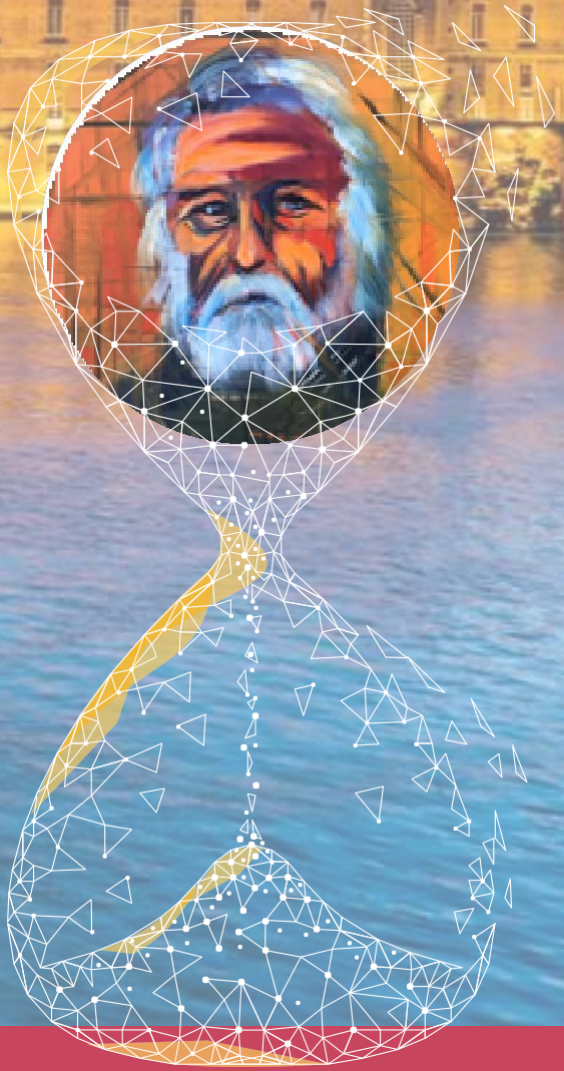
2nd EURO GEROSCIENCE CONFERENCE

Toulouse 2022 - FRANCE



March 24-25, 2022

Hôtel Dieu

Hôpitaux de Toulouse · Toulouse GÉRONTOPÔLE · WHO - Collaborative Centre for Frailty, Clinical Research and Geriatric Training · Institut Preserv'Age CHU DE TOULOUSE · INSPIRE · L'EUROPE S'ENGAGE L'OCCITANIE AGIT · Région Occitanie · UNIVERSITÉ TOULOUSE III PAUL SABATIER · Inserm La science pour la santé From science to health · cnrs

Thursday, MARCH 24

8.00 a.m — SESSION 1: What can the biology of aging offer Geroscience?

8.00 a.m — Session Chair:
Ana Maria Cuervo, Einstein Institute for Aging Research, Albert Einstein College of Medicine, Bronx, NY (USA)

8.30 a.m — *Linda Partridge, Partridge Lab, University College London, London (UK)*

8.50 a.m — **Understanding and modeling aging and age-related diseases**
Anne Brunet, Stanford University, Stanford, CA (USA)

9.10 a.m — Oral communications

9:10 a.m — OC1 **Exploiting Metabolic Reprogramming in Cellular Senescence as a Therapeutic Target**
José Américo Nabuco L F De Freitas [1], Khaled Tighanimine [2], Yvan Nemazanyy [2], Yara Bou Saada [1], Delphine Benarroch-Popivker [3], Aaron Mendez-Bermudez [3], Stefano Fumagalli [2], Bertrand Friguet [1], Eric Gilson [3], Mario Pende [2], Oliver Bischof [4]
[1]Sorbonne Université, Cnrs, Inserm, Institut De Biologie Paris-Seine, Biological Adaptation And Ageing, B2a-Ibps - Paris (France), [2]Institut Necker-Enfants Malades, Université Paris Descartes, Sorbonne Paris Cité - Paris (France), [3]School Of Medicine, Cnrs, Inserm, Ircan, Université Côte D'azur - Nice (France), [4]Cnrs Délégation Ile De France - Villejuif (France)

9:20 a.m — OC2 **TIME-Seq enables inexpensive and scalable epigenetic age predictions for large studies in mice and humans**
Patrick Griffin [1], Alice Kane [1], Alexandre Trapp [2], Jien Li [1], Maeve Mcnamara [1], Margarita Meer [3], Michael Macarthur [4], Sarah Mitchell [4], Amber Mueller [1], Colleen Carmody [1], Daniel Vera [1], Csaba Kerepesi [2], Nicole Noren Hooten [5], James Mitchell [4], Michele Evans [5], Vadim Gladyshev [2], David Sinclair [1]
[1]Blavatnik Institute, Dept. Of Genetics, Paul F. Glenn Center For Biology Of Aging Research At Harvard Medical School - Boston (United States), [2]Brigham And Women's Hospital, Division Of Genetics, Department Of Medicine, Harvard Medical School - Boston (United States), [3]Yale University School Of Medicine, Department Of Pathology - New Haven (United States), [4]Department Of Health Sciences And Technology, Eth Zurich - Zürich (Switzerland), [5]Laboratory Of Epidemiology And Population Science, National Institute On Aging, National Institutes Of Health - Bethesda (United States)

9:30 a.m — OC3 **A single short reprogramming early in life improves fitness and increases lifespan in old age**
Quentin Alle [1], Enora Le Borgne [2], Paul Bensadoun [1], Camille Lemey [2], Nelly Bechir [2], Melissa Gabanou [2], Fanny Estermann [1], Christelle Bertrand-Gaday [3], Laurence Pessemesse [3], Karine Toupet [4], Jerome Vialaret [5], Christophe Hirtz [6], Daniele Noel [4], Christian Jorgensen [4], Francois Casas [3], Ollivier Milhavet [1], Jean-Marc Lemaitre [1]
[1]Inserm/IRMB - Montpellier (France), [2]UM/IRMB - Montpellier (France), [3]Metamus/INRAE - Montpellier (France), [4]Ecell France/IRMB - Montpellier (France), [5]PPC/CHU - Montpellier (France), [6]PPC/UM - Fort Worth (United States)

9:40 a.m — OC4 **Novel approaches for single-cell and cost-effective epigenetic age profiling**
Alexandre Trapp [1], Csaba Kerepesi [1], Vadim Gladyshev [1]
[1]Harvard Medical School - Boston (United States)

09.50 a.m — Coffee Break and poster sessions

10.20 a.m SESSION 2: What can Geroscience offer to the biology of aging?

10.20 a.m Session Chair: *James L. Kirkland, Mayo Clinic, Rochester, MN (USA)*

10.50 a.m *Laura Niedernhofer, University of Minnesota, Minneapolis, MN (USA)*

11.10 a.m *Brian Kennedy, University of Singapore (Singapore)*

11.30 a.m Oral communications

11:30 a.m OC5 **Necroptosis inhibition counteracts axonal degeneration, cognitive decline and key hallmarks of aging, promoting brain rejuvenation**
Macarena Arrázola [1], Felipe Court [1]
[1]Center For Integrative Biology, Universidad Mayor - Santiago (Chile)

11:40 a.m OC6 **Single-Cell Analysis reveals senescent cells clusters associated to optimal muscle regeneration**
Cheng Chen [1], Coralie Cazin [1], Jeremy Chantel [1], Sebastien Mella [1], Aurelie Chiche [1], Han Li [1]
[1]Institut Pasteur - Paris (France)

11:50 a.m OC7 **Short senolytic or senostatic interventions rescue progression of radiation-induced frailty and premature ageing in mice**
Edward Fielder [1], Satomi Miwa [1], Thomas Von Zglinicki [1]
[1]Newcastle University - Newcastle Upon Tyne (United Kingdom)

12:00 p.m OC8 **Selective targeting of senescent cell mitochondria by mitochondrial uncouplers enhances specificity and sensitivity of senolytics**
Satomi Miwa [1], Edward Fielder [1], Abbas Ishaq [1], Thomas Von Zglinicki [1]
[1]Newcastle University - Newcastle Upon Tyne (United Kingdom)

12.10 p.m Lunch and poster sessions

1.10 p.m ROUNDTABLE 1: Molecular, cellular and physiological hallmarks of aging
Guido Kroemer, Sorbonne University, Paris (France)
Luigi Ferrucci, National Institute of Aging, Baltimore, MD (USA)
Vadim Gladyshev, Brigham & Women's Hospital, Boston, MA (USA)
Rafael de Cabo, National Institute of Aging, Baltimore, MD (USA)

2.10 p.m ROUNDTABLE 2: Regulatory framework for geroprotectors
Anna Lönnroth, European Commission, Brussels (Belgium)
Nir Barzilai, Albert Einstein College of Medicine, Bronx, NY (USA)
Alexander Fleming, Kinexum, Harpers Ferry, WV (USA)
William K. Smith, Uniformed Services University of Health Sciences, and University of South Carolina, SC (USA)

3.10 p.m Coffee Break and poster sessions

Thursday, MARCH 24

3.40 p.m SESSION 3: Involving new blood into geroscience

3.40 p.m Session Chair: *Jamie N. Justice, Wake Forest School of Medicine, Winston-Salem, NC (USA)*

4.10 p.m *Benoit Lehallier, PhD, Director of Data Science, Alkahest, San Carlos, CA (USA)*

4.30 p.m *Irene Martinez de Toda, Professor, Universidad Complutense de Madrid, Madrid (Spain)*

4.50 p.m Oral communications

4:50 p.m OC9 **The NAD+-mitophagy axis in ageing and Alzheimer's disease and artificial intelligence-based drug development**
Evandro Fei Fang University of Oslo And Akershus University Hospital - Oslo (Norway)

5:00 p.m OC10 **The effect of Methionine Restriction on endurance performance in mice**
Charlotte G. Mann [1], Thomas Agius [2], Alban Longchamp [2], Michael R. Mac Arthur [1], Katrien De Bock [1], Sarah J. Mitchell [1]
[1]Eidgenösschiche Technische Hochschule - Zürich (Switzerland), [2]École Polytechnique Fédérale De Lausanne - Lausanne (Switzerland)

5:10 p.m OC11 **Metabolic implications on neuroinflammation in the pathological aging context. Dietary restriction, glial autophagy and metformin in Alzheimer's disease**
Juan Beauquis [1], Carlos Pomilio [1], Angeles Vinuesa [1], Amal Gregosa [1], Nicolas Gonzalez-Perez [1], Flavia E Saravia [1]
[1]Conicet & Uba - Buenos Aires (Argentina)

5:20 p.m OC12 **Differences in blood-based inflammatory profile according to longitudinal intrinsic capacity trajectories in community-dwelling older adults**
Wan-Hsuan Lu [1], Emmanuel Gonzalez-Bautista [1], Philipe De Souto Barreto [1]
[1]Toulouse University Hospital (chu Toulouse) - Toulouse (France)

Friday, MARCH 25

8.00 a.m — SESSION 4: New models in geroscience

8.00 a.m — Session Chair: *Steven N. Austad, University of Alabama, Birmingham, AL (USA)*

8.30 a.m — *Dario Riccardo Valenzano, Leibniz Institute on Aging, FLI, Jena, (Germany)*

8.50 a.m — *Alex Zhavoronkov, Insilico Medicine, Hong Kong (Hong Kong)*

9.10 a.m — **Oral communications**

9.10 a.m — OC13 **Epigenetic clocks reveal reversible changes in biological age in response to stress**
Jesse Poganik [1], Vadim Gladyshev [1]
[1]Brigham And Women's Hospital, Harvard Medical School - Boston (United States)

9.20 a.m — OC14 **Cryptic Nature-Phenomenal Animalesque Human Torpor: Forever-Young Inner Fountain-of-Youth?**
Sébastien Murat [1]
[1]Charles Sturt University - Bathurst (Australia)

9.30 a.m — OC15 **Sexual identity of enterocytes regulates rapamycin-mediated intestinal homeostasis and lifespan extension**
Yu-Xuan Lu [1], Jennifer C. Regan [2,3], Enric Ureña [2], Ralf Meilenbrock [1], James H. Catterson [2], Disna Kißler [1], Linda Partridge [1]
[1]Max Planck Institute For Biology Of Ageing - Cologne (Germany), [2]Institute Of Healthy Ageing, Department Of Genetics, Evolution And Environment, University College London - London (United Kingdom)[3] University of Edinburgh - Edinburgh (United Kingdom)

9.40 a.m — OC16 **Exploring the Interplay of Sex, Immunity and Ageing using Drosophila melanogaster**
Mary-Kate Corbally [1], Nahian Majlish [2], Chtarbanova-Rudloff Stanislava [2], Jenny Regan [1]
[1]University Of Edinburgh - Edinburgh (United Kingdom), [2]University of Alabama - Tuscaloosa, AL (United States)

09.50 a.m — Coffee Break and poster sessions

10.10 a.m — SESSION 5: Geroscience and Biotechs in Europe

10.10 a.m — Session Chair: *Ann Beliën, Rejuvenate Biomed, Heusden-Zolder (Belgium)*

10.40 a.m — *Nichola Conlon, Nuchido, Newcastle (UK)*

11.00 a.m — *Peter L.J. de Keizer, Cleara Biotech B.V., Utrecht (The Netherlands)*

11.20 a.m — **Oral communications**

11:20 a.m — OC17 **Targeting cellular senescence with novel senotherapeutics by design to extend healthspan**
Lei Zhang University of Minnesota - Minneapolis (United States)

11:30 a.m — OC18 **Precise machine learning suggests that brain cells facing a neurodegenerative insult are the subject of molecular decompensation and aging**
Lucile Mégret [1], Barbara Gris [2], Satish Sasidharan Nair [1], Jasmin Cevost [1], Mary Wertz [3], Jeff Aaronson [4], Jim Rosinski [4], Thomas F. Vogt [4], Hilary Wilkinson [3], Myriam Heiman [3], Christian Néri [1]
[1]Sorbonne Université, Centre National de la Recherche Scientifique UMR 8256, INSERM ERL U1164, Brain-C Lab - Paris (France) [2] Sorbonne Université, Centre National de la Recherche Scientifique, Laboratoire Jacques-Louis Lyons (LJLL- Paris (France) [3] MIT, Broad Institute, Cambridge, MA (United States) [4]CHDI Foundation, Princeton, NJ, (United States)

11:40 a.m — OC19 **Development of transformative oral drugs to regenerate aging muscles**
Stan Watowich Ridgeline Therapeutics - Houston (United States)

11:50 a.m — OC20 **Longitudinal analysis of aging trajectories in big biomed data reveals progressive loss of resilience and predicts human lifespan limit**

Peter Fedichev Gero.ai - Singapore (Singapore)

Friday, MARCH 25

12.00 p.m **ROUNDTABLE 3: Funding and communication**

Stephanie Lederman, American Federation for Aging Research, New York, NY (USA)

Mehmood Kahn, Life Biosciences, Boston, MA (USA)

Viviana Perez Montes, National Institute of Aging, Baltimore, MD (USA)

1.00 p.m Lunch and poster sessions

2.00 p.m **ROUNDTABLE 4: Establishing research priorities**

Felipe Sierra, Gerontopole, Toulouse University, Toulouse (France)

Linda Fried, Columbia University Medical Center, New York, NY (USA)

Matt Kaeberlein, Memory and Brain Wellness Center, Seattle, WA (USA)

Ronald A. Kohanski, National Institute on Aging, Baltimore, MD (USA)

3.00 p.m **SESSION 6: Designing clinical trials in Geroscience**

3.00 p.m Session Chair: *Stephen Kritchevsky, Wake Forest School of Medicine, Winston-Salem, NC (USA)*

3.30 p.m *John Newman, University of California at San Francisco (UCSF), San Francisco, CA (USA)*

3.50 p.m *Joan Mannick, Life Biosciences, Boston, MA (USA)*

4.10 p.m Coffee Break and poster sessions

4.30 p.m **Oral communications**

4:30 p.m OC21 **Counteracting age-related VEGF signaling insufficiency promotes healthy aging and extends life span**
Myriam Grunewald, The Hebrew University - Jerusalem (Israel)

4:40 p.m OC22 **Nutrition as a tool to counteract inflammaging: results and challenges from the NU-AGE project**
Aurelia Santoro [1], Claudio Franceschi [1]
[1]University Of Bologna - Bologna (Italy)

4:50 p.m OC23 **Lomecel-B as a Geroscience Therapeutic Candidate: Clinical Trial Results**
Joshua Hare [1], Kevin Ramdas [1], Dan Gincel [1], Lisa Mcclain-Moss [1], Jorge Ruiz [2], Anthony Oliva [1]
[1]Longeveron Inc. - Miami (United States), [2]Bruce W. Carter Miami Vamc - Miami (United States)

5:00 p.m OC24 **Exercise rejuvenates the skeletal muscle methylome and transcriptome in humans**
Sarah Voisin [1], Macsue Jacques [1], Shanie Landen [1], Nicholas Harvey [2], Larisa Haupt [3], Lyn Griffiths [3], Kevin Ashton [2], Vernon Coffey [2], Jamie-Lee Thompson [2], Thomas Doering [4], Malene Lindholm [5], Ola Hansson [6], Olof Asplund [6], Sara Blocquiaux [7], Martine Thomis [7], Adam Sharples [8], Steve Horvath [9], Nir Eynon [10]
[1]Victoria University - Melbourne (Australia), [2]Bond University - Gold Coast (Australia), [3]Queensland University Of Technology - Brisbane (Australia), [4]Central Queensland University - Rockhampton (Australia), [5]Stanford University - Stanford (United States), [6]Lund University - Lund (Sweden), [7]Ku Leuven - Leuven (Belgium), [8]School Of Sport Sciences - Oslo (Norway), [9]Ucla - Los Angeles (United States), [10]Victoria University - Footscray (Australia)

5.10 p.m END OF CONFERENCE

POSTER PRESENTATIONS

ARTIFICIAL INTELLIGENCE AND AGING

P1 **New biomarkers for Alzheimer diagnosis and early detection of mild cognitive impairment**
Aurora Román-Domínguez [1], Mar Dromant [1], Consuelo Borrás [1]
[1]University Of Valencia - València (Spain)

P2 **Technological development and clinical applicability of wearable devices for remote monitoring of older adults health: the Senior Mobile Health Platform**
Álvaro Maciel [1], Eujessika Silva [1], Daniella Carvalho [1], Paulo Barbosa [2]
[1]Universidade Federal Do Rio Grande Do Norte - Natal (Brazil), [2]Universidade Estadual Da Paraiba - Campina Grande (Brazil)

P3 **Heart rate variability remote monitoring using wearable devices**
Álvaro Maciel [1], Eujessika Silva [1], Jose Marmol [2], Jose Bullejos [2], Paulo Barbosa [3]
[1]Universidade Federal Do Rio Grande Do Norte - Natal (Brazil), [2]Universidad De Granada - Granada (Spain), [3]Universidade Estadual Da Paraiba - Campina Grande (Brazil)

P4 **A Multi-Tissue Meta-Analysis of Methylation Variability: Uncovering Robust Markers for Biological Ageing**
Kirsten Seale [1], Namitha Mohandas [1], Nir Eynon [1], Sarah Voisin [1]
[1]Victoria University - Melbourne (Australia)

P5 **Infrared spectroscopy as a diagnostic tool for osteosarcopenic women**
Ricardo Guerra [1], Raysa Freitas [1], Daniel Freitas [1], Igor Oliveira [1], Gerlane Guerra [1], Gustavo Duque [2], Kassio Lima [1]
[1]Federal University Of Rio Grande Do Norte - Natal (Brazil), [2]University Of Melbourne - Melbourne (Australia)

P6 **The discovery and characterization of a new premature aging disease**
Daniela Bakula [1], Morten Scheibye-Knudsen [1]
[1]Center For Healthy Aging, University of Copenhagen - Copenhagen (Denmark)

P7 **Scallop: a novel computational method for the quantification of age-related increase in transcriptional noise at the single-cell level**
Olga Ibáñez-Solé [1], Alex M. Ascensión [1], Marcos J. Araúzo-Bravo [1], Ander Izeta [1]
[1]Biodonostia Health Research Institute - Donostia-San Sebastián (Spain)

CELLULAR SENESCENCE AND SENOLYTICS

P8 **Using C. elegans for ß-Gal staining in-vivo screening reveals endoribonuclease Regnase-1 as a suppressor of senescence**
Collin Ewald, Eth Zurich - Schwerzenbach (Switzerland)

P9 **Transcriptome analysis reveals senescence pathways driven by EGR1, DDX11L1 and miR454 associated with frailty**
Ander Matheu [1], Ander Saenz-Antoñanas [1]
[1]Biodonostia Institute - San Sebastian (Spain)

P10 **Ribosome heterogeneity by rRNA methylation in skin cell senescence**
Markus Schosserer, University of Natural Resources and Life Sciences, Vienna - Vienna (Austria)

P11 **sEVs from young ADSCs improve healthspan and prevent frailty in old mice**
Jorge Sanz-Ros [1], Cristina Mas-Bargues [1], Aurora Roman-Dominguez [1], Mar Dromant [1], Nekane Romero-Garcia [1], Jose Viña [1], Consuelo Borras [1]
[1]University Of Valencia - Valencia (Spain)

P12 **Exploring the role of arginine-rich peptides and the nucleolus in ageing and neurodegeneration**
Oleksandra Sirozh [1], Vanesa Lafarga [1], Oscar Fernández-Capetillo [1]
[1]Cnio Spanish National Cancer Research Centre - Madrid (Spain)

POSTER PRESENTATIONS

CELLULAR SENESCENCE AND SENOLYTICS (continued)

P13 **Relationship between sarcopenia and water cellular profile in community-dwelling older people: Results from PRO-EVA Study**

Álvaro Maciel [1], Sabrina Fernandes [1], Rafaella Gonçalves [1], Dimitri Guedes [1], Saionara Camara [1], Philipe Barreto [2]

[1]Universidade Federal Do Rio Grande Do Norte - Natal (Brazil), [2]Gérontopôle De Toulouse - Toulouse (France)

P14 **Endothelial-derived circulatory miR34 reinforces senescence in progeria**

Selma Osmanagic-Myers [1], Christina Manakanatas [2], Santhosh Kumar Ghadge [2], Roland Foisner [2], Viviane Fleischhacker [1], Eleonora Nardini [1]

[1]Institute of Medical Chemistry, Center For Pathobiochemistry and Genetics, Medical University of Vienna - Vienna (Austria), [2]Max Perutz Labs, Center For Medical Biochemistry, Medical University Of Vienna - Vienna (Austria)

P15 **Senescent Cells: Role in Countering Pulmonary Hypertension Development and Progression**

Emmanuelle Born [1], Marielle Breau [2], Larissa Lipskaia [1], Amal Houssaini [1], Delphine Beaulieu [1], Elisabeth Marcos [1], Rémi Pierre [3], Marcio Do Cruzeiro [3], Geneviève Dérumeaux [1], Dmitry Bulavin [4], Jesùs Gil [5], David Bernard [6], Jean-Michel Flamand [6], Shariq Abid [1], Serge Adnot [1]

[1]Inserm U955 - Créteil (France), [2]CRCM - Marseille (France), [3]Inserm U1016 - Paris (France), [4]CNRS - Nice (France), [5]MRC - London (United Kingdom), [6]UMR Inserm U1052/CNRS 5286 - Lyon (France)

P16 **Glyoxal induces senescence in primary human keratinocytes through oxidative stress and activation of the AKT/FOXO3a/p27KIP1 signaling pathway**

Rym Halkoum [1], Virginie Salnot [2], Christophe Capallere [3], Christelle Plaza [3], Aurore L'honoré [4], Karl Pays [5], Bertrand Friguet [4], Carine Nizard [5], Isabelle Petropoulos [4]

[1]Sorbonne Université (biological Adaptation And Ageing, B2a-Ibps) And LYMH Recherche (life Science Department) - Paris (France), [2]3p5 Proteom'ic Facility, Université De Paris, Institut Cochin, Inserm, CNRS - Paris (France), [3]Ashland, Global Skin Research Center, Advanced Skin Research & Bioengineering Dept - Sophia Antipolis (France), [4]Sorbonne Université, Cnrs, Inserm, Institut De Biologie Paris-Seine, Biological Adaptation And Ageing, B2a-Ibps - Paris (France), [5]Lvmh Recherche. Life Science Department - Saint-Jean-De-Braye (France)

P17 **Using the p21-mTert bypassing senescence model to study the role of telomeres in age-related osteoarthritis**

Christina Fissoun [1], Margot Milano [1], Laura Braud [2], Marielle Breau [2], Yves-Marie Pers [1], Christian Jorgensen [1], Vincent Geli [2], Jean-Marc Brondello [1]

[1]IRMB UMR1183 - Montpellier (France), [2]CRCM U1168 - Marseille (France)

P18 **Modification of the levels of sulfated steroid hormones by STX64 as a possible geroprotector**

Mercedes Perez-Jimenez [1], Angel Carrion [1], Manuel Muñoz [1]

[1]University Pablo De Olavide - Sevilla (Spain)

P19 **E4F1-mediated control of pyruvate dehydrogenase is essential for p53-dependent senescence**

Pierre-François Roux [1], Jean-Marc Lemaitre [2], Matthieu Lacroix [1], Claude Sardet [1], Laurent Le Cam [1]

[1]Ircm, Institut de Recherche en Cancérologie De Montpellier, Inserm U1194, Université de Montpellier, Institut Régional du Cancer de Montpellier - Montpellier (France), [2]IRMB, Institute for Regenerative Medicine and Biotherapy, Inserm U1183, CHRU Montpellier Saint-Eloi Hospital - Montpellier (France)

P20 **Senolytics rejuvenate the reparative activity of human cardiomyocytes and endothelial cells**

Piotr Sunderland [1], Lulwah Alshammari [1], Emily Ambrose [1], Georgina Ellison-Hughes [1]

[1]Centre For Human And Applied Physiological Sciences & Centre For Stem Cells And Regenerative Medicine, School Of Basic And Medical Biosciences, Faculty Of Life Sciences & Medicine, King's College London - London (United Kingdom)

POSTER PRESENTATIONS

GEROSCIENCE OF COVID

P21 **SARS-COV-2 infection causes massive lung-cell senescence**
Larissa Lipskaia [1], Emmanuelle Born [1], Pauline Maisonnasse [2], Fouillade Charles [3], Pascal Quantin [2], Elisabeth Marcos [1], Arturo Londono-Vallejo [3], Roger Le Grand [3], David Bernard [4], Serge Adnot [5]
[1]Université Paris Est Creteil - Créteil (France), [2]CEA - Fontenay-Aux-Roses (France), [3]Institut Curie - Paris (France), [4]Université De Lyon - Lyon (France), [5]APHP Hopital Henri Mondor - Creteil (France)

INFLAMMATION AND IMMUNOSENESCENCE

P22 **AP-1 complex activation is a conserved signature of immune system aging and a potential regulator of inflammaging in human and mice**
Duygu Ucar Jackson Laboratory - Farmington (United States)

P23 **Numtogenesis affecting chromosome segregation: insights for a novel approach to understand immunosenescence in mice**
Mónica González-Sánchez [1], Víctor García-Martínez [1], Sara Bravo [1], Hikaru Kobayashi [1], Irene Martinez De Toda [1], Blanca González-Bermúdez [1], Gustavo R Plaza [2], Mónica De La Fuente [1]
[1]Complutense University of Madrid - Madrid (Spain), [2]Polytechnic University of Madrid - Madrid (Spain)

P24 **Circulating cell-free DNA in plasma as a potential biomarker of biological age. Relationship with the redox state and function of immune cells. Influence of gender**
Estefanía Díaz-Del Cerro [1], Mónica González-Sánchez [1], Irene Martínez De Toda [1], Manuel Lambea [1], Jaime Bartolomé [1], Mónica De La Fuente [1]
[1]Complutense University Of Madrid - Madrid (Spain)

P25 **Identification of a blood microRNAs-based signature of ageing in Down Syndrome**
Cristina Morsiani [1], Salvatore Collura [1], Maria Giulia Bacalini [2], Claudio Franceschi [3], Miriam Capri [1]
[1]Department Of Experimental, Diagnostic and Specialty Medicine, University of Bologna - Bologna (Italy), [2]Irccs Istituto Delle Scienze Neurologiche Di Bologna - Bologna (Italy), [3]Laboratory of Systems Medicine Of Healthy Aging and Department of Applied Mathematics, Lobachevsky University - Nizhny Novgorod (Russian Federation)

P26 **Allostatic load and Physical Performance: findings from IMIAS Study**
Ricardo Guerra [1], Matheus Germano [1], Crisitiano Gomes [1], Juliana Fernandes [2]
[1]Federal University of Rio Grande Do Norte - Natal (Brazil), [2]Federal University of Pernambuco - Recife (Brazil)

P27 **Unravel immunosenescence role in response to kidney injury: a first step immune landscaping**
Snigdha Nitin Rao [1], Audrey Casemayou [1], Marie Buléon [1], Guylène Feuillet [1], Elodie Riant [1], Alexia Zakaroff-Girard [1], Frédéric Martins [1], Ignacio Gonzalez-Fuentes [1], Jean Sébastien Saulnier Blache [1], Joost Peter Schanstra [1], Julie Belliere [1]
[1]Institute of Cardiovascular and Metabolic Diseases - Toulouse (France)

P28 **Leukocyte-derived ratios are associated with early-onset dementia and functional frailty**
Yu Na Kim [1], Saleena Arif [1]
[1]Dothousehealth - Boston (United States)

P29 **Does inflammation contribute to cancer incidence and mortality during aging? A conceptual review**
Florent Guerville [1], Maël Lemoine [1], Victor Appay [1]
[1]Immunoconcept Lab, Bordeaux University - Bordeaux (France)

P30 **Associations of Adverse Childhood Experiences with Executive Function and Brain-Derived Neurotrophic Factor in Older Adults**
Cindy Tsotsoros [1], Misty Hawkins [1]
[1]Oklahoma State University - Stillwater (United States)

POSTER PRESENTATIONS

MICROBIOME OF AGING

P31 **Late onset pharmacological or dietary interventions in mice improve healthspan and lifespan in male and female mice**
Mitchell Sarah [1], Michael Macarthur [1], Alice Kane [2], David Sinclair [2], Mehmet Huseyin [3], Vath James [3], Manning Brendan [4], Mitchell James [1]
[1]ETH Zurich - Zurich (Switzerland), [2]Harvard University - Boston (United States), [3]Zafgen - Boston (United States), [4]Harvard - Boston (United States)

MITOCHONDRIAL METABOLISM AND AGING

P32 **Metabolomics-based biomarkers for aging in Chinese adults**
Yiming Pan Department of Geriatrics, Xuanwu Hospital, Capital Medical University - Beijing (China)

P33 **The Relevance of Oxytosis/Ferroptosis to Aging and Alzheimer's Disease**
Pamela Maher [1], Antonio Currais [1]
[1]Salk Institute - La Jolla (United States)

P34 **Functional transcriptomic analysis of centenarians' offspring reveals a specific genetic footprint that may explain that they are less frail than age-matched non-centenarians' offspring.**
Consuelo Borras [1], Marta Ingles [2], Jose Vina [1]
[1]Freshage Research Group, Department of Physiology, Faculty of Medicine, University of Valencia, Centro De Investigación Biomédica En Red Fragilidad Y Envejecimiento Saludable-Instituto De Salud Carlos Iii (ciberfes-Isciii) - Valencia (Spain), [2]Freshage Research Group, Department of Physiotherapy, Faculty of Physiotherapy, University of Valencia, Ciberfes-Isciii - Valencia (Spain)

P35 **Bcl-xL mice: facing frailty during aging**
Aurora Román-Domínguez [1], Cristina Mas-Bargues [1], Consuelo Borrás [1]
[1]University Of Valencia - Valencia (Spain)

P36 **Genistein in the control of AD progression. From molecular mechanisms to clinical improvement: The GENIAL clinical trial (NCT01982578)**
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P37 **BCL-xL overexpression protects T cells during aging: balancing apoptosis and autophagy**
Cristina Mas-Bargues [1], Aurora Román-Domínguez [1], Jorge Sanz-Ros [1], Mar Dromant [1], Nekane Romero-García [1], Jose Viña [1], Consuelo Borrás [1]
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P38 **Reconstruction of functional human epidermis equivalent containing 5 %IPS-derived keratinocytes treated with mitochondrial stimulating plant extracts.**
Anne-Laure Bulteau [1], Mariele Moreau [1], Christophe Capallere [1], Christelle Plaza [1], Carine Nizard [1]
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P39 **Inhibition of de novo ceramide synthesis promotes skeletal muscle hypertrophy in young mice but does not prevent sarcopenia in old mice**
Benjamin Lair [1], Geneviève Tavernier [1], Virginie Bourlier [1], Aline Mairal [1], Camille Bergoglio [1], Diane Beuzelin [1], Deborah Carper [1], Claire Laurens [1], Cedric Moro [1]
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P40 **Models of mechanosensitive amyloid channels involved in mitochondria swelling**
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P41 **The ObAGE study: A prospective case-control study embedded in a prospective birth cohort to identify systemic, cellular, and molecular biomarkers of obesity-induced accelerated aging in 30-years old Chilean adults**

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P42 **Diet during tissue regeneration in aging and disease**

Manuel Alejandro Fernandez Rojo [1], Luis Vicente Herrera [1], Maria P. Ikonomopoulou [1], Javier Moral-Sanz [1], Marta Garrido Novelle [2], Jesus Balsinde [3], Ana Cuenda [4], Roberto Martin [1]
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P43 **Oxidative metabolism response to high fat diet in a mouse model of neurodegenerative disease**

Camille Champigny[1,2], Djamaa Atamena [1], Marlène Botella [1], Sébastien Bullich [1], Bruno Guiard [1], Marie-Christine Miquel [1], Corentin Coustham [1,3], Pascale Belenguer [1], Noélie Davezac [1]
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P44 **Examining human fertility as a fitness component in the context of the antagonistic pleiotropy theory of ageing**

Eva Brigos [1], Carlos Morcillo-Suárez [1], Gerard Muntané [1], Arcadi Navarro [1]
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P45 **Metabolic reprogramming of skin by novel mitochondria-targeted sulfide delivery molecules prevents UV-induced photoageing in vivo**

Uraiwan Panich [1], Jinapath Lohakul [1], Saowanee Jeayeng [1], Anyamanee Chaiprasongsuk [2], Roberta Torregrossa [3], Mark E. Wood [3], Matthew Whiteman [3]
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P46 **Differential expression of Perilipin family proteins in human brain during aging and Alzheimer's disease**

Maria Conte [1], Valentina Medici [2], Antonio Chiariello [1], Isidre Ferrer [3], Giuseppe Legname [4], Emanuele Poloni [2], Antonio Guaita [2], Claudio Franceschi [5], Stefano Salvioli [1]
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P47 **Expression pattern of the mitokine GDF15 in human brain in healthy aging and in Alzheimer's disease**

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P48 **Novel mitochondria-targeted sulfide delivery molecules attenuate age-induced muscle decline in C. Elegans models of ageing and accelerated ageing**

Timothy Etheridge [1], Adriana Vintila [2], Luke Slade [2], Roberta Torregrossa [1], Rebecca Ellwood [3], Nathaniel Szewczyk [4], Matthew Whiteman [1]
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