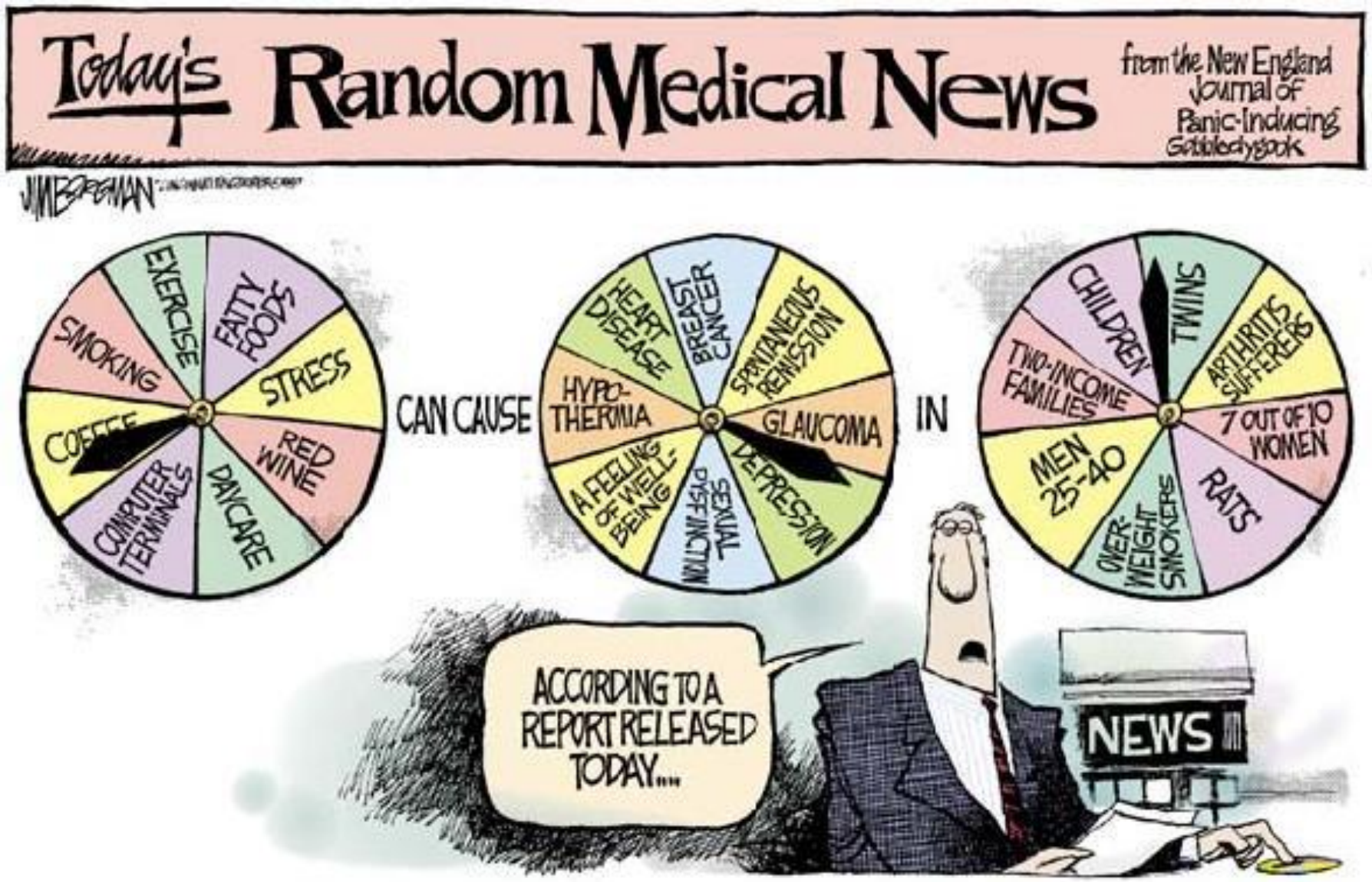
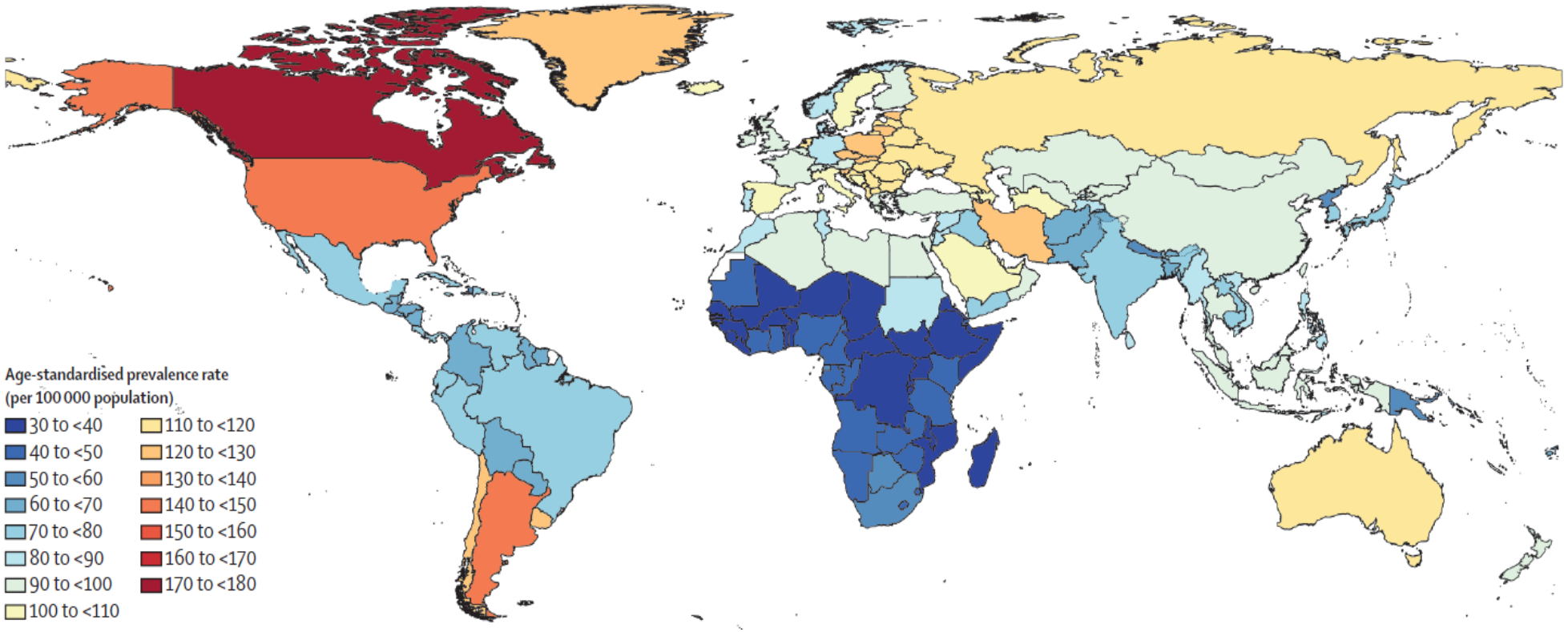
Ontwikkelingen Ziekte van Parkinson

Bart Post
Neuroloog

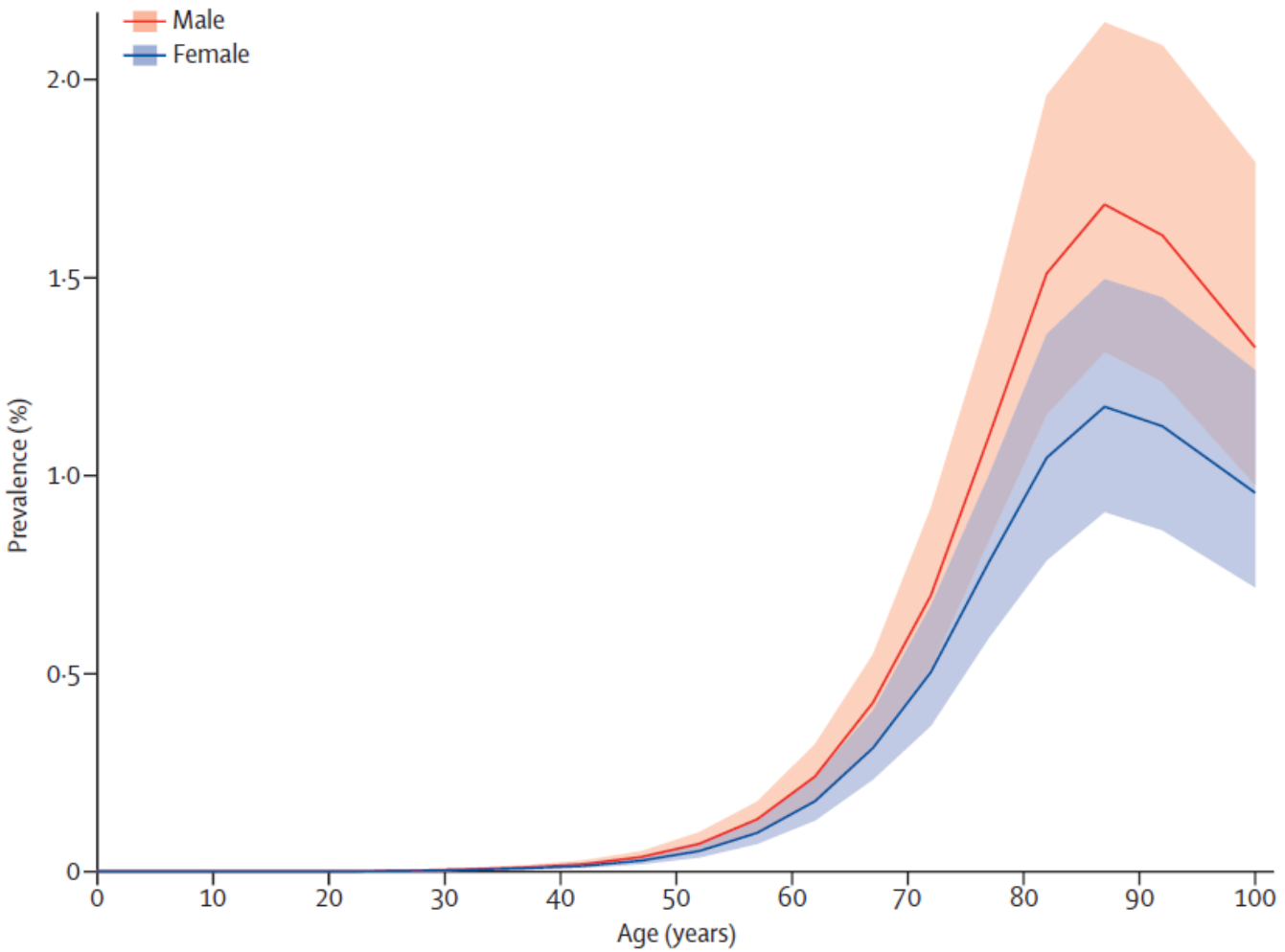
Radboudumc


Today's Random Medical News
from the New England Journal of Panic-Inducing Gobbledygook
JIM BORGMAN
EXERCISE
FATTY FOODS
SMOKING
STRESS
COFFEE
RED WINE
COMPUTER TERMINALS
DAYCARE
CAN CAUSE
HEART DISEASE
BREAST CANCER
SPONTANEOUS REMISSION
HYPO-THERMIA
GLAUCOMA
A FEELING OF WELL-BEING
SEXUAL DYSFUNCTION
DEPRESSION
IN
CHILDREN
TWINS
TWO-INCOME FAMILIES
ARTHRITIS SUFFERERS
7 OUT OF 10 WOMEN
MEN 25-40
RATS
OVER-WEIGHT SMOKERS
ACCORDING TO A REPORT RELEASED TODAY...
NEWS

Global, regional, and national burden of Parkinson's disease, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016



Dorsey, Lancet, 2018



Dorsey, Lancet, 2018

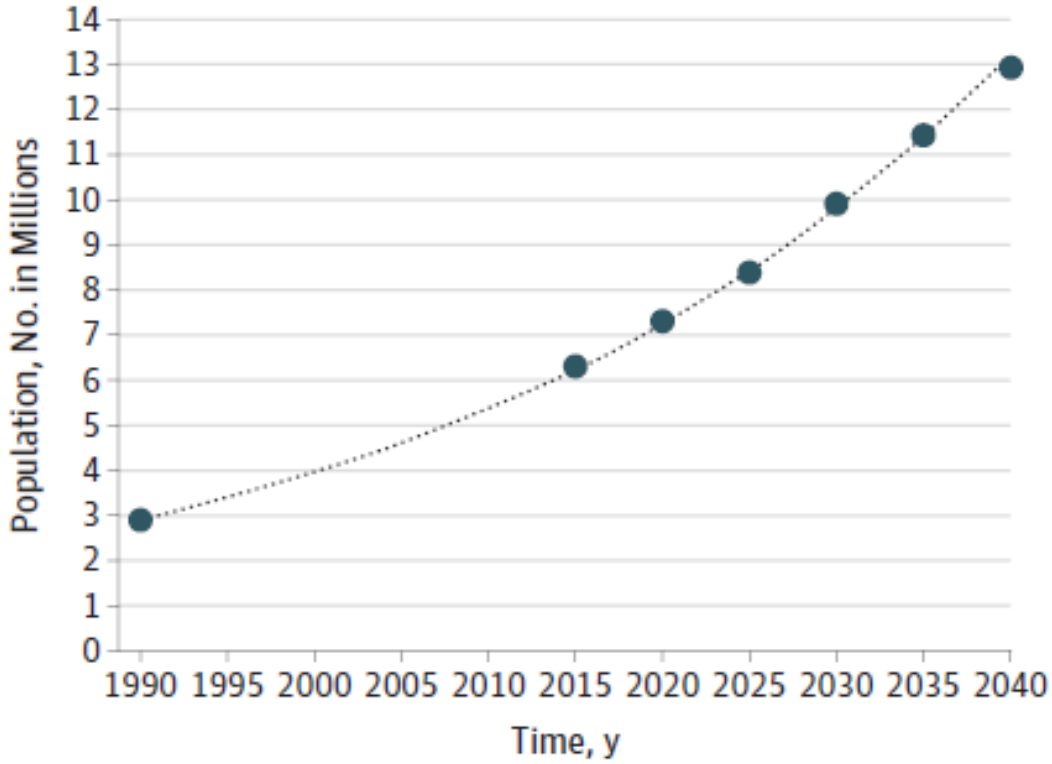
The Parkinson Pandemic—A Call to Action

VIEWPOINT

E. Ray Dorsey, MD
Center for Health and Technology, Department of Neurology, University of Rochester Medical Center, Rochester, New York.

Bastiaan R. Bloem, MD, PhD
Radboud University Medical Center, Donders Institute for Brain, Cognition and Behavior, Department of Neurology, Nijmegen, the Netherlands.

Figure. Estimated and Projected Number of Individuals With Parkinson Disease, 1990-2040



Dorsey, JAMA neurology, 2018

Projections for prevalence of Parkinson's disease and its driving factors in 195 countries and territories to 2050: modelling study of Global Burden of Disease Study 2021

Dongning Su,[1,2] Yusha Cui,[1,2] Chengzhang He,[3,4] Peng Yin,[5] Ruhai Bai,[6] Jinqiao Zhu,[1,2] Joyce S T Lam,[7] Junjiao Zhang,[1,2] Rui Yan,[1,2] Xiaoqing Zheng,[1,2] Jiayi Wu,[1,2] Dong Zhao,[8] Anxin Wang,[9,10] Maigeng Zhou,[5] Tao Feng[1,2]

Su, BMJ, 2025

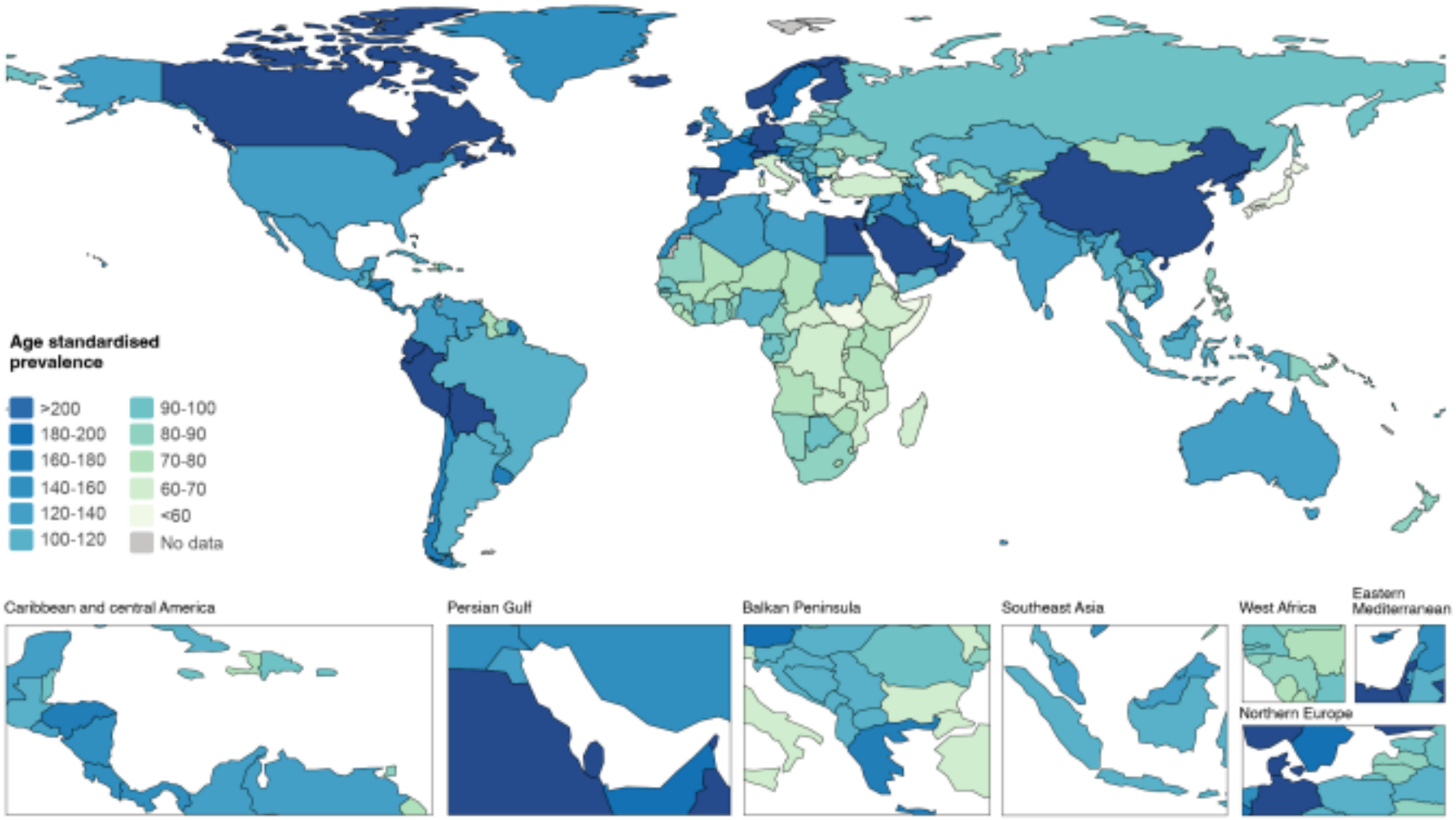
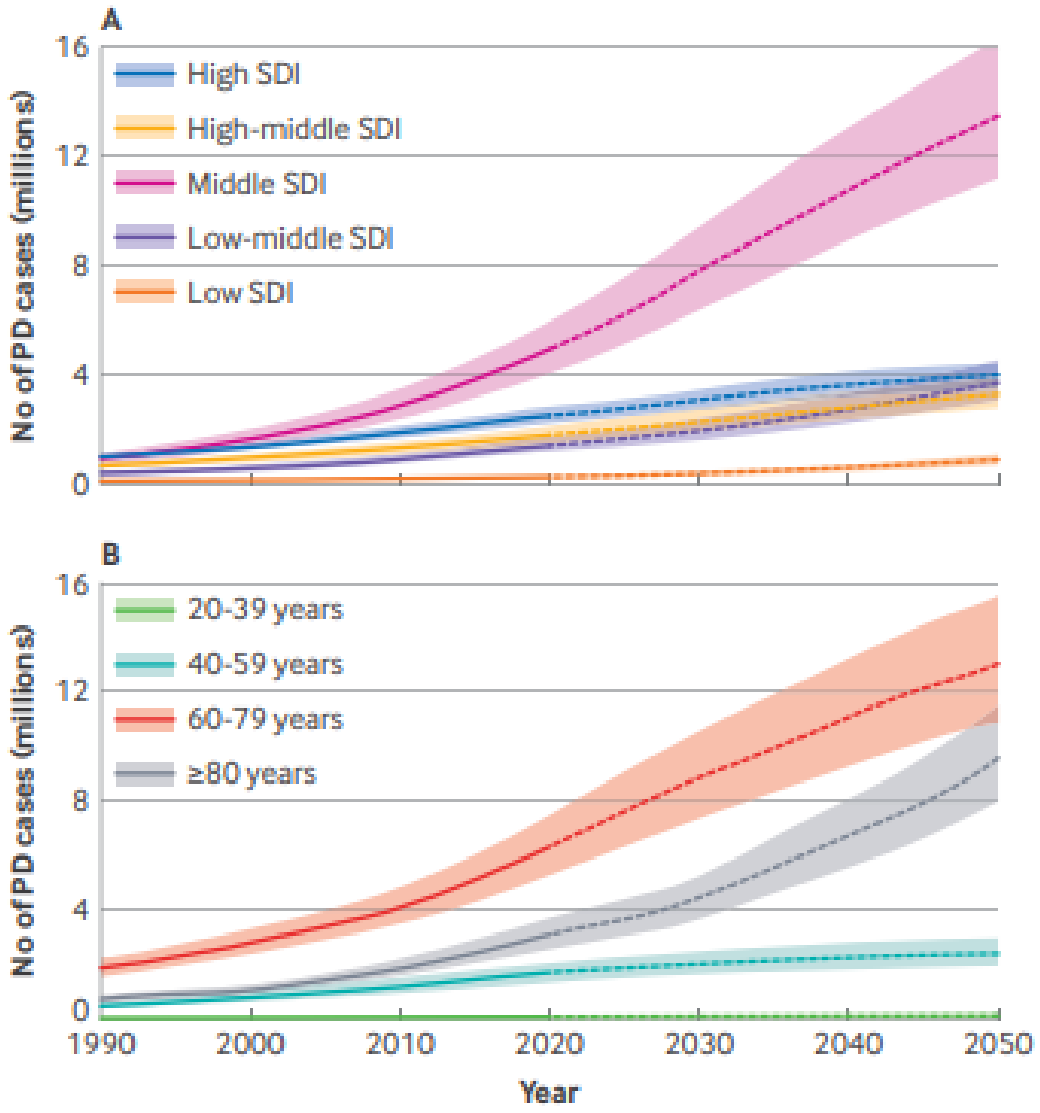
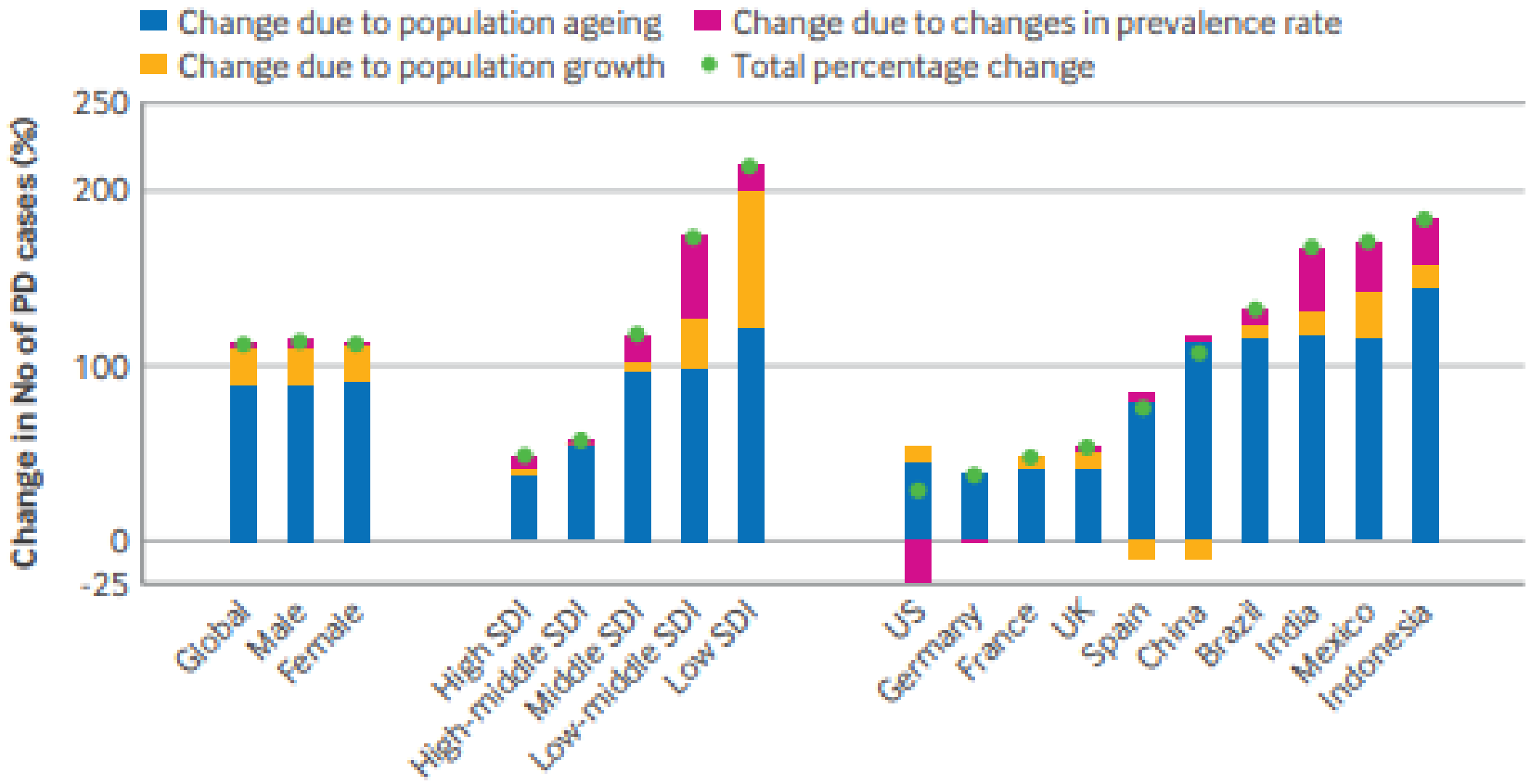
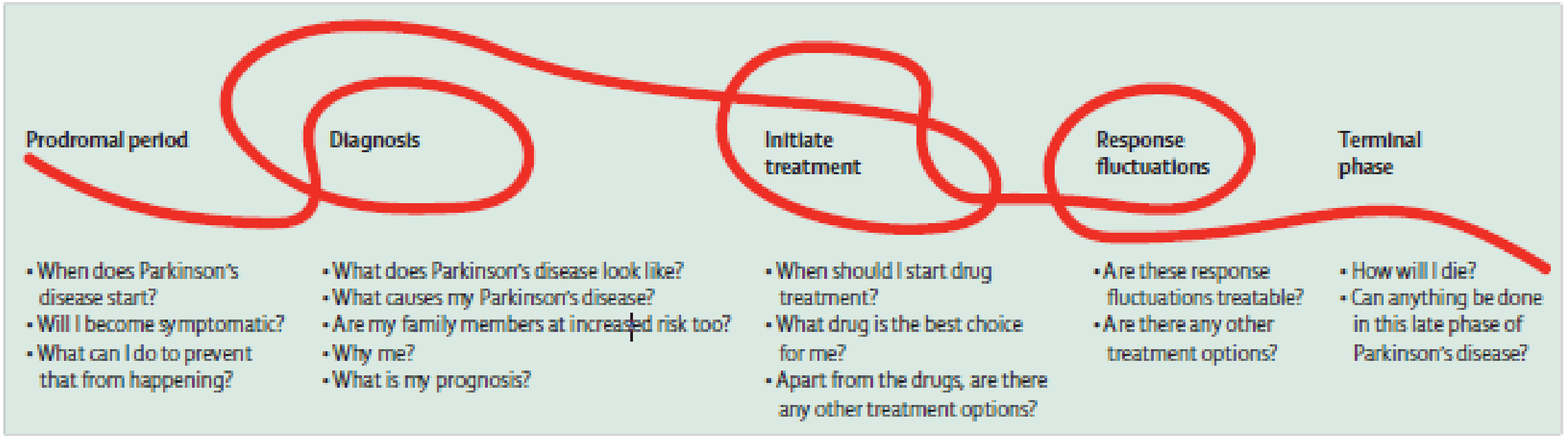


Fig 5 | Projected age standardised prevalence (per 100 000) of Parkinson's disease in 2050, by country and territory for both sexes combined

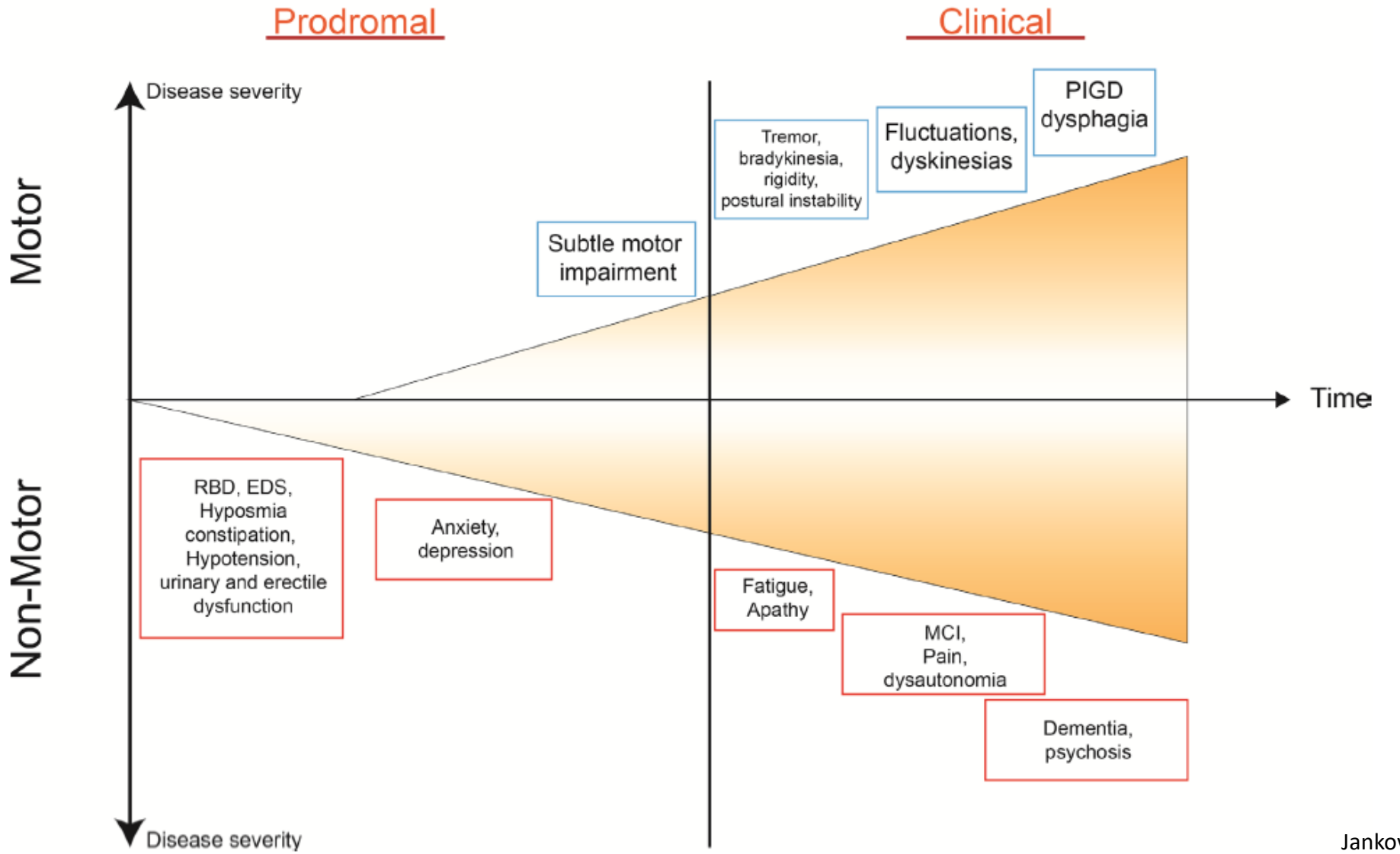


		1990	2021	2030	2040	2050		
No 1	China	662 000	5 091 000	6 702 000	8 854 000	10 516 000	China	No 1
No 2	USA	295 000	1 033 000	1 376 000	1 961 000	2 765 000	India	No 2
No 3	India	252 000	690 000	716 000	852 000	893 000	USA	No 3
No 4	Russian Federation	153 000	414 000	446 000	526 000	574 000	Germany	No 4
No 5	Italy	151 000	241 000	302 000	413 000	524 000	Brazil	No 5
No 6	Germany	124 000	226 000	284 000	341 000	465 000	Indonesia	No 6
No 7	UK	124 000	224 000	252 000	335 000	356 000	France	No 7
No 8	Japan	111 000	202 000	230 000	294 000	351 000	Spain	No 8
No 9	France	97 000	200 000	230 000	286 000	338 000	Mexico	No 9
No 10	Spain	82 000	199 000	228 000	272 000	307 000	UK	No 10
No 12	Brazil	56 000	190 000	212 000	248 000	304 000	Russian Federation	No 11
No 13	Indonesia	50 000	164 000	179 000	216 000	219 000	Japan	No 21
No 20	Mexico	27 000	125 000	172 000	177 000	170 000	Italy	No 23
	Global	3 144 000	11 894 000	15 213 000	20 192 000	25 224 000		


Change due to population ageing
Change due to changes in prevalence rate
Change due to population growth
Total percentage change
Change in No of PD cases (%)
250
200
100
0
-25
Global
Male
Female
High SDI
High-middle SDI
Middle SDI
Low-middle SDI
Low SDI
US
Germany
France
UK
Spain
China
Brazil
India
Mexico
Indonesia

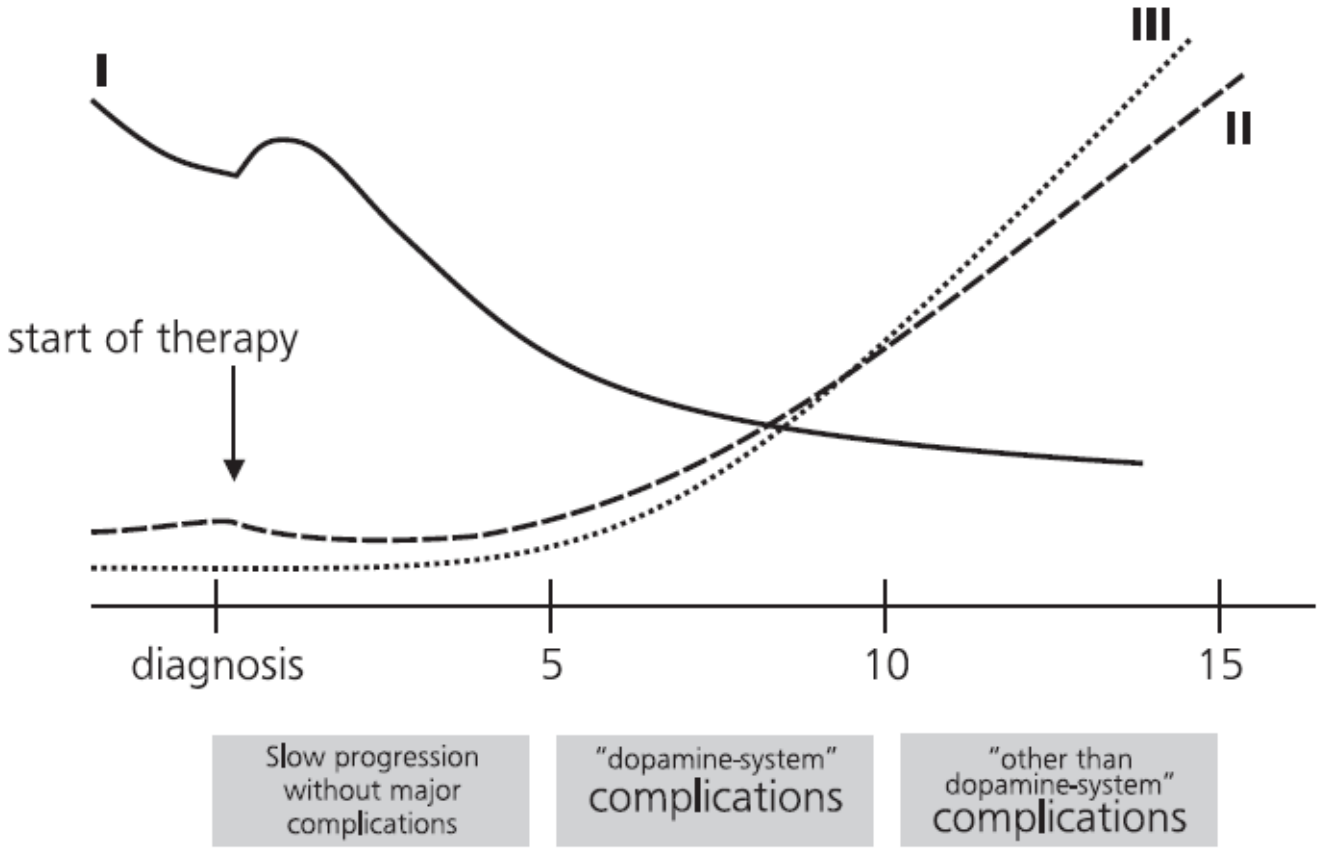


Bloem. Lancet, 2021

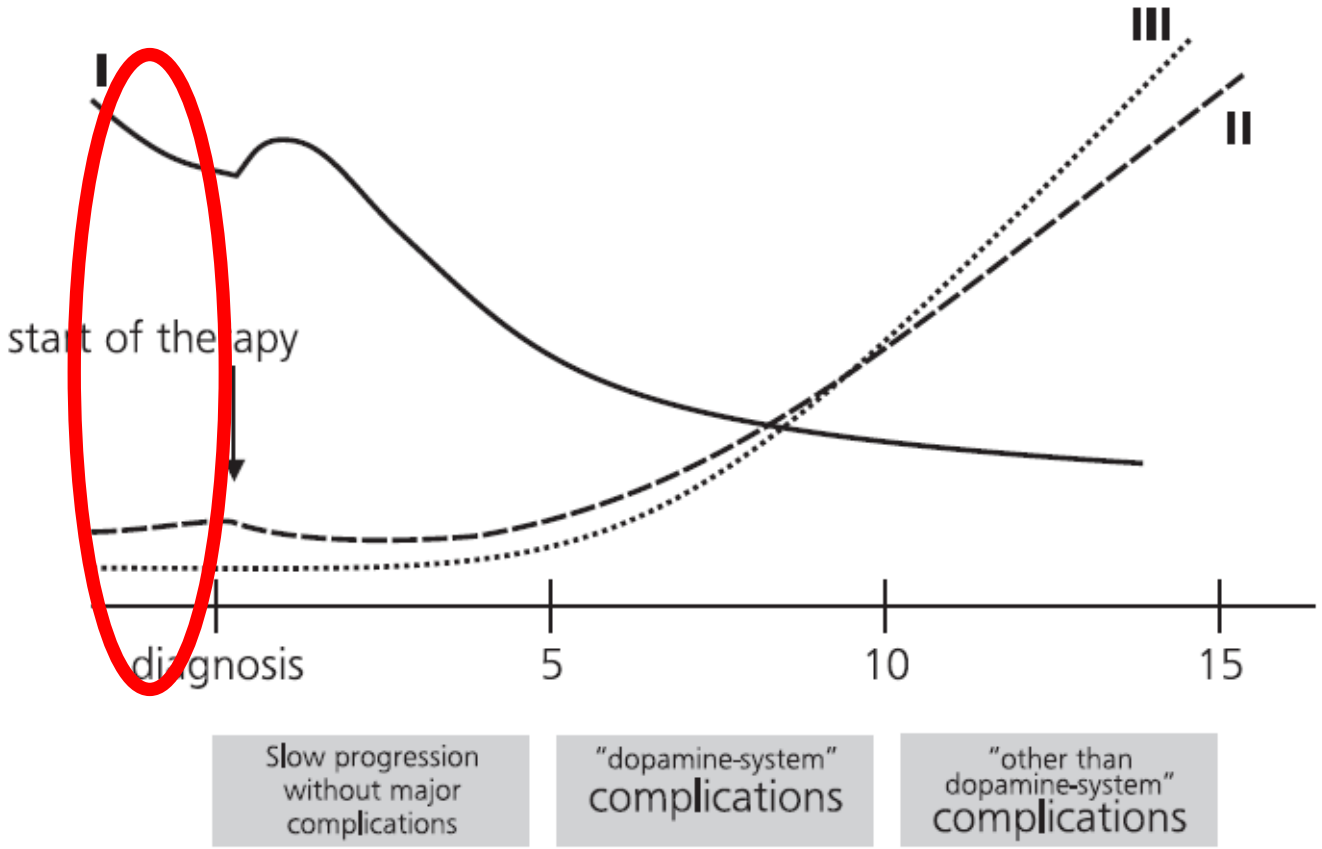


Jankovic. JNNP, 2020

Basis model ZvP



Basis model ZvP



Belangrijke vragen voor deze fase

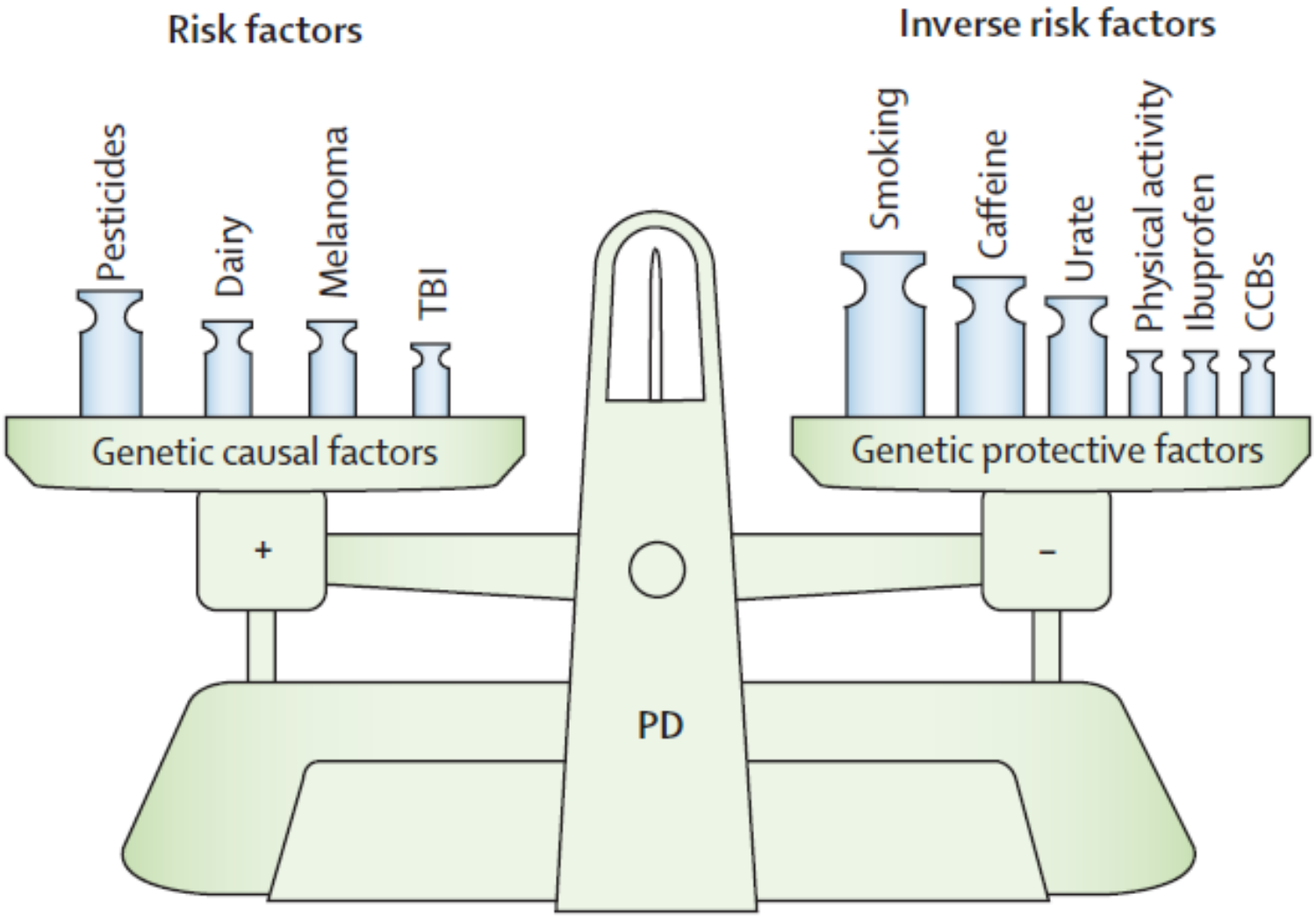
- Wat is de oorzaak van de ZvP?

- Hoe kunnen we de ZvP remmen?

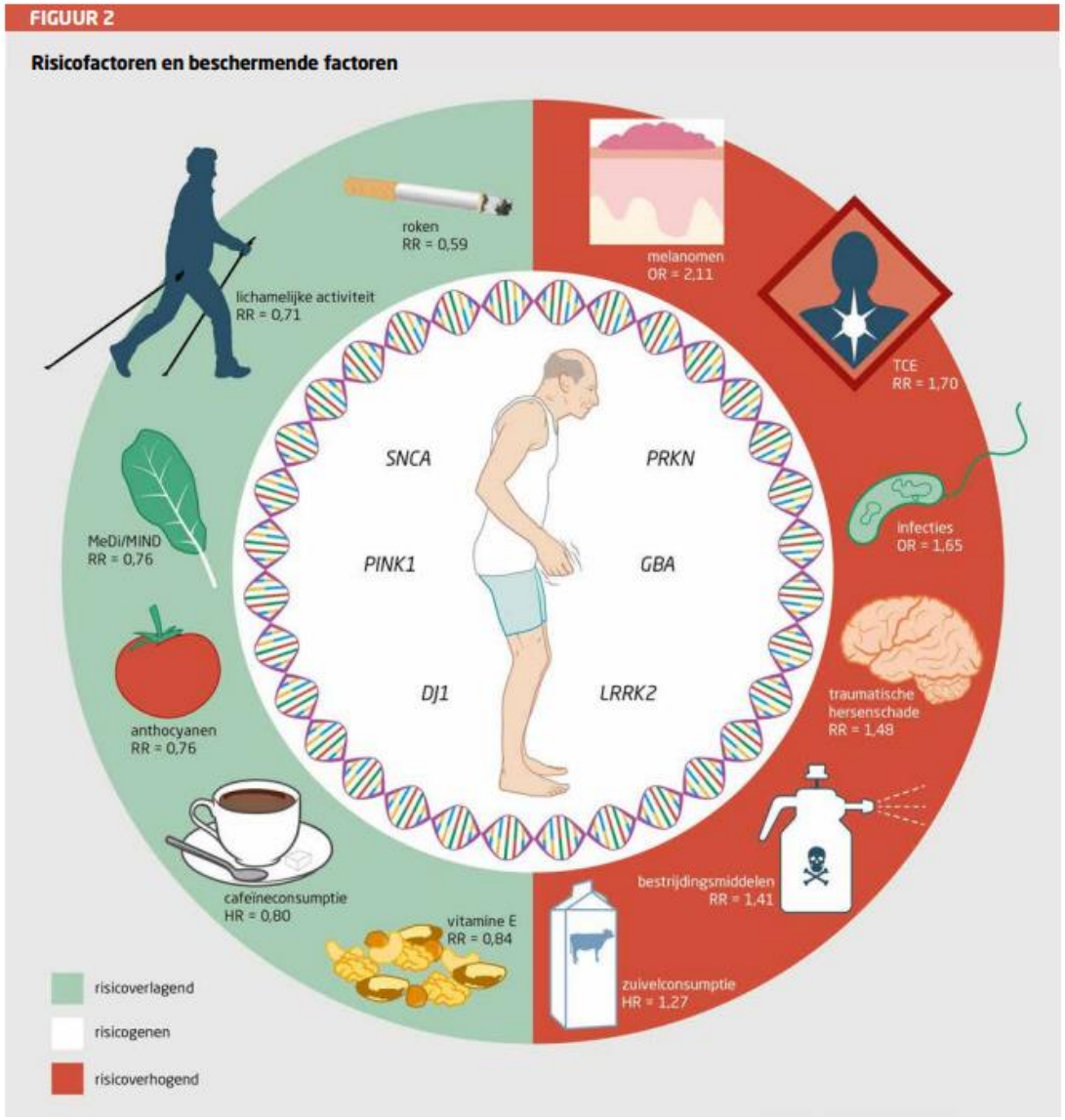
Belangrijke vragen voor deze fase

- Wat is de oorzaak van de ZvP?

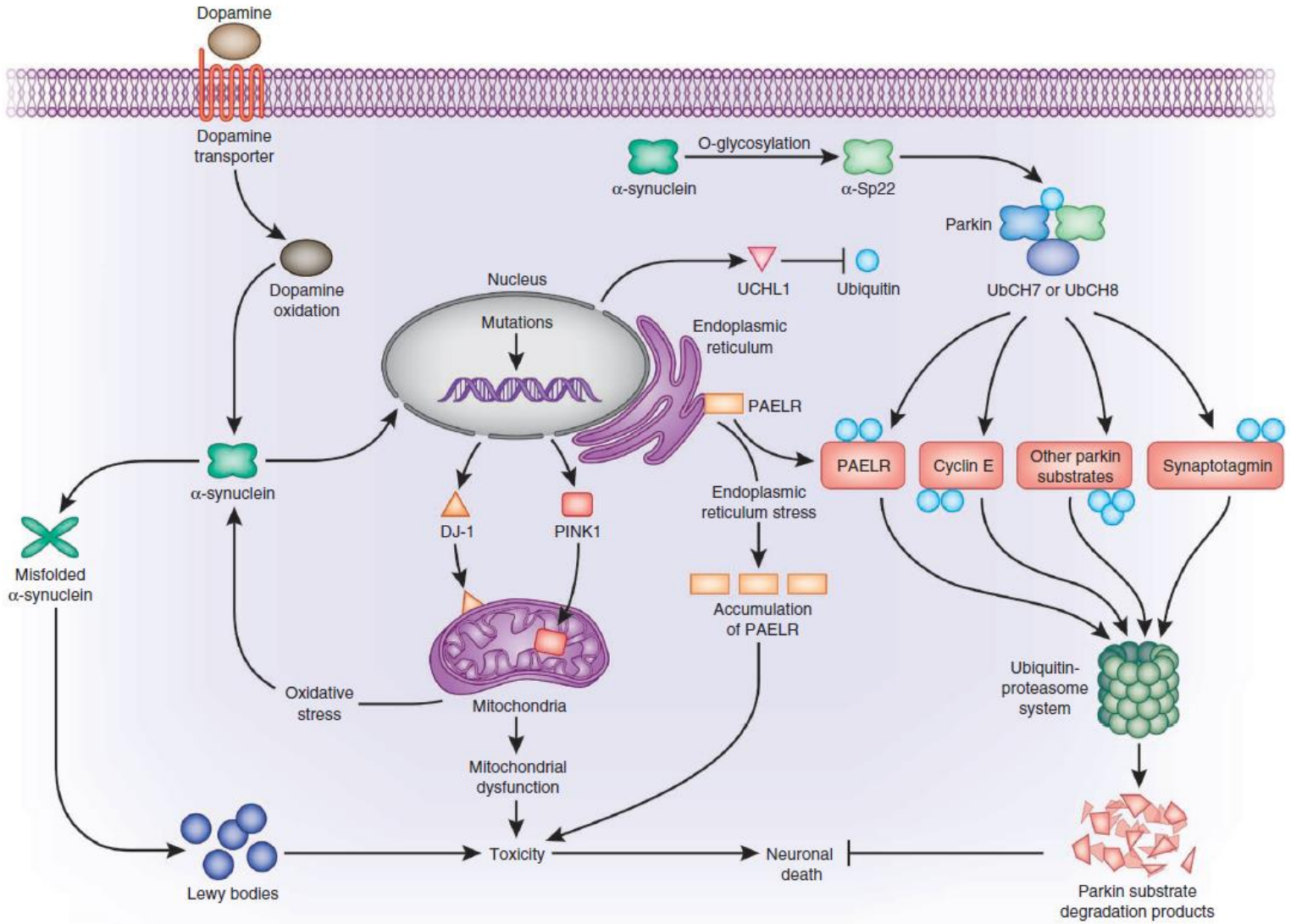
- Hoe kunnen we de ziekte remmen?



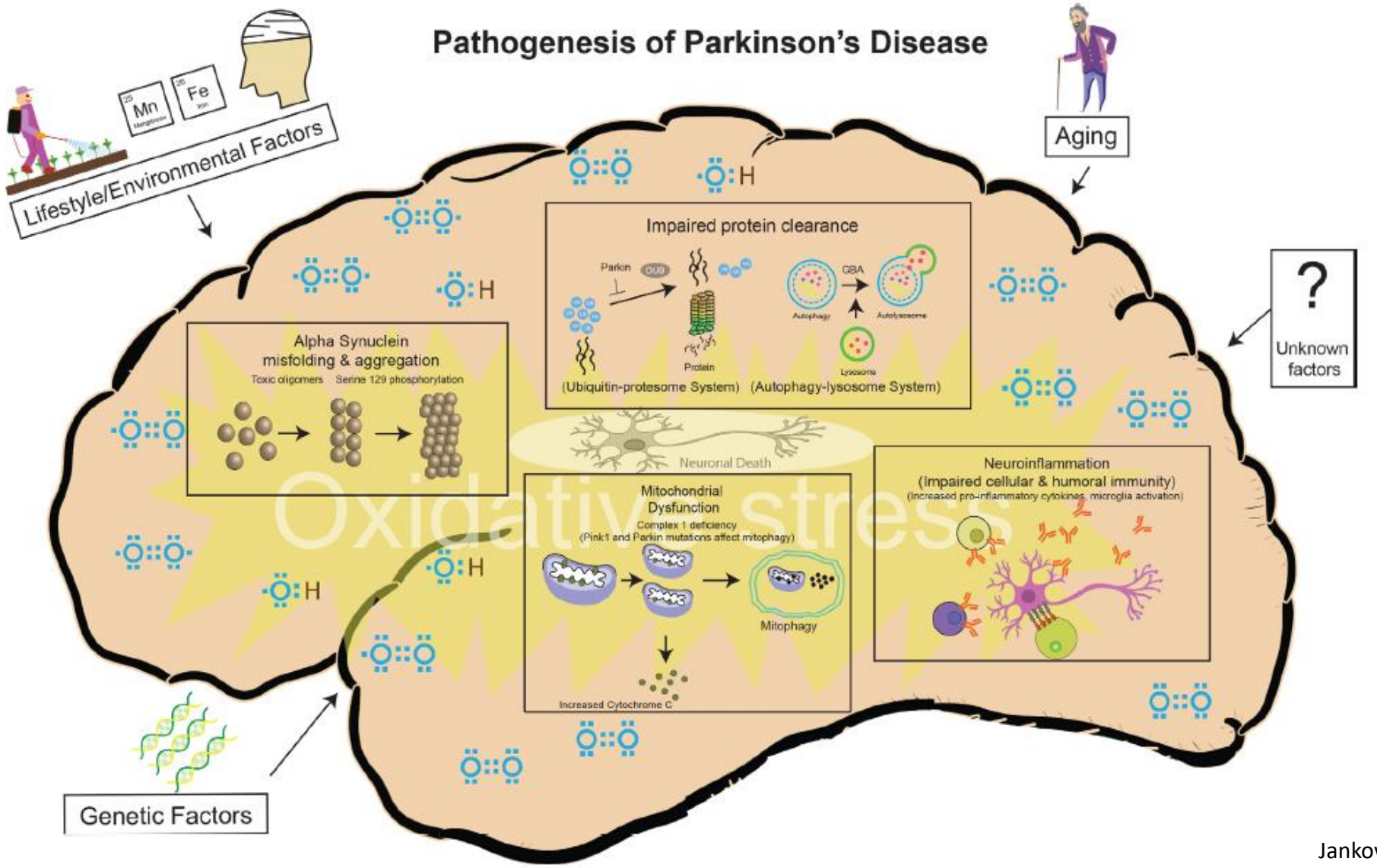
Ascherio, Lancet Neurology, 2016



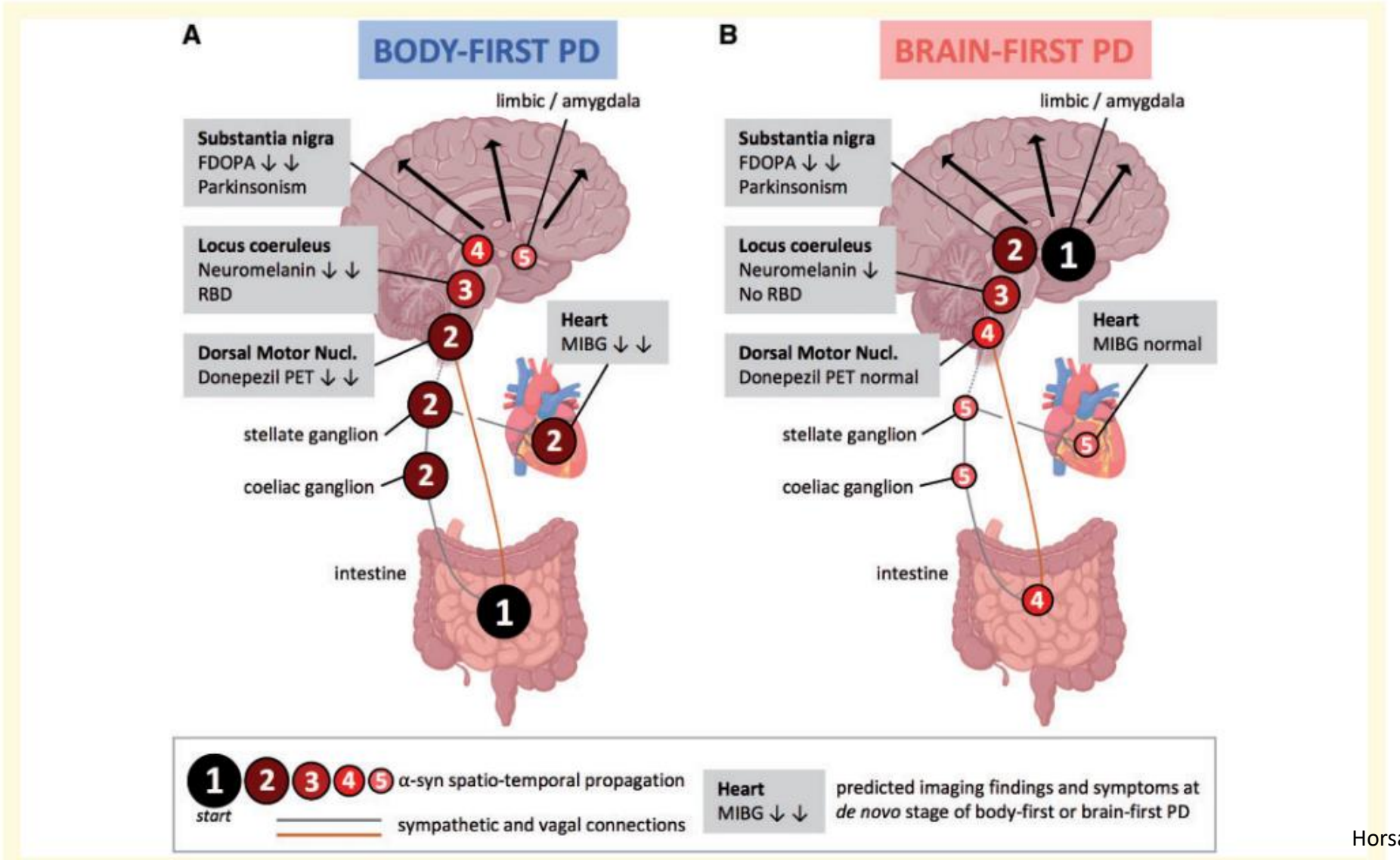
Gaag, NTVG, 2023



Obeso, Nature Medicine, 2010



Jankovic. JNNP, 2020

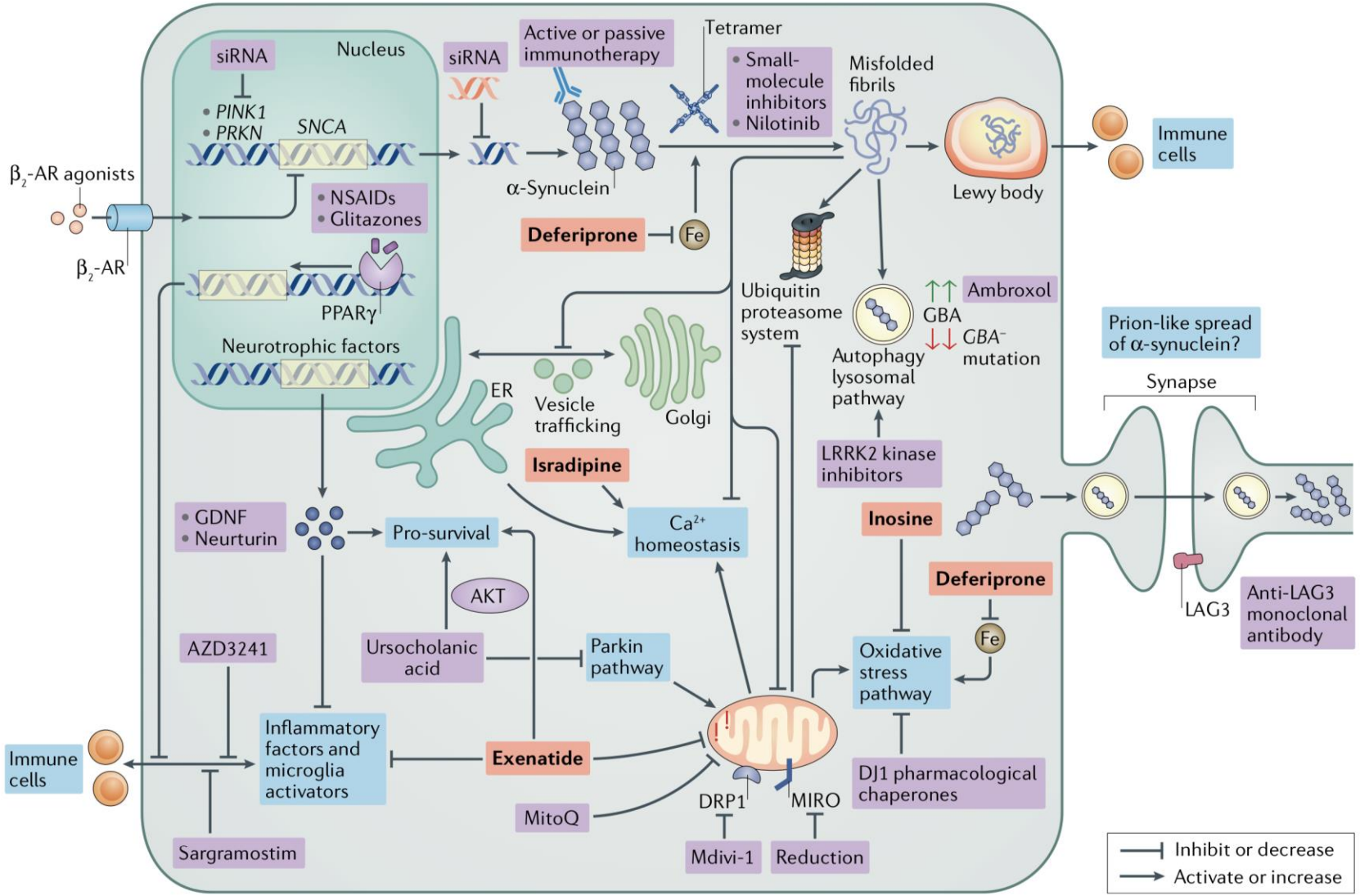


Horsager. Brain, 2020

Belangrijke vragen voor deze fase

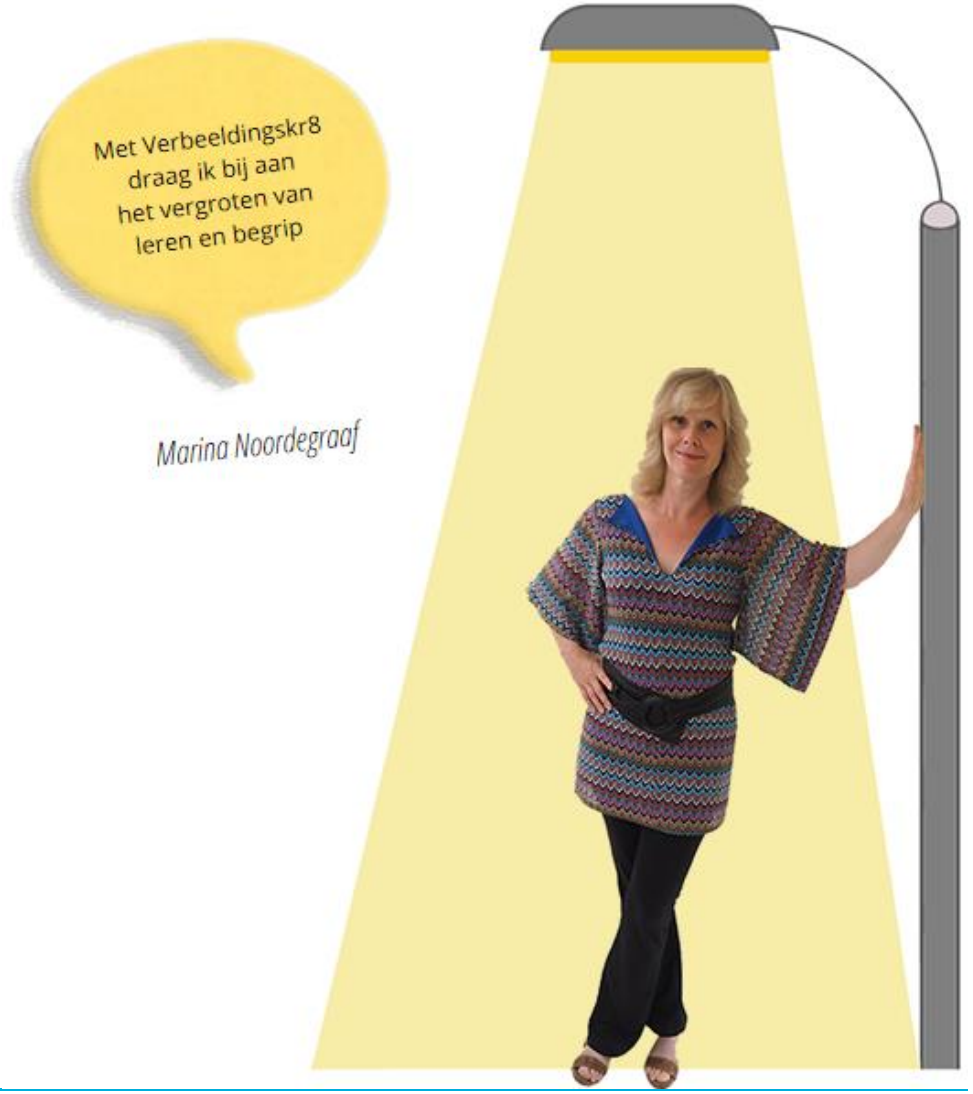
- Wat is de oorzaak van de ZvP?

- Hoe kunnen we de ZvP remmen?



Elkouzi, NRN, 2019

Verbeeldingskr8



Radboudumc

KEVIN MCFARTHING

Diagnose: 2012

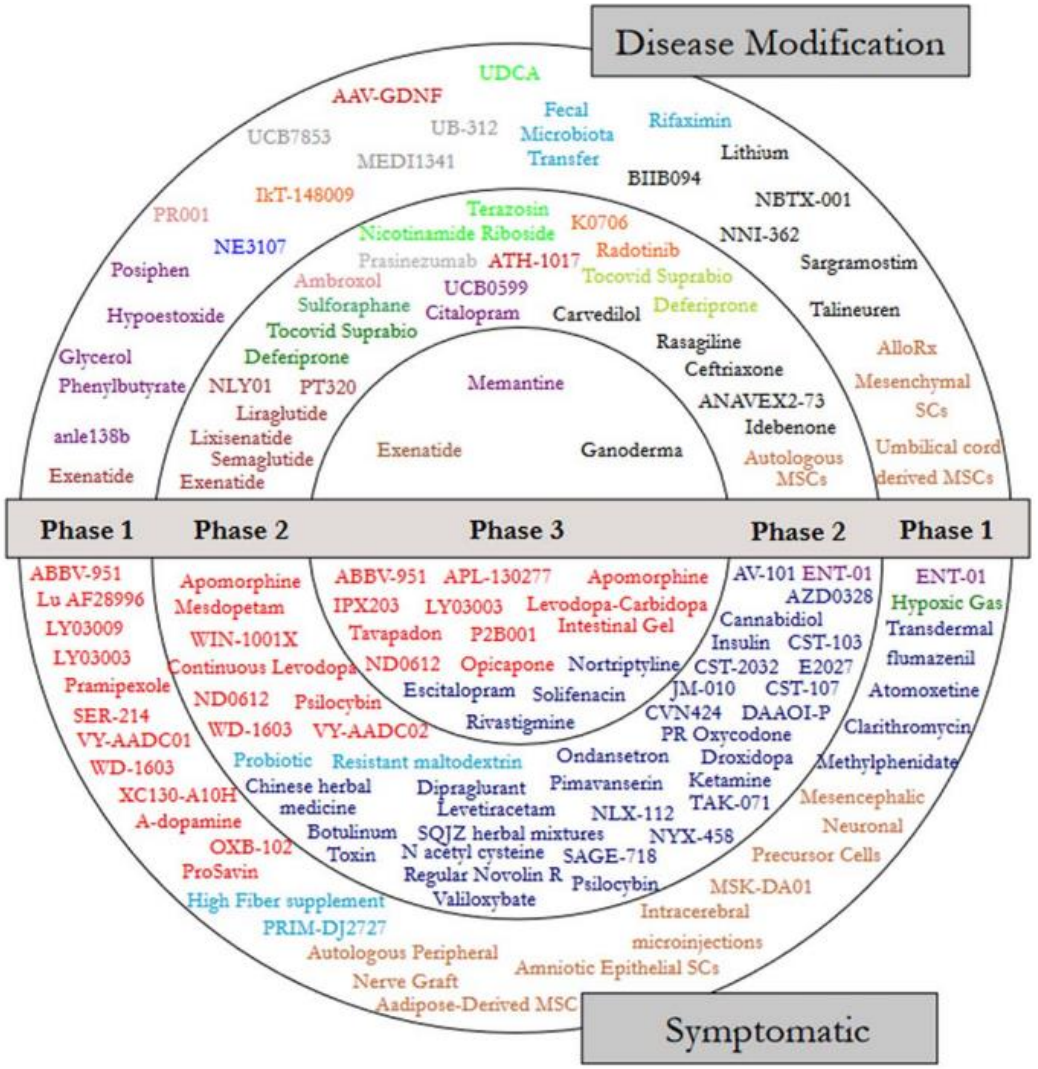
Nationaliteit: British

Hoehn en Yahr-schaal: 2

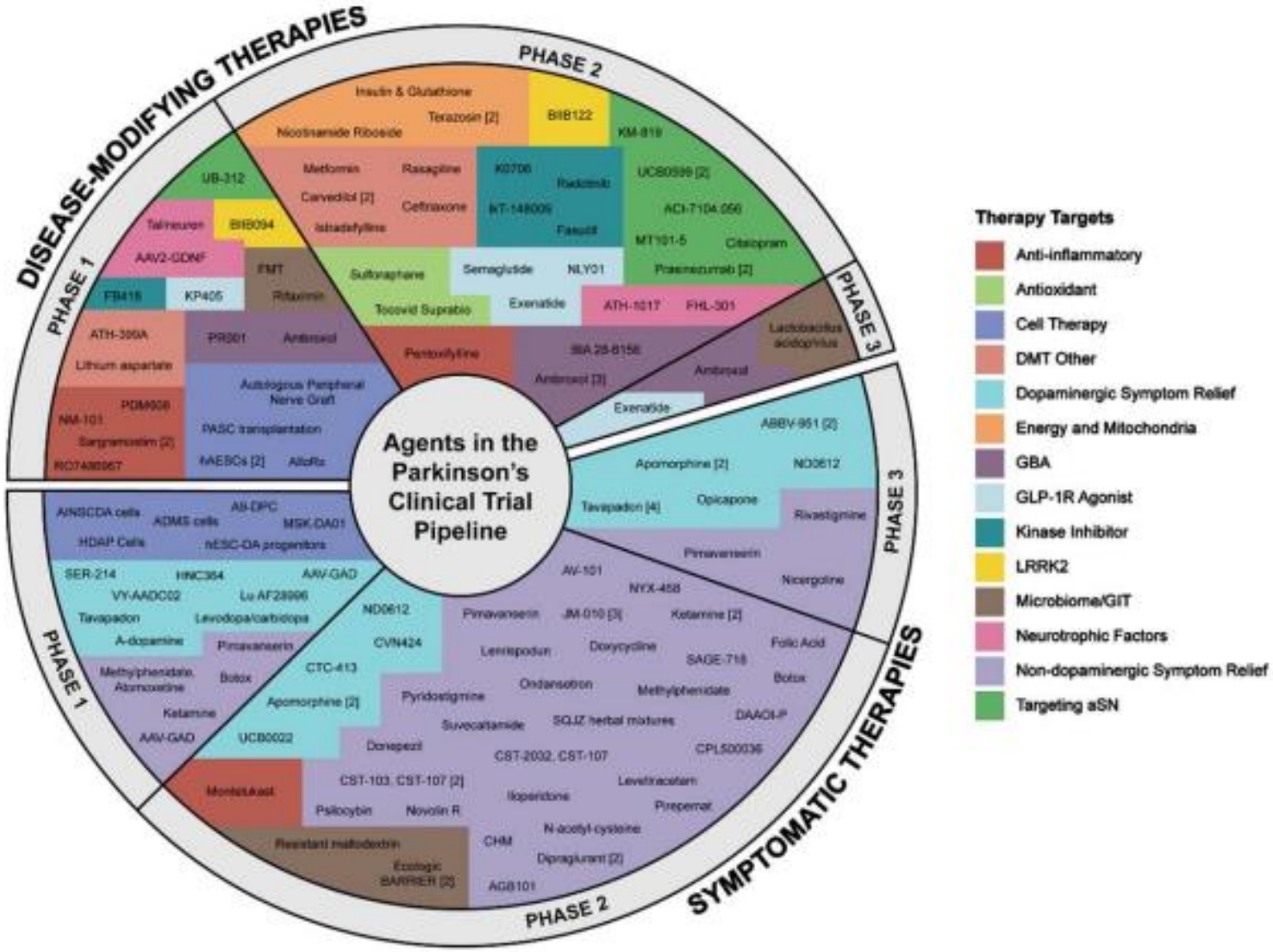
Korte levensloop: Dr. Kevin McFarthing was oorspronkelijk een biochemicus en bracht het grootste deel van zijn carrière door met het leiden van R & D-groepen in de levenswetenschappen (Amersham), diagnostiek (Serono) en consumentengezondheid (Reckitt Benckiser). Hij runt nu het adviesbureau Innovation Fixer. Bij hem werd in 2012 op 55-jarige leeftijd de diagnose 'Ziekte van Parkinson' gesteld.

Activisme: Kevin onderhoudt de zogeheten 'Parkinson's Hope List', is auteur/editor van de ''Clinical trial highlights' in het Journal of Parkinson's Disease, presenteert geregeld over zijn inzichten en heeft recent een artikel geschreven met een aantal mede-auteurs: 'Parkinson's disease drug therapies in the clinical trial pipeline: 2020' (McFarthing et al, 2020).

Meeste last van: Traagheid, minder uitdrukking in het gezicht, gedwongen rechts schrijven terwijl je links bent en vroege tekenen van problemen met de stem.



McFarthing, JPD, 2022

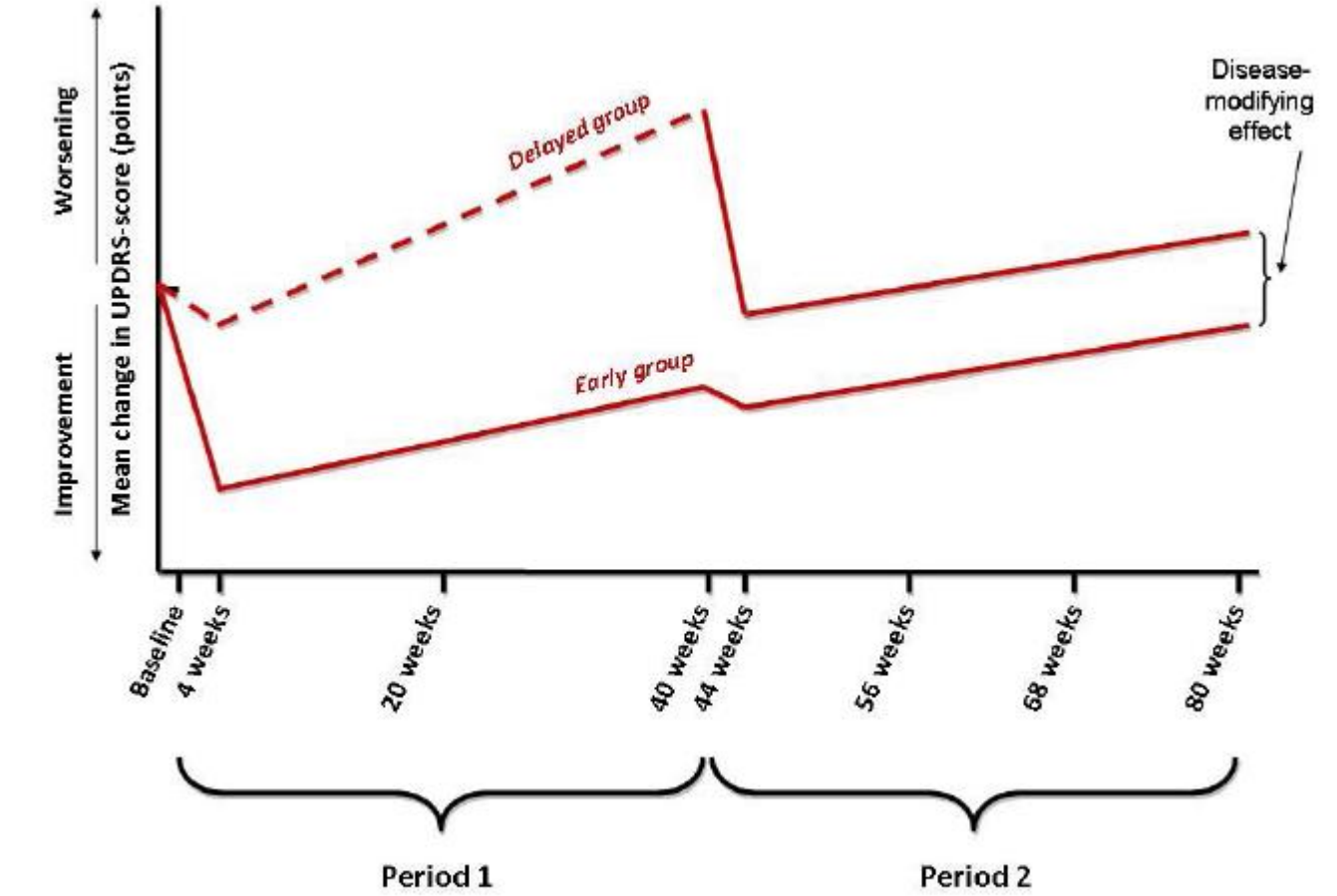


McFarthing, JPD, 2024

ZonMw

Internationaal Parkinson Fonds

Appendix — Figure 2. Current study design

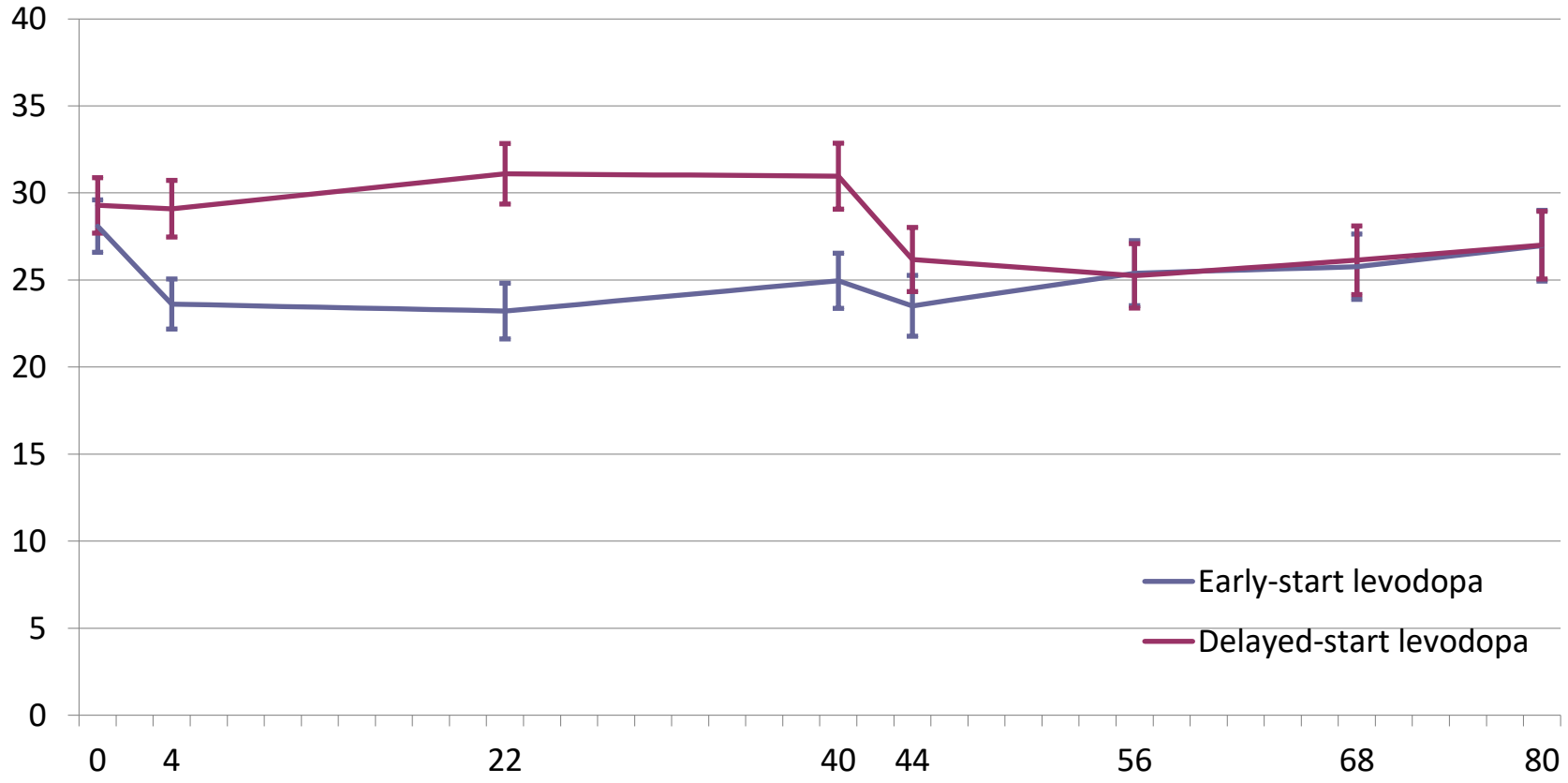


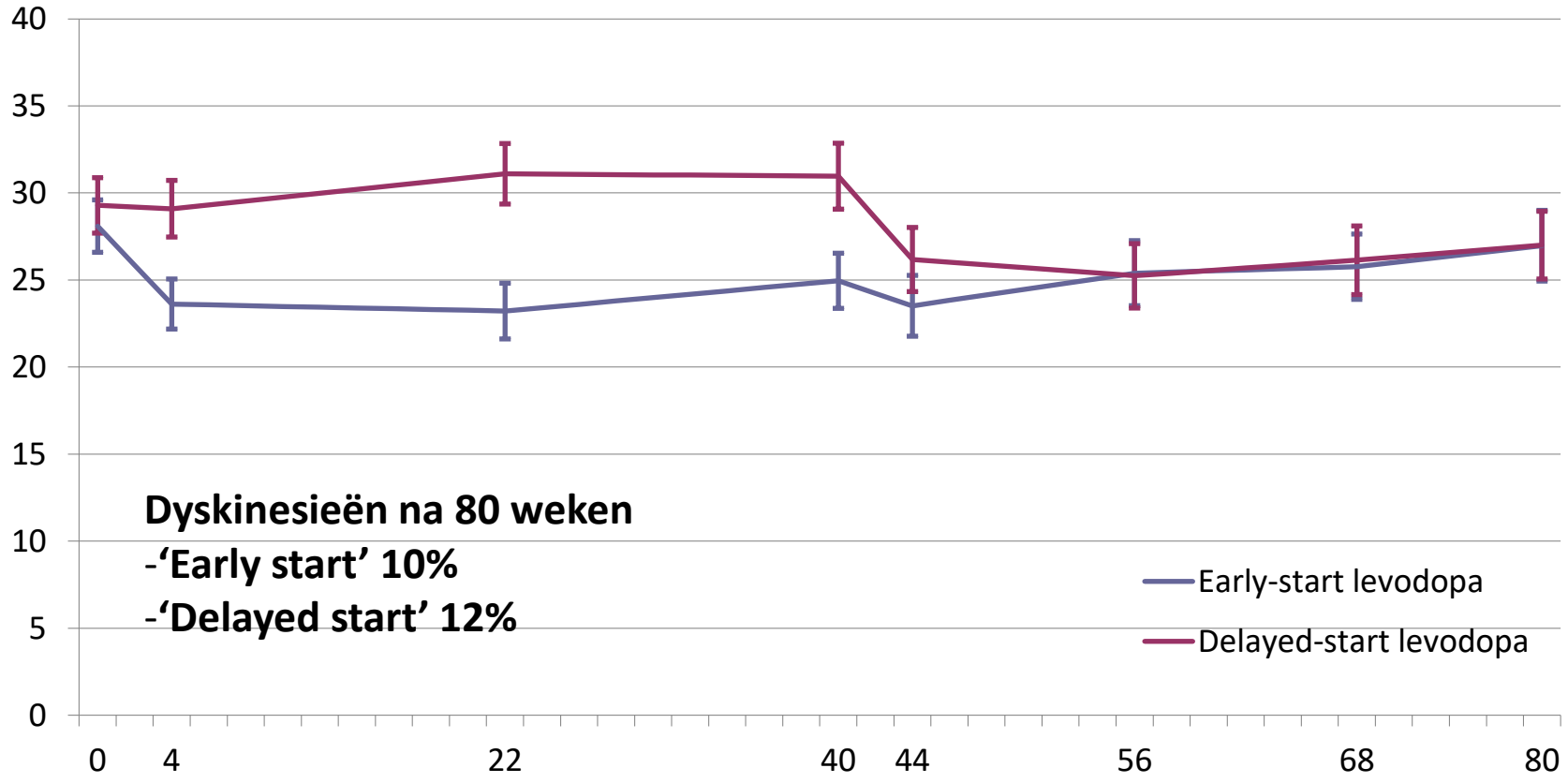
The NEW ENGLAND JOURNAL of MEDICINE

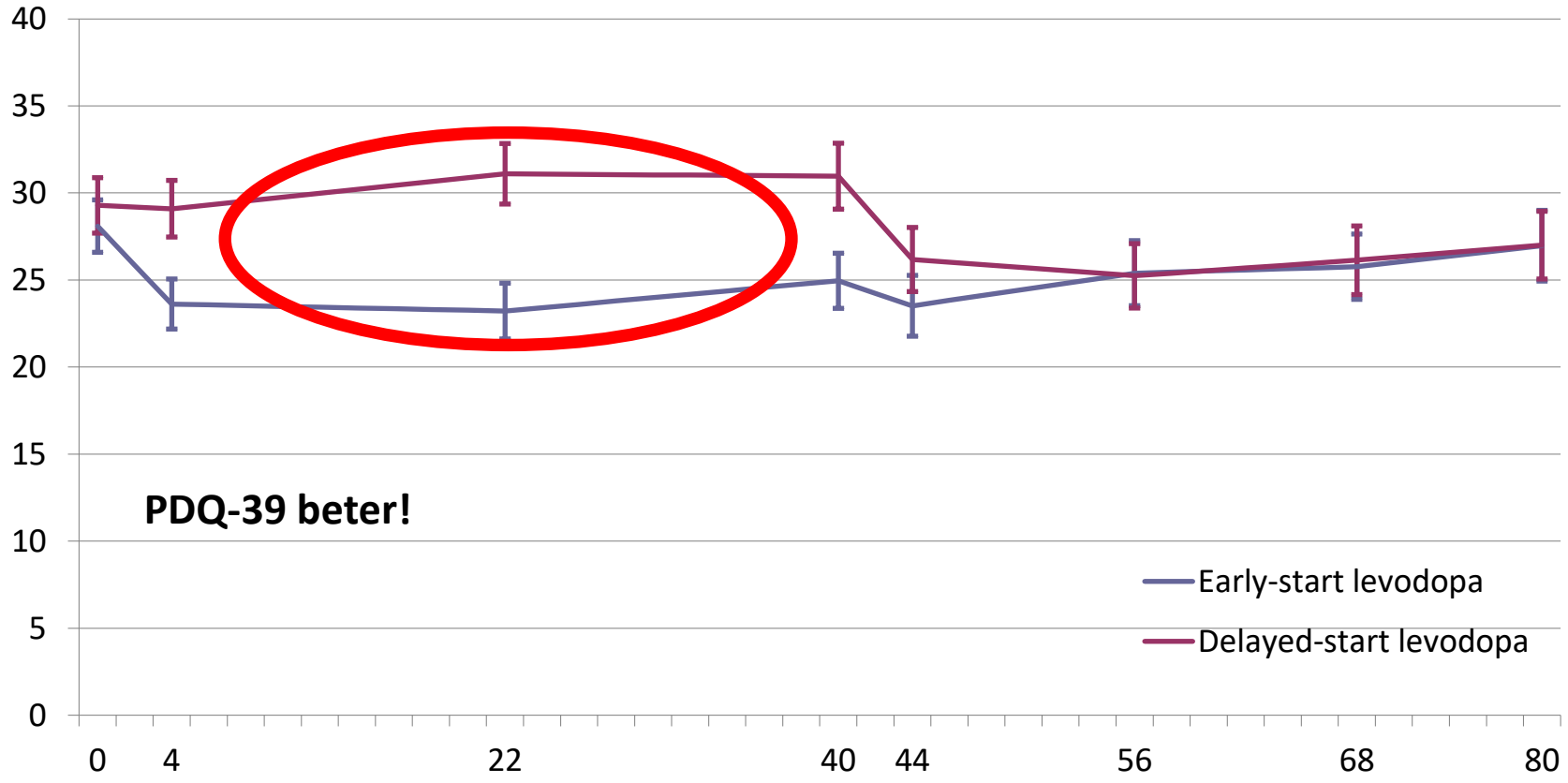
ESTABLISHED IN 1812 JANUARY 24, 2019 VOL. 380 NO. 4

Randomized Delayed-Start Trial of Levodopa in Parkinson's Disease

C.V.M. Verschuur, S.R. Suwijn, J.A. Boel, B. Post, B.R. Bloem, J.J. van Hilten, T. van Laar, G. Tissingh, A.G. Munts, G. Deuschl, A.E. Lang, M.G.W. Dijkgraaf, R.J. de Haan, and R.M.A. de Bie, for the LEAP Study Group*


40
35
30
25
20
15
10
5
0
0
4
22
40
44
56
68
80
Early-start levodopa
Delayed-start levodopa


40
35
30
25
20
15
10
5
0
0
4
22
40
44
56
68
80
Dyskinesieën na 80 weken
-'Early start' 10%
-'Delayed start' 12%
Early-start levodopa
Delayed-start levodopa


40
35
30
25
20
15
10
5
0
0
4
22
40
44
56
68
80
PDQ-39 beter!
Early-start levodopa
Delayed-start levodopa

Vaccinatie en de ZvP

Journal of Neurochemistry

JNC

JOURNAL OF NEUROCHEMISTRY | 2017

doi: 10.1111/jnc.14207

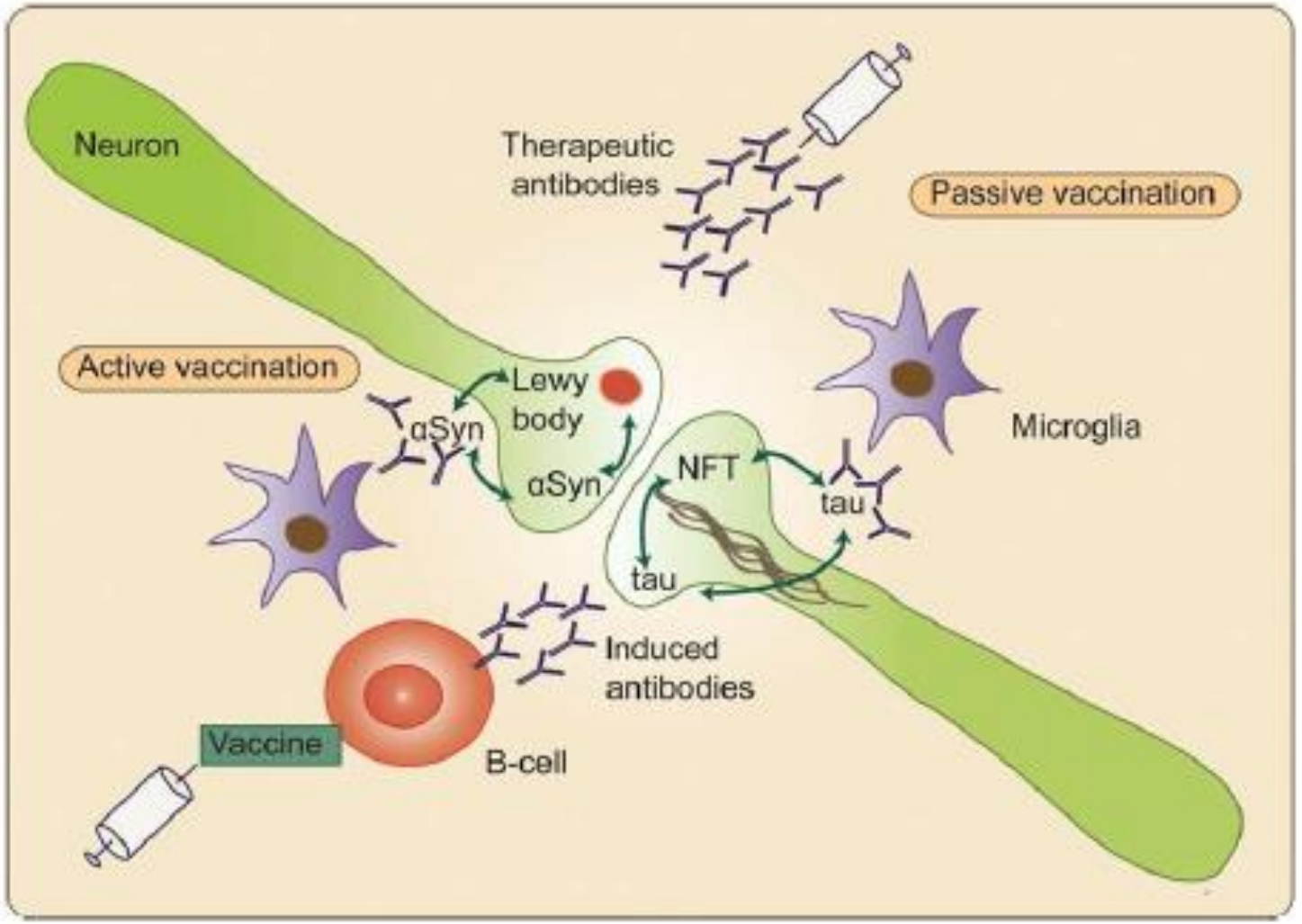
REVIEW

Vaccination strategies in tauopathies and synucleinopathies

Anne K. Braczynski,* Jörg B. Schulz*,† and Jan-Philipp Bach*

*Department of Neurology, RWTH Aachen University Hospital, Aachen, Germany

†Jülich Aachen Research Alliance (JARA) – JARA-Institute Molecular Neuroscience and Neuroimaging, FZ Jülich and RWTH University, Aachen, Germany



Braczynski, Neurochemistry, 2017

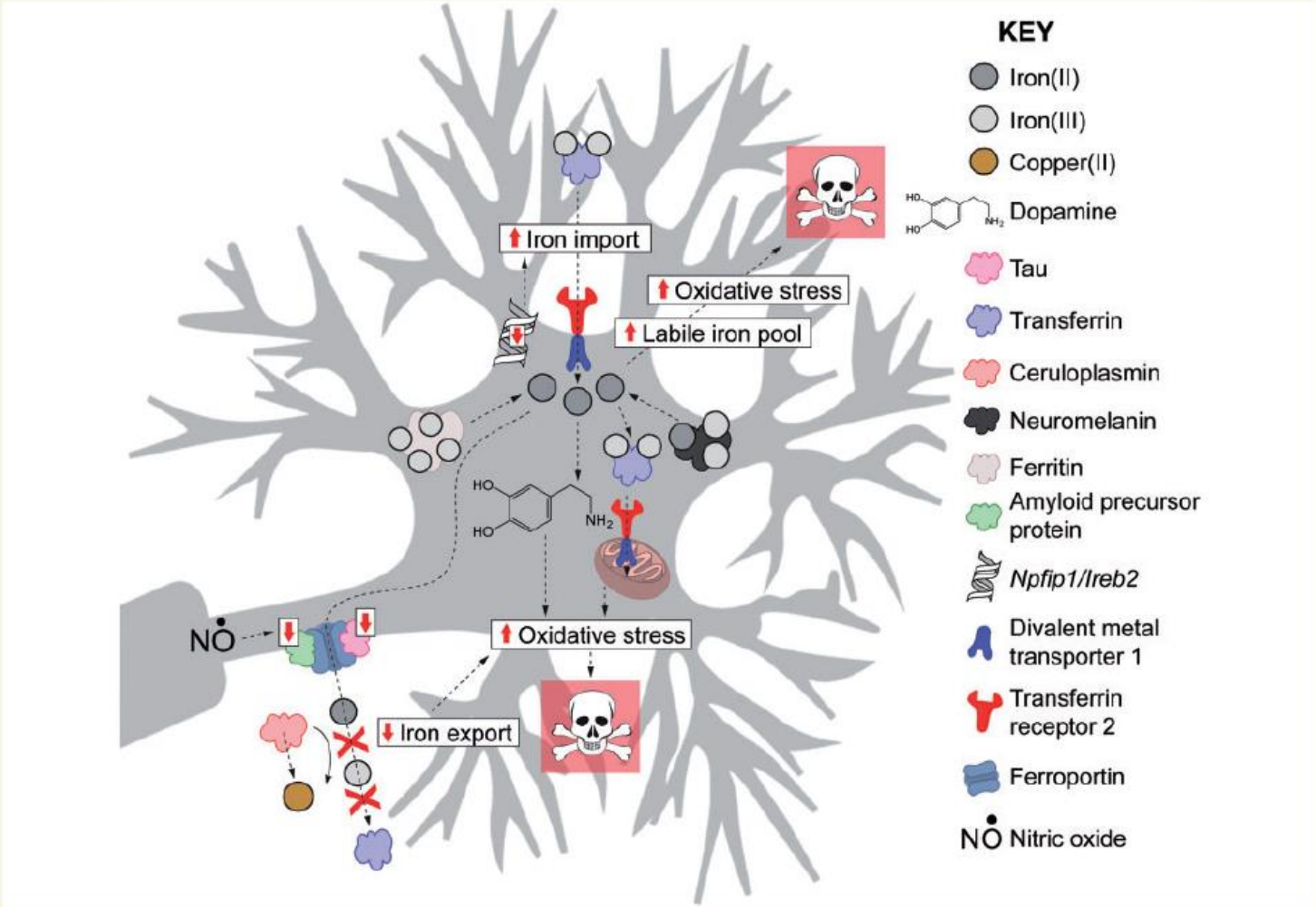
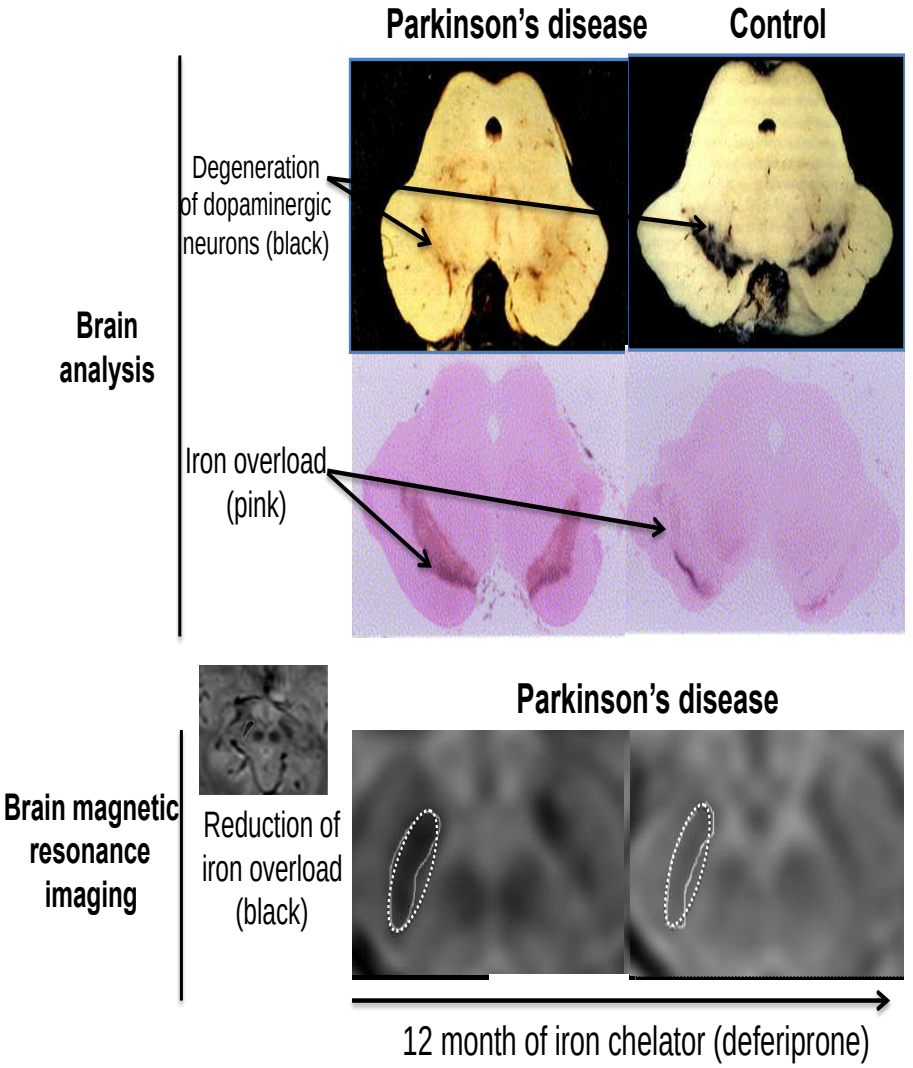


Figure 1 Breakdown of iron metabolism in Parkinson's disease. Proposed mechanisms of iron accumulation in dopaminergic neurons and sources of oxidative stress.

Hare, 2016

David Devos

Confirmation:
European trial in progress
http://www.fairpark2.eu



Grant agreement 633190

Radboudumc

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Trial of Deferiprone in Parkinson's Disease

D. Devos, J. Labreuche, O. Rascol, J.-C. Corvol, A. Duhamel, P. Guyon Delannoy, W. Poewe, Y. Compta, N. Pavese, E. Růžička, P. Dušek, B. Post, B.R. Bloem, D. Berg, W. Maetzler, M. Otto, M.-O. Habert, S. Lehericy, J. Ferreira, R. Dodel, C. Tranchant, A. Eusebio, S. Thobois, A.-R. Marques, W.G. Meissner, F. Ory-Magne, U. Walter, R.M.A. de Bie, M. Gago, D. Vilas, J. Kulisevsky, C. Januario, M.V.S. Coelho, S. Behnke, P. Worth, K. Seppi, T. Ouk, C. Potey, C. Leclercq, R. Viard, G. Kuchcinski, R. Lopes, J.-P. Pruvo, P. Pigny, G. Garçon, O. Simonin, J. Carpentier, A.-S. Rolland, D. Nyholm, C. Scherfler, J.-F. Mangin, M. Chupin, R. Bordet, D.T. Dexter, C. Fradette, M. Spino, F. Tricta, S. Ayton, A.I. Bush, J.-C. Devedjian, J.A. Duce, I. Cabantchik, L. Defebvre, D. Deplanque, and C. Moreau, for the FAIRPARK-II Study Group*

Table 2. Primary, Secondary, and Exploratory Clinical Outcomes (Intention-to-Treat Population).*

Outcome	Deferiprone (N=186)	Placebo (N=186)	Mean Adjusted Difference (95% CI)†
Primary outcome			
MDS-UPDRS total score			
Value at wk 36	50.7±23.4	39.6±17.7	
Change from baseline (95% CI)	15.6 (13.5 to 17.6)†	6.3 (4.2 to 8.4)†	9.3 (6.3 to 12.2)‡
Secondary outcomes§			
Score on MDS-UPDRS part III			
Value at wk 36	31.8±14.0	25.9±11.7	
Change from baseline (95% CI)	9.8 (8.2 to 11.3)†	4.0 (2.7 to 5.3)†	5.8 (3.8 to 7.7)
Score on MDS-UPDRS part II			
Value at wk 36	10.2±7.7	7.1±5.4	
Change from baseline (95% CI)	4.2 (3.4 to 5.1)†	1.8 (1.0 to 2.6)†	2.5 (1.3 to 3.6)
Sum of scores on MDS-UPDRS parts II and III			
Value at wk 36	42.2±18.8	33.1±15.0	
Change from baseline (95% CI)	14.2 (12.2 to 16.1)†	5.9 (4.1 to 7.6)†	8.3 (5.7 to 10.8)
Exploratory clinical outcome§			
Score on MDS-UPDRS part I			
Value at wk 36	8.2±5.9	6.2±4.6	
Change from baseline (95% CI)	2.0 (1.3 to 2.7)†	0.2 (−0.4 to 0.9)†	1.8 (0.8 to 2.8)

Exenatide once a week versus placebo as a potential disease-modifying treatment for people with Parkinson's disease in the UK: a phase 3, multicentre, double-blind, parallel-group, randomised, placebo-controlled trial

Nirosen Vijiaratnam, Christine Girges, Grace Auld, Rachel McCornish, Alexa King, Simon S Skene, Steve Hibbert, Alan Wong, Sabina Melander, Rachel Gibson, Helen Matthews, John Dickson, Camille Carroll, Abigail Patrick, Jemma Inches, Monty Silverdale, Bethan Blackledge, Jessica Whiston, Michele Hu, Jessica Welch, Gordon Duncan, Katie Power, Sarah Gallen, Jacqueline Kerr, K Ray Chaudhuri, Lucia Batzu, Silvia Rota, Edwin Jabbari, Huw Morris, Patricia Limousin, Nigel Greig, Yazhou Li, Vincenzo Libri, Sonia Gandhi, Dilan Athauda, Kashfia Chowdhury, Tom Foltynie

www.thelancet.com Vol 405 February 22, 2025

	Exenatide group (n=97)	Placebo group (n=97)	Total (n=194)
Age, years	61·02 (9·05)	60·35 (9·26)	60·68 (9·14)
Age at diagnosis, years	56·37 (9·60)	56·30 (9·53)	56·33 (9·54)
Weight, kg	79·57 (14·73)	78·39 (13·55)	78·98 (14·13)
Sex			
Female	28 (29%)	28 (29%)	56 (29%)
Male	69 (71%)	69 (71%)	138 (71%)
Ethnicity			
White	92 (95%)	88 (91%)	180 (93%)
Mixed	1 (1%)	1 (1%)	2 (1%)
Black or Black British	1 (1%)	0	1 (1%)
Asian or Asian British	3 (3%)	5 (5%)	8 (4%)
Other or prefer not to say	0	3 (3%)	3 (2%)
Hoehn and Yahr stage at randomisation			
≤2·0	83 (86%)	82 (85%)	165 (85%)
2·5	14 (14%)	15 (15%)	29 (15%)
BMI, kg/m²	25·80 (23·50–28·60)	25·20 (23·10–28·00)	25·60 (23·40–28·10)
Levodopa equivalent daily dose	475 (340–615)	475 (300–700)	475 (300–90)

Data are mean (SD), n (%), or median (IQR). All 194 randomly assigned participants were on Parkinson's disease medication at baseline.

Table 1: **Baseline characteristics**

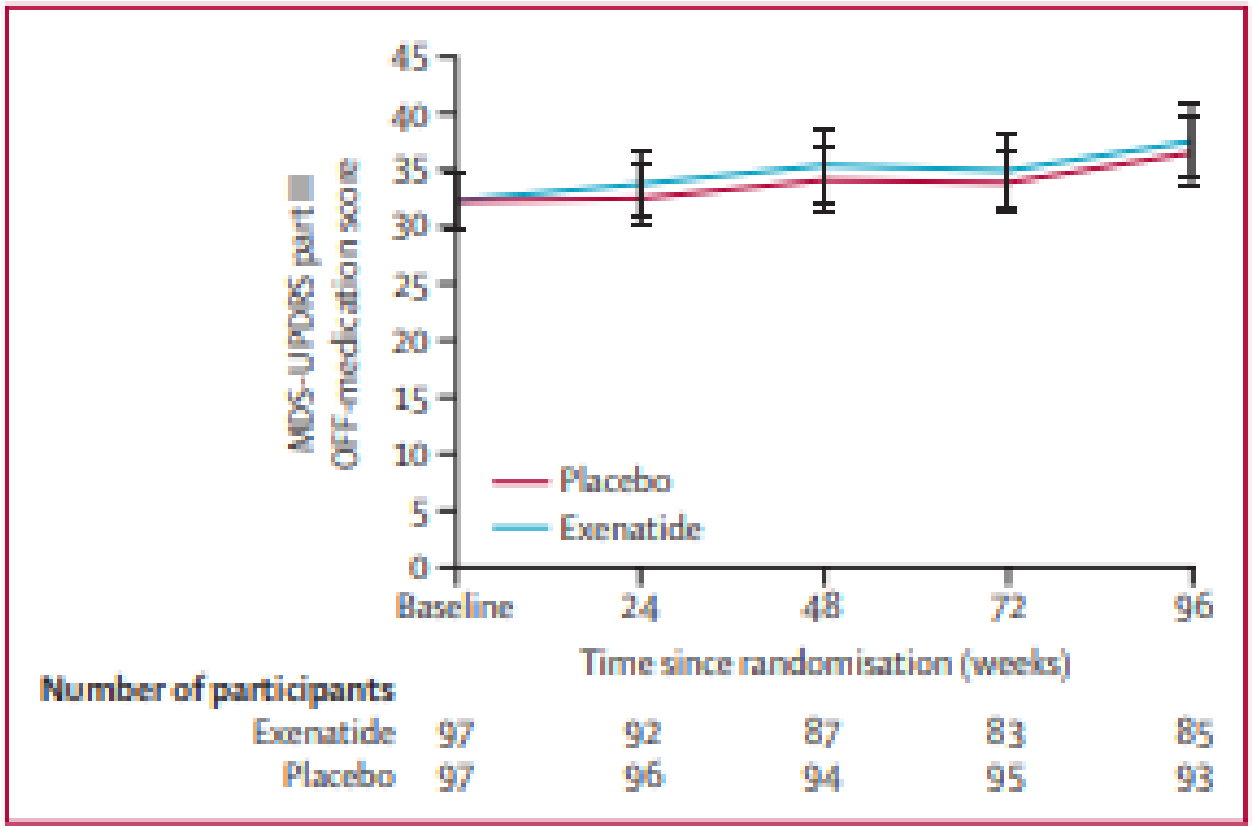
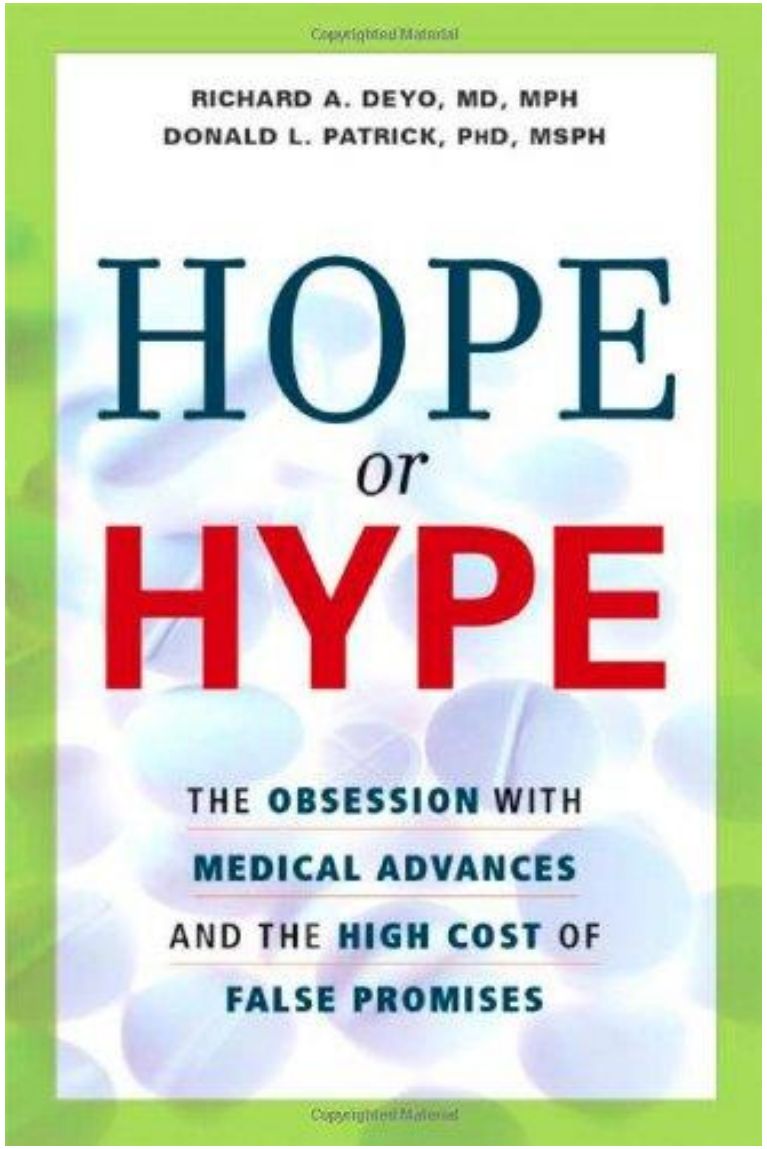


Figure 2: Mean MDS-UPDRS part III OFF-medication score by group over 96 weeks

MDS-UPDRS=Movement Disorder Society-sponsored revision of the Unified Parkinson's Disease Rating Scale.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DONALD L. PATRICK, PHD, MSPH
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THE OBSESSION WITH
MEDICAL ADVANCES
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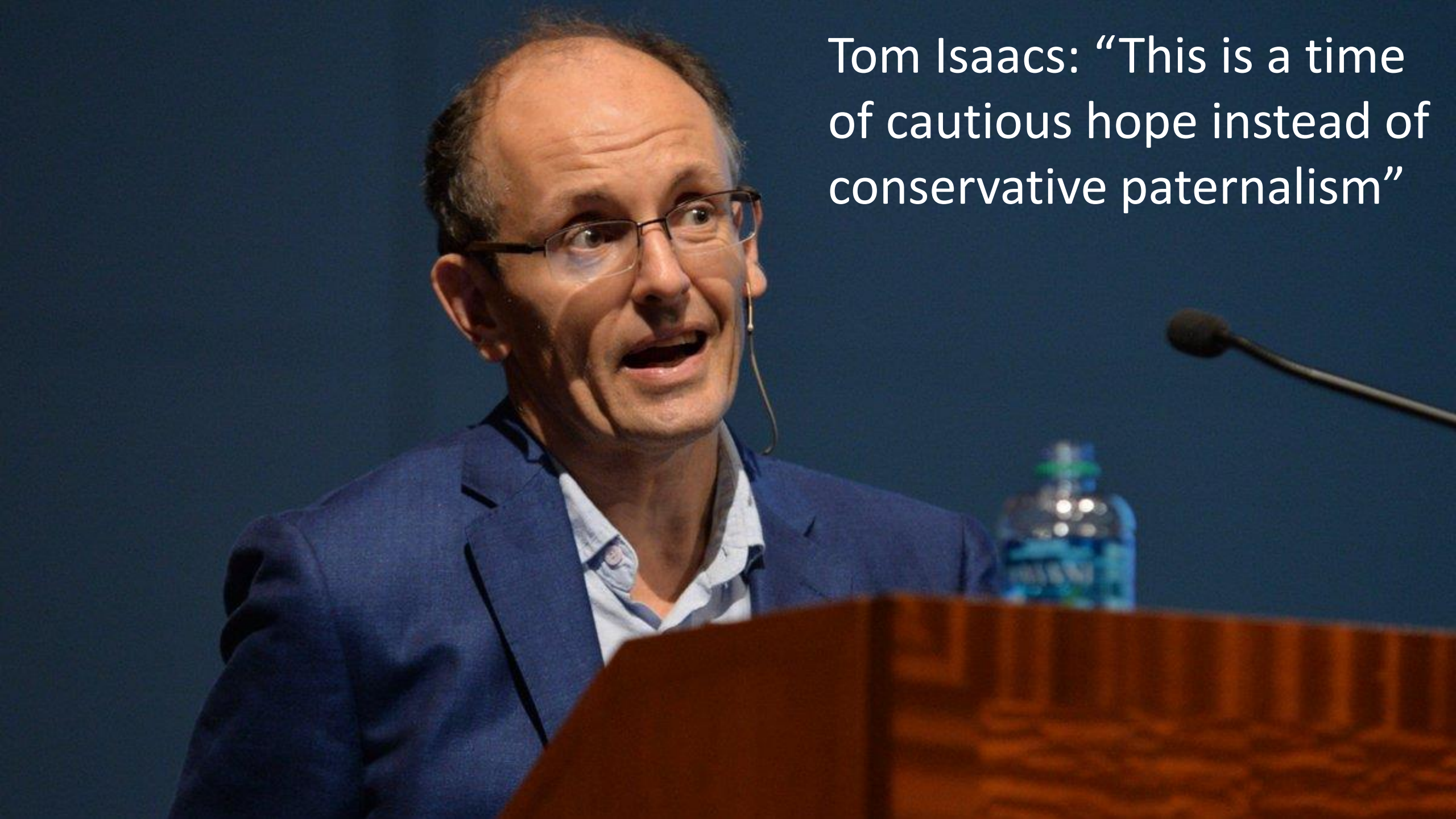
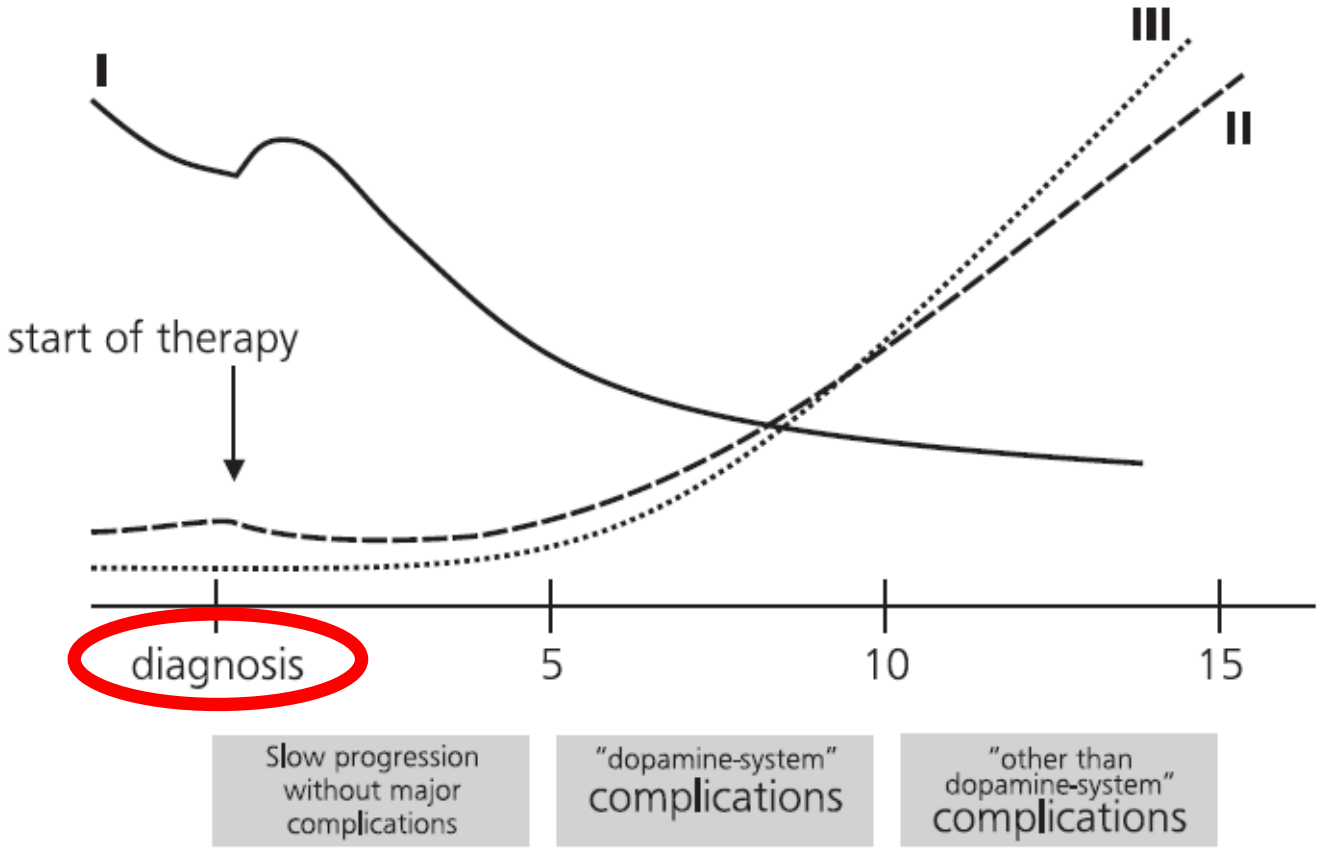
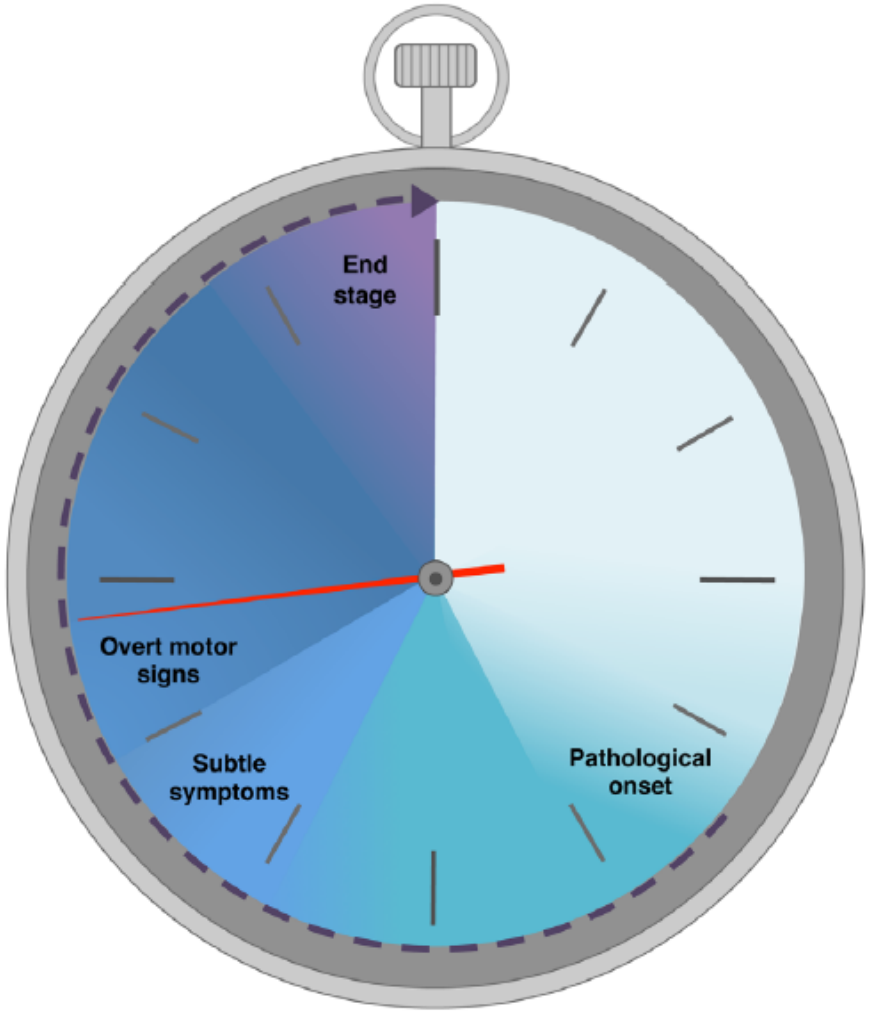

Tom Isaacs: “This is a time of cautious hope instead of conservative paternalism”


RESET

Basis model ZvP





When is it **timely** to know?

In the **early** and **asymptomatic** periods, some people will want to know their risk, whether or not there are neuroprotective strategies. For them, **timely** constitutes the earlier the better.

Others will only want to know if something can be done to alter their **risk** or **asymptomatic** disease. For them, **timely** depends on the availability of neuroprotective strategies.

Many will only want to know when they are **symptomatic** (either early prodromal features or overt motor signs) and treatment will offer relief. For them, **timeliness** relates to symptom relief in the absence of neuroprotective/disease-modifying strategies.

Finally there are a minority of people who would rather **never** know that they are at risk or even when they have the disease. For them, there is no point at which the disclosure is **timely**.

Rees, F1000 research, 2018

Wanneer ‘EOPD’

- Early onset parkinsonisme
  - <21 jr **juveniel parkinsonisme**
  - 21-40 / 50 jr **young-onset ziekte van Parkinson** (YOPD)

- Voorkomen op basis van leeftijd
  - Schrag 2006 3-5% onder 40 in USA
    10% onder 40 in Japan
  - Wickremaratchi 5,4% onder de 50 in Cardiff
    31,2% onder de 65

Fenotype YOPD

TABLE 1. Clinical and treatment characteristics of the study cohort by onset group

Onset group	*All* N = 358	*<45 yr* N = 70	*45–54 yr* N = 103	*55–164 yr* N = 88	*≥ 65 yr* N = 97	*P*-value*
Men:Women	1:0.6	1:0.7	1:0.6	1:0.6	1:0.6	0.945
Mean age at onset (range)	56 (8–85)	38 (8–44.9)	51 (45–54.9)	59 (55–64.9)	72 (65–85)	<0.0001
Mean current age (range)	65 (28–88)	51 (28–64)	61 (47–79)	67 (58–82)	77 (67–88)	<0.0001
Mean disease duration (range)	9 (1–39)	13 (1–39)	10 (1–28)	8 (1–24)	6 (1–27)	<0.0001
Mean motor UPDRS score (95% CI)	27 (26–28)	23 (21–26)	27 (24–29)	27 (24–30)	31 (29–33)	0.0013
L-DOPA treatment duration, yrs (range)	4.9 (0.2–26)	7.2 (0.20–20)	5.3 (0.02–26)	4.8 (0.02–22)	3.5 (0.03–12)	0.0024
L-DOPA treatment dose, mg (range)	428 (40–1450)	470 (50–1100)	473 (100–1450)	420 (100–1450)	363 (50–900)	0.0153

*Chi-squared test for heterogeneity.

Wickremaratchi, jnnp, 2011

Fenotype YOPD

TABLE 2. Presentations at onset in PD patients by onset group

Onset group	All n (%)	<45 yr n (%)	45–54 yr n (%)	55–64 yr n (%)	≥ 65 yr n (%)	*P* value	*P* value for trend
Presentation							
Tremor	175 (49)	21 (31)	41 (40)	53 (61)	66 (62)	<0.001	<0.0001
Akinetic-rigid	156 (44)	46 (68)	58 (56)	26 (30)	26 (27)	<0.001	<0.0001
Gait	24 (7)	1 (1)	4 (4)	8 (9)	11 (11)	0.04	0.004

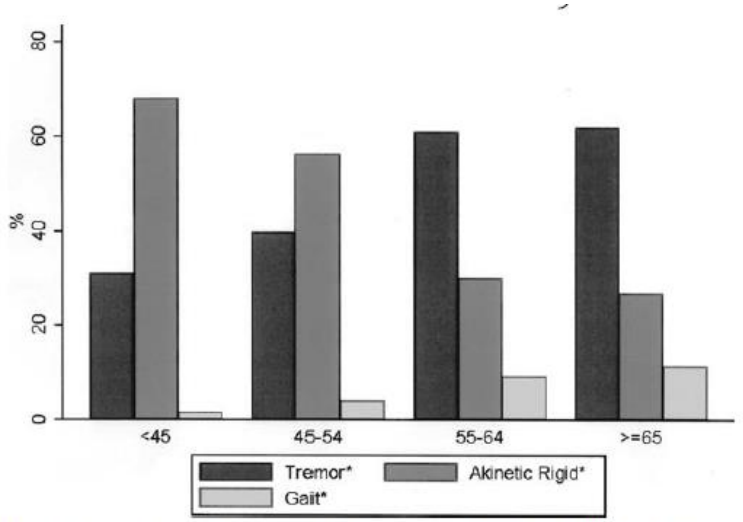


FIG. 1. Prevalence of presenting symptom in each PD age at onset group [*Significant *P*-value for trend and heterogeneity (*P*-values < 0.005 trend, each onset symptom)].

Wickremaratchi, jnnp, 2011

Fenotype YOPD

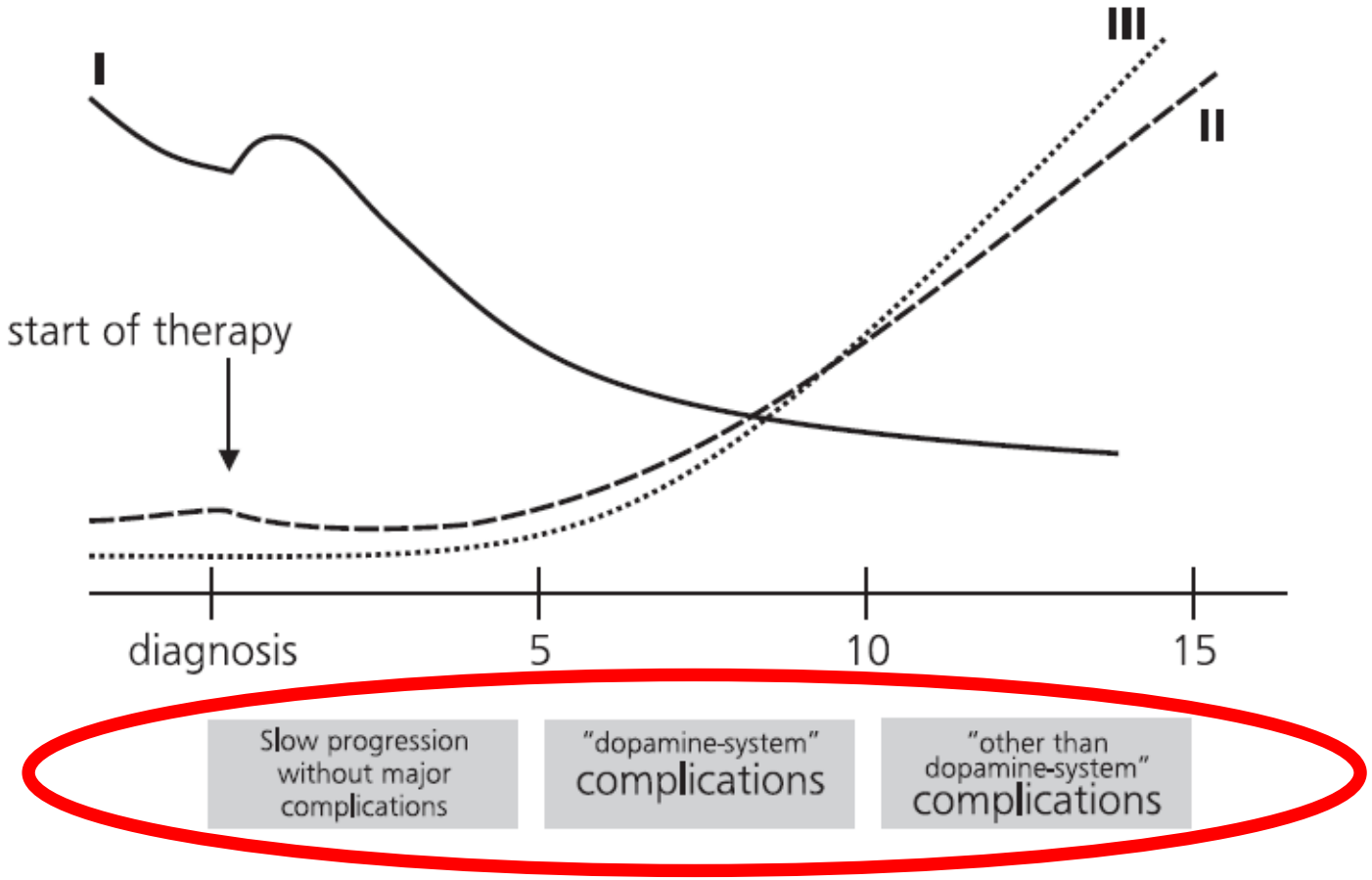
TABLE 3. Characteristics of dystonia by onset group

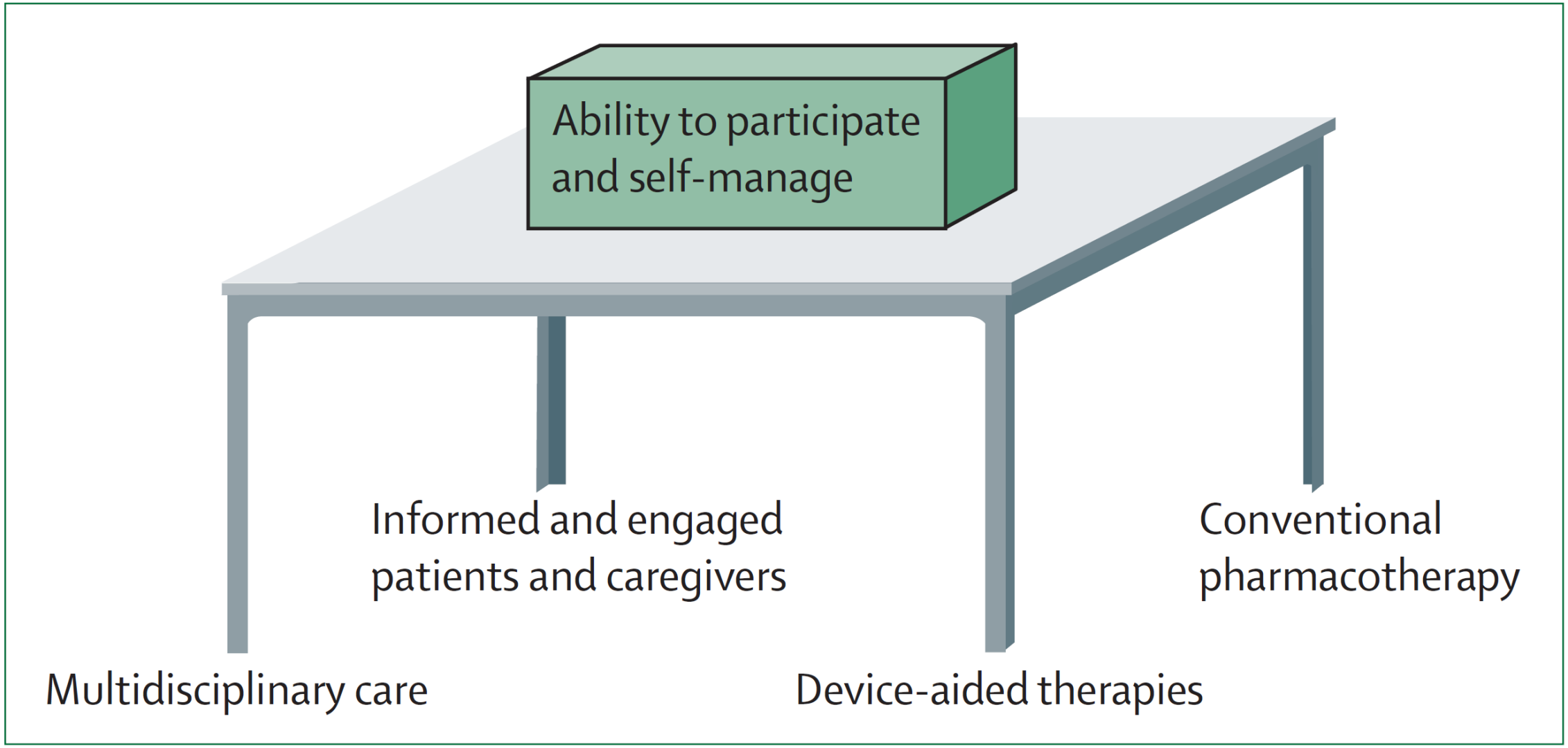
Onset group	All n (%)	<45 yr n (%)	45–54 yr n (%)	55–64 yr n (%)	≥ 65 yr n (%)	*P* value	*P* value for trend
Presence of Dystonia	125 (39)	37 (59)	52 (58)	26 (30)	10 (12)	<0.001	<0.0001[a]
Dystonia:							
At Onset	41 (12)	13 (20)	20 (20)	5 (6)	3 (3)	<0.001	<0.0001[a]
In first 2 years	21 (6)	7 (11)	9 (10)	4 (5)	1 (1)	0.02	0.0025
Exercise induced	33 (9)	12 (18)	15 (15)	5 (6)	1 (1)	<0.001	<0.0001[a]
Pre-treatment morning	2 (1)	1 (2)	0	0	1 (1)	0.47	0.87
Off period dystonia	44 (13)	19 (30)	21(20)	4 (5)	0	<0.001	<0.0001[a]
Peak dose dystonia	15 (4)	7 (11)	4 (4)	2 (2)	2 (2)	0.03	0.0118[b]
Treatment related	26 (8)	13 (21)	7 (7)	4 (5)	2 (2)	<0.001	0.0001
Non-dose related	34 (12)	4 (9)	19 (15)	14 (17)	6 (7)	0.22	0.65

Chi-squared tests for heterogeneity and trend.
[a]<55 vs. ≥55 heterogeneity test *P* value (Dystonia < 0.001, At Onset < 0.001 Exercise induced < 0.001, Off-period < 0.0001).
[b]<45 vs. ≥45 heterogeneity test *P* value (Peak dose = 0.004)

Wickremaratchi, jnnp, 2011

Basis model ZvP



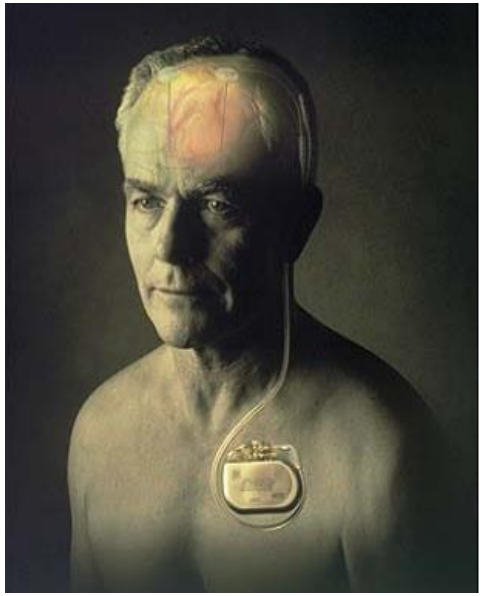


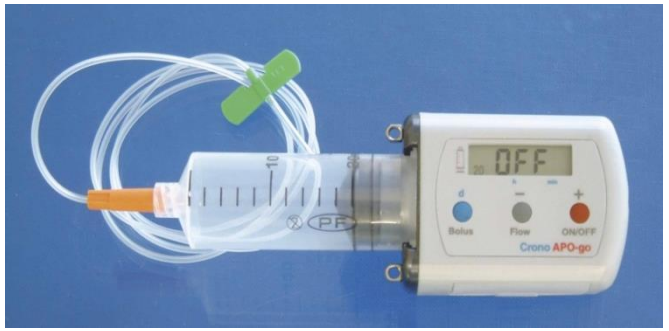
Bloem. Lancet, 2021

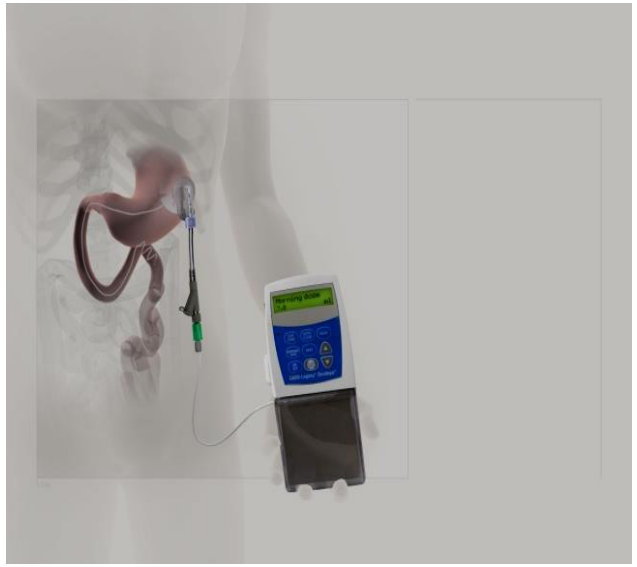
Wat kan je zelf doen?

- Goede kennis over de ziekte van Parkinson
- Bewust zijn van je eigen coping strategie
- Leefstijl interventies
  - Inspanning / Training
  - Stress management
  - Voeding

Geavanceerde therapie







Geen vergelijkende studies!

Focused ultrasound subthalamotomy in patients with asymmetric Parkinson's disease: a pilot study

Raul Martínez-Fernández, Rafael Rodríguez-Rojas, Marta del Álamo, Frida Hernández-Fernández, Jose A Pineda-Pardo, Michele Dileone, Fernando Alonso-Frech, Guglielmo Foffani, Ignacio Obeso, Carmen Gasca-Salas, Esther de Luis-Pastor, Lydia Vela, José A Obeso

ARTICLE CLASS OF EVIDENCE

Lancet Neurol 2018; 17: 54–63

Focused ultrasound thalamotomy in Parkinson disease

Nonmotor outcomes and quality of life

Scott A. Sperling, PsyD, Binit B. Shah, MD, Matthew J. Barrett, MD, MSc, Aaron E. Bond, MD, PhD, Diane S. Huss, DPT, Jorge A. Gonzalez Mejia, BA, and W. Jeffrey Elias, MD

Neurology® 2018;91:e1275-e1284. doi:10.1212/WNL.0000000000006279

Correspondence
Dr. Sperling
sas7yr@virginia.edu

Apomorphine subcutaneous infusion in patients with Parkinson's disease with persistent motor fluctuations (TOLEDO): a multicentre, double-blind, randomised, placebo-controlled trial

Regina Katzenschlager, Werner Poewe, Olivier Rascol, Claudia Trenkwalder, Günther Deuschl, K Ray Chaudhuri, Tove Henriksen, Teus van Laar, Kevin Spivey, Senthil Vel, Harry Staines, Andrew Lees

Lancet Neurol 2018

JAMA Neurology

RCT: General Anesthesia vs Local Anesthesia in Micoelectrode Recording–Guided Deep-Brain Stimulation for Parkinson Disease

POPULATION

78 Men, 32 Women

Patients with advanced Parkinson disease and motor response fluctuations

Mean (SD), 60.6 (7.7) y

SETTINGS / LOCATIONS

1 University hospital in Amsterdam, the Netherlands

INTERVENTION

110 Patients randomized

56 Surgery under local anesthesia
Electrode implantation in the subthalamic nuclei with microelectrode recordings and clinical tests

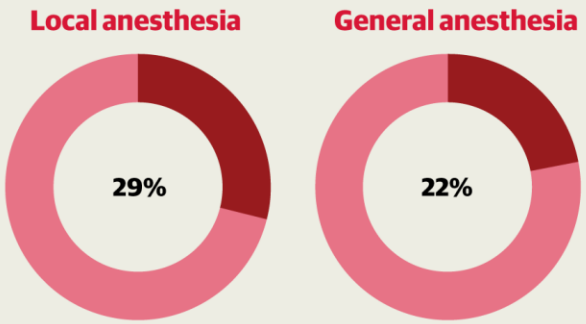
54 Surgery under general anesthesia
Electrode implantation in the subthalamic nuclei with microelectrode recordings only

PRIMARY OUTCOME

Composite score of adverse effects after 6 mo based on 4 areas:
(1) Cognitive deterioration
(2) Period of psychosis, anxiety, or depression
(3) Loss of professional activity
(4) Delirium after surgery

FINDINGS

There was no difference in the composite score of adverse events between the 2 treatment groups

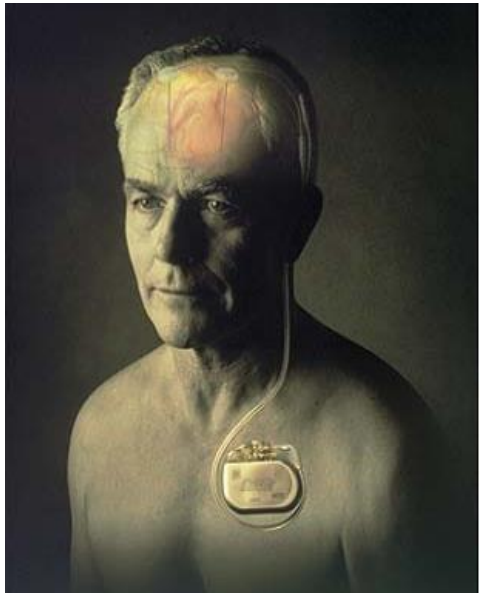


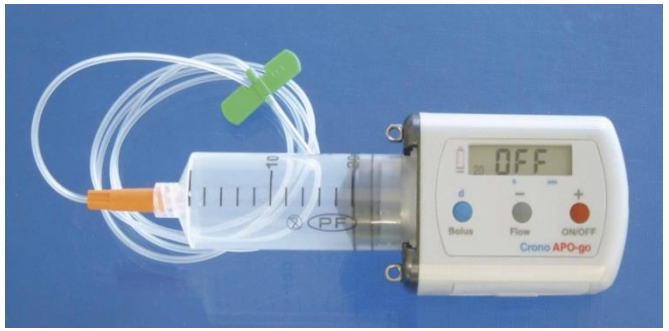
Adverse effects
Local Anesthesia: 15 of 52 (29%)
General anesthesia: 11 of 51 (22%)
Odds ratio, 0.7; 95% CI, 0.3-1.7; *P* = .40

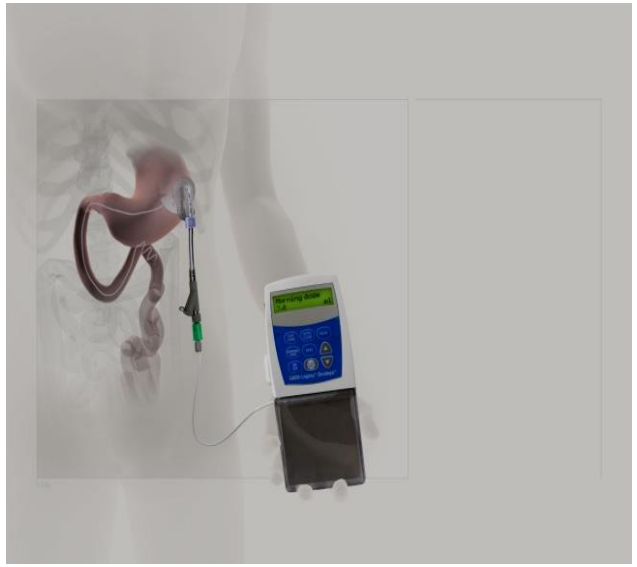
Holewijn RA, Verbaan D, van den Munckhof PM, et al. General Anesthesia vs Local Anesthesia in Micoelectrode Recording–Guided Deep-Brain Stimulation for Parkinson Disease: A Randomized Clinical Trial. *JAMA Neurol.* Published online September 7, 2021. doi:10.1001/jamaneurol.2021.2979


invest
infusie versus stimulatie

Geavanceerde therapie







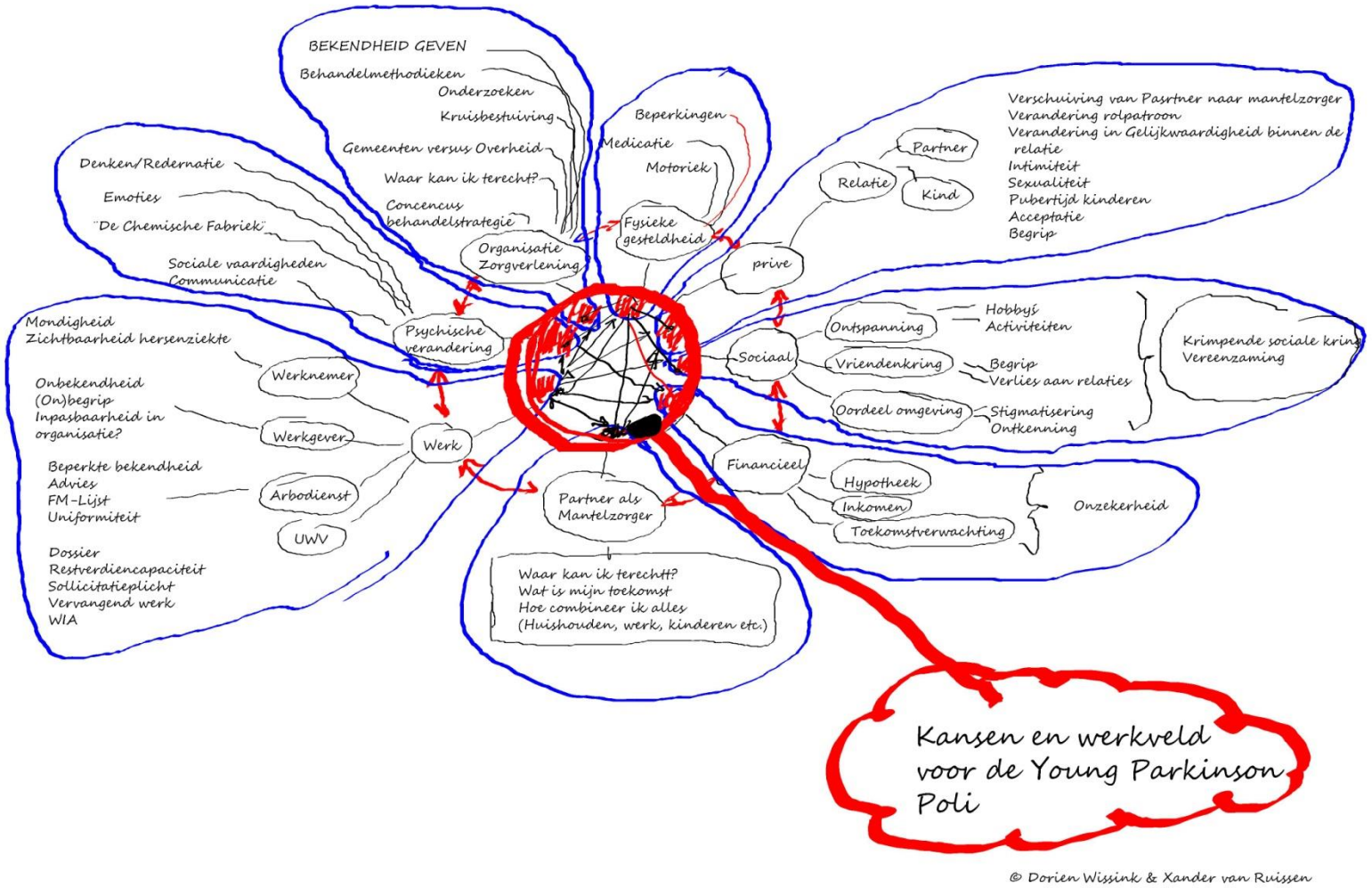
Shared decision making

Tweet Bas Bloem

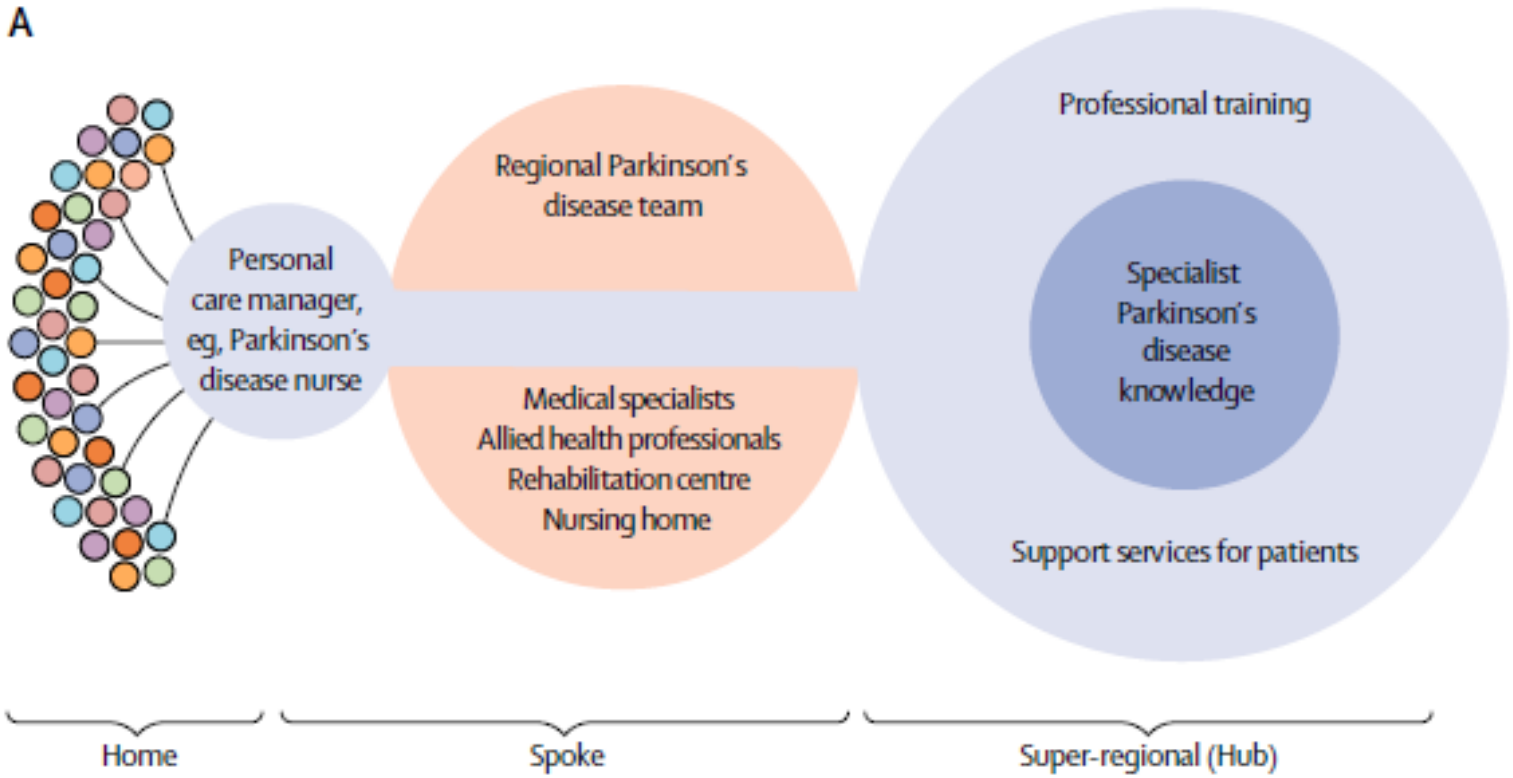
‘Patients do not know best,

they know different.

Together we know best.’

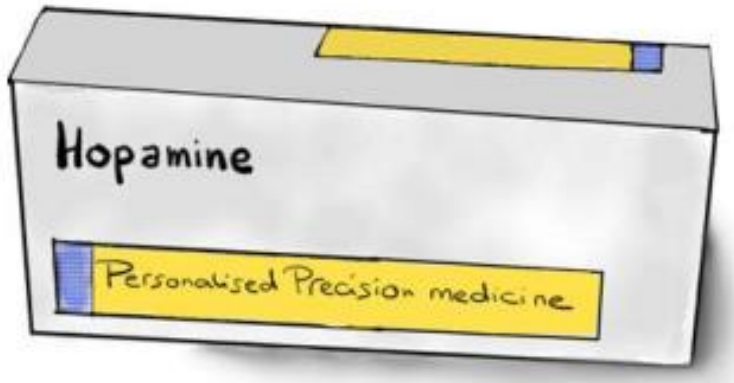

BEKENDHEID GEVEN
Behandelmethodieken
Onderzoeken
Kruisbestuiving
Gemeenten versus Overheid
Waar kan ik terecht?
Concencus behandelstrategie
Organisatie Zorgverlening
Denken/Redernatie
Emoties
"De Chemische Fabriek"
Sociale vaardigheden Communicatie
Psychische verandering
Mondigheid
Zichtbaarheid hersenziekte
Werknemer
Onbekendheid
(On)begrip
Inpasbaarheid in organisatie?
Werkgever
Werk
Beperkte bekendheid
Advies
FM-Lijst
Uniformiteit
Arbodienst
UWV
Dossier
Restverdiencapaciteit
Sollicitatieplicht
Vervangend werk
WIA
Beperkingen
Medicatie
Motoriek
Fysieke gesteldheid
Partner als Mantelzorger
Waar kan ik terecht?
Wat is mijn toekomst
Hoe combineer ik alles
(Huishouden, werk, kinderen etc.)
prive
Relatie
Partner
Kind
Verschuiving van Pasrtner naar mantelzorger
Verandering rolpatroon
Verandering in Gelijkwaardigheid binnen de relatie
Intimiteit
Sexualiteit
Pubertijd kinderen
Acceptatie
Begrip
Sociaal
Ontspanning
Hobbys
Activiteiten
Vriendenkring
Begrip
Verlies aan relaties
Oordeel omgeving
Stigmatisering
Ontkenning
Krimpende sociale kring
Vereenzaming
Financieel
Hypotheek
Inkomen
Toekomstverwachting
Onzekerheid
Kansen en werkveld voor de Young Parkinson Poli
© Dorien Wissink & Xander van Ruissen

Wat willen we?

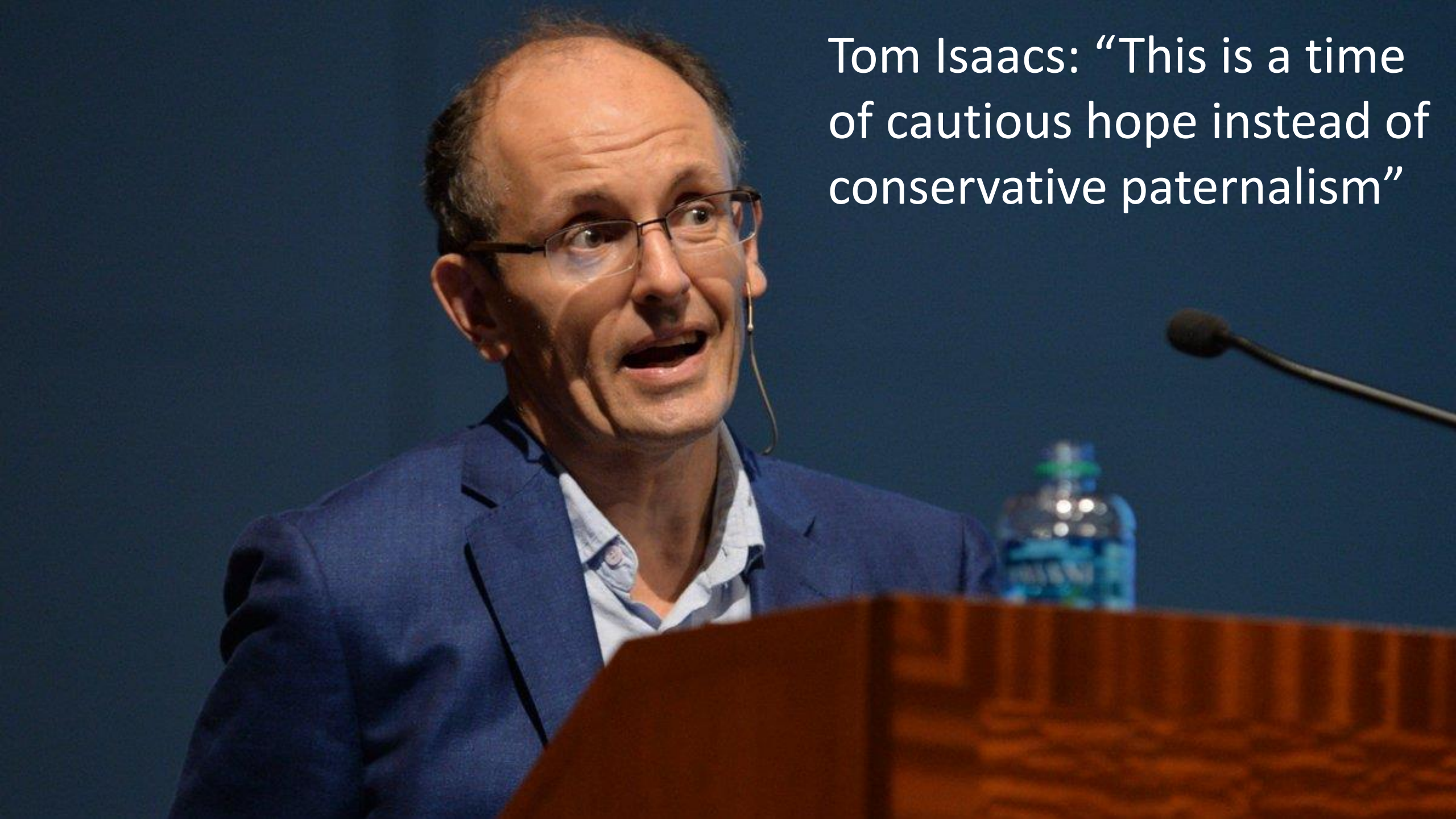


Hopamine as Personalized Medicine for Persons with Parkinson's Disease

Marina A. Noordegraaf[a,1], Sanne W. van den Berg[b] and Bastiaan R. Bloem[b,*]
[a]*Patient Advocate and Patient Researcher at the Dutch Parkinson's Association, The Netherlands*
[b]*Radboud University Medical Centre; Donders Institute for Brain, Cognition and Behaviour; Department of Neurology; Centre of Expertise for Parkinson & Movement Disorders, Nijmegen, The Netherlands*



Noordegraaf, JPD, 2023


Tom Isaacs: “This is a time of cautious hope instead of conservative paternalism”