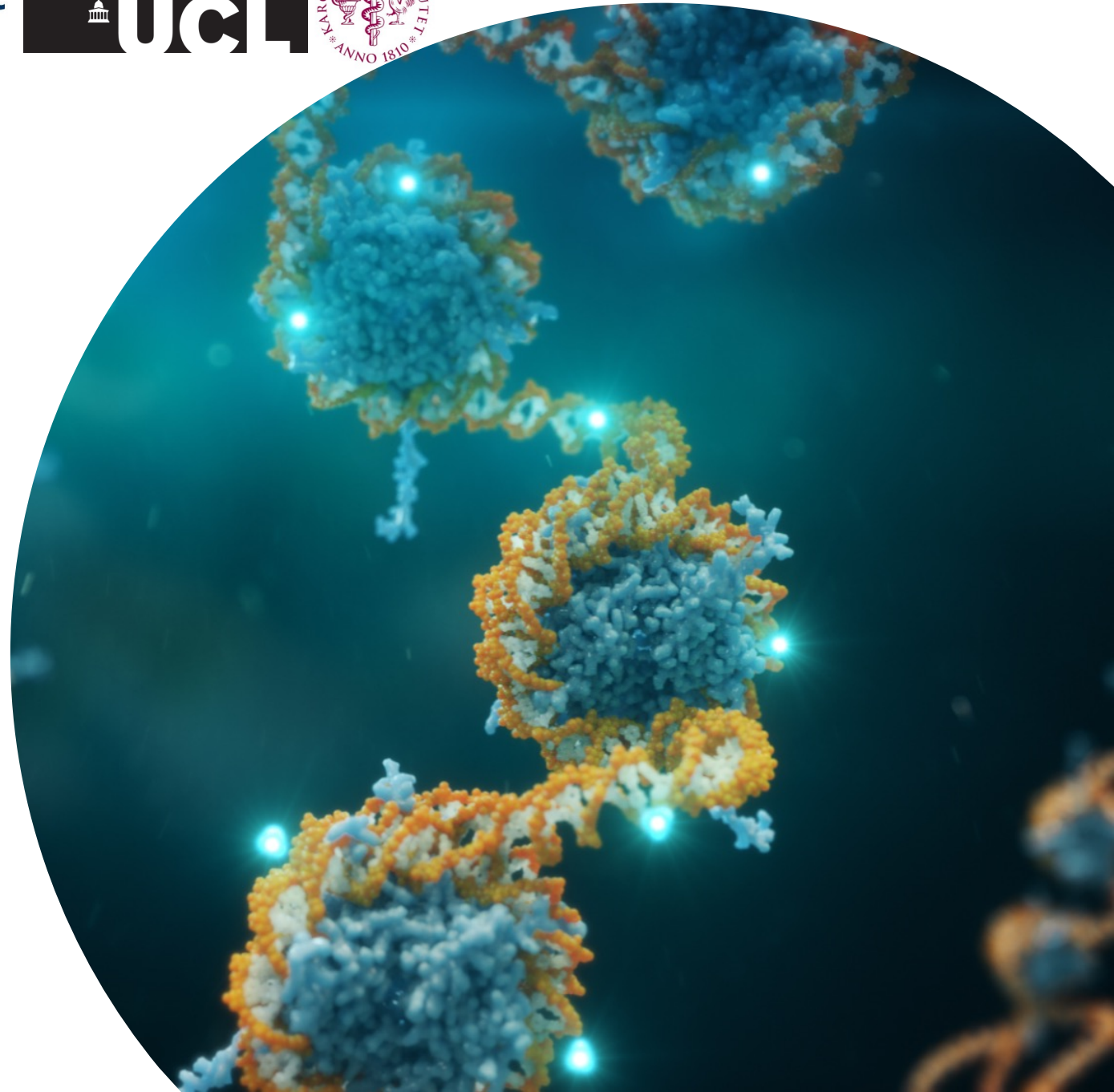


Lifestyle-Intervention Studies

TirolGesund
SUN-Tirol
LIFE-Tirol

Prof Martin Widschwendter, MD, FRCOG
Universität Innsbruck,
University College London,
Karolinska Institutet



EUTOPS Institute

European Translational Oncology Prevention & Screening



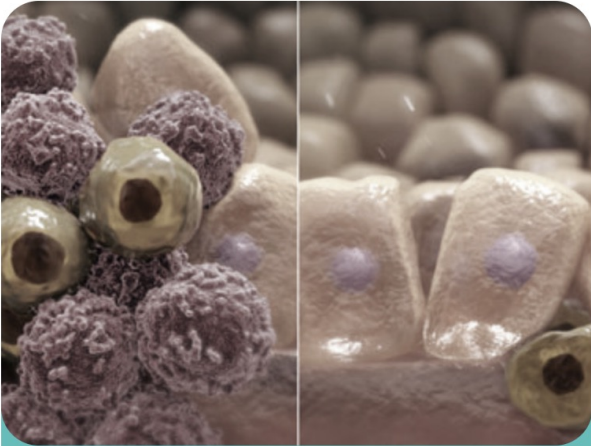
Prevention Clinic
in Hall



**High throughput Epigenetic
Laboratory** in Zams

VISION 2040

Primary and secondary prevention



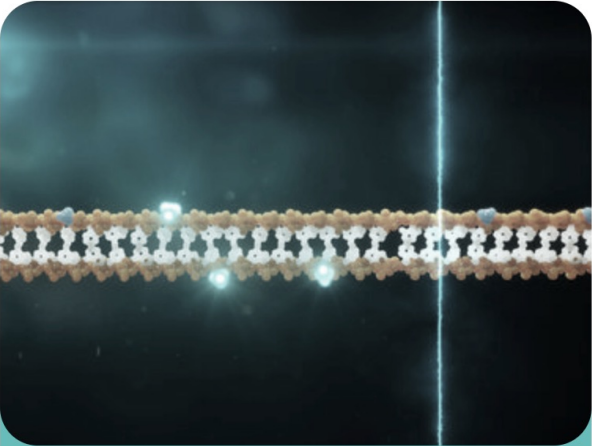
Understand



Predict



Prevent



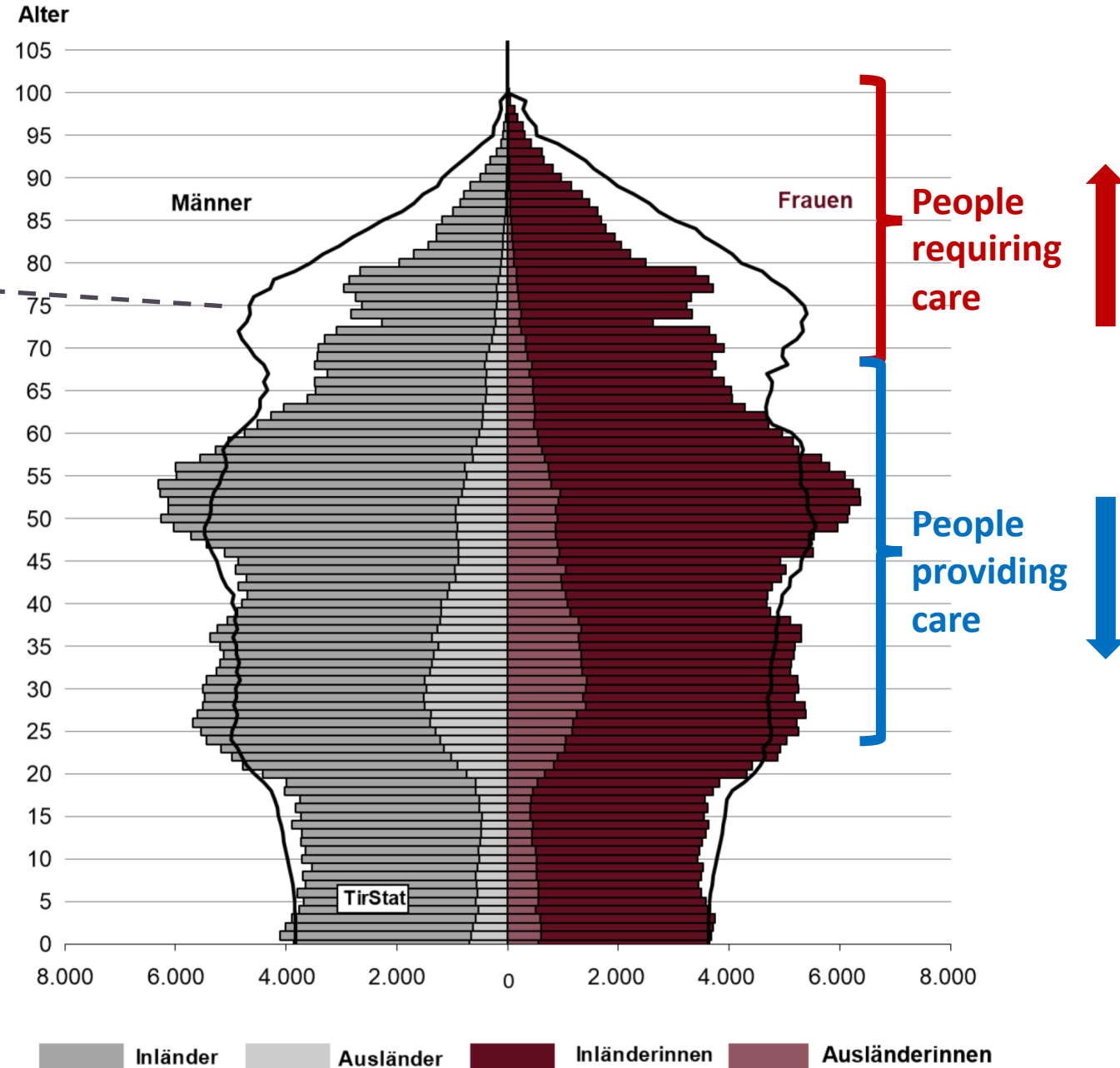
Detect

Future Demographic developments

Prognosis for 2040

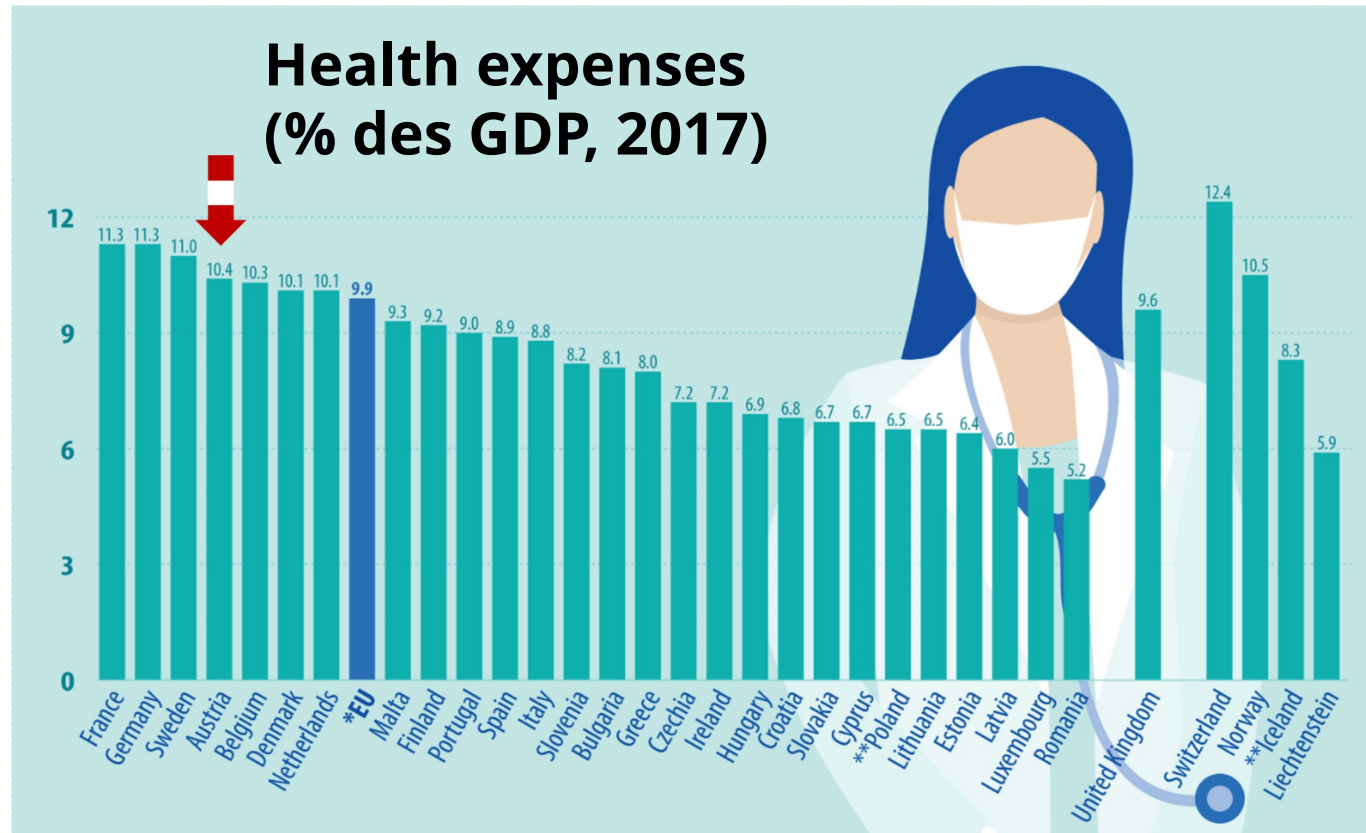
In the next 10-20 years we are expecting a massive increase in the population > 65 years and a decrease in younger population

Source: Amt der Tiroler Landesregierung - TirStat



Austria

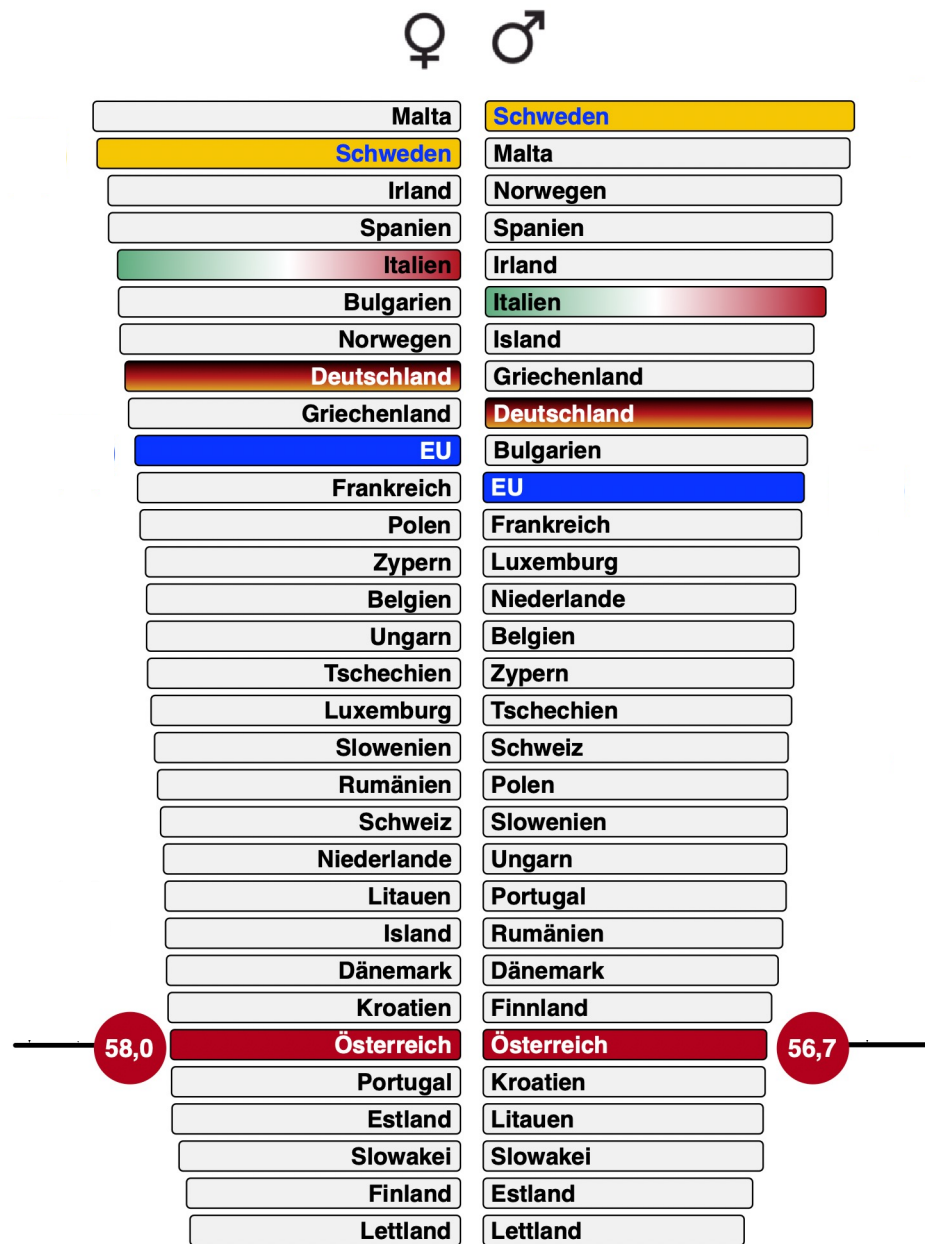
Amongst the European countries with highest health expenses



Quelle: ec.europa.eu/eurostat

Healthy Life Years Austria in last quarter

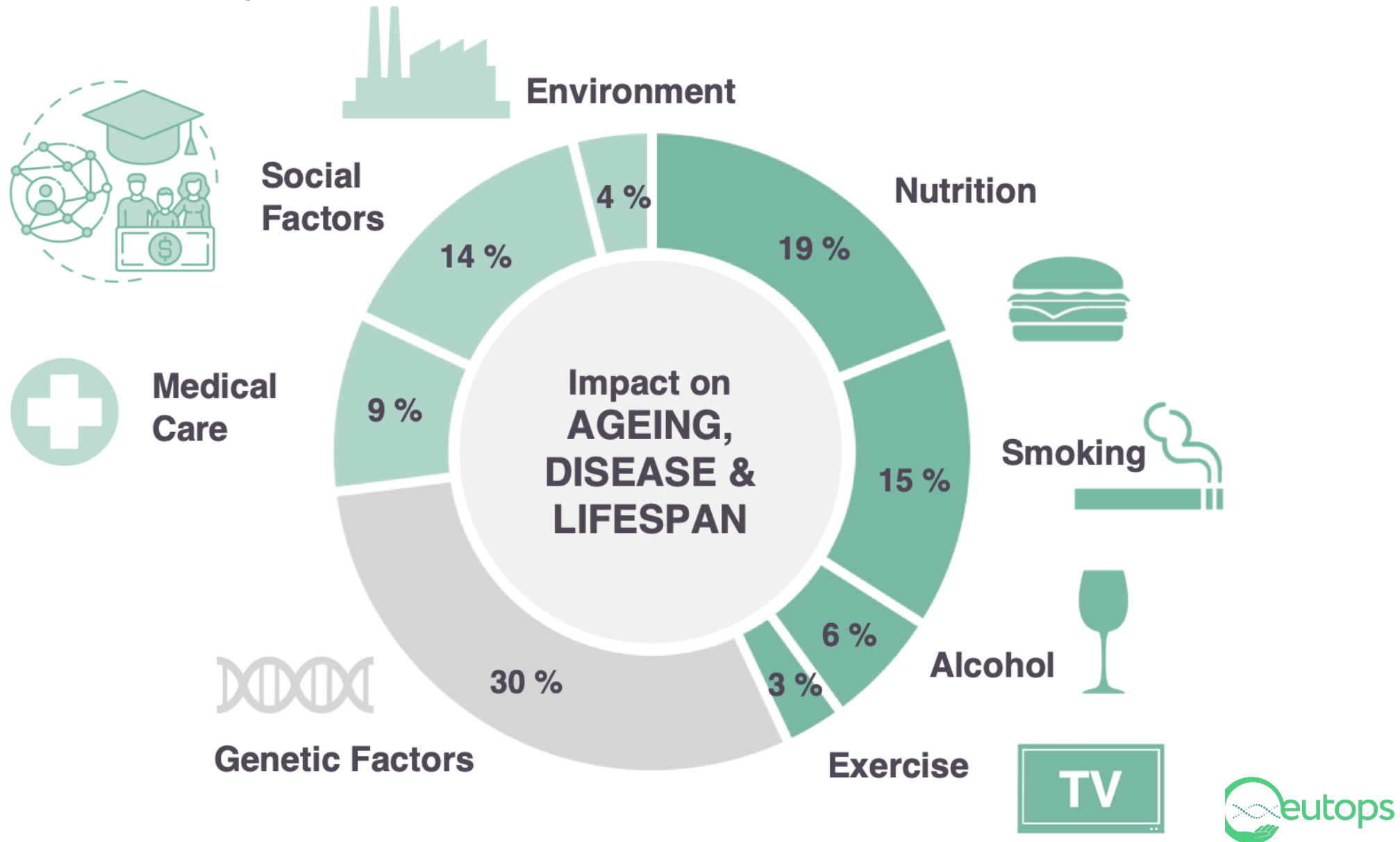
Compared to Sweden:
Austrians have **16 less healthy life years**



Quelle: ec.europa.eu/eurostat

VISION 2040

What impacts on our health



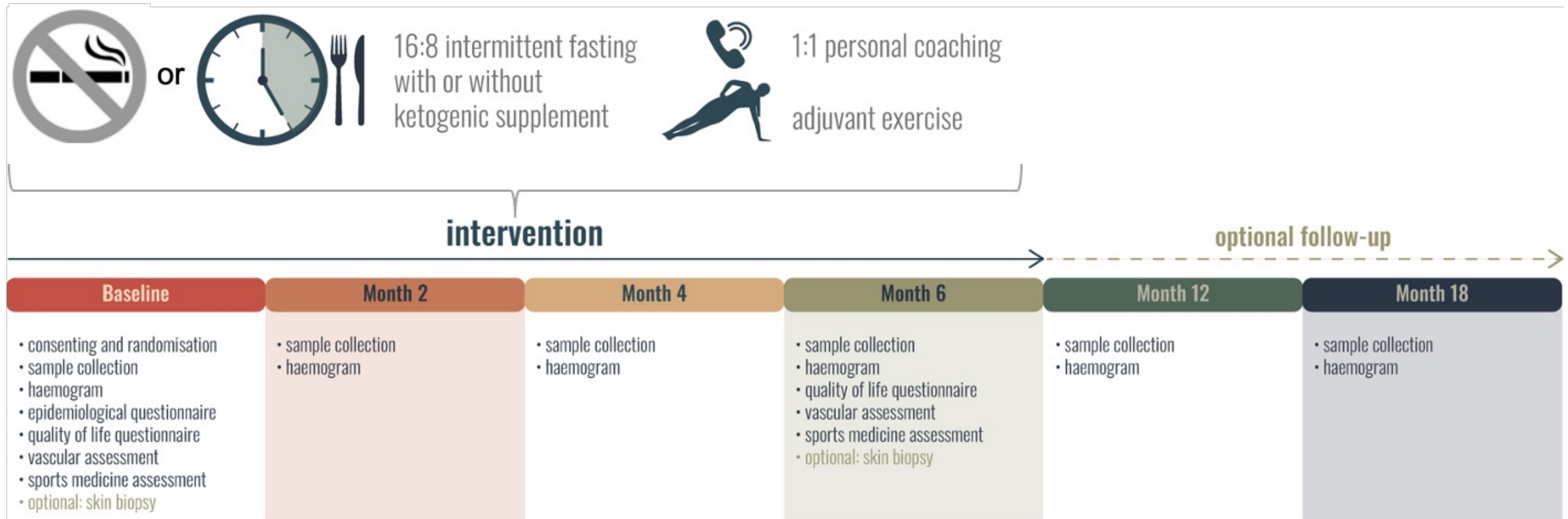


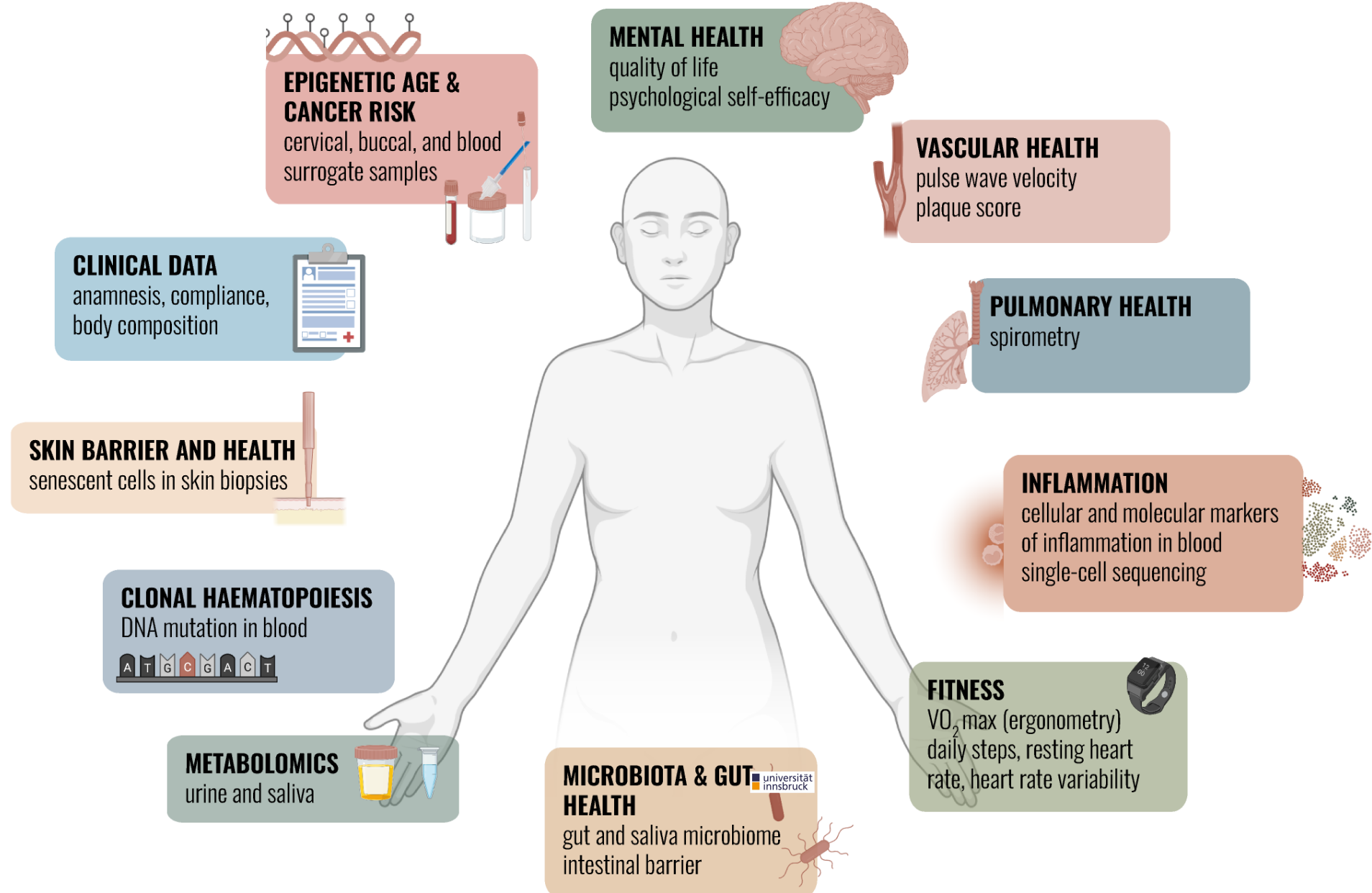
Prevent

Tirol-GESUND



n=156





Intermittent Fasting Rationale

The NEW ENGLAND JOURNAL of MEDICINE

REVIEW ARTICLE

Dan L. Longo, M.D., *Editor*

Effects of Intermittent Fasting on Health, Aging, and Disease

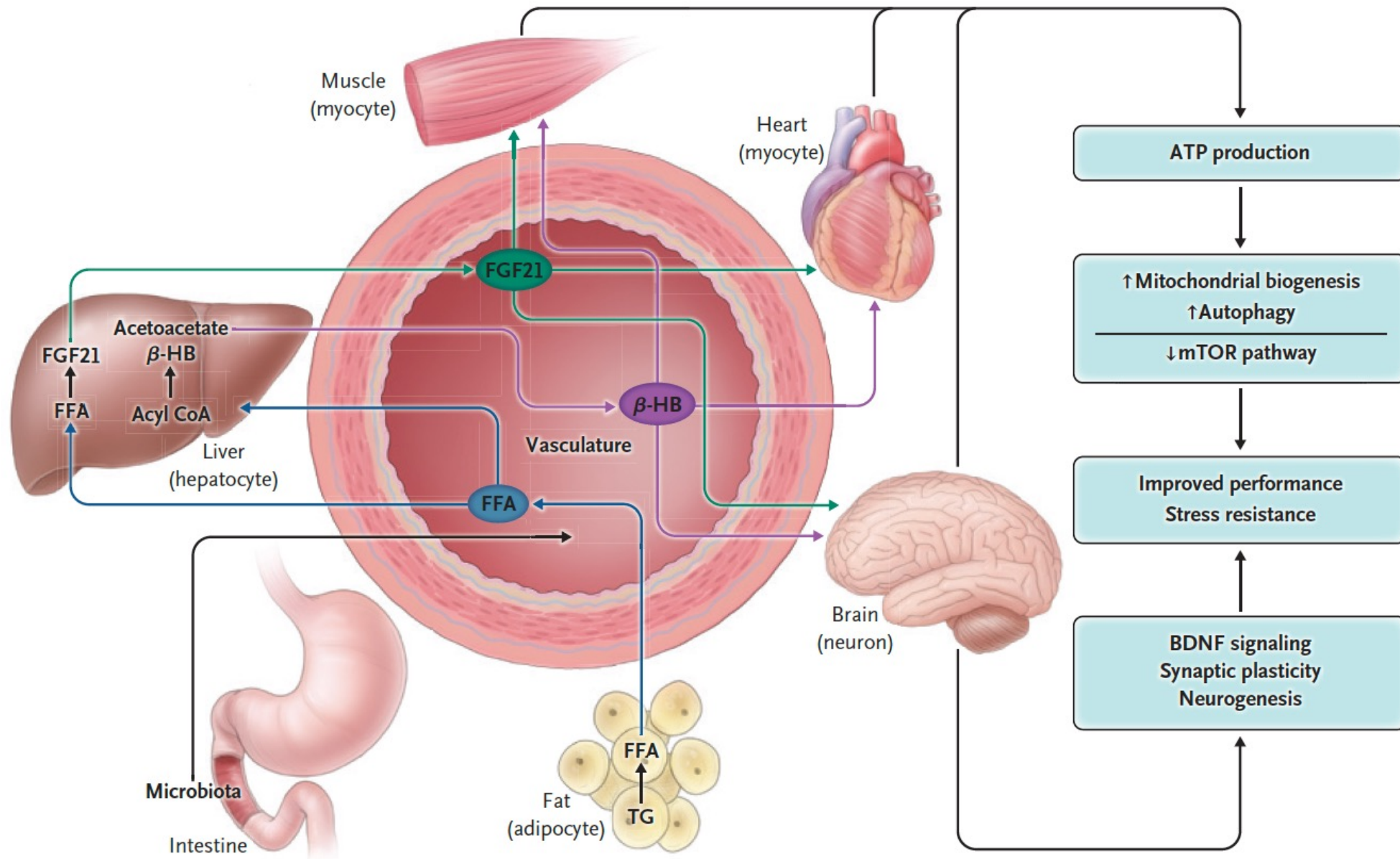
Rafael de Cabo, Ph.D., and Mark P. Mattson, Ph.D.

N Engl J Med 2019;381:2541-51.

DOI: 10.1056/NEJMra1905136



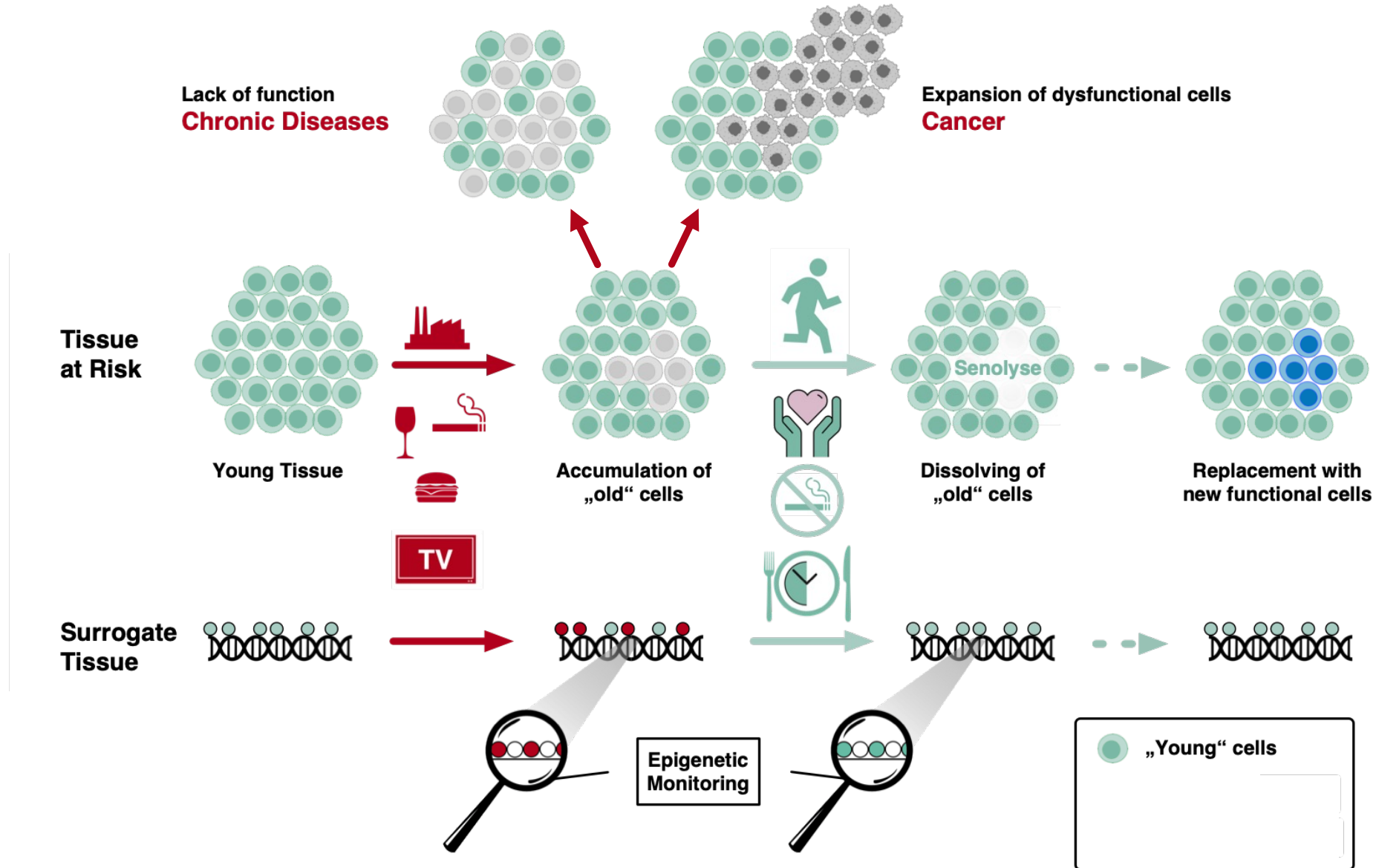
Intermittent Fasting Rationale



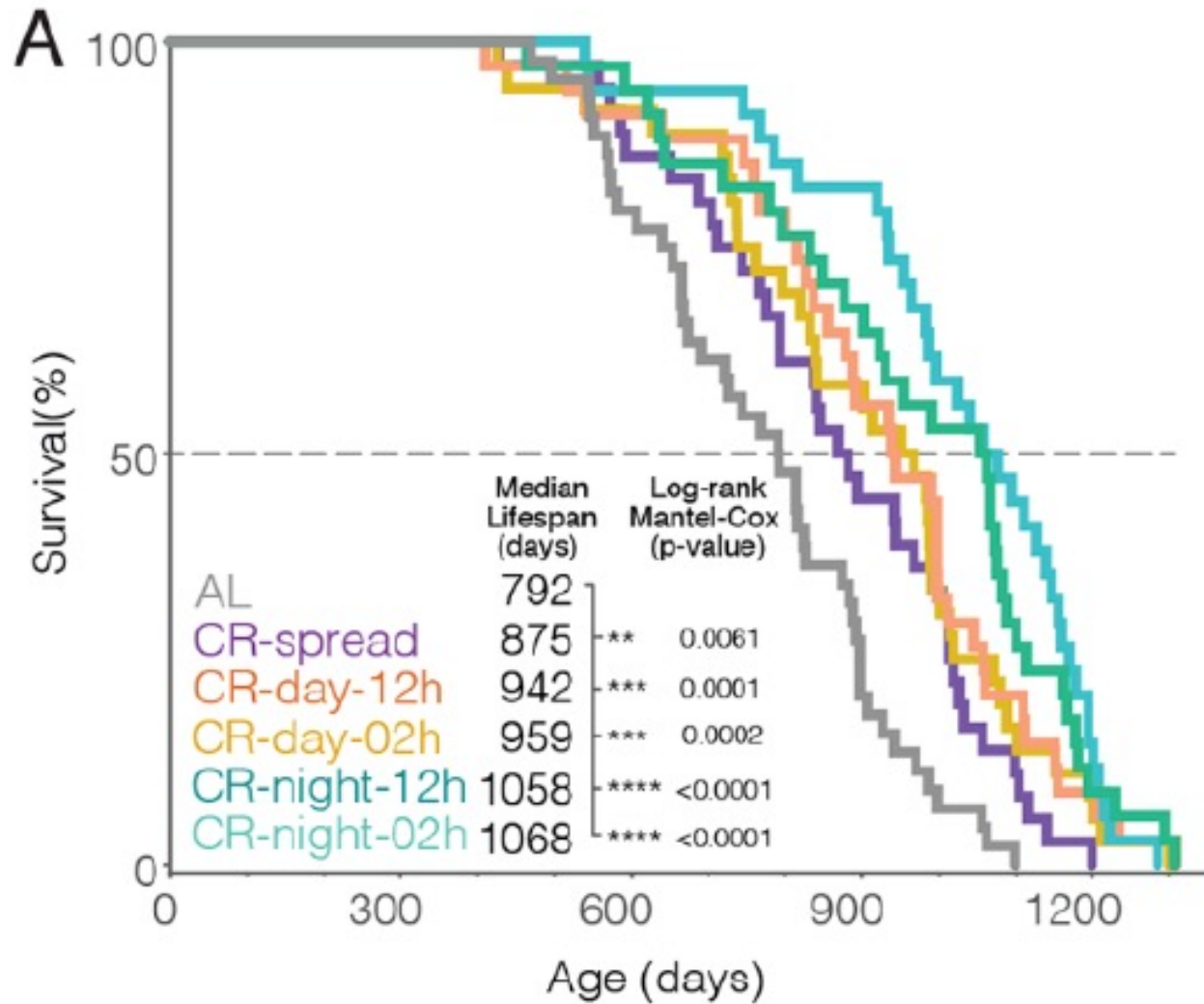
LIFE-Tirol

SUMMARY: Lifestyle changes

Epigenetic markers to monitor efficacy of preventive interventions



Intermittent Fasting (Caloric Restriction Misaligned and Aligned vs Ad Libitum) Rationale



CR

Median lifespan increase vs AL

No fasting

10%

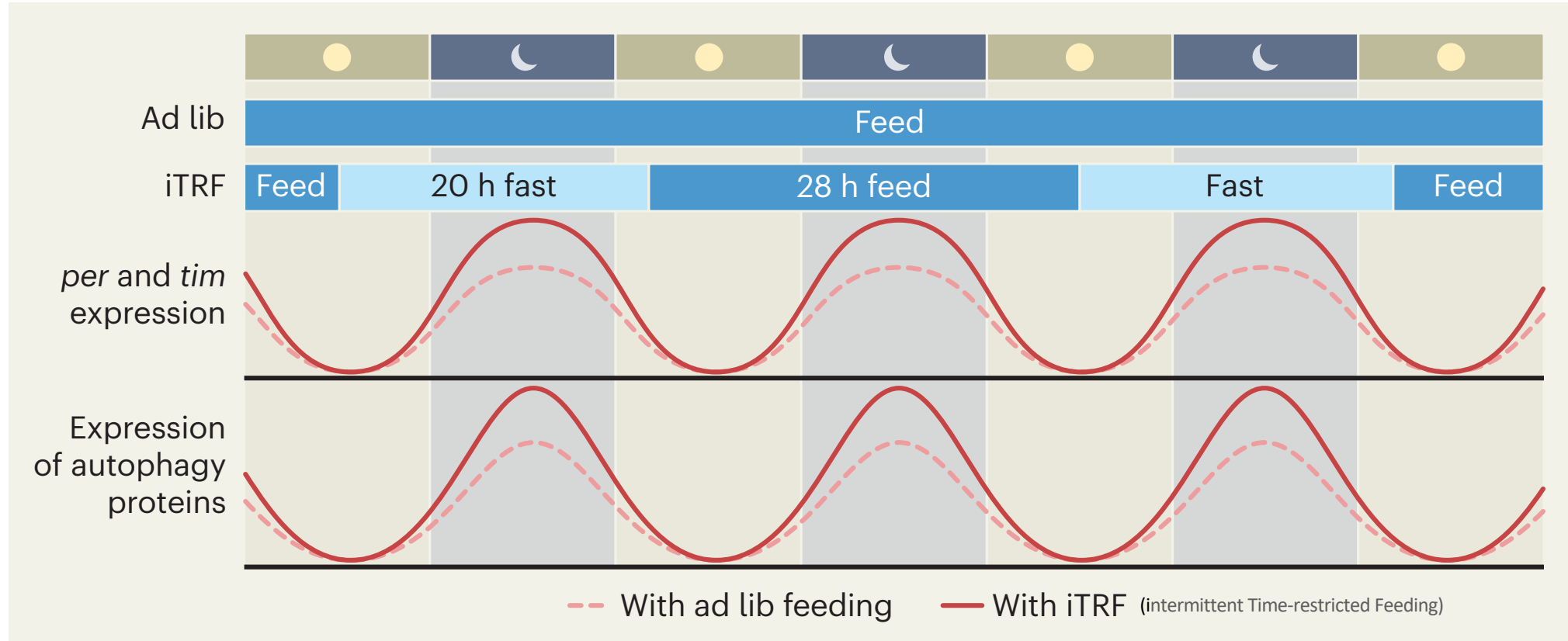
+ Fasting & Misaligned Timing

20%

+ Fasting & Aligned Timing

35%

Intermittent Fasting Rationale



Ulgherait et al, Nature 2021

LIFE-Tirol Lasting Health through Intermittent Fasting, Emotional Firmness and Exercise in Tirol

The first study of its kind

BMI (kg/m ²)	Extent exercise weekly	Number volunteers (theoretically)	Run-In-Phase (Months 1-2)	RANDOMISATION	Interventions (Months 3-8)
> 25	< 150 minutes moderate or < 75 minutes intensiv	50	Observation, NO intervention		IF
		50			EXC
		50			IF → +EXC (from Months 5)
	> 150 minutes moderate or > 75 minutes intensiv	50			IF
		50			WB
		50			IF → +WB (from Months 5)
≤ 25	< 150 minutes moderate or < 75 minutes intensiv	50	IF		
		50	EXC		
		50	IF → +EXC (from Months 5)		
	> 150 minutes moderate or > 75 minutes intensiv	50	IF		
		50	WB		
		50	IF → +WB (from Months 5)		

600 volunteers recruited within < 3 months (!)

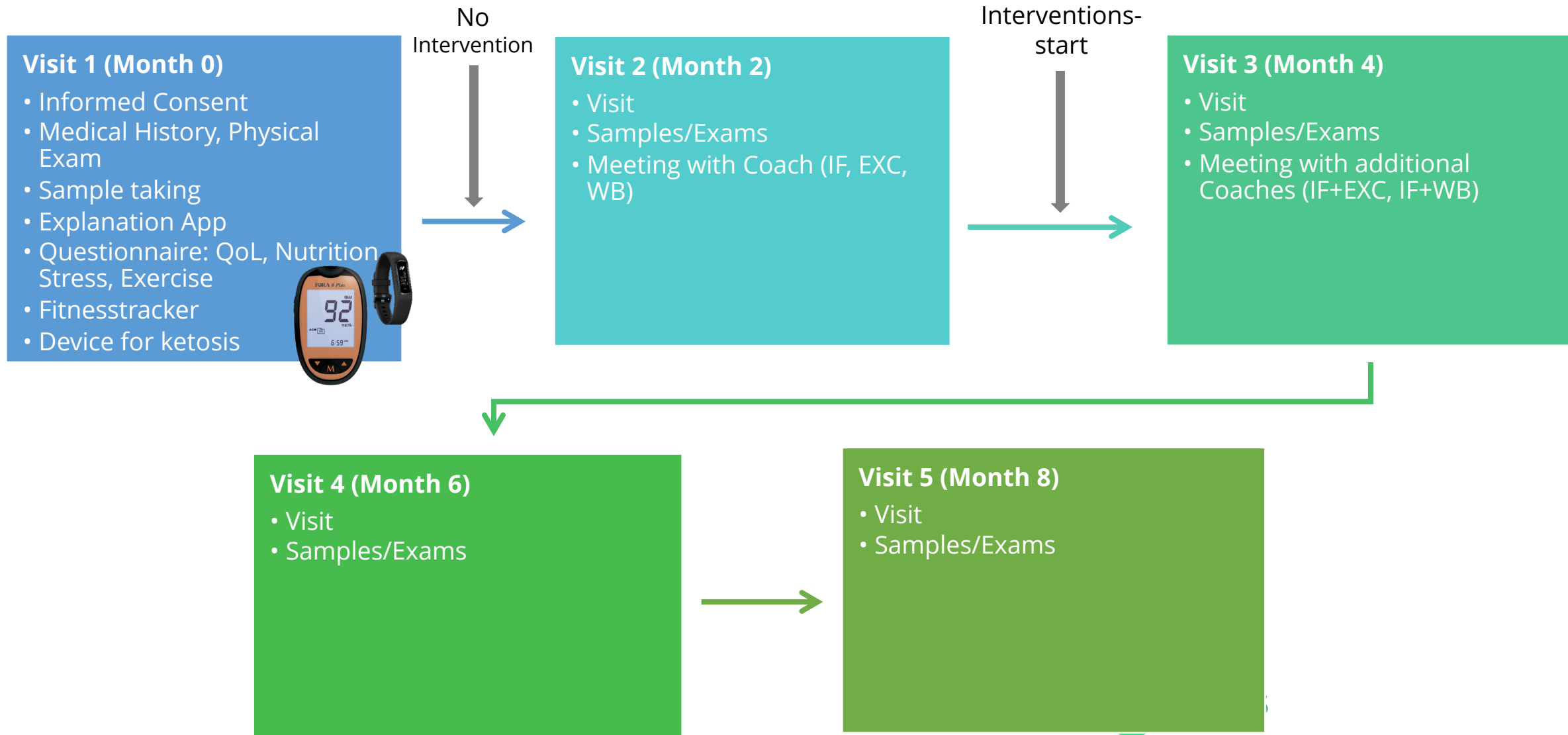
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		50	IF → +EXC (from Months 5)		
	> 150 minutes moderate or > 75 minutes intensiv	50	IF		
		50	WB		
		50	IF → +WB (from Months 5)		

LIFE-Tirol



SUN-Tirol

The first study of its kind

Intervention	Number Volunteers
Smoke-Stop with Biofeedback*	100
Smoke-Stop without Biofeedback*	100

* Feedback regarding smoke-related epigenetic alterations (gradual improvement) after 4 and 8 months

Acknowledgement



European Research Council
Established by the European Commission



**Lebensraum
Tirol Holding**