



Jorge Sanz Ros

Postdoctoral Scholar, Pathology

Bio

STANFORD ADVISORS

- Maria Inmaculada Cobos Sillero, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Small extracellular vesicles from young adipose-derived stem cells ameliorate age-related changes in the heart of old mice.** *Stem cell research & therapy*
Sanz-Ros, J., Huete-Acevedo, J., Mas-Bargues, C., Romero-Garcia, N., Dromant, M., van Weeghel, M., Janssens, G. E., Borrás, C.
2025; 16 (1): 138
- **Molecular Signatures of Resilience to Alzheimer's Disease in Neocortical Layer 4 Neurons.** *bioRxiv : the preprint server for biology*
Dharshini, S. A., Sanz-Ros, J., Pan, J., Tang, W., Vallejo, K., Otero-Garcia, M., Cobos, I.
2024
- **Small extracellular vesicles from young adipose-derived stem cells prevent frailty, improve health span, and decrease epigenetic age in old mice** *SCIENCE ADVANCES*
Sanz-Ros, J., Romero-Garcia, N., Mas-Bargues, C., Monleon, D., Gordevicius, J., Brooke, R. T., Dromant, M., Diaz, A., Derevyanko, A., Guio-Carrion, A., Roman-Dominguez, A., Ingles, M., Blasco, et al
2022; 8 (42): eabq2226
- **A natural language processing-driven map of the aging research landscape.** *Aging*
Perez-Maletzki, J., Sanz-Ros, J.
2025; 17
- **Bcl-xL overexpression in T cells preserves muscle mitochondrial structure and function and prevents frailty in old mice.** *Science advances*
Mas-Bargues, C., Román-Domínguez, A., Sanz-Ros, J., Romero-García, N., Huete-Acevedo, J., Dromant, M., Cuervo, A. M., Borrás, C., Viña, J.
2025; 11 (12): eadr1378
- **The Potential Use of Mitochondrial Extracellular Vesicles as Biomarkers or Therapeutical Tools** *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*
Sanz-Ros, J., Mas-Bargues, C., Romero-Garcia, N., Huete-Acevedo, J., Dromant, M., Borrás, C.
2023; 24 (8)
- **Small extracellular vesicles from senescent stem cells trigger adaptive mechanisms in young stem cells by increasing antioxidant enzyme expression** *REDOX BIOLOGY*
Mas-Bargues, C., Sanz-Ros, J., Romero-Garcia, N., Huete-Acevedo, J., Dromant, M., Borrás, C.
2023; 62: 102668
- **Extracellular Vesicles: The Future of Diagnosis in Solid Organ Transplantation?** *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*
Romero-Garcia, N., Huete-Acevedo, J., Mas-Bargues, C., Sanz-Ros, J., Dromant, M., Badenes, R., Borrás, C.

2023; 24 (6)

- **Extracellular Vesicles as Therapeutic Resources in the Clinical Environment** *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*
Sanz-Ros, J., Mas-Bargues, C., Romero-Garcia, N., Huete-Acevedo, J., Dromant, M., Borrás, C.
2023; 24 (3)
- **The Double-Edged Role of Extracellular Vesicles in the Hallmarks of Aging** *BIOMOLECULES*
Romero-Garcia, N., Huete-Acevedo, J., Mas-Bargues, C., Sanz-Ros, J., Dromant, M., Borrás, C.
2023; 13 (1)
- **Therapeutic Potential of Extracellular Vesicles in Aging and Age-Related Diseases** *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*
Sanz-Ros, J., Mas-Bargues, C., Romero-Garcia, N., Huete-Acevedo, J., Dromant, M., Borrás, C.
2022; 23 (23)
- **Relationship between Diet, Microbiota, and Healthy Aging** *BIOMEDICINES*
Sanchez-Morate, E., Gimeno-Mallench, L., Stromsnes, K., Sanz-Ros, J., Roman-Dominguez, A., Parejo-Pedrajas, S., Ingles, M., Olaso, G., Gambini, J., Mas-Bargues, C.
2020; 8 (8)
- **Extracellular Vesicles from Healthy Cells Improves Cell Function and Stemness in Premature Senescent Stem Cells by miR-302b and HIF-1 α Activation** *BIOMOLECULES*
Mas-Bargues, C., Sanz-Ros, J., Roman-Dominguez, A., Gimeno-Mallench, L., Ingles, M., Vina, J., Borrás, C.
2020; 10 (6)
- **Centenarians: An excellent example of resilience for successful ageing** *MECHANISMS OF AGEING AND DEVELOPMENT*
Borrás, C., Ingles, M., Mas-Bargues, C., Dromant, M., Sanz-Ros, J., Roman-Dominguez, A., Gimeno-Mallench, L., Gambini, J., Vina, J.
2020; 186: 111199
- **Extracellular vesicles and redox modulation in aging** *FREE RADICAL BIOLOGY AND MEDICINE*
Borrás, C., Mas-Bargues, C., Sanz-Ros, J., Roman-Dominguez, A., Gimeno-Mallench, L., Ingles, M., Gambini, J., Vina, J.
2020; 149: 44-50
- **BCL-xL, a Mitochondrial Protein Involved in Successful Aging: From *C. elegans* to Human Centenarians** *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*
Borrás, C., Mas-Bargues, C., Roman-Dominguez, A., Sanz-Ros, J., Gimeno-Mallench, L., Ingles, M., Gambini, J., Vina, J.
2020; 21 (2)
- **The Relationship between Diet and Frailty in Aging** *ENDOCRINE METABOLIC & IMMUNE DISORDERS-DRUG TARGETS*
Gimeno-Mallench, L., Sanchez-Morate, E., Parejo-Pedrajas, S., Mas-Bargues, C., Ingles, M., Sanz-Ros, J., Roman-Dominguez, A., Olaso, G., Stromsnes, K., Gambini, J.
2020; 20 (9): 1373-1382
- **Relevance of Oxygen Concentration in Stem Cell Culture for Regenerative Medicine** *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*
Mas-Bargues, C., Sanz-Ros, J., Roman-Dominguez, A., Ingles, M., Gimeno-Mallench, L., El Alami, M., Vina-Almunia, J., Gambini, J., Vina, J., Borrás, C.
2019; 20 (5)
- **Alzheimer's disease: Only prevention makes sense** *EUROPEAN JOURNAL OF CLINICAL INVESTIGATION*
Vina, J., Sanz-Ros, J.
2018; 48 (10): e13005
- **Influence of partial O₂ pressure on the adhesion, proliferation, and osteogenic differentiation of human dental pulp stem cells on β -tricalcium phosphate scaffold**
Mas-Bargues, C., Vina-Almunia, J., Sanz-Ros, J., Ingles, M., Gimeno-Mallench, L., Dromant, M., Roman-Dominguez, A., Borrás, C., Penarrocha, M., Vina, J.
ELSEVIER SCIENCE INC.2018: S74
- **Influence of Partial O₂ Pressure on the Adhesion, Proliferation, and Osteogenic Differentiation of Human Dental Pulp Stem Cells on beta-Tricalcium Phosphate Scaffold.** *The International journal of oral & maxillofacial implants*
Vina-Almunia, J., Mas-Bargues, C., Borrás, C., Gambini, J., El Alami, M., Sanz-Ros, J., Penarrocha, M., Vina, J.

2017; 32 (6)

- **Role of p16^{INK4a} and BMI-1 in oxidative stress-induced premature senescence in human dental pulp stem cells** *REDOX BIOLOGY*

Mas-Bargues, C., Vina-Almunia, J., Ingles, M., Sanz-Ros, J., Gambini, J., Santiago Ibanez-Cabellos, J., Luis Garcia-Gimenez, J., Vina, J., Borras, C.
2017; 12: 690-698