

Professor José Viña was born in Valencia, Spain in 1953. After pursuing his studies in Medicine at the University of Valencia, and doing research work under Prof Hans Krebs (Krebs cycle) in Oxford, he obtained his PhD in 1976. He taught Physiology at Extremadura University and then returned to Valencia and took up his present position as full Professor of Physiology at the University of Valencia. Here Prof Viña combines his teaching duties with research work, the latter in two main lines, ageing and exercise. José Viña leads a successful research group named FRESHAGE working on different aspects of ageing, including healthy ageing, exercise and Alzheimer's disease.



Current post

Full Professor and Chair of the Department of Physiology (University of Valencia, Spain) and has been working in ageing for over thirty years. He has been leading a successful research group dealing with nutritional aspects, in the first instance, with longevity and, more recently, with frailty. His major contributions have been: i) Experimental determination that mitochondria are key targets for ageing; ii) Identification of molecular mechanisms to explain why females live longer than males; iii) Identification of new longevity-associated genes, particularly those involved in p53 pathways, telomerase, RAS/GRF1, and antioxidants (G6PD); iv) Generation of a new experimental model for frailty in animals, and; v) Determination of a clinical intervention to effectively delay frailty in humans.

Qualifications

Degree in Medicine: 1976

PhD in Medicine: 1978

Fellow of the Real Academia de Medicina de Valencia (Royal Academy of Medicine of Valencia): 2007

Current active research grants

- 2015: Institute of Healthcare Carlos III. *A multidisciplinary project to advance in basic mechanisms, diagnosis, prediction, and prevention of cardiac damage in reperfused acute myocardial infarction*. Reference: Integrated Projects of Excellence Call PIE15/00013 (ISCIII)
- 2016: Spanish Ministry of Education and Science. *Ageing of the brain: Protection against brain impairment and its application in Alzheimer's disease*. Reference: SAF2016-75508-R
- 2017: Joint Action (HP-JA) 3rd EU Health Programme. *Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative*. Reference: 724099
- 2017-: Institute of Healthcare Carlos III. CIBER Frailty and Successful Ageing. *Basic Research Group led by José Viña*. Reference: CB16/10/00435
- 2019-: European Union. 'Scaling-up of and evidence-based intervention programme in older people with Diabetes and Frailty in LatinAmerica' Reference: 825546 — DIABFRAIL-LATAM
- 2020: Spanish Ministry of Education and Science. *New multidomain therapeutic interventions to delay frailty and disability. Identification of molecular mechanisms with translational relevance (MITOFRAIL)*. Reference: PID2019-110906RB-100
- Valencian Government. *Differences in frailty between genders: Evaluation of biomarkers and intervention strategies*. Reference: GVPROMETEO2019-097

Postgraduate student supervision

50 successful PhD candidates supervised, five in progress.

Academic prizes and awards

Recipient of the University of Valencia Prize for Best Research Translatable to Society (2019), the Onda Cero Prize for Sciences (2018), the Albert Struyvenberg Medal from the European Society for Clinical Investigation (ESCI) 2017; Doctor Honoris Causa of the University of Rennes2, France, 2012; Doctor Honoris Causa of the University of Buenos Aires, Argentina, November 2008; Honorary Fellow of the Academy of Medicine of Torino, Italy, December 2007; 8th Edition of the award presented by 3M Foundation for Innovation (Research in Alzheimer's disease), July 2006; Alberto Sols prize for best research career in the Valencian Community with special mention of the establishment of a research group working on the role of free radicals in pathophysiology, 2005; Spanish Society of Geriatrics and Gerontology Prize for research in Gerontology in June 2004; National Prize for research in child nutrition, awarded by the Spanish Paediatric Association, May 2004; Prize for the best research development in Nutrition awarded by the Spanish Society for Basic and Applied Nutrition (Granted by the Institute Danone), December, 1998.

Ten selected publications (from over 312 peer-reviewed papers, H index=73)

1. Viña, J., Hems, R., Krebs, H.A. (1978) Maintenance of Glutathione Content in Isolated Hepatocytes. *Biochemical Journal* 170:627 – 630. Times cited:164. Impact Factor: 4.0.
2. Sastre, J., Pallardó, F.V., Plá, R., Pellín, A., Juan, G., O'Connor, E., Estrela, J.M., Miquel, J., Viña, J. (1996) Aging of the liver: Age-associated mitochondrial damage in intact hepatocytes. *Hepatology* 24: 1199 – 1205. Times cited: 225. Impact Factor: 11.9.
3. García de la Asunción, J., del Olmo, M.L., Sastre, J., Millán, A., Pellín, A., Pallardó, F.V., Viña, J. (1998) AZT Treatment Induces Molecular and Ultrastructural Oxidative Damage to Muscle Mitochondria - Prevention by Antioxidant Vitamins. *Journal of Clinical Investigation* 102: 4 – 9. Times cited: 195. Impact Factor: 14.4.
4. Vento, M., Asensi, M., Sastre, J., García-Sala, F., Pallardó, F.V., Viña, J. (2001) Resuscitation with Room Air instead of 100%. Oxygen Prevents Oxidative Stress in Moderately Asphyxiated Term Neonates. *Pediatrics* 107: 642 – 647. Times cited: 428. Impact Factor: 6.5.
5. Gómez-Cabrera, M.C., Pallardó, F.V., Sastre, J., Viña, J., García-del-Moral, L. (2003) Allopurinol and markers of muscle damage among participants in the Tour de France. *JAMA* 289 (19):2503-4. Times cited: 127. Impact Factor: 38.2.
6. Matheu, A., Maraver, A., Klatt, P., Flores, I., García-Cao, I., Borrás, C., Flores, J.M., Viña, J., Blasco, M.A., Serrano, M. (2007) Delayed aging through damage protection by the Arf/p53 pathway. *Nature* 448: 375 – 379. Times cited: 432. Impact Factor: 43.8.
7. Tomás-Loba A., Flores I., Fernández-Marcos P.J., Cayuela M.L., Maraver A., Tejera A., Borrás C., Matheu A., Klatt P., Flores J.M., Viña J., Serrano M., Blasco M.A. (2008) Telomerase reverse transcriptase delays aging in cancer-resistant mice. *Cell* 135(4): 609-22. Times cited: 407. Impact Factor: 34.1.
8. Gomez-Cabrera MC, Domenech E, Romagnoli M, Arduini A, Borrás C, Pallardo FV, Sastre J, Viña J. Oral administration of vitamin C decreases muscle mitochondrial biogenesis and hampers training-induced adaptations in endurance performance. *Am J Clin Nutr.* 2008;87(1):142-9. Times cited: 716. Impact factor 6.7
9. Nóbrega-Pereira S, Fernandez-Marcos PJ, Brioché T, Gomez-Cabrera MC, Salvador-Pascual A, Flores JM, Viña J, Serrano M. (2016) G6PD protects from oxidative damage and improves healthspan in mice. *Nat Commun.* 7:10894. Times cited: 59. Impact Factor: 13.1.
10. A Multicomponent Exercise Intervention that Reverses Frailty and Improves Cognition, Emotion, and Social Networking in the Community-Dwelling Frail Elderly: A Randomized Clinical Trial. Tarazona-Santabalbina FJ et al. *J Am Med Dir Assoc.* (2016) Times cited:142 Impact Factor: 5.7.