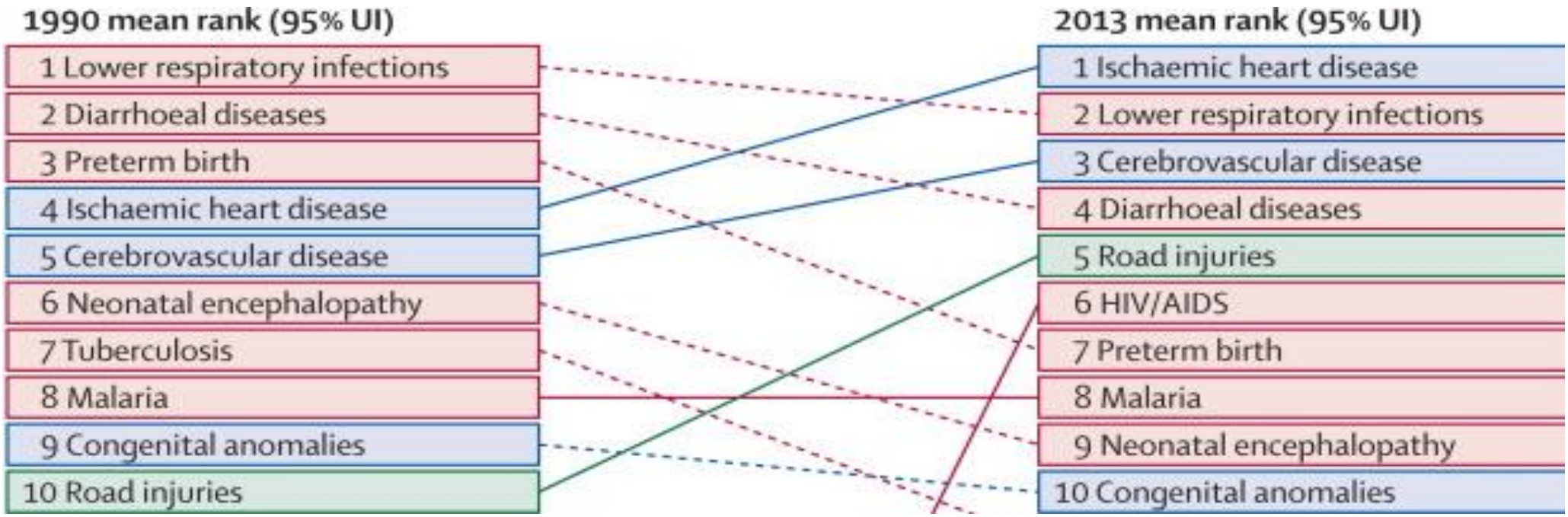
Qué hay de nuevo en riesgo vascular

Jose María Mostaza

Hospital Carlos III

Madrid

Top causes of global years of life lost in 1990 and 2013

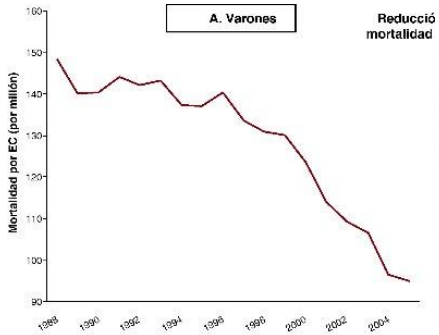


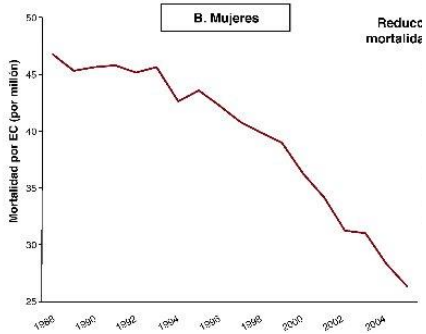
Muerte por cardiopatía isquémica 1990 = 5.737.483
Muerte por cardiopatía isquémica 2013 = 8.139.852

Muertes cardiovasculares 1990 = 12.279.565
Muertes cardiovasculares 2013 = 17.297.480

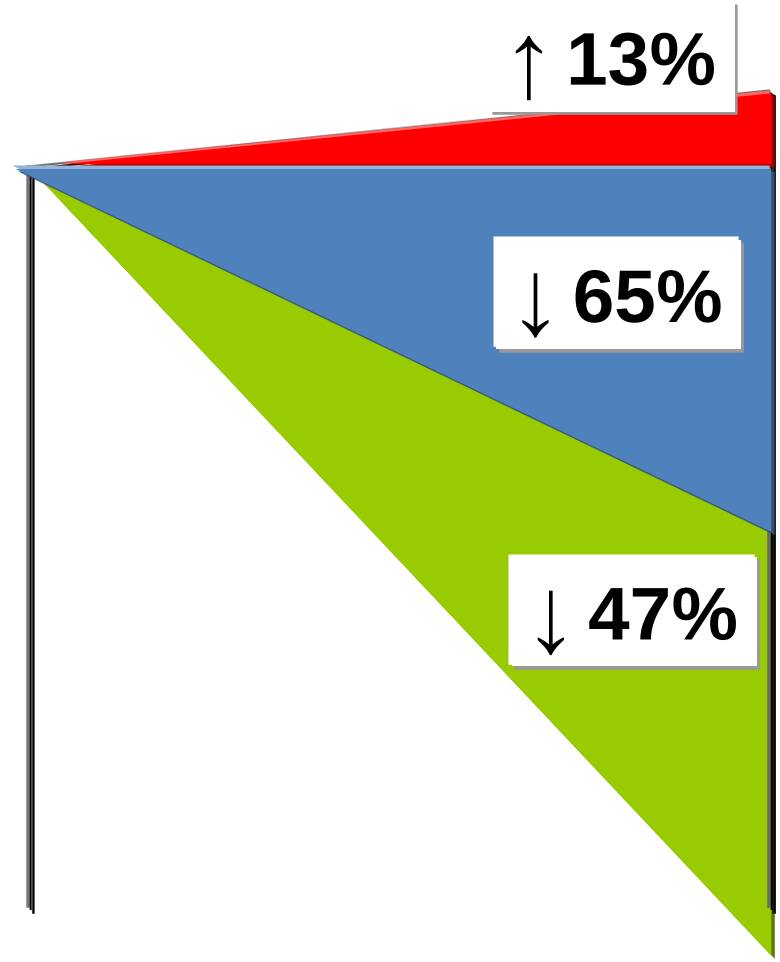
GBD 2013 Mortality and Causes of Death Collaborators . Lancet 2015;385:117-71.

Muertes coronarias en España prevenidas o pospuestas 1988-2005 (% sobre la reducción total)





↓ 40%



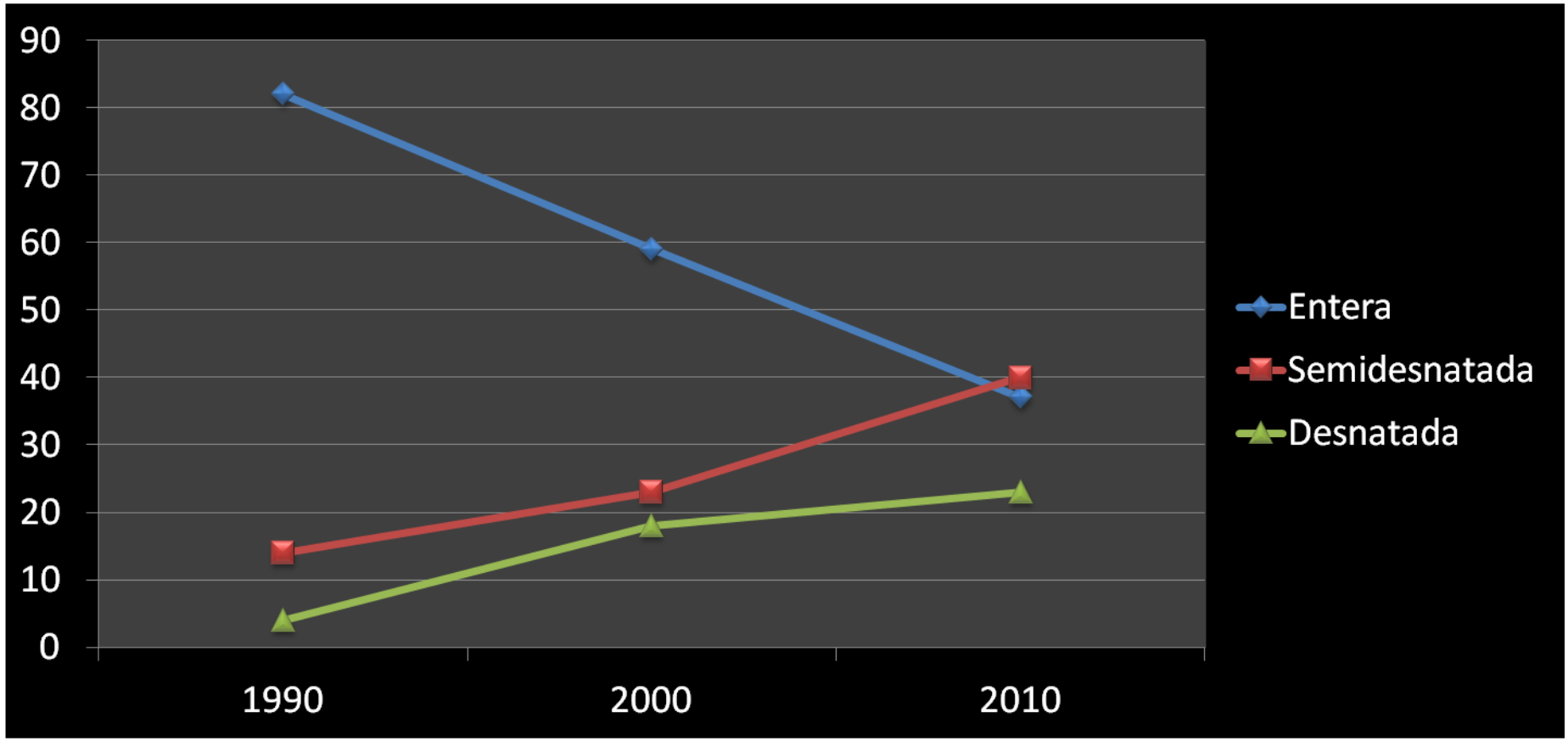
↑ 6,2% Obesidad
↑ 7,5% Diabetes

↓ 16,3% Tabaquismo
↓ 14,9% Presión arterial
↓ 31,1% Colesterol
↓ 2,6% Ejercicio físico

↓ 9,9% Prevención 1ª
↓ 11,4% Fase aguda CI
↓ 25,6% Prevención 2ª

Flores-Mateo G et al. Rev Esp Cardiol 2011; 64: 988-96.

Evolución del consumo de leche de vaca en España. Años 1990-2000-2010



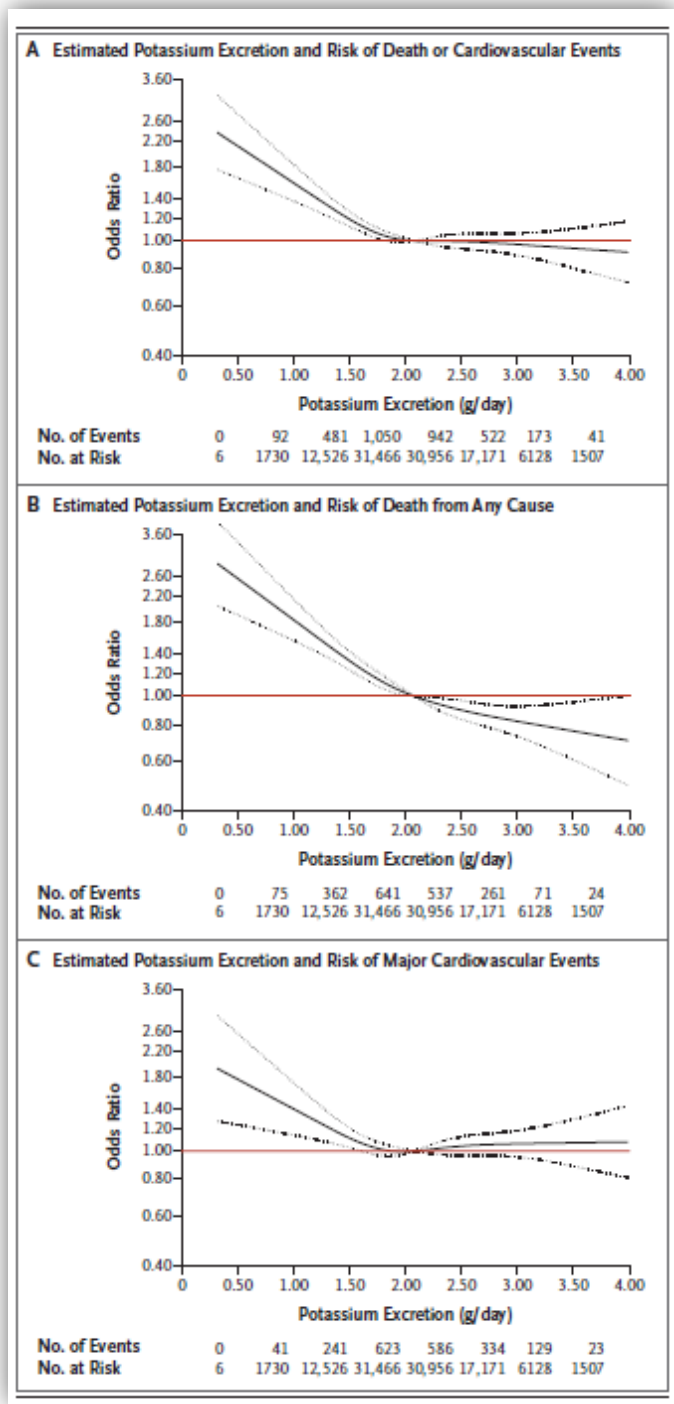
Encuesta de presupuestos familiares; 1990, 2000 y 2010: Panel de consumo alimentario.

ORIGINAL ARTICLE

N Engl J Med 2014;371:612-23.

Urinary Sodium and Potassium Excretion, Mortality, and Cardiovascular Events

Martin O'Donnell, M.B., Ph.D., Andrew Mente, Ph.D., Sumathy Rangarajan, M.Sc.,



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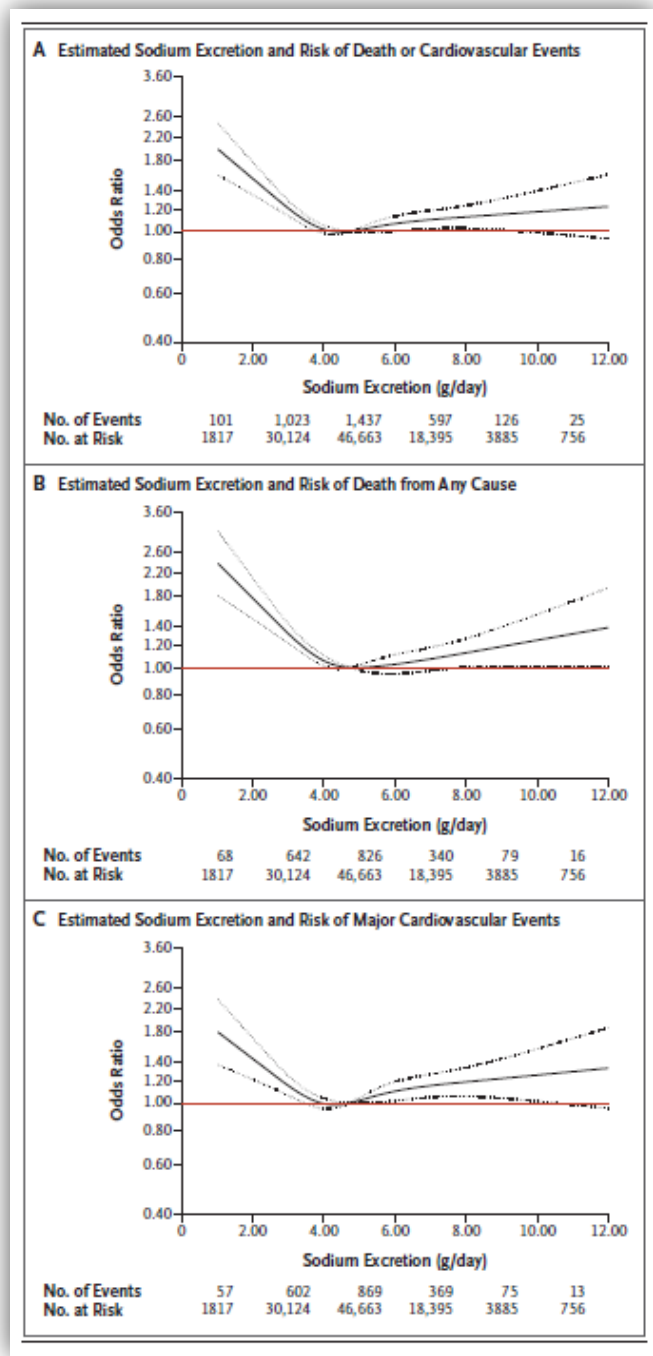


PARADIGMHF

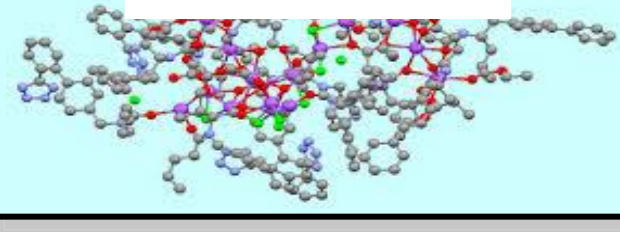
The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 SEPTEMBER 11, 2014 VOL. 371 NO. 11

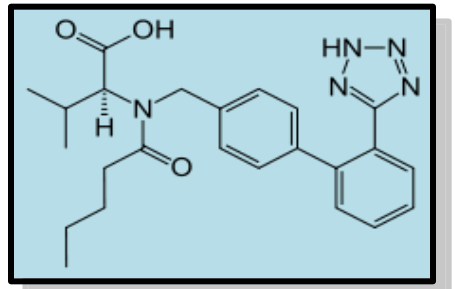
Angiotensin–Neprilysin Inhibition versus Enalapril in Heart Failure

John J.V. McMurray, M.D., Milton Packer, M.D., Akshay S. Desai, M.D., M.P.H., Jianjian Gong, Ph.D., Martin P. Lefkowitz, M.D., Adel R. Rizkala, Pharm.D., Jean L. Rouleau, M.D., Victor C. Shi, M.D., Scott D. Solomon, M.D., Karl Swedberg, M.D., Ph.D., and Michael R. Zile, M.D., for the PARADIGM-HF Investigators and Committees*

LCZ696

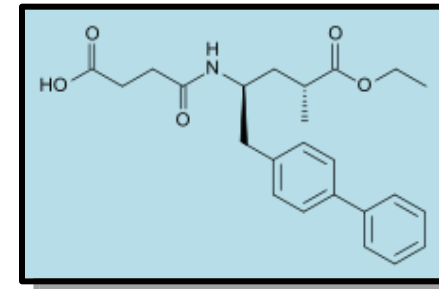


AR blocker
VALSARTAN

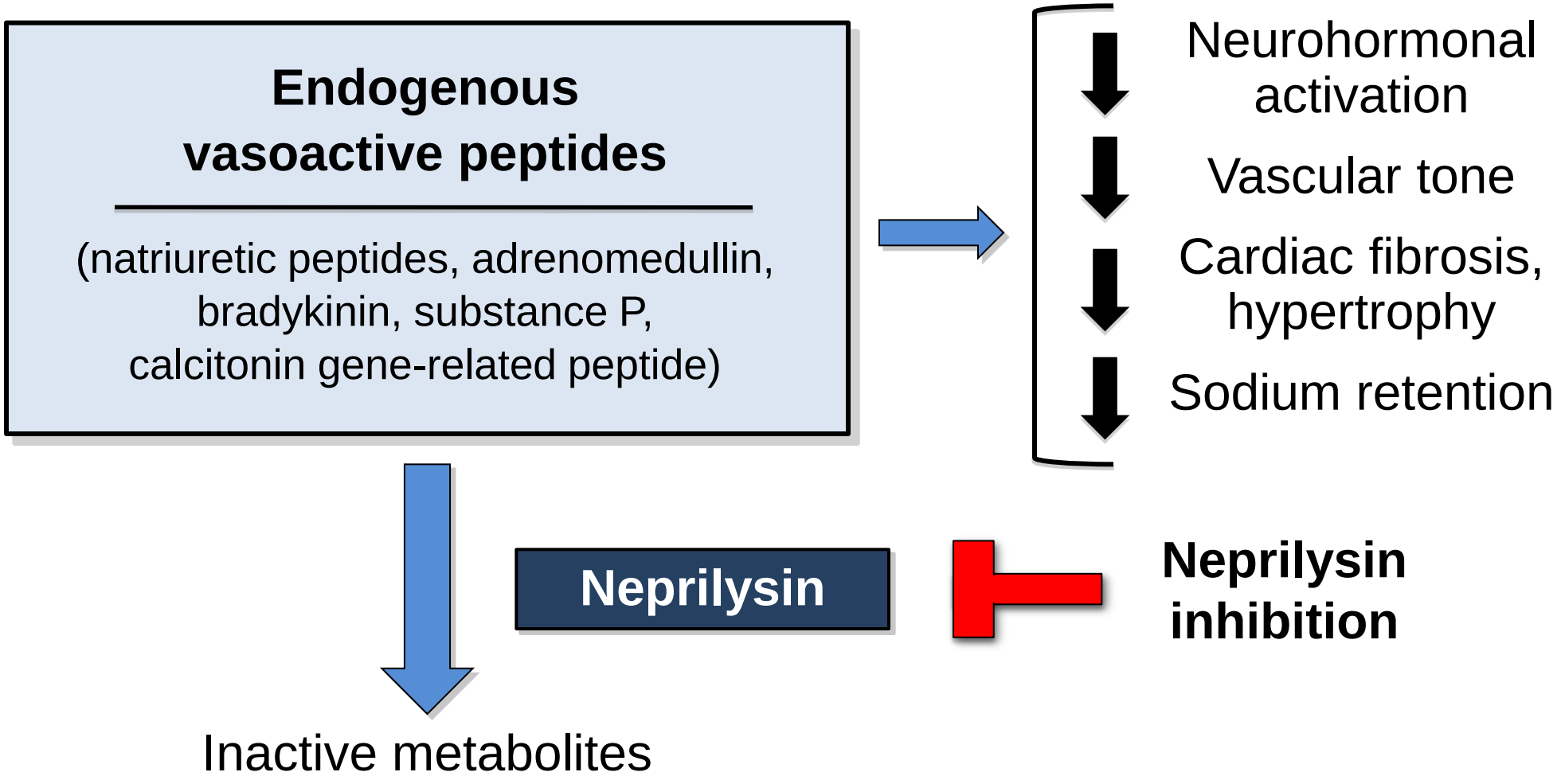


+

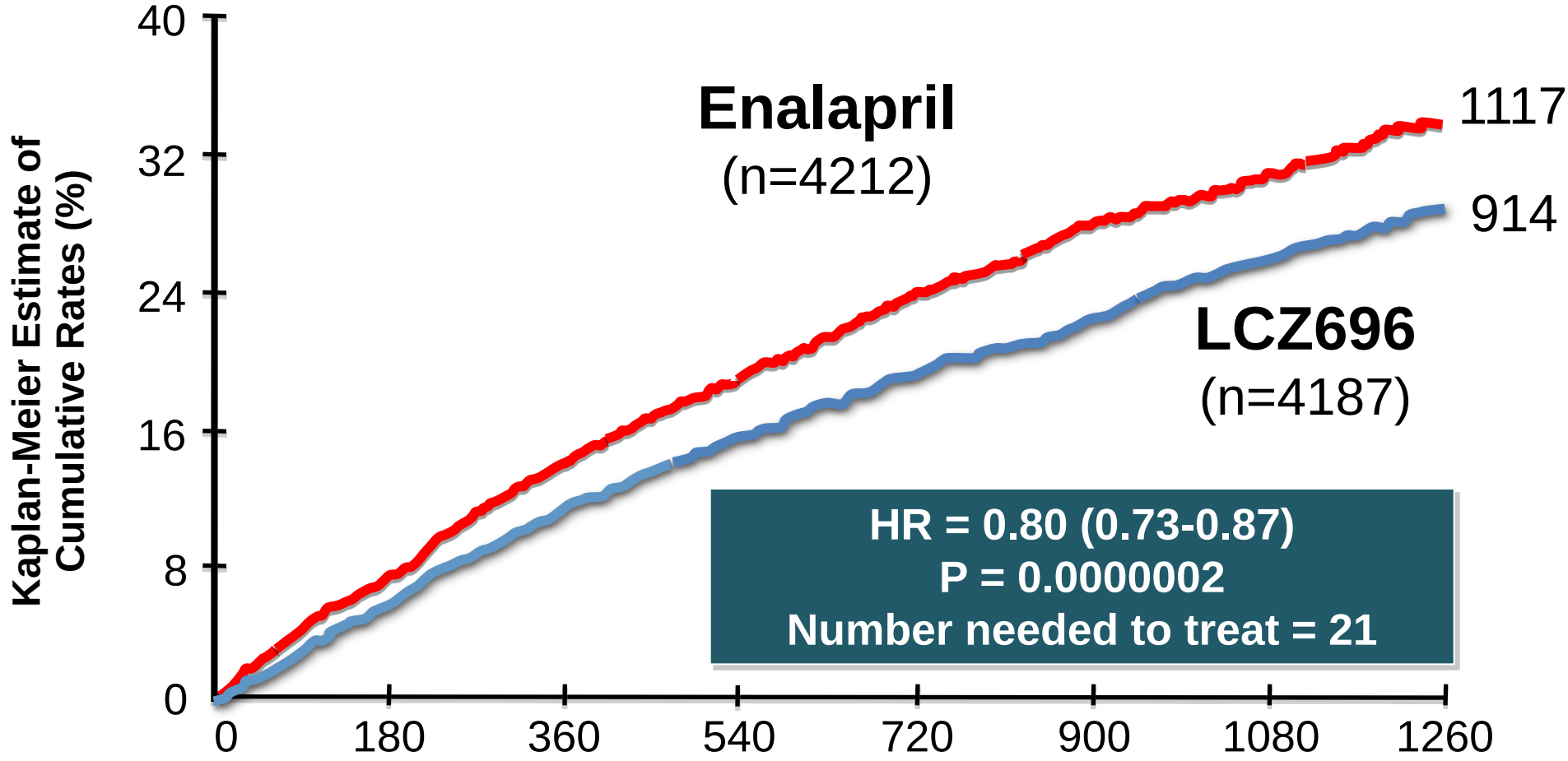
Inhibition of neprilysin
SACUBITRIL



Neprilysin Inhibition Potentiates Actions of Endogenous Vasoactive Peptides That Counter Maladaptive Mechanisms in Heart Failure



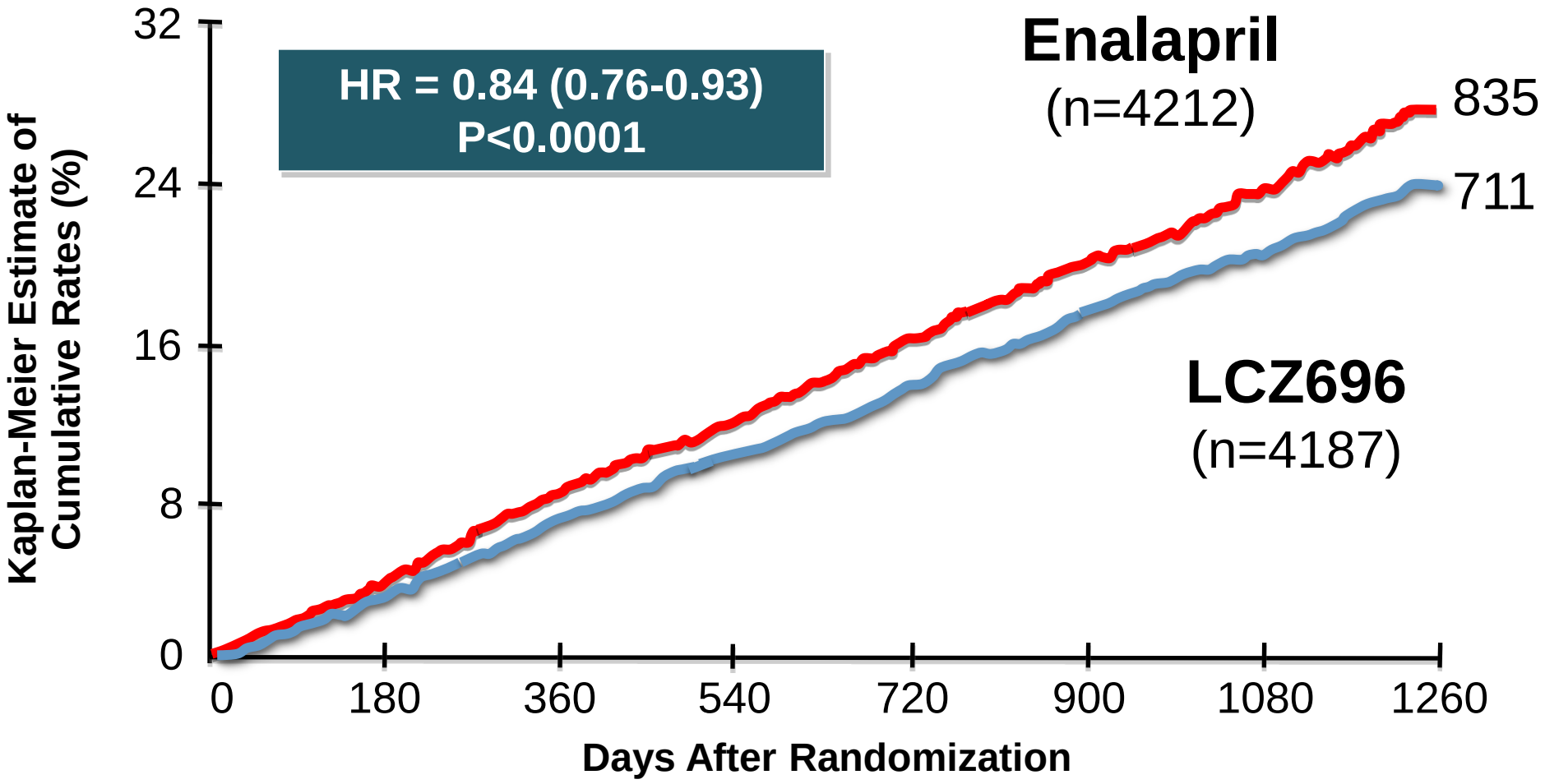
PARADIGM-HF: Cardiovascular Death or Heart Failure Hospitalization (Primary Endpoint)



Patients at Risk

LCZ696	4187	3922	3663	3018	2257	1544	896	249
Enalapril	4212	3883	3579	2922	2123	1488	853	236

PARADIGM-HF: All-Cause Mortality



Patients at Risk

LCZ696	4187	4056	3891	3282	2478	1716	1005	280
Enalapril	4212	4051	3860	3231	2410	1726	994	279

PARADIGM-HF: Adverse Events

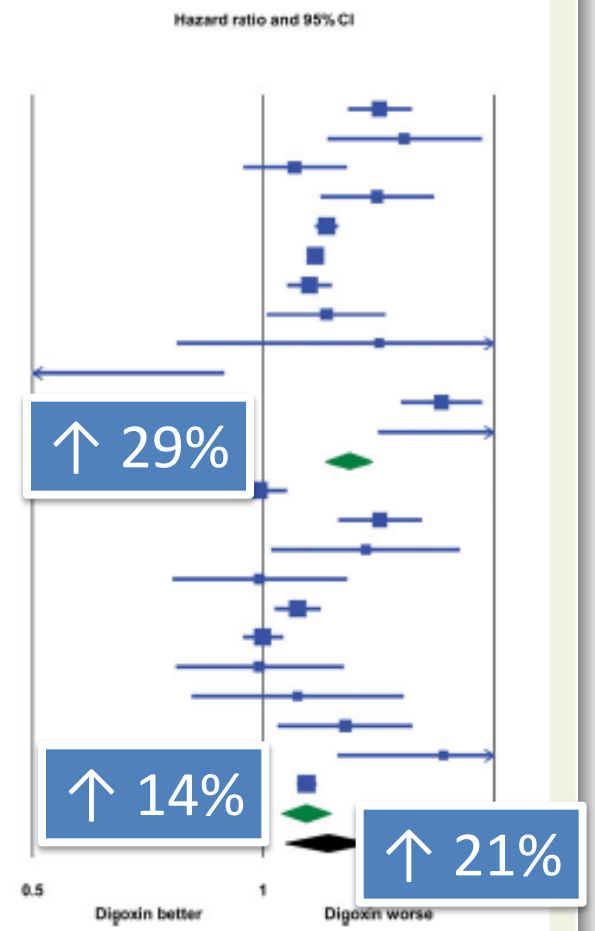
	LCZ696 (n=4187)	Enalapril (n=4212)	P Value
Prospectively identified adverse events			
Symptomatic hypotension	588	388	< 0.001
Serum potassium > 6.0 mmol/l	181	236	0.007
Serum creatinine ≥ 2.5 mg/dl	139	188	0.007
Cough	474	601	< 0.001
Discontinuation for adverse event	**449**	**516**	**0.02**
Discontinuation for hypotension	36	29	NS
Discontinuation for hyperkalemia	11	15	NS
Discontinuation for renal impairment	29	59	0.001
Angioedema (adjudicated)			
Medications, no hospitalization	16	9	NS
Hospitalized; no airway compromise	3	1	NS
Airway compromise	0	0	----

Digoxin-associated mortality: a systematic review and meta-analysis of the literature

European Heart Journal
doi:10.1093/eurheartj/ehv143

Mate Vamos, Julia W. Erath, and Stefan H. Hohnloser*

Study	Patient cohort	Statistics			
		Hazard ratio	95%	CI	p-Value
Hallberg (RIKS-HIA), 2007 - AF	AF	1,42	1,29	1,56	0,00
Gjesdal (SPORTIF III, V), 2008	AF	1,53	1,21	1,93	0,00
Friberg (SCAF), 2009	AF	1,10	0,94	1,28	0,23
Whitbeck (AFFIRM), 2012	AF	1,41	1,19	1,67	0,00
Turakhia (TREAT-AF), 2014	AF	1,21	1,17	1,25	0,00
Shah, 2014 - AF	AF	1,17	1,15	1,20	0,00
Gamst, 2014	AF	1,15	1,08	1,23	0,00
Chao, 2014	AF	1,21	1,01	1,44	0,04
Rodriguez-Manero (AFBAR), 2014	AF	1,42	0,77	2,61	0,26
Mulder (RACE II), 2014	AF	0,41	0,19	0,89	0,02
Freeman (ATRIA-CVRN), 2014	AF	1,71	1,52	1,93	0,00
Pastori, 2015	AF	2,22	1,42	3,48	0,00
Total	**AF**	**1,29**	**1,21**	**1,39**	**<0,01**
Garg (DIG), 1997	CHF	0,99	0,91	1,07	0,81
Domanski (SOLVD), 2005 - Men	CHF	1,42	1,26	1,61	0,00
Domanski (SOLVD), 2005 - Women	CHF	1,36	1,03	1,80	0,03
Ahmed (DIG Ancillary), 2006	CHF	0,99	0,76	1,28	0,94
Hallberg (RIKS-HIA), 2007 - CHF/SR	CHF	1,11	1,04	1,19	0,00
Hallberg (RIKS-HIA), 2007 - CHF/AF	CHF	1,00	0,94	1,06	1,00
Fauchier, 2008	CHF	0,99	0,77	1,27	0,94
Dhaliwal, 2008	CHF	1,11	0,81	1,53	0,52
Butler (Val-HeFT), 2010	CHF	1,28	1,05	1,57	0,02
Freeman, 2013	CHF	1,72	1,25	2,36	0,00
Shah, 2014 - CHF	CHF	1,14	1,11	1,17	0,00
Total	**CHF**	**1,14**	**1,06**	**1,22**	**<0,01**
Overall	**AF, CHF**	**1,21**	**1,07**	**1,38**	**<0,01**

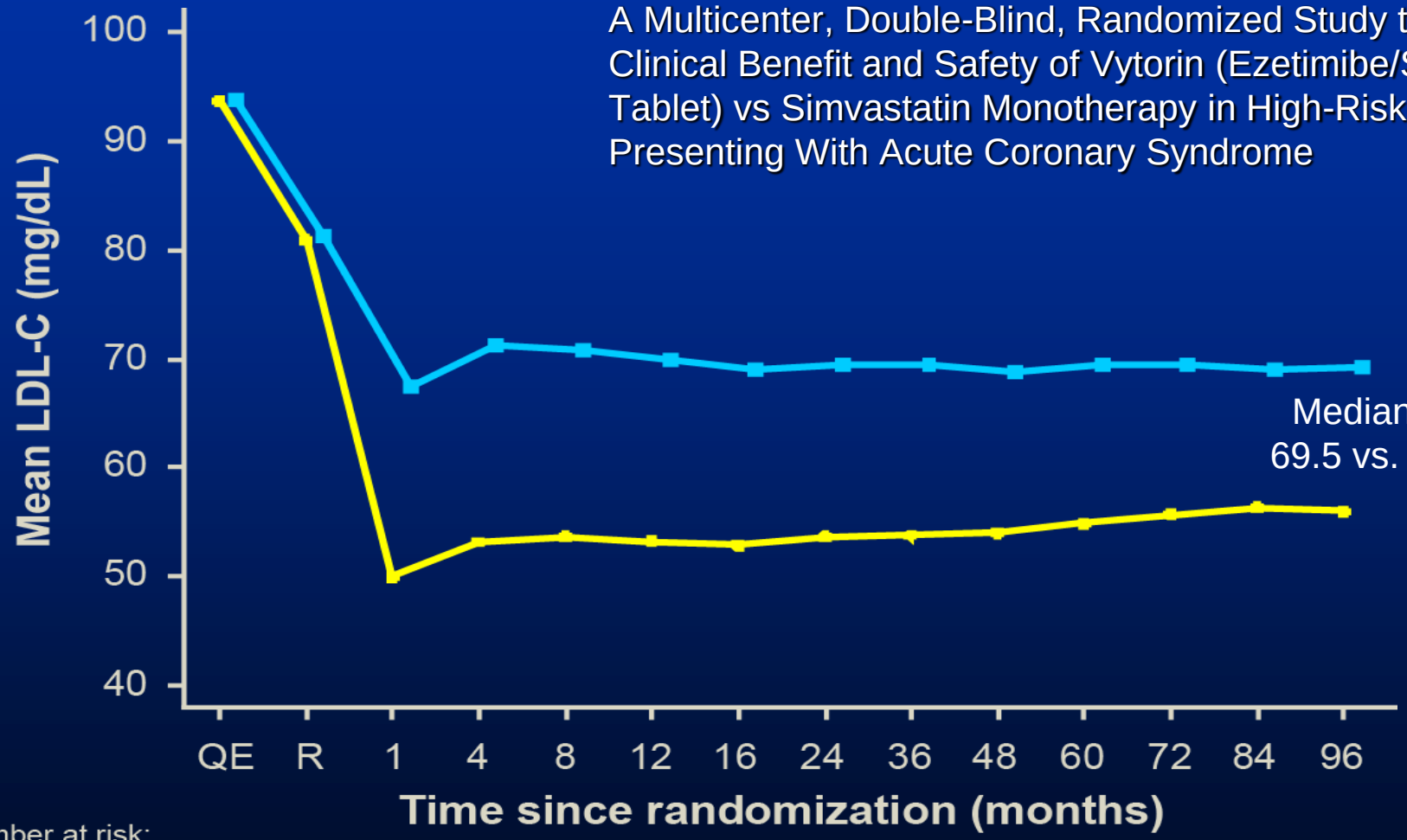


M Vamos y col. Eur Heart J 2015; 4 mayo

IMProved Reduction of Outcomes: Vytorin Efficacy International Trial

IMPROVE-IT

A Multicenter, Double-Blind, Randomized Study to Establish the Clinical Benefit and Safety of Vytorin (Ezetimibe/Simvastatin Tablet) vs Simvastatin Monotherapy in High-Risk Subjects Presenting With Acute Coronary Syndrome



Median Time avg
69.5 vs. 53.7 mg/dL

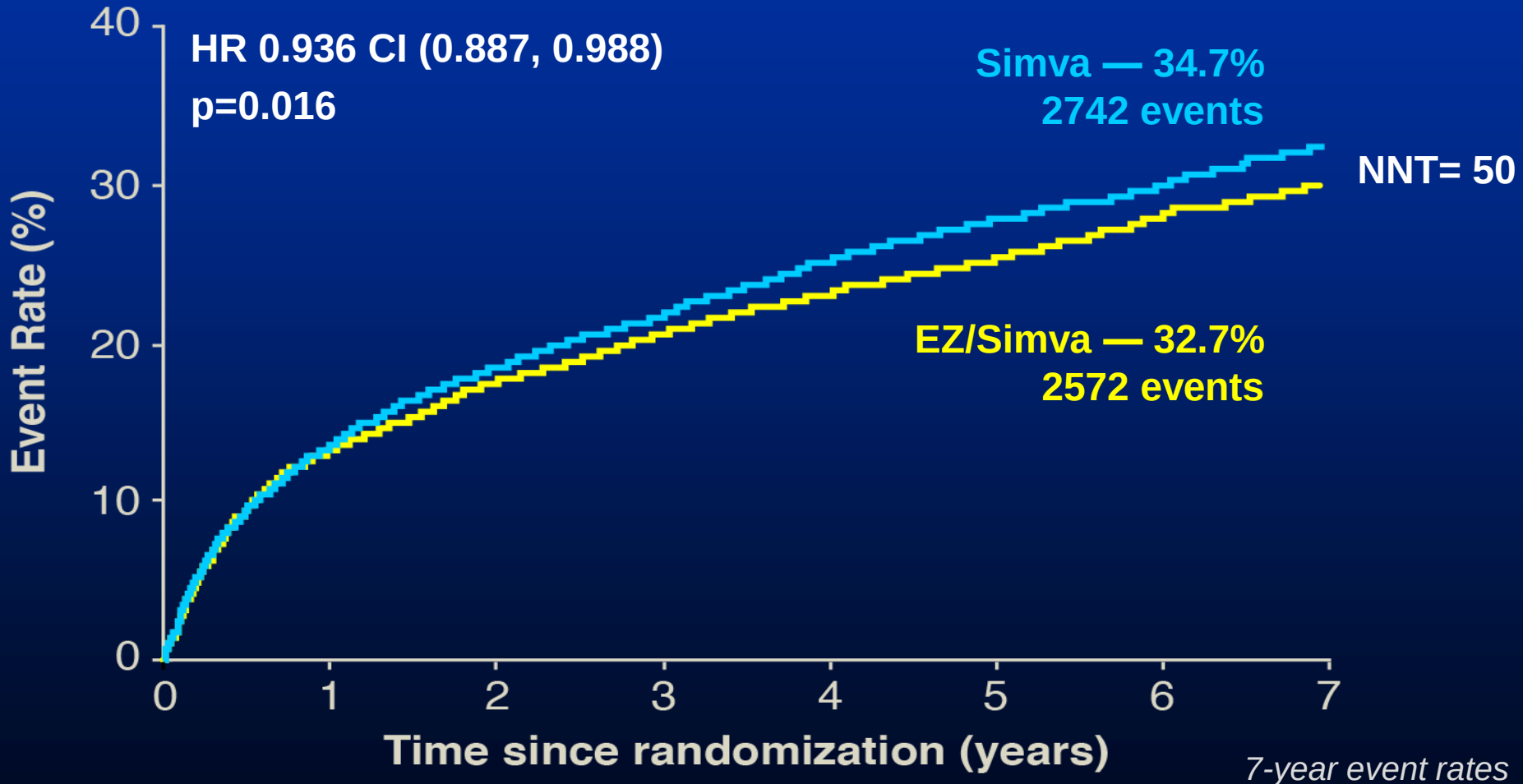
Number at risk:

EZ/Simva	8990	8889	8230	7701	7264	6864	6583	6256	5734	5354	4508	3484	2608	1078
Simva	9009	8921	8306	7843	7289	6939	6607	6192	5684	5267	4395	3387	2569	1068

Primary Endpoint — ITT

IMPROVE-IT

Cardiovascular death, MI, documented unstable angina requiring rehospitalization, coronary revascularization (≥30 days), or stroke



7-year event rates

RESEARCH

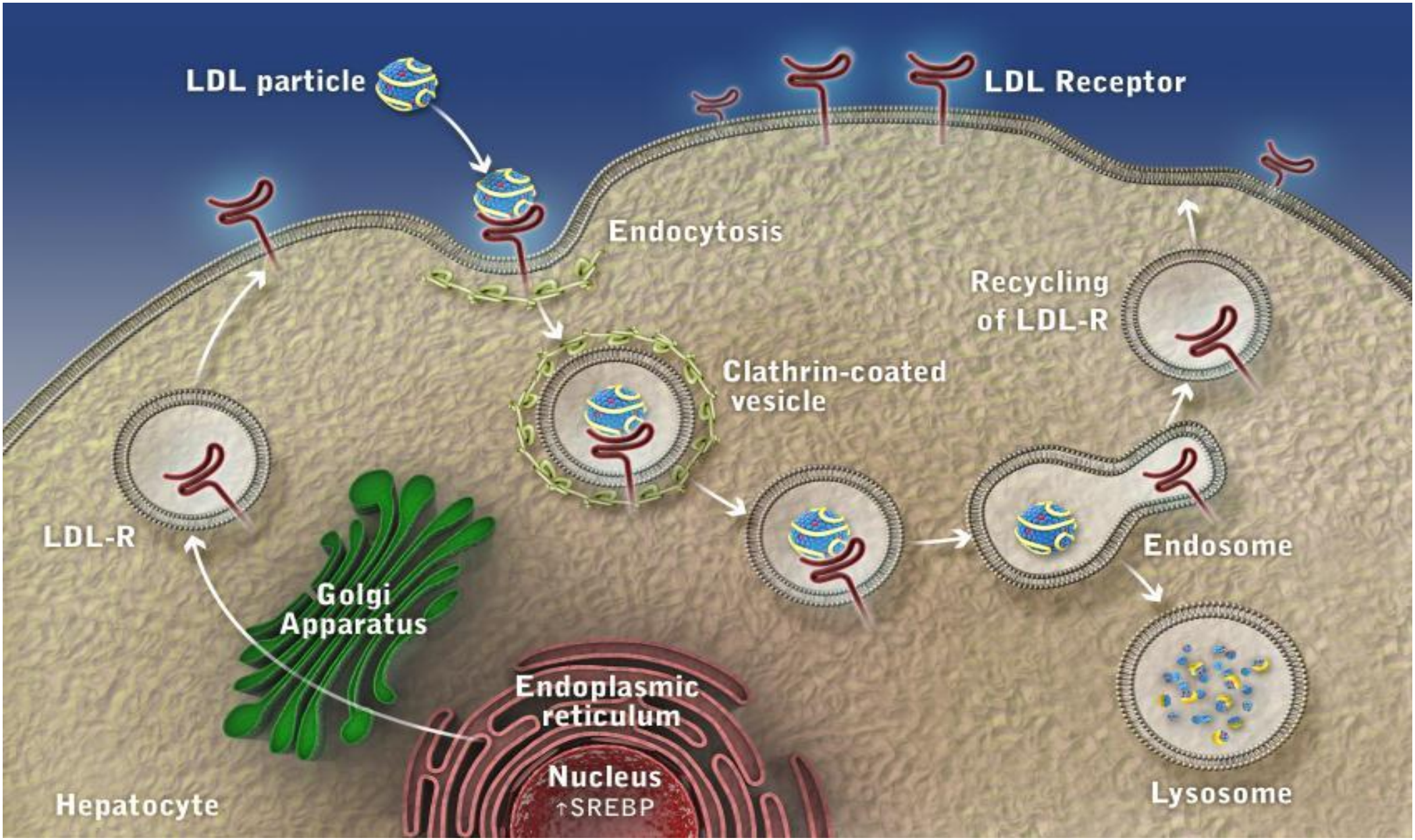
What to expect in 2015

Nature *looks at what the New Year holds for science.*

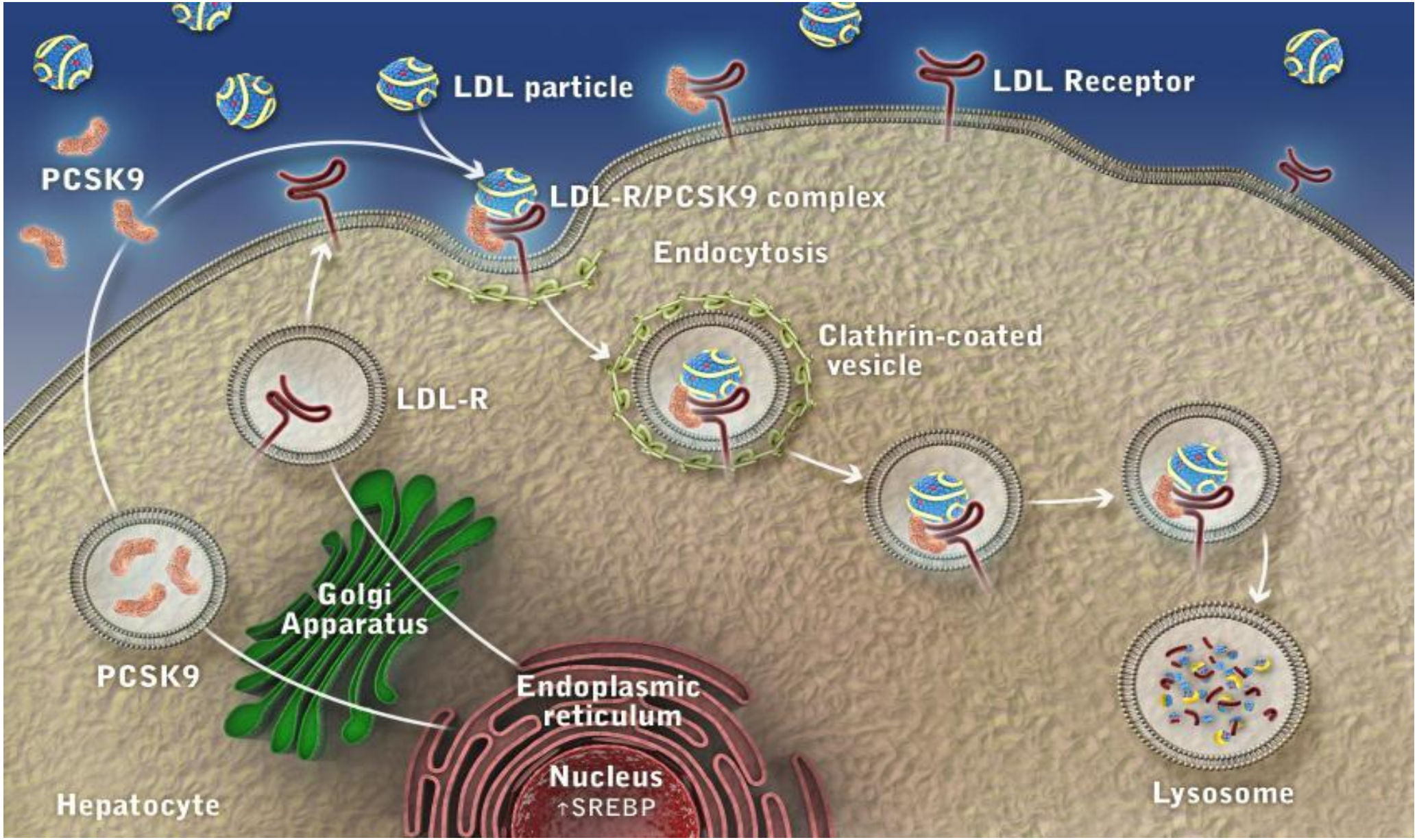
CHOLESTEROL-BUSTING DRUGS

Drug companies are racing to bring a new class of cholesterol drug to market, and some may cross the finish line this year. The therapies, which reduce levels of low-density lipoprotein (LDL) cholesterol by targeting the protein PCSK9, have shown promise in clinical trials. Last year, two drugs moved to the front of the pack: one from Amgen of Thousand Oaks, California, which filed for US approval in October, and another from Paris's Sanofi, which has been assured of a speedy review by US regulators. Decisions on both drugs are expected by summer 2015.

Función y reciclado del receptor de LDL

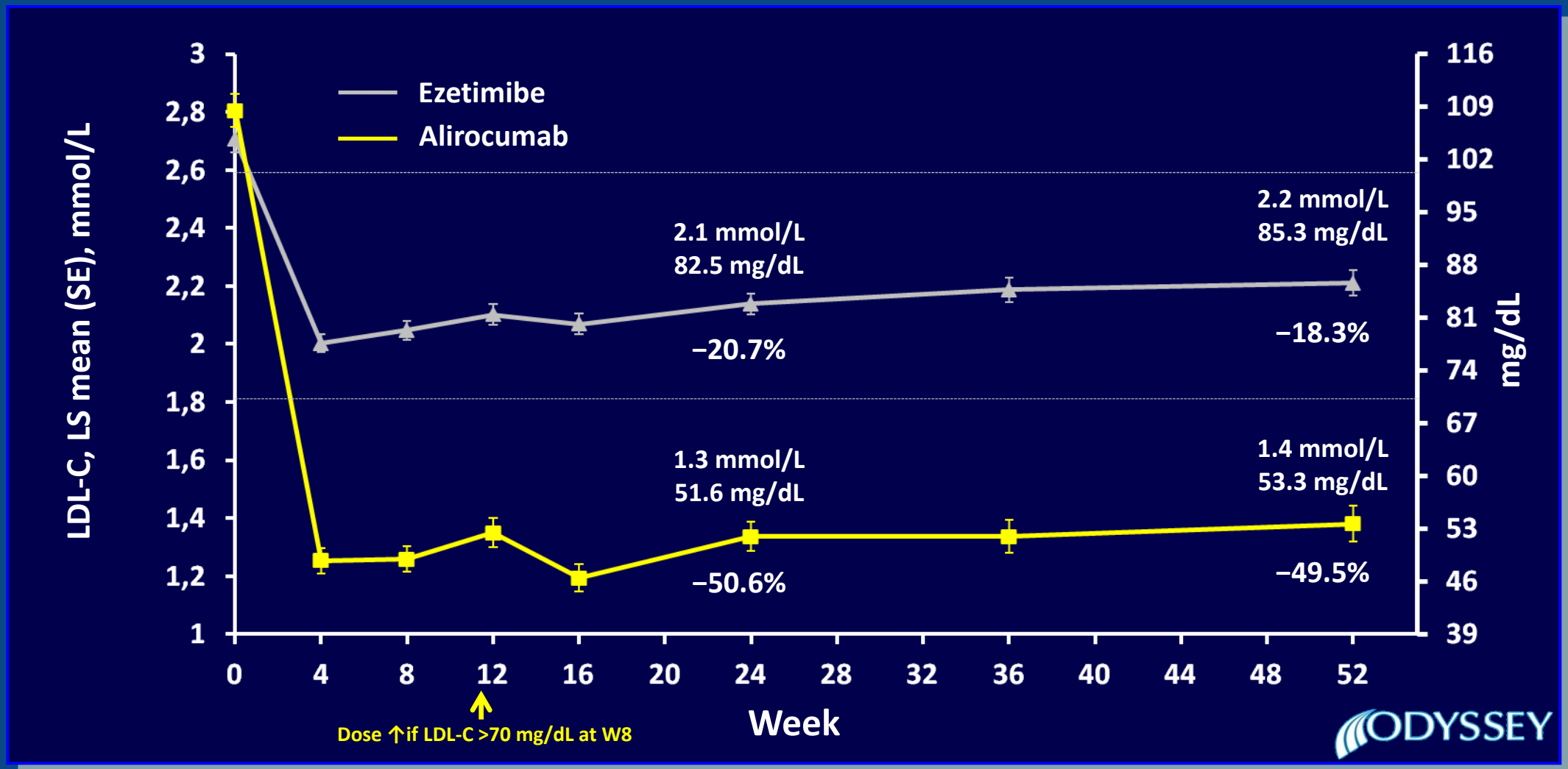


Regulación del receptor de LDL por la PCSK9



COMBO II: Alirocumab Maintained Consistent LDL-C Reductions over 52 Weeks

Achieved LDL-C Over Time on Background of Maximally-Tolerated Statin

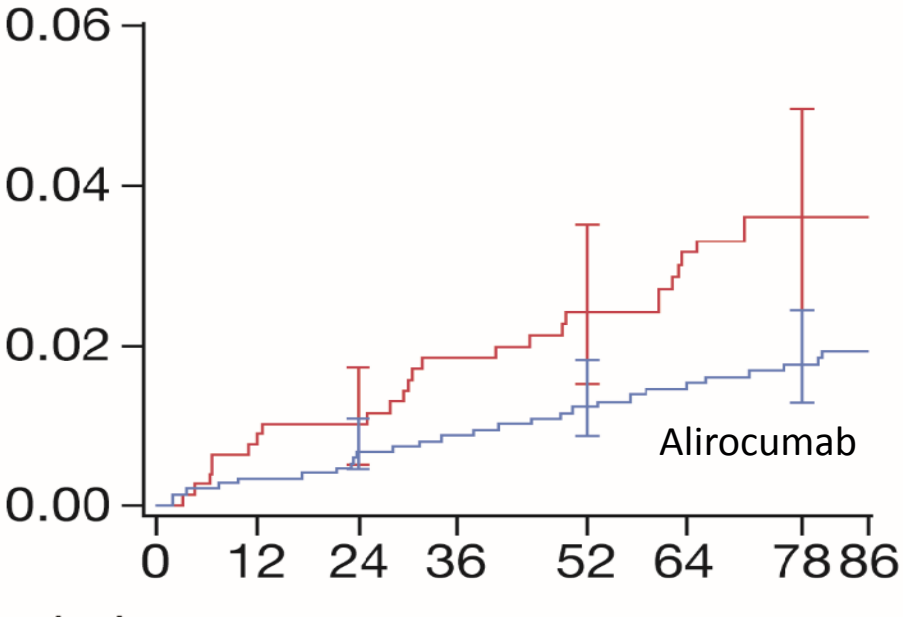


Intent-to-treat (ITT) analysis

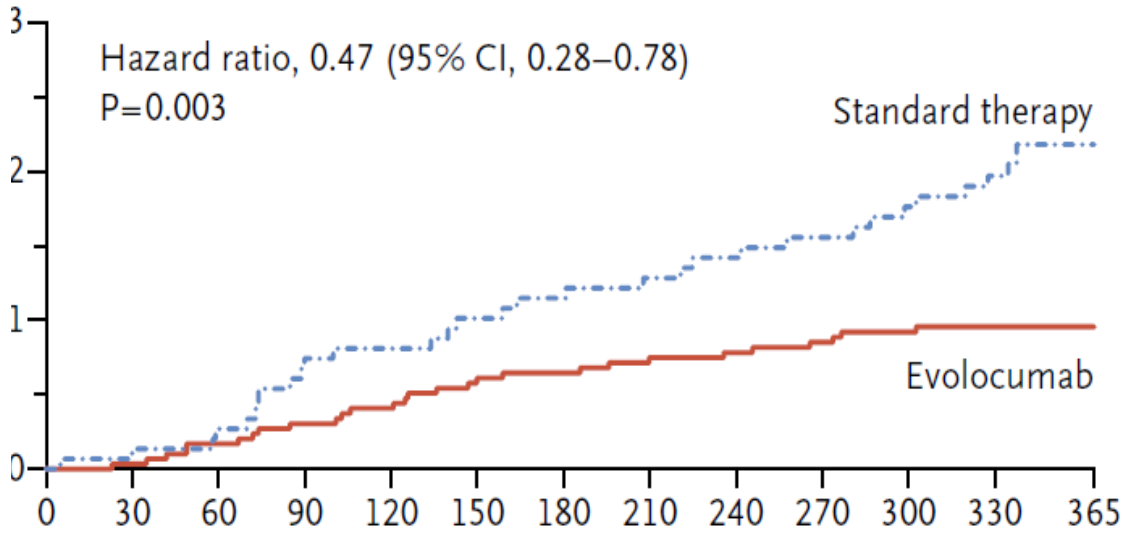
Cannon CP et al. *Eur Heart J.* 2015 Feb 16. pii: ehv028. Epub ahead of print

Reducción de eventos cardiovasculares mayores en estudios con anti-PCSK9

n=2.314, 70 semanas



n=4.465. 11 meses

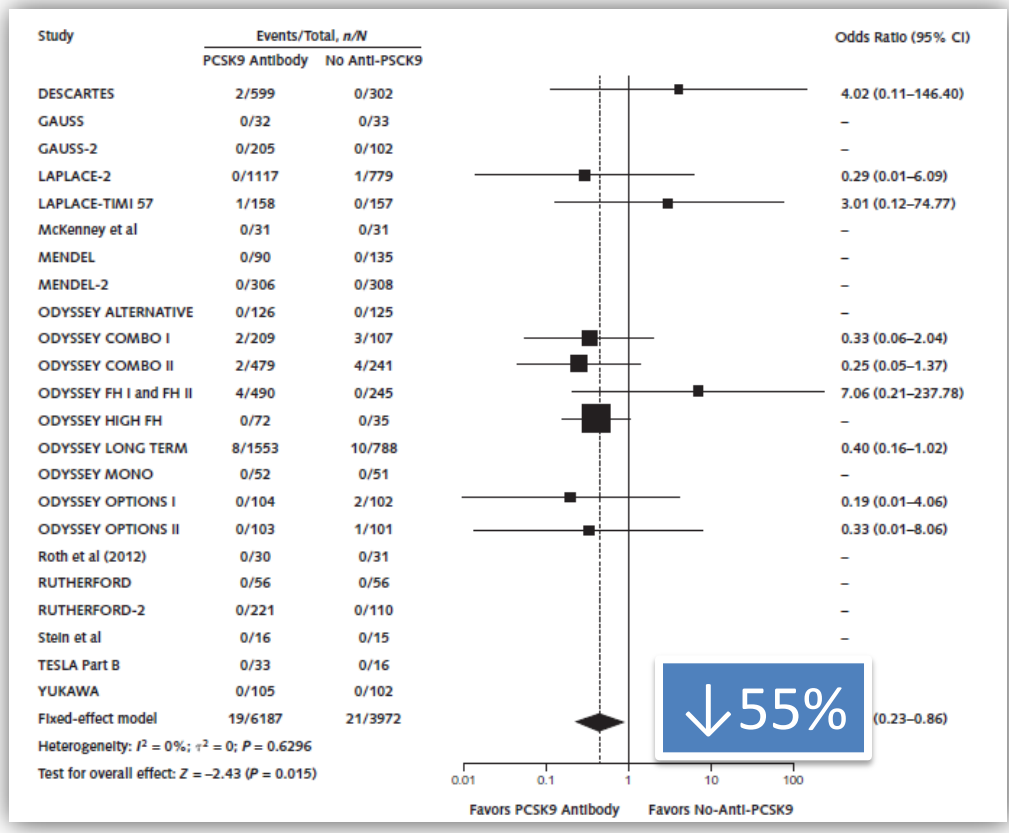


Robinson JG. NEJM 2015;372:1.489-99.

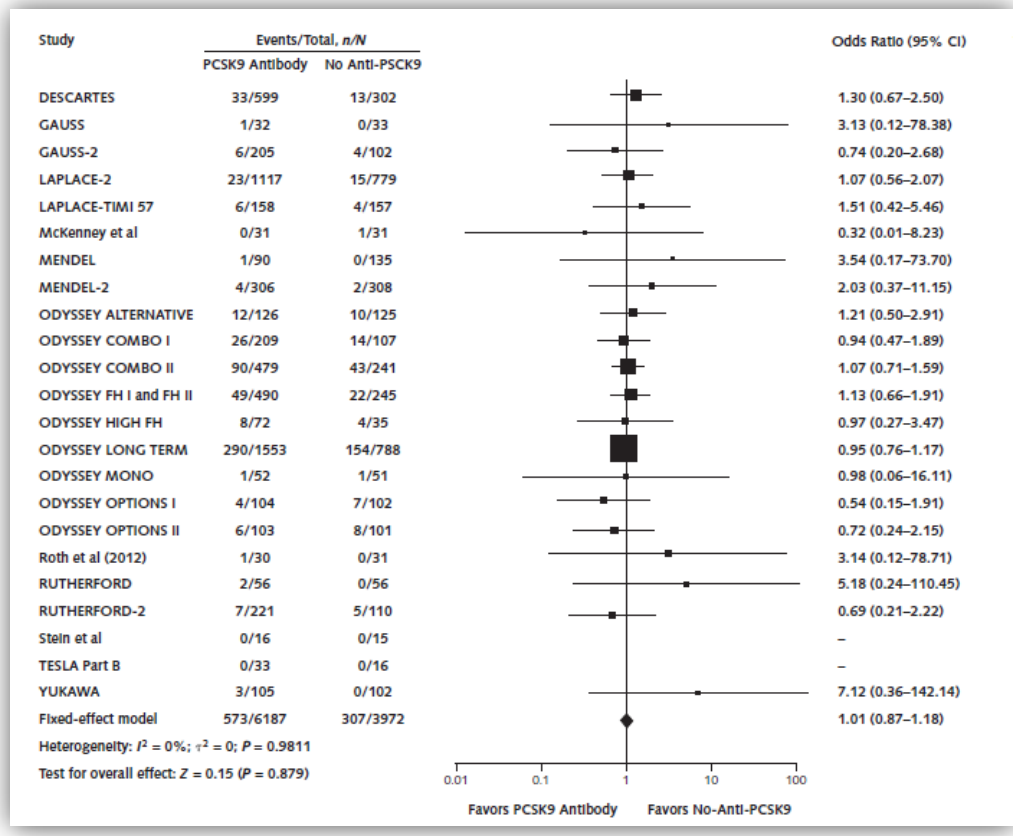
Sabatine MS. NEJM 2015;372:1.500-9.

Meta-análisis de eficacia de PCSK-9

10.159 pacientes C-LDL ↓ 47,5%



Mortalidad por cualquier causa



Efectos adversos graves

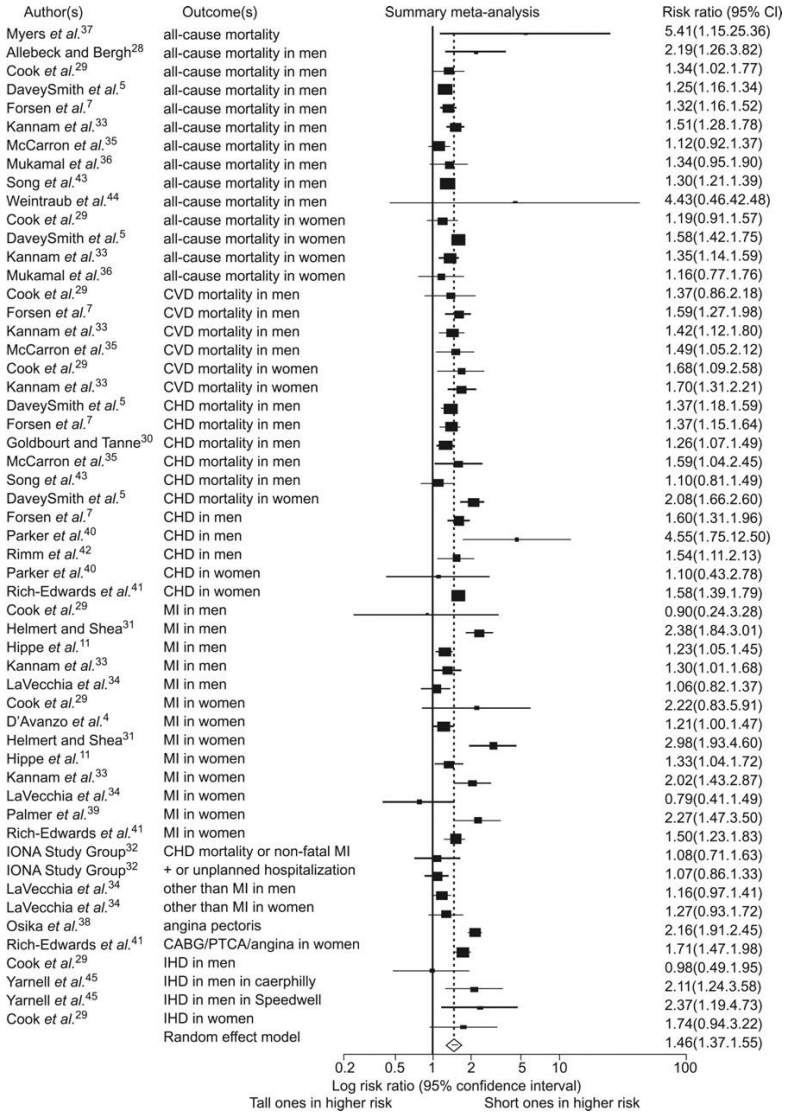
EP Navarese y col. Ann Intern Med 2015; 28 abril online

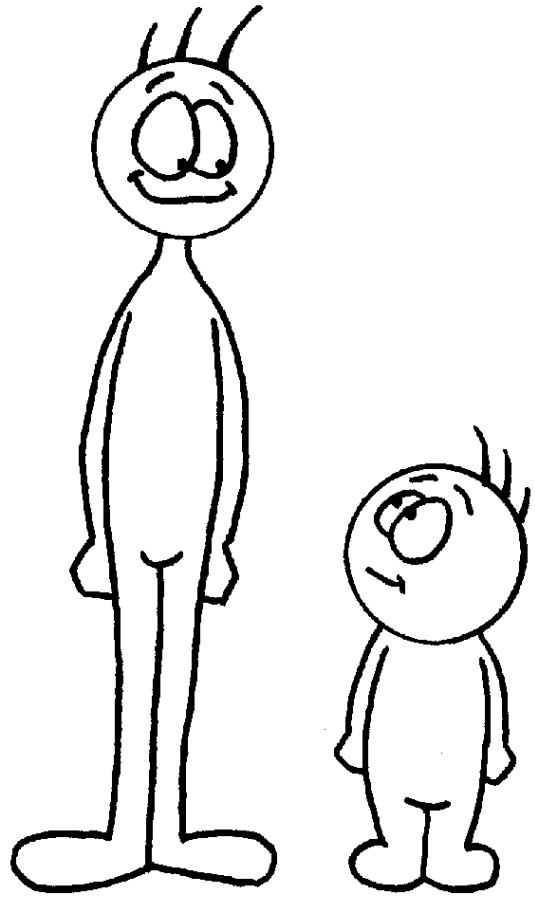
ORIGINAL ARTICLE

Genetically Determined Height and Coronary Artery Disease

C.P. Nelson, S.E. Hamby, D. Saleheen, J.C. Hopewell, L. Zeng, T.L. Assimes, S. Kanoni, C. Willenborg, S. Burgess, P. Amouyel, S. Anand, S. Blankenberg, B.O. Boehm, R.J. Clarke, R. Collins, G. Dedoussis, M. Farrall, P.W. Franks, L. Groop, A.S. Hall, A. Hamsten, C. Hengstenberg, G. Kees Hovingh, E. Ingelsson, S. Kathiresan, F. Kee, I.R. König, J. Kooner, T. Lehtimäki, W. März, R. McPherson, A. Metspalu, M.S. Nieminen, C.J. O'Donnell, C.N.A. Palmer, A. Peters, M. Perola, M.P. Reilly, S. Ripatti, R. Roberts, V. Salomaa, S.H. Shah, S. Schreiber, A. Siegbahn, U. Thorsteinsdottir, G. Veronesi, N. Wareham, C.J. Willer, P.A. Zalloua, J. Erdmann, P. Deloukas, H. Watkins, H. Schunkert, J. Danesh, J.R. Thompson, and N.J. Samani, for the CARDIoGRAM+C4D Consortium*

N Engl J Med 2015;372:1608-18.





↓ 1SD Altura (~ 6,5 cm)

↑ 8% riesgo de IAM fatal o no fatal

Paajanen y col. Eur Heart J 2010; 31: 1802

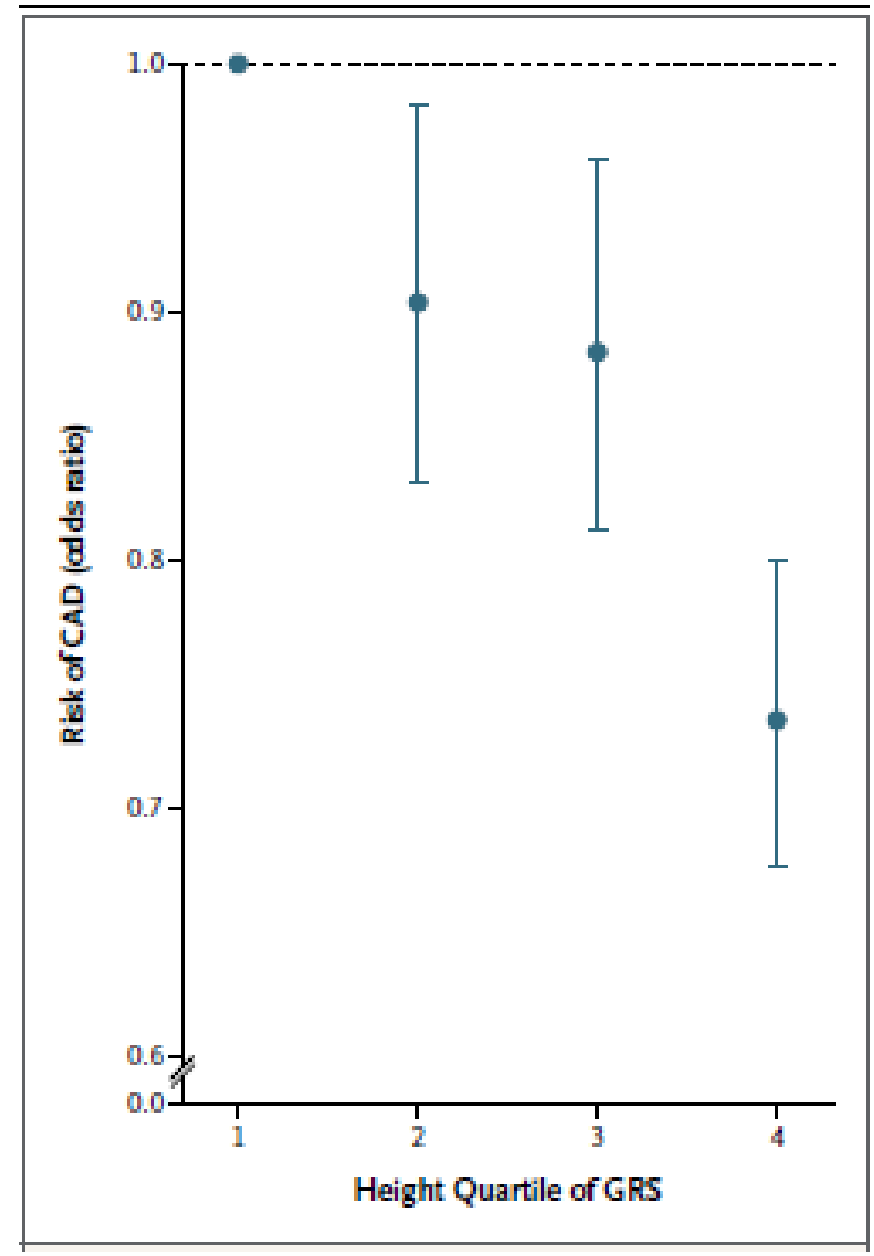
Emerging Risk Factors Collaboration. Int J Epidemiol 2012; 41: 1419

ORIGINAL ARTICLE

Genetically Determined Height and Coronary Artery Disease

C.P. Nelson, S.E. Hamby, D. Saleheen, J.C. Hopewell, L. Zeng, T.L. Assimes, S. Kanoni, C. Willenborg, S. Burgess, P. Amouyel, S. Anand, S. Blankenberg, B.O. Boehm, R.J. Clarke, R. Collins, G. Dedoussis, M. Farrall, P.W. Franks, L. Groop, A.S. Hall, A. Hamsten, C. Hengstenberg, G. Kees Hovingh, E. Ingelsson, S. Kathiresan, F. Kee, I.R. König, J. Kooner, T. Lehtimäki, W. März, R. McPherson, A. Metspalu, M.S. Nieminen, C.J. O'Donnell, C.N.A. Palmer, A. Peters, M. Perola, M.P. Reilly, S. Ripatti, R. Roberts, V. Salomaa, S.H. Shah, S. Schreiber, A. Siegbahn, U. Thorsteinsdottir, G. Veronesi, N. Wareham, C.J. Willer, P.A. Zalloua, J. Erdmann, P. Deloukas, H. Watkins, H. Schunkert, J. Danesh, J.R. Thompson, and N.J. Samani, for the CARDIoGRAM+C4D Consortium*

N Engl J Med 2015;372:1608-18.



Asociación entre un número creciente de alelos relacionados con mayor altura y el riesgo de enfermedad coronaria