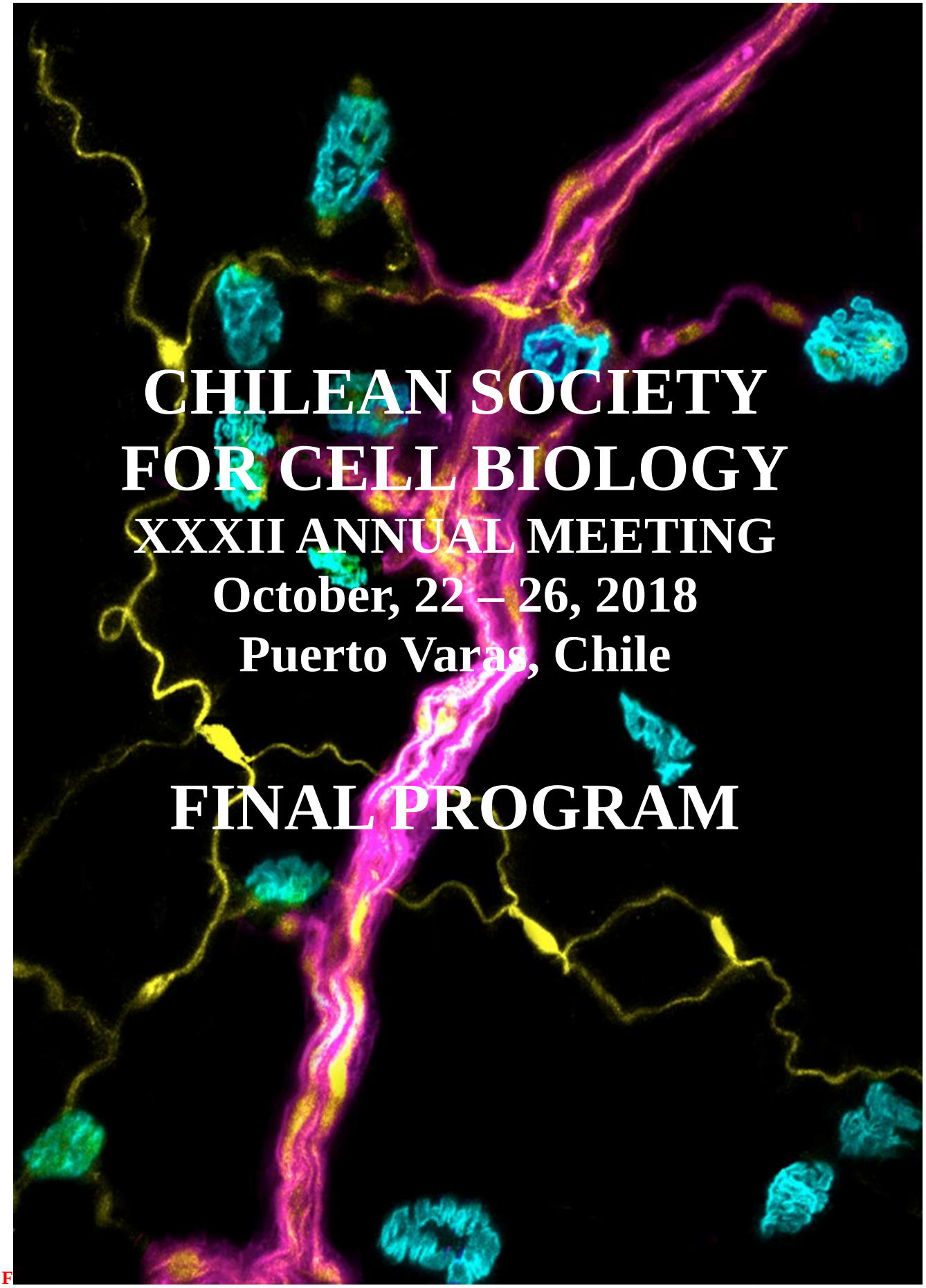

CHILEAN SOCIETY FOR CELL BIOLOGY

XXXII ANNUAL MEETING

October, 22 – 26, 2018

Puerto Varas, Chile

FINAL PROGRAM

CHILEAN SOCIETY FOR CELL BIOLOGY

XXXII ANNUAL MEETING
October, 22 – 26, 2018
Puerto Varas, Chile

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CHILEAN SOCIETY FOR CELL BIOLOGY
XXXII ANNUAL MEETING

OCTOBER 22-26, 2018
PUERTO VARAS

P R O G R A M

MONDAY, OCTOBER 22, 2018

09:00 – 13:30 Registration
Convention Center Foyer

13:00 – 14:30 Lunch

14:30 – 16:00 Opening Remarks
Volcanes Room
Chair: Francisca Bronfman, President SBCCH, P. Universidad Católica de Chile

PLENARY LECTURE "*LUIS IZQUIERDO FERNANDEZ*"
Chilean Society for Cell Biology
Chair: Vicente A. Torres, U. de Chile

FROM DOWN UNDER AND BACK AGAIN – SERENDIPITY AT PLAY. Andrew F.G Quest, Laboratory of Cellular Communications, Center for Studies on Exercise, Metabolism and Cancer (CEMC), Advanced Center for Chronic Diseases (ACCDiS), Faculty of Medicine, Universidad De Chile.

16:00 – 16:30 Coffee Break – Exhibitors
Convention Center Foyer

16:30 – 18:30 *SYMPOSIUM* "EMERGING REGULATORS OF INFLAMMATION"
Calbuco Room
Chair: Rodrigo Pacheco, Fundación Ciencia & Vida

UNDERSTANDING IRE1a FUNCTION IN ANTITUMOR IMMUNITY. Fabiola Osorio. Immunology Program, Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile.

MECHANOBIOLOGY OF LEUKOCYTES' MIGRATION. Pablo Vargas. Systems Biology of Cell Polarity and Cell Division, Institut Curie & Institut Pierre Gilles de Gennes, Paris, France.

DOPAMINE-DRIVEN INFLAMMATION IN THE GUT AND THE BRAIN. Rodrigo Pacheco[1,2]. [1]Laboratorio de Neuroinmunología, Fundación Ciencia & Vida. [2]Departamento de Ciencias Biológicas, Facultad de Ciencias de la Vida, Universidad Andrés Bello.

***SYMPOSIUM* "TUMOR MICROENVIRONMENT AND CANCER BIOLOGY"**
Tronador Room
Chair: Alejandro Godoy, P. Universidad Católica de Chile

VEGF-A SIGNALING IN CARCINOMA-ASSOCIATED FIBROBLASTS: ROLE IN EXTRACELLULAR MATRIX REMODELING AND METASTATIC POTENTIAL. Viviana P. Montecinos. Tumor Biology Laboratory, Department of Hematology-Oncology, Facultad de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile.

EARLY ENDOSOMES AND SMALL GTPASES: A NOVEL MECHANISM WHEREBY TUMOR HYPOXIA PROMOTES CELL MIGRATION AND METASTASIS. Vicente A.

Torres. Institute for Research in Dental Sciences, Faculty of Dentistry, Universidad de Chile; Advanced Center for Chronic Diseases (ACCDiS), Santiago, Chile.

THE SIGNALING COMPLEX NETRIN1/NEOGENIN1 MEDIATES TUMOR PROGRESSION IN SHH DRIVEN NEOPLASIA. Verónica Palma. Laboratory of Stem Cells and Developmental Biology, Faculty of Sciences. Universidad de Chile. Santiago, Chile.

THERAPEUTIC POTENTIAL OF POLYAMINE CATABOLISM ACTIVATION IN COMBINATION WITH METHIONINE SALVAGE INHIBITION IN PROSTATE CANCER. Dominic J. Smiraglia. Roswell Park Comprehensive Cancer Center, Buffalo NY, USA.

18:45 – 20:30 Oral Presentations I
Volcanes Room
Chairs: Lorena Varela, Universidad Andrés Bello
Elías Utreras, Universidad de Chile

18:45 Extracellular ATP induces expression and secretion of fibroblast growth factor-21 myokine in skeletal muscle. Manuel Arias-Calderón[1,2], Camilo Morales[1,2], Nadia Hernández[1], Carolina Beato[1], Walter Vasquez[1], Enrique Jaimovich[2] and Sonja Buvinic[1,2]. [1]ICOD, Faculty of Dentistry, [2]CEMC, Faculty of Medicine; Universidad de Chile. mariasc@ug.uchile.com

19:00 Caveolin-1-containing extracellular vesicles promote malignant ascites formation *in vitro* an *in vivo* model of peritoneal carcinomatosis. América Campos[1,2,3]**,** Lorena Lobos-González[1,2,3,5], Verónica Silva[2], Macarena Carrasco[2], Francisca Guevara[2], Renato Burgos[1,3], Natalia Díaz[1,3], Manuel Varas-Godoy[4], Andrew Quest[1,3]. [1]Laboratorio de Comunicaciones Celulares, Centro de estudios en Ejercicio, Metabolismo y Cancer(CEMC), Facultad de Medicina, Universidad de Chile, [2]Fundación Ciencia & Vida, [3]Centro Avanzado para Estudios en Enfermedades Cronicas(ACCDIS), [4]Laboratorio Biología de la Reproducción, Facultad de Medicina, Universidad de los Andes, [5]Centro de Medicina Regenerativa, Universidad del Desarrollo.

19:15 Expanding the Evo-Devo gene toolkit: Hox genes and the shaping of the zebrafish caudal fin. Nicolás Cumplido[1]**,** Salomé Muñoz-Sánchez[1], Gloria Arratia[2] and Miguel L. Allende[1]. [1]FONDAP Center for Genome Regulation. Facultad de Ciencias, Universidad de Chile. [2]University of Kansas, Biodiversity Institute, Lawrence, KS, USA.

19:30 Inflammatory mediators regulate Cdk5 activity in dental pulp cells. Nicolás Pinto[1,2]**,** Rodrigo Sandoval[1], Franco Ferrari[1], Christian González-Billault[1,3], Eduardo Couve[4], Elías Utreras[1]. [1]Department of Biology, Faculty of Sciences, Universidad de Chile. [2]Doctorate in Biomedicine, Universidad de los Andes, Chile and Doctorate in Neuroscience, Université Clermont Auvergne, France. [3]GERO, Santiago, Chile. [4]Universidad de Valparaiso.

19:45 Insulin-like growth factor 2 (IGF2) protects against Huntington´s disease through the extracellular disposal of protein aggregates. Paulina Troncoso-Escudero[1,2], Paula García-Huerta[1], Lars Plate[3], Pedro Chana-Cuevas[4], Felipe Court[2], Rene Vidal[1,2] and Claudio Hetz[1]. [1]Biomedical Neuroscience Institute, University of Chile, and Center for Geroscience, Brain Health and Metabolism, Santiago, Chile. [2]Center for Integrative Biology, Universidad Mayor, Santiago, Chile. [3]Department of Molecular Medicine, The Scripps Research Institute, La Jolla, CA, USA. [4]Faculty of Medical Sciences, University of Santiago de Chile, Santiago, Chile.

20:00 **Role of astrocyte connexin hemichannels/pannexons in cortical spreading depression.** **Consuelo Rojas-Vidal[1,2]**, Juan E. Tichauer[1], Paola Fernández[3,4], Aníbal Vargas[3,4], Juan C. Saéz[3,4], Maximiliano Rovegno[1]. [1]Departamento de Medicina Intensiva, Facultad de Medicina, PUC. [2]Departamento Neurología and CIN, PUC. [3]Departamento de Fisiología, Facultad de Ciencias Biológicas, PUC. [4]Instituto de Neurociencias, CINV, Universidad de Valparaíso. maxrovegno@uc.cl

20:15 **Vitamin C sensitizes neural cancer cells to ferroptosis.** **Luciano Ferrada[1,2]** and Francisco Nualart[1,2]. [1]Laboratory of Neurobiology and Stem Cells, NeuroCellT. [2]Center for Advanced Microscopy, CMA BIOBIO. Universidad de Concepción, Concepción, Chile.

20:30 **Dinner**

22:00 – 23:00 **PLENARY LECTURE "*FEDERICO LEIGHTON PUGA*"**
Fundación Chilena para Biología Celular
Volcanes Room
Chairs: Francisca Bronfman, President SBCCH, P. Universidad Católica de Chile
Miguel Allende, Universidad de Chile

THE ROLE OF DISTINCT POPULATIONS OF MUSCLE STEM CELLS DURING REGENERATION AND ORGAN GROWTH. **Currie P.D[1,2].** [1]Australian Regenerative Medicine Institute, Monash University, Clayton, VIC 3800. [2]EMBL Australia, Melbourne Node, Monash University, Clayton, VIC 3800.

TUESDAY, OCTOBER 23, 2018

08:00 **Poster Mounting Session I: N° 1 to N° 77**
Convention Center Foyer

09:00 – 10:45 **Oral Presentations II**
Volcanes Room
Chairs: Verónica Eisner, P. Universidad Católica de Chile
Iván Alfaro, Fundación Ciencia & Vida

09:00 **OPA1 GTPase and GE domain-specific mutations differentially alter mitochondrial dynamics, bioenergetics and ultrastructure in ADOA-derived fibroblasts.** **Cartes-Saavedra B[1],** Arancibia D[1], Burté F[2], Sjoberg M[1], Andrés ME[1], Hajnóczky G[3], Yu-Wai-Man P[2,4], Eisner V[1]. [1]Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. [2]Wellcome Trust Center for Mitochondrial Research, Newcastle University. [3]Pathology Anatomy and Cell Biology, MitoCare Center, Thomas Jefferson University. [4]Department of Clinical Neuroscience, Cambridge University.

09:15 **Intracellular Abeta oligomers increase AMPA neurotransmission by pre and postsynaptic actions.** **Eduardo J. Fernandez-Perez,** Denisse Bascuñan, Christian Peters, Braulio Muñoz, Nicolas Riffo, Juliana Gonzalez, Luis Gerardo Aguayo. Universidad de Concepcion, Laboratory of Neurophysiology, Concepcion, Chile. edfernandez@udec.cl

09:30 **Newly synthetized histone H3 is degraded by chaperone mediated autophagy.** **Juan Hormazábal,** Francisco Saavedra, Alejandra Loyola, Iván Alfaro. Fundación Ciencia y Vida.

09:45 **Epigenetic changes during early stages of adult neurogenesis.** **Miguel V. Guerra,** Mario Sánchez, Brigitte van Zundert and Lorena Varela-Nallar. Instituto de Ciencias Biomédicas, Facultad de Medicina y Facultad de Ciencias de la Vida, Universidad Andrés Bello.

10:00 **The extracellular matrix promotes the process of cancer vasculogenic mimicry.** **Valdivia A**[1,5], Mingo G[1,5], Sandoval A[1,5], González P[1], González A[6], Retamal C[6], Cuello M[1], Nualart F[7], Sanchez B[4], Corvalán AH[1,3,5] & Owen GI[1,2,3,5]. [1]Faculties of Biological Sciences & Medicine, [2]Millennium Institute on Immunology and Immunotherapy. [3]Center UC Investigation in Oncology, [4]Institute of Physics, Pontificia Universidad Católica de Chile. [5]Advanced Center for Chronic Diseases, [6]Universidad San Sebastian, [7]Universidad de Concepción. aevaldiv@uc.cl

10:15 **The Netrin-4/Neogenin-1 promotes cell migration and survival via laminin 1 binding in neuroblastoma cells** **Andrea A. Villanueva[1],** Sofía Puvogel[1], Pablo Lois[1], Ernesto Muñoz-Palma[1], Manuel Ramírez Orellana[2], Fabiana Lubieniecki[3], Fernando Casco Claro[4], Iván Gallegos[5], Javier García-Castro[6], Pilar Sanchez-Gomez[7], Vicente A. Torres[8], Verónica Palma[1]. [1]Lab. CTYBD, Faculty of Sciences, UChile. Chile [2]H. Infantil Universitario Niño Jesús. Spain. [3]H. de Pediatría Dr. Prof. Juan P. Garrahan. Argentina. [4]Unidad Anatomía Patológica, Unilabs. España [5]Faculty of Medicine, UChile. Chile. [6]Cellular Biotechnology Unit, ISCIII. Spain. [7]Neurooncology Unit, Chronic Disease Program, ISCIII. Spain. [8]IRDS and ACCDiS, Faculty of Dentistry, UChile.

10:30 **Hypoxia as an important feature of skeletal muscle fibrosis; synergism between hypoxia and TGF-β1 to induce CTGF/CCN2 expression.** **Roger Valle-Tenney,** Daniela Rebolledo, Enrique Brandan. Cellular Differentiation and Pathology Laboratory. Department of Cell and Molecular Biology. Biological Sciences Faculty. Pontificia Universidad Católica de Chile. Santiago, Chile.

10:30 – 13:00 Schools and Science
Maullín Room

10:45 – 12:45 Poster Viewing Session I: 1-77 Odd Numbers
Convention Center Foyer

01. A gene therapy approach to target proteostasis alterations in ALS/FTD. **José Ignacio Astorga[1,2,3],** Irene van Dijken[4], Daniela Becerra[1,2,3], Paulina Falcón[2], Pablo Sardi[4], Vicente Valenzuela[1,2,3] and Claudio Hetz[1,2,3]. [1]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, Santiago, Chile; [2]Center for Geroscience, Brain Health and Metabolism, Santiago, Chile, Santiago, Chile; [3]European Research Institute for the Biology of Ageing, University of Groningen, Groningen, The Netherlands. [4]Sanofi Genzyme Corp., Framingham MA, USA. chetz@med.uchile.cl

03. A reactive oxygen species scavenger reduces the acute effects induced by amphetamine. **Juan A Zegers,** Camila Blanlot, Ignacio M Vega, Hector E Yarur, K Gysling. Department of Cellular and Molecular Biology, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile, Santiago, Chile.

05. A role of brain UPR in gut physiology. **F. Guerrero[1,2],** A. Espinoza[3], C. Gonzalez[3], C. Poblete[4], G. Tamburini, C. Hetz[1,2,5,6] and Gabriela Martínez[1,2]. [1]Biomedical Neuroscience Institute, [2]Center for Molecular Studies of the Cell, ICBM, University of Chile. [3]Esc. de Med. Veterinaria, Fac. de Ciencias de la Vida, UNAB. [4]Esc. de Tec. Médica, Fac. de Ciencias, U. Mayor. [5]Buck Institute for Research on Aging, USA. [6]Department of Immunology and Infectious diseases, HSPH, Harvard University, USA. gabriela.martinezbravo@gmail.com

07. ABL1 loss of function in adult myoblasts: Effects on differentiation and muscle regeneration. **Fabián J. Montecino[1,2],** Natasha Blanco[1,2], Adrián González[1], Alejandra Álvarez[1] & Hugo Olguín[1,2]. [1]Laboratory of Tissue Repair and Adult Stem Cells, [2]Department of Cell & Molecular, Facultad Ciencias Biológicas, Pontificia Universidad Católica de Chile. Santiago, Chile.

09. Activation of AKT and AMPK pathway mediates the chemotactic response of β-hydroxybutyrate receptor agonists in bovine neutrophils. **Daniella Carretta**, Bárbara Urra, Andrés Rivera, María Angélica Hidalgo, Rafael Burgos. Instituto de Farmacología y Morfofisiología, Facultad de Ciencias Veterinarias, Universidad Austral de Chile. daniellacarretta@gmail.com

11. Adolescent binge ethanol consumption on pathophysiology of traumatic brain injury. **Camila Arce[1],** Rodrigo G. Mira[1], Rodrigo Quintanilla[2] and Waldo Cerpa[1]. [1]Laboratorio de Función y Patología neuronal, Dpto. Biología Celular y Molecular, Pontificia Universidad Católica de Chile. [2]Laboratorio de Enfermedades Neurodegenerativas, Universidad Autónoma de Chile.

13. *Agpat2*$^{-/-}$ adipocytes lack caveolae and have increased levels of cholesterol and cholesterol-regulatory genes. Lila González-Hódar, **Víctor Cortés.** Department of Nutrition, Diabetes and Metabolism, Pontificia Universidad Católica de Chile. vcortesm@uc.cl

15. Alteration of circadian rhythms during pregnancy affects the immune response in adult offspring. **Bárbara Pérez[1],** Pamela Carmona[2], Carlos Trujillo[1], Diego Luco[2], Gabriel Espinoza[2], Fernando Miranda[2], José Sarmiento[2]. [1]Escuela Graduados, Facultad de Ciencias Veterinarias. [2]Laboratorio de Cronoinmunología, Facultad de Medicina, Universidad Austral de Chile. barbaraperez@uach.cl (Sponsor: C. González).

17. Amyloid beta oligomers disrupt Blood-Brain-barrier integrity: implications for Alzheimer's disease. Pablo Ahumada[1], Juan Pablo Espinoza[1], Claudio Cabello-Verrugio[2], Rodrigo Morales[3] and **Lisbell D.**

Estrada[1]. [1]Centro Integrativo de Biologia y Quimica Aplicada (CIBQA), Depto. Ciencias Quimicas y Biologicas (DCQyB), Fac. Salud. Universidad Bernardo O´Higgins. [2]Universidad Andrés Bello. [3]The University of Texas Health Science Center at Houston.

19. Antioxidant and anti-inflammatory effects of dietary polyphenols on a cellular model for intestinal epithelia. Miltha Hidalgo[1], Nicolás Tobar[1], Violeta Kallens[1], Omar Porras[1,2]. [1]Cellular Biology Laboratory. INTA-Universidad de Chile. [2]Advanced Center for Research in Food for Wellness in Life Cycle. INTA-Universidad de Chile.

21. Astrocyte-derived extracellular vesicles target the gut-associated lymphoid tissue (GALT). Matias Pizarro, Lorena Abarzúa, Karina Pino-Lagos, Ursula Wyneken. Centro de Investigación Biomédica, Universidad de los Andes.

23. Axonal synthesis of voltage-gated potassium channels in mouse peripheral neurons. Nataly Venegas-Zúñiga[1,2], Leslie Vargas-Saturno[1,2], Paula Díaz[3], Carolina González[1,2], Andrés Couve[1,2]. [1]Departamento de Neurociencias, Facultad de Medicina, Universidad de Chile. [2]Biomedical Neuroscience Institute (BNI), Facultad de Medicina, Universidad de Chile. [3]Departamento de Fisiología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica.

25. Blockage of adenosine A_{2B} receptor decreases infiltration and myofibroblastic-transition of macrophage in diabetic glomerulosclerosis. Ángelo Torres, Belén Inostroza, Pablo Mendoza, Claudia Jara, and Rody San Martín. Laboratorio de Patología Molecular, Instituto de Bioquímica y Microbiología, Universidad Austral de Chile, Valdivia, Chile. postdoctorado3180749@gmail.com

27. Bradykinin through B2 receptor increases strength and reduces fibrosis in mdx mice. María José Acuña[1,2], Juan Pablo Espinoza[2], Carlos Vio[1] and Enrique Brandan[1]. [1]Center for Aging and Regeneration CARE-UC, Pontificia Universidad Católica de Chile. [2]Centro Integrativo de Biología y Química Aplicada (CIBQA), DCQYB, Universidad Bernardo O'Higgins.

29. Caspase-cleaved tau impairs mitochondrial health through the activation of the mitochondrial permeability transition pore. Rodrigo A. Quintanilla[1], María José Pérez[1], Rodrigo Ibarra[1], Maoping Tang[2], George A. Porter Jr[3], Gail V.W. Johnson[2]. [1]Laboratory of Neurodegenerative Diseases, Universidad Autónoma de Chile, Santiago, Chile. [2]Department of Anesthesiology and Perioperative Medicine, University of Rochester Medical Center, New York, USA. [3]Department of Pediatrics, Division of Cardiology, University of Rochester Medical Center, Rochester, New York, USA.

31. Chaperone-mediated autophagy modulates synaptic differentiation in hippocampal neurons. Claudia Espinoza, Juan Hormazábal, Javiera de la Cruz Serrat, Robert Cancino, Leslye Venegas, Iván Alfaro. Fundación Ciencia y Vida.

33. Characterization of myogenic potential of mesenchymal stem cells spheroids from human adipose tissue. Verónica Villalobos[1], Mariana Casas[1], Rodrigo Arancibia[2]. [1]ICBM, Universidad de Chile, [2]Cellus Medicina Regenerativa S.A.

35. Characterization of the neurovascular unit by means of a multicellular isogenic schizophrenia-derived hiPSC model. Bárbara Casas[1], Tomás Valdeverde[1], Gabriela Vitória[2], Marcelo Costa[2], Markus Uhrig[3], Fernando Ezquer[3], Stevens Rehen[2] and Veronica Palma[1]. [1]Laboratory of Stem Cells and Development, Universidad de Chile, Chile. [2]Instituto D'Or de Pesquisa e Ensino, Rio de Janeiro, Brasil. [3]Centro de Medicina Regenerativa, Universidad del Desarrollo, Chile.

37. Cisplatin-resistance ovarian cancer cells transfer chemoresistance and cancer stem cells properties through mTOR-dependent release of extracellular vesicles. Felipe Grünenwald[1,2], Albano Cáceres-

Verschae[1], Stephanie Acuña-Gallardo[1], Rodrigo Acuña[3], Sebastian E. Illanes[1], Manuel Varas-Godoy[1]. [1]Laboratorio Biología de la Reproducción, Centro de Investigación Biomédica, Facultad de Medicina, Universidad De Los Andes, Santiago, Chile. [2]Escuela de Biotecnología, Facultad de Ciencias, Universidad Mayor, Santiago, Chile. [3]Centro de Fisiología Celular e Integrativa, Facultad de Medicina, Universidad del Desarrollo, Santiago, Chile.

39. Connective tissue growth factor is increases in models of sarcopenia. Juan Pablo Espinoza[1], Enrique Brandan[2], Claudio Cabello-Verrugio[3], María José Acuña[1,2]. [1]CIBQA, DCQYB, Universidad Bernardo O´Higgins. [2]CARE-UC, Pontificia Universidad Católica de Chile. [3]Universidad Andrés Bello.

41. Contribution of NADPH oxidase on the oxidative damage and the mitochondrial impairment induced by alcohol in hippocampal neurons. María José Pérez[1,2], Rocío Loyola[1,2], Francisco Canelo[1,2], Alejandra Aranguiz[1,2], Cesar Osorio-Fuentealba[2], and Rodrigo A. Quintanilla[1, 2]. [1]Laboratory of Neurodegenerative Diseases, Universidad Autónoma de Chile, Santiago, Chile. [2]Centro de Investigación y Estudio de Consumo de Alcohol en Adolescentes (CIAA), Santiago, Chile.

43. Crosstalk of glioblastoma and stromal cells through the unfolded protein response. Urra H[1,2], Aravena R[1,2], Limia C.M[1,2,] González-Quiroz M[1,2], Chevet E[3], and Hetz C[1,2]. [1]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, Santiago, Chile. [2]Center for Geroscience, Brain Health and Metabolism (GERO), Santiago, Chile. [3]Inserm, University of Rennes, France.

45. Differential activity of Threonyl-carbamoyl transferase complex (TCTC) during cell differentiation in *Drosophila melanogaster*. Emiliano Molina[1], Ricardo Delgado[2], Álvaro Glavic[1]. [1]Developmental Geneticslaboratory, Faculty of Sciences, Universidad de Chile. [2]Department of Biology, Faculty of Sciences, Universidad de Chile, Santiago, Chile.

47. Differential role of Cav1.1 voltage sensor domains (VSDs) on L-type Ca+2 Current in isolated adult muscle fibers. David Terraza, Carlos Chacón, Diego Varela, Mariana Casas. Programa de Fisiología y Biofísica, ICBM, Facultad de Medicina, Universidad de Chile.

49. Discovery of cationic amphiphilic drugs that activate chaperone mediated-autophagy. Tamara Rojas, Juan Hormazábal, Luz Delgado, Iván Alfaro. Fundación Ciencia y Vida.

51. Distinct nuclear Ca2+ signals in skeletal muscle fibers: Role of the mitochondria. Cristian Campos, Mariana Casas, Enrique Jaimovich. ICBM, Facultad de Medicina Universidad de Chile, Santiago, Chile.

53. DNA prime-peptide boost immunizations maximize circulating and resident memory CD8+ T cell responses against a melanoma-associated self-antigen. Pablo Caceres-Morgado, Felipe Galvez-Cancino, Ximena Diaz, Evelyn Menares, Sofia Hidalgo, Ornella Chovar, Juan Pablo Saavedra, Alvaro Lladser. Laboratory of Gene Immunotherapy, Fundación Ciencia & Vida, Santiago, Chile. alladser@cienciavida.org

55. DPP-4 as a novel candidate gene for the inflammatory effects of glucocorticoids in macrophages. David Diaz-Jimenez[1,2], Marcela A. Hermoso[2], John A. Cidlowski[1]. [1]Molecular Endocrinology Group, Signal Transduction Laboratory, NIEHS/NIH, NC, USA. [2]Laboratory of Innate Immunity, Disciplinary Program of Immunology, ICBM, Faculty of Medicine, Universidad de Chile, Santiago, Chile. ddiazj@u.uchile.cl

57. Effect of amyloid-beta oligomers over brain endothelial cells in Alzheimer´s disease. Pablo Ahumada-Montalva[1], Claudio Cabello-Verrugio[2], Rodrigo Morales[3] and Lisbell Estrada[1]. [1]Centro Integrativo de Biologia y Quimica Aplicada (CIBQA), DCQyB, Universidad Bernardo O Higgins. [2]Universidad Andres Bello. [3]University of Texas Health Sciences.

59. Effects of lithium over two models of neuronal damage. **Rodrigo G. Mira** and Waldo Cerpa. Laboratorio de función y patología neuronal, Dpto. Biología Celular y Molecular, Pontificia Universidad Católica de Chile.

61 Electrostatic interaction network in human Cx26 hemichannels: structure and dynamics upon mutations in the IC-pocket. Felipe Villanelo[1], **Joaquin Jensen[1]**, Tomás Pérez-Acle[1,2]. [1]Computational Biology (Dlab), Fundacion Ciencia & Vida; [2]Centro Interdisciplinario de Neurociencia de Valparaíso. Universidad de Valparaíso. felipe@dlab.cl

63. Embryonic cortical development is impaired in the tyrosine phosphatase PTPRD null mice. **Francisca Cornejo[1],** Hideaki Tomita[2], Cameron L. Woodard[2], Constanza C. Rioseco[2], Benjamin G. Neel[3], David R. Kaplan[2,4], Freda D. Miller[2,4], Gonzalo I. Cancino[1,2]. [1]Center for Integrative Biology, Facultad de Ciencias, Universidad Mayor de Chile. [2]Hospital for Sick Children. [3]New York University Langone Health. [4]University of Toronto.

65. Enhanced immune response in the olfactory sensory system of developing zebrafish. **M. Fernanda Palominos,** Kathleen Whitlock. Centro Interdisciplinario de Neurociencia de Valparaiso Instituto de Neurociencia, Universidad de Valparaiso, Valparaiso, Chile.

67. Expression analysis of candidate-genes for labeling neuronal subpopulation in mouse spinal cord, dorsal root ganglia and submandibular ganglia. **Franco FA**, Carrasco MC, Maureira A, Tapia JC. Stem Cells and Neuroscience Research Center, University of Talca.

69. Expression of JAK Proteins and autophagy markers in Sjögren's syndrome patients. **María José Barrera[1],** Sergio Aguilera[2], Isabel Castro[3], Patricia Carvajal[3], Sergio González[4], Claudio Molina[1], Ulises Urzúa[3], Cecilia Leyton[3] and María Julieta González[3]. [1]Facultad de Odontología, Universidad San Sebastián, Santiago, Chile. [2]Departamento de Reumatología, Clínica INDISA, Santiago, Chile [3]Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile, Santiago, Chile [4]Facultad de Ciencias, Universidad Mayor, Santiago, Chile. maria.barrera@uss.cl

71. FAK promotes Rab5 activity in cell migration **Cecilia Arriagada[1,2],** Martial Millet[1,2], Carolina Moraga[1,2], Patricio Silva[1,2], Vicente A. Torres[1,2]. [1]Institute for Research in Dental Sciences, Faculty of Dentistry, Universidad de Chile, Santiago, Chile, [2]Advanced Center for Chronic Diseases (ACCDiS), Universidad de Chile, Santiago, Chile.

73. Fibroblast growth factor 21 regulates glucose uptake by a GLUT4-dependent and Akt-independent mechanism in skeletal muscle fibers. **Giovanni Rosales-Soto[1],** Alexis Díaz-Vegas[1], Paola Llanos[1,2], Mariana Casas[1], Enrique Jaimovich[1,3], Ariel Contreras-Ferrat[1]. [1]Center for Exercise, Metabolism and Cancer, Facultad de Medicina, Universidad de Chile, Santiago, Chile. [2]Institute for Research in Dental Science, Facultad de Odontología, Universidad de Chile, Santiago, Chile. [3]Institute of Biomedical Sciences Facultad de Medicina, Universidad de Chile, Santiago, Chile. grosales@ug.uchile.cl

75. FOXO1 regulates cell adhesion over type I collagen in human gingival fibroblasts. **Leticia Rojas,** Jassir Páez, Javier Espinoza, Patricio Smith. School of Dentistry, Pontificia Universidad Católica de Chile.

77. Hypoxia promotes cilia formation, leading to activation of FAK, Rac1 and cell migration. **Patricio Silva[1,2],** Alfredo Criollo[1,3] and Vicente A. Torres[1,3]. [1]Institute for Research in Dental Science, Faculty of Dentistry, Universidad de Chile. [2]Faculty of Health Science, Universidad Central de Chile. [3]Advanced Center for Chronic Diseases (ACCDIS).

12:45 – 14:15 Lunch

14:15 – 16:15 ***SYMPOSIUM*** **"FUNDACION CIENCIA & VIDA"**
Calbuco Room
Chair: Sebastián Bernales, Fundación Ciencia & Vida

PROTEIN QUALITY CONTROL IN HEALTH AND DISEASE. Peter Walter, Professor & HHMI Investigator. Department of Biochemistry and Biophysics. University of California San Francisco, CA, USA.

TRANSLATIONAL CONTROL MECHANISM IN NEUROLOGICAL DISORDERS. Mauro Costa-Mattioli. Associate Professor and Cullen Foundation Endowed Chair. Department of Neuroscience. Baylor College of Medicine, Houston, TX, USA.

REVERSING COGNITIVE DEFICITS TARGETING THE INTEGRATED STRESS RESPONSE. Susanna Rosi, Professor Department of Physical Therapy & Rehabilitation Science. Department of Neurological Surgery. University of California San Francisco, USA.

INTEGRATED STRESS RESPONSE IN NEURODEGENERATION. Osorio L., Falcón P., Brito A., Escandón M., Jeréz C. and **Matus S.** Laboratorio de Biología de la Neurodegeneración. Fundación Ciencia & Vida. Santiago. FONDAP Geroscience Center for Brain Health and Metabolism. Biomedical Neuroscience Institute (BNI). smatus@cienciavida.org

SYMPOSIUM **"ABC II: FROM GENE REGULATION OF DEVELOPMENT AND REGENERATION"**
Tronador Room
Chair: Miguel Allende, Universidad de Chile

MUSCLE STEM CELL FATE REGULATION: INSIGHTS FROM THE PROTEIN DEGRADATION SIDE OF THINGS... HUGO C. Olguín. Tissue Repair and Adult Stem Cells Laboratory, Cellular and Molecular Biology Department, School of Biological Sciences. Pontificia Universidad Católica de Chile, Santiago, Chile.

CHARACTERISATION AND USE OF SEVEN NEW MONOCLONAL ANTIBODIES TO DEFINED CELL SURFACE PROTEINS ON HUMAN PLURIPOTENT STEM CELLS. Andrew L. Laslett[1,2]. [1]Commonwealth Scientific and Industrial Research Organisation (CSIRO) Manufacturing, Clayton, Victoria, Australia. [2]Australian Regenerative Medicine Institute, Monash University, Clayton, Victoria, Australia.

REGULATION OF *DROSOPHILA* VISUAL SYSTEM MORPHOGENESIS BY THE SLIT-ROBO PATHWAY. Lorena Caipo[1,2], Tomás Palominos[1], Constanza Gonzalez[1], Pablo Guzmán[1], Esteban Contreras[2], Jimena Sierralta[2] and **Carlos Oliva[1].** [1]Department of Cell and Molecular Biology, Faculty of Biological Science, Pontificia Universidad Católica de Chile. [2]Biomedical Neuroscience Institute, Department of Neuroscience, Universidad de Chile. colivao@bio.puc.cl

MAKE DO AND MAKE NEW: HOW ZEBRAFISH RAPIDLY REGENERATES SPINAL CORD INJURY. Kaslin J. Australian Regenerative Medicine Institute, Level 1, Monash University, 15 innovation walk, Clayton VIC 3800, Australia.

16:30 – 17:30 PLENARY LECTURE
Volcanes Room
Chair: Miguel Concha, Universidad de Chile

BIOMECHANICAL REGULATION OF ORGAN GROWTH. **Kenneth D. Irvine**. Waksman Institute, Cancer Institute of New Jersey, Department of Molecular Biology and Biochemistry, Rutgers University, Piscataway, NJ 08854, USA.

17:00 – 19:30 Schools and Science
Maullín Room

17:30 – 19:30 Poster Viewing Session I: 1-77 Even Numbers
Convention Center Foyer

02. A new model to study cell-to-cell transfer of αSynuclein *in vivo*. **Alexis Martínez,** Gabriela Mercado, Nélida Lopez and Claudio Hetz. Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, and FONDAP Center for Brain Health and Metabolism, Chile.

04. A role for the electrostatic potential in the human Cx26 hemichannel calcium blockade. **Jorge Carrasco[1],** Felipe Villanelo[1], Tomás Perez-Acle[1,2]. [1]Computational Biology (Dlab), Fundacion Ciencia & Vida, Ñuñoa, Santiago; [2]Centro Interdisciplinario de Neurociencias. Universidad de Valparaíso. j.carasco@dlab.cl

06. A system for generating mouse mesenchymal stem cells spheroids for cell therapy. **Fermín Robledo[1,2]**, Víctor Cortés[2]. [1]Universidad Andrés Bello. [2]Pontificia Universidad Católica de Chile, Departamento de Nutrición.

08. Accumulation and altered sialylation of MUC7 in salivary glands of Sjögren's syndrome patients. **Isabel Castro[1],** Sergio Aguilera[2], María José Barrera[3], Patricia Carvajal[4], Sergio González[5], Ulises Urzúa[6], Claudio Molina[3], Cecilia Leyton[1] and María Julieta González[4]. [1]Departamento de Tecnología Médica, Facultad de Medicina, Universidad de Chile. [2]Clínica Indisa. [3]Facultad de Odontología, Universidad San Sebastián. [4]Programa de Biología Celular y Molecular, Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. [5]Facultad de Ciencias, Universidad Mayor. [6]Departamento de Oncología Básico Clínico, Facultad de Medicina, Universidad de Chile. iv_castro@med.uchile.cl

10. Activation of the AT2 receptor blocks Caveolin-1-enhanced melanoma migration and metastasis. **Samuel Martinez[1]**, Jorge Diaz[1], Manuel Valenzuela[1], Natalia Diaz[1], Victoria Rojas-Celis[1], Lisette Leyton[1], Valentina Parra[3], Mario Chiong[3], Maria Paz Ocaranza[2], Sergio Lavandero[3], Andrew F.G. Quest[1]. [1]Laboratory of Cellular Communications, Center for Studies on Exercise, Metabolism and Cancer (CEMC), Advanced Center for Chronic Diseases (ACCDiS), Faculty of Medicine, Universidad De Chile. [2]Department of Cardiovascular Diseases, Faculty of Medicine, Pontificia Universidad Católica de Chile. [3]Molecular Signal Transduction Laboratory, Advanced Center for Chronic Diseases (ACCDiS), Faculty of Chemical and Pharmaceutical Sciences, Universidad de Chile. samuelmartinezmeza@gmail.com

12. Aging in neurons derived from human embryonic stem cells. **Castillo CA1#,** Cáceres D1, Bascuñan D1, Torres F1, Tapia JC, and Carrasco MA1#. Stem cells and Neuroscience Center, Faculty of Health Sciences, University of Talca.

14. ALS-linked mutant PDIA3 overexpression leads to neuromuscular alterations and motor impairment in mice. **Díaz R[1,2],** Sepúlveda M[1,2], Martínez F[1,2], Ojeda J[3], Pinto C[3], Mella J[3], Perez V[3], Woehlbier U[4], Kerr B[5], Henríquez JP[3], Hetz C[1,2], Medinas D[1,2]. [1]Biomedical Neuroscience Institute, ICBM, Faculty of Medicine, Universidad de Chile. [2]Center for Geroscience, Brain Health and

Metabolism, Santiago, Chile. [3]MINREB, University of Concepcion. [4]Center for Integrative Biology, Faculty of Science, Universidad Mayor, Santiago, Chile. [5]CECS, Valdivia, Chile. chetz@hsph.harvard.edu; dmedinas@med.uchile.cl

16. **Altered activation of the unfolded protein response (UPR) in ALS mouse models. Vicente Valenzuela[1,2,3],** Daniela Becerra[1,2,3], Lionel Mueller Igaz[4], Pablo Silva[4], Gabriela Nieva[4] and Claudio Hetz[1,2,3]. [1]Biomedical Neuroscience, Faculty of Medicine, University of Chile, Santiago, Chile; [2]Center for Geroscience, Brain Health and Metabolism, Santiago, Chile; [3]Program of Cellular and Molecular Biology, Biomedical Sciences Institute (ICBM), University of Chile, Santiago, Chile. [4]IFIBIO-Houssay, Facultad de Medicina, Universidad de Buenos Aires, Buenos Aires, Argentina.

18. **An integrative view from global to specific-promoters DNA methylation in Sjögren's syndrome. Patricia Carvajal[1],** Carolina Lagos[1], Isabel Castro[2], Daniela Jara[1], Sergio González[3], Sergio Aguilera[4], Claudio Molina[5], Nicolás Albornoz[1], María-José Barrera[5], Benjamín Heathcote[1], Cecilia Leyton[2] and María-Julieta González[1]. [1]Instituto de Ciencias Biomédicas (ICBM), Facultad de Medicina, Universidad de Chile, Santiago, Chile. [2]Departamento de Tecnología Médica, Facultad de Medicina, Universidad de Chile, Santiago, Chile. [3]Facultad de Ciencias, Universidad Mayor, Santiago, Chile. [4]Departamento de Reumatología, Clínica INDISA, Santiago, Chile. [5]Facultad de Odontología, Universidad San Sebastián, Santiago, Chile.

20. **AP-4 binding pockets differentially modulate membrane trafficking of AMPAR and related scaffold proteins. Mario Caracci,** Aníbal Pacheco, Vania Macias, María Paz Marzolo. Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. Santiago, Chile.

22. **Autocrine function of Slit during development of the visual system in *Drosophila*. M Constanza Gonzalez[1],** Lorena Caipo[2] and Carlos Oliva[1]. [1]Departamento de Biologia Celular y Molecular, Facultad de Ciencias Biologicas, Pontificia Universidad Catolica de Chile. [2]Biomedical Neuroscience Institute, Departamento de Neurociencia, Universidad de Chile.

24. **Behavioral effects of triadimefon in zebrafish are associated with alterations of the dopaminergic and serotonergic pathways. Susana Paredes-Zúñiga**, Nils Trost, Javiera F De la Paz, Julio Alcayaga, Miguel L Allende. FONDAP Center for Genome Regulation, Facultad de Ciencias, Universidad de Chile, Santiago, Chile. sparedesz@ug.uchile.cl

26. **Bombard and conquer: DNA transposon-driven *de novo* enhancer evolution.** David Muñoz[1], Braulio Valdebenito[2], Cristian Gidi[1], José Gutierrez[1], Francisco Godoy[1], Clément Gilbert[3], **Sylvain Marcellini[1].** [1]Laboratory of Development and Evolution (LADE), University of Concepción, Chile. [2]Centro de Bioinformática y Simulación Molecular (CBSM), University of Talca, Chile. (3) CNRS Laboratoire Evolution, Génomes, Comportement, Écologie, Université Paris-Sud, France.

28. **c-Abl kinase in Niemann-Pick type A disease: its implication in the pathogenic mechanisms leading to autophagic flux alterations and neurodegeneration. Tamara Marín[1],** Catalina De la Fuente[2], Mariana Acuña[1], Juan Castro[1], Cristian Cortés[3], Patricia Burgos[4,5], M Carmo-Fonseca[6], Alejandra Alvarez[2], Silvana Zanlungo[1]. [1]Medicine Faculty and [2]Biological Sciences Faculty CARE-Chile UC, Pontificia Universidad Católica de Chile, [3]Bioinformatic and Genomic Center, Sciences Faculty, Universidad Mayor, Chile. [4]Medicine Faculty, Universidad Austral de Chile. [5]Cellular Biology and Biomedicine Center, Universidad San Sebastián, Chile. [6]Molecular Medicine Institute, Medicine Faculty, Universidad de Lisboa, Portugal.

30. **Changes in potassium channel composition in myelinated sensory axons following injury. Diaz, P[1].**, Calvo, M[1]. Pontificia Universidad Católica de Chile mcalvob@uc.cl

32. Characterization of genetic susceptibility effect on the functionality of the intestine during successive inflammation events in zebrafish. **Camila J. Solis** & Carmen G. Feijoo. Laboratorio Inmunología en Peces, Facultad de Ciencias de la Vida, Universidad Andrés Bello.

34. Characterization of the inhibition of DHA uptake through GLUT1 *in vitro* and *in vivo*. **Francisca Espinoza[1],** Rocio Magdalena[1], Luciano Ferrada[1,2], Fernando Martínez[1,2], Katterine Salazar[1,2], Francisco Nualart[1,2]. [1]Neurobiology and Stem Cells Laboratory, NeuroCellT. [2]Center for Advanced Microscopy CMA BIO BIO, Biological Sciences Faculty Concepcion University.

36. Circadian control of the daily rhythm of adult emergence by regulation of the timing of ecdysone action in *Drosophila melanogaster*. **L. Bustos-González** and J. Ewer. Centro Interdisciplinario de Neurociencia de Valparaíso, Facultad de Ciencias, Universidad de Valparaíso. liliana.bustos@postgrado.uv.cl; john.ewer@uv.cl

38. CLARITY with normal confocal microscopy: analysis of an astrocyte network. **German Osorio[1],** Eder Ramírez[2], Joanna Tereszczuk[1], Natalia Saldivia[2], Gustavo Cerda[1], Fernando Martínez[1,2], Katterine Salazar[1,2], Francisco Nualart[1,2]. [1]Center for Advanced Microscopy, CMA Bio-Bio, University of Concepción, Chile. [2]Laboratory of Neurobiology and Stem Cells, NeuroCellT, University of Concepción, Chile.

40. Connexin-43 hemichannel activity promoted by pro-Inflammatory cytokines and high glucose alters endothelial cell function. **Valeria C. Labra[1],** Juan C. Sáez[2], Susana Contreras-Duarte[3], Gonzalo I. Gómez[1], 4, Cristian A. Santibañez[1], Rosario Gajardo-Gómez[1], Beatriz C. Avendaño[1], Esteban F. Díaz[1], Trinidad D. Montero[1], Victoria Velarde[2] and Juan A. Orellana[1]. [1]Departamento de Neurología, Escuela de Medicina and Centro Interdisciplinario de Neurociencias, Pontificia Universidad Católica de Chile, Santiago, Chile; [2]Departamento de Fisiología, Pontificia Universidad Católica de Chile, Santiago, Chile; 3Departamento de Ginecología y Obstetricia, Escuela de Medicina, Facultad de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile.

42. Controlling the repression: A CRISPR-CAS9 knockout for CoREST and a viral controller of complex integrity. **Guzmán F.A.**, Arancibia D., Andrés M.E. Departamento de Biología Celular y Molecular. Pontificia Universidad Católica de Chile. frguzman@uc.cl (Sponsor: K. Gysling).

44. Development of a neuroAIDS study model through the use of viral vectors. **Rodrigo Ibarra[1],** Alcaino AA[2], Sebastián F. Estay[2], Andrés E Chávez[2], Gloria Arriagada[1]. [1]Departamento de Ciencias Biológicas, Universidad Andrés Bello. [2]Facultad de Ciencias, Universidad de Valparaíso.

46. Differential effects of autophagy activators in lipid droplets populations in hepatic cells. **Pérez de Arce F.,** Yanten L., Alfaro I.E. Laboratory of Lysosome Biology and Autophagy, Fundación Ciencia y Vida, Santiago, Chile. fp.perezdearce@gmail.com

48. Dihydropyridine treatment improves muscle function in aged mice modulating abnormal ATP release from muscle fibers. Carlos Chacón[1], Gonzalo Jorquera[2], Enrique Jaimovich[1] and **Mariana Casas[1].** [1]ICBM, Universidad de Chile. [2]Universidad de Valparaíso.

50. Dissecting the neural divide: A continuous neurectoderm gives rise to both the olfactory placode and olfactory bulb. Jorge Torres-Paz[1,2], **Eugene M. Tine[1]**, Kathleen E. Whitlock[1]. [1]Centro Interdisciplinario de Neurociencia de Valparaíso (CINV), Universidad de Valparaíso, Valparaíso, Chile. [2]Paris-Saclay Institute of Neuroscience, Université Paris-Sud, CNRS UMR9197, Université Paris-Saclay, Avenue de la Terrasse, 91198 Gif-sur-Yvette, France.

52. Divergent genetic basis of cartilage calcification in jawed vertebrates. Adrian Romero[1], David Muñoz[1], Mélanie Debiais-Thibaud[2], Sylvain Marcellini[1]. [1]Laboratory of Development and Evolution (LADE), University of Concepción, Chile. [2]Institut des sciences de l'évolution de Montpellier (ISE-M), Université Montpellier, France.

54. Dopamine receptor D5 signaling regulates lymphopoiesis. Javier Campos[1], Francisco Contreras[1], Francisco Osorio-Barrios[1], Rodrigo Pacheco[1,2]. [1]Laboratorio de Neuroinmunología, Fundación Ciencia & Vida, Santiago, Chile. [2]Departamento de Ciencias Biológicas, Facultad de Ciencias de la Vida, Universidad Andrés Bello. jvrcamposa@gmail.com

56. Dynein light chain DynLRB2 is required for Murine Leukemia Virus (MLV) pre- integration complex (PIC) nuclear localization. Gianfranco Pietrantoni[1], Aracelly Gaete[2], Diego Herrera[1], Fernando Valiente-Echeverria[2] and Gloria Arriagada[1]. [1]Departamento de Ciencias Biológicas, Facultad de Ciencias de la Vida, Universidad Andrés Bello. [2]Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile.

58. Effects of cannabidiol on the regeneration of caudal fin of zebrafish (*Danio rerio*). Piedad A. Maldonado, Miguel L. Allende. FONDAP Center for Genome Regulation, Facultad de Ciencias, Universidad de Chile. Piedadmaldonadodelo@gmail.com

60. eIF2α-mediated translational control regulates the persistence of cocaine-induced synaptic potentiation in mouse midbrain dopamine neurons. Andon Placzek & Mauro Costa. Baylor College of Medicine, Houston, TX 77030. placzek_an@mercer.edu

62. Elevated levels of Caveolin-1 (CAV1) are associated with enhanced migration and invasion of gallbladder cancer cells. Oróstica M.L.[1,2], Romero D.[2], Bizama C.[2], García P.[2], Roa-Strauch J.C.[2], Quest A.F.G.[1]. [1]Laboratory of Cellular Communication, Advanced Center for Chronic Diseases (ACCDiS), Center for studies on Exercise, Metabolism and Cancer (CEMC), Faculty of Medicine, Universidad de Chile. [2]Department of Pathology, Faculty of Medicine, Pontificia Universidad Católica de Chile. lorenaorostica@gmail.com

64. Endogenous Pannexin1 forms functional gap junction channels with specific permeability, voltage- and temperature-sensitive properties. Nicolás Palacios-Prado[1,2], Paola Fernández[2], Paola Soto[1] and Juan C. Saez[1,2]. [1]Departamento de Fisiología, Facultad de Biología, Pontificia Universidad Católica de Chile, Santiago, Chile and [2]Instituto Milenio, CINV, Valparaíso, Chile.

66. Evaluation *in vivo* of the efficacy of an antisense therapy in a patient derived xenograft model (PDX) of advanced cervical cancer. Guevara F[1,2], Silva V[1], Lobos-González L[6], Villota C[1,5], Sanhueza N[1,2], Reyes C[1,2], Castillo J[3], Bustamante E[4], Burzio L.O.[1,2] and Villegas, J[1,2]. [1]Fundación Ciencia & Vida – Andes Biotechnologies, [2]Facultad de Ciencias Biológicas, Universidad Andrés Bello; [3]Unidad de Anatomía Patológica, Hospital Barros Luco-Trudeau; [4]Fundacion Arturo López Pérez, [5]Departamento de Ciencias Químicas y Biológicas, Facultad de Salud, Universidad Bernardo O'Higgins, [6]Centro de Medicina Regenerativa, Facultad de Medicina - Clínica Alemana-Universidad del Desarrollo. Santiago, Chile. franciisca.g@gmail.com

68. Expression and functionality of connexins in prostate cancer. Catalina Asencio[1], Daniela Carreño[1], Verónica Torres-Estay[1], Paola Fernández[2], Juan C. Sáez[1,2] and Alejandro Godoy[1,3]. [1]Pontificia Universidad Católica de Chile, [2]Universidad de Valparaiso, Santiago de Chile; [3]Roswell Park Comprehensive Cancer Center, Buffalo NY. caasencio@uc.cl

70. Extracellular vesicles from Caveolin1-expressing highly metastatic B16F10 melanoma cells enhance the migration and invasion of less metastatic cells. Huilcamán R.[1] Campos A.[1] Varas-Godoy M.[2],

Leyton L.[1] Quest A.F.G.[1]. [1]Laboratory of Cellular Communication, Advanced Center for Chronic Diseases (ACCDiS), Center for studies on Exercise, Metabolism and Cancer (CEMC), Faculty of Medicine, University of Chile. [2]Centre for Biomedical Research, Faculty of Medicine, Universidad de los Andes.

72. FAM120A – a new protein associated with pathological characteristics of ALS. Vicencio, E[1], Arcos, J[1], Bargsted, L[2], Matus, S[3], Cortez, B[1], Nassif, M[1], Cortez, C[1], Manque, U[1] and Woehlbier, U[1]. [1]Center for Integrative Biology (CIB), Universidad Mayor, Chile. [2]Brain Neuroscience Institute (BNI), University of Chile, Chile. [3]Fundacion Ciencia & Vida, Chile.

74. Fluoxetine affects the differentiation of craniofacial tissues. Natalia Sánchez, Jesús Juárez, Paulina Moya and Marcia Gaete. Department of Anatomy, Pontificia Universidad Católica de Chile, Santiago, Chile**.** nlsanche@uc.cl (Sponsor: F. Faunes).

76. Fructose support tumor growth and aggressiveness through a metabolic reprogramming in Prostate Cancer. Néstor Corro[1], Daniela Carreño[1], Camila Schimdt[1], Pedro Cisternas[2], Julio César Cárdenas[3], and Alejandro Godoy[1,4]. [1]Departments of Physiology, Pontificia Universidad Católica de Chile, Santiago, Chile. [2]Centro de Envejecimiento y Regeneración (CARE) from the Department of Cell Biology, Pontificia Universidad Católica de Chile, Santiago, Chile. [3]Universidad de Chile, Santiago, Chile. [4]Department of Urology, Roswell Park Cancer Institute, Buffalo, NY.

19:30 – 20:30 YOUNG SCIENTIST AWARD
GRUPO BIOS AND SBCCH
Volcanes Room
Chairs: Arturo Yudelevich, GrupoBIOS
Francisca Bronfman, President SBCCH, P. Universidad Católica de Chile

STUDYING THE IMMUNE RESPONSE WITH SPECIAL EMPHASIS ON T REGULATORY CELLS AND OTHER MODULATORS. Karina Pino-Lagos. Centro de Investigación Biomédica, Facultad de Medicina, Universidad de los Andes.

20:30 Dinner

22:00 – 23:00 BEST THESES AWARDS
"FUNDACION CHILENA PARA BIOLOGIA CELULAR"
Volcanes Room
Chairs: Arturo Yudelevich, Fundacion Chilena para Biologia Celular
Francisca Bronfman, President SBCCH, P. Universidad Católica de Chile
Undergraduate
Pedro Torres Salazar
Licenciado en Odontología, Universidad de Chile
"Influencia de la proteína salival histatina-1 en la migración y adhesión de células endoteliales"
Director Tesis: Vicente Torres, Facultad de Odontología, Universidad de Chile

Graduate
Ignacio Fernández Moncada
Doctor en Ciencias, Mención Biología Celular y Molecular,
Universidad Austral de Chile
"Characterization of the Astrocytic Energy Status during exposure to increased extracellular potasium"
Director Tesis: Felipe Barros, Centro de Estudios Científicos del Sur (CECS)

WEDNESDAY, OCTOBER 24, 2018

08:00 Poster Mounting Session II: N° 78 to N° 154
Convention Center Foyer

09:00 – 10:45 Oral Presentations III
Volcanes Room
Chairs: Marcela Torrejón, Universidad de Concepción
Patricia Luz-Crawford, Universidad de los Andes

09:00 **Nicotinic Acetylcholine Receptor dynamics at the normal and injured neuromuscular synapse *in vivo*. Diego Zelada,** Francisca Bermedo-García and Juan Pablo Henríquez. Department of Cell Biology and CMA Bio-Bio, University of Concepcion, Concepción, Chile. jhenriquez@udec.cl, d.z.varas@gmail.com

09:15 **Connexin-43 gap junctions are responsible for the hypothalamic tanycyte-coupled network. Recabal A[1],** Elizondo-Vega R[2], Caprile T[3], Steinhäuser C[4], García MA[1]. [1]Laboratory of Cellular Biology and [3]Laboratory of Axonal Guidance, Faculty of Biological Sciences, University of Concepcion, [2]Biomedical Research Centre, Medical Faculty, University los Andes, [4]Institute of Cellular Neurosciences, Medical Faculty, University of Bonn.

09:30 **Metabolism governs the immunomodulatory effect of umbilical-cord derived mesenchymal stem cells on human T-Cells. Luque-Campos Noymar[1],** Contreras Rafael[1], Torres Maria-Jose[3], Martínez-Viola Luna[1], Altamirano Claudia[3], Paredes Maria-Jose[1], Tejedor Gautier[4], Djouad Farida[4], Elizondo-Vega Roberto[1,2], Luz-Crawford Patricia[1]. [1]Laboratorio de Inmunología Celular y Molecular, Centro de Investigaciones Biomédicas, Universidad de los Andes. Santiago, Chile. [2]Facultad de Ciencias Biológicas, Universidad de Concepción. [3]Laboratorio de Células Animales, Escuela de Ingeniería Bioquímica, Uiversidad Católica de Valparaiso. [4]IRMB, Université de Montpellier, INSERM, Montpellier, France.

09:45 **Understanding Amyotrophic lateral sclerosis (ALS): A Correlation between cellular mechanisms and gene expression in ALS using patient derived motoneurons. Cáceres D.[1],** Castillo C.A.[1], Maureira A.[1], Torres, F.[1], Riadi, G.[2], Pantano S.[3], Tapia, J.C.[1], Shandran S.[4], Shaw C.E.[5], Maniatis, T.[6], and Carrasco, M.A.[1]. Stem Cells and Neuroscience Center, Faculty of Health Sciences, University of Talca. Centro de Bioinformática y Simulación Molecular, Facultad de Ingeniería, Universidad de Talca, Talca, Chile. Grupo de Simulaciones Biomoleculares, Institut Pasteur de Montevideo, Montevideo, Uruguay. Euan MacDonald Centre for Motor Neuron Disease Research, Medical Research Council Centre for Regenerative Medicine.

10:00 **Tumoral cells expressing p53 point mutations are sensitive to D-propranolol. Jonathan Barra[1],** Javier Cerda-Infante[2], Claudia Oyanadel[1], Claudia Metz[1], Viviana Montecinos[2], Juan Carlos Roa[3] and Alfonso Gonzalez[1]. [1]Centro de Biología Celular y Biomedicina (CEBICEM), Facultad de Medicina y CIencia, Universidad San Sebastián, [2]Departamento de Hematología y Oncología and [3]Departamento de Patología, Facultad de Medicina, Pontificia Universidad Católica de Chile. Santiago, Chile. jebarra@uc.cl

10:15 **Regulating ER protein homeostasis by differentially processing mRNAs. Weihan Li** & Peter Walter. University of California, San Francisco, CA 94143. weihan@walterlab.ucsf.edu

10:30 **Pannexin 1 channels are activated via CAMK II- and inhibited via PKA-dependent pathways. Ximena López[1,2],** Rosalba Escamilla[1,2], Juan C. Sáez[1,2]. [1]Departamento de Fisiología,

Pontificia Universidad Católica de Chile, Santiago, Chile [2]Instituto Milenio, CINV, Valparaíso, Chile.

10:45 – 13:00 Schools and Science
Maullín Room

10:30 – 12:30 Poster Viewing Session II: 78-154 Odd Numbers
Convention Center Foyer

79. Systematic analysis of the morphological changes occurring after degenerative and regenerative damage of the neuromuscular junction. Francisca Bermedo-García, Diego Zelada, Juan Pablo Henríquez. Department of Cell Biology and CMA Bio-Bio, University of Concepcion, Concepción, Chile. jhenriquez@udec.cl

81. Profiling of epigenetic histone marks in memory-activated hippocampal neurons after context and contextual fear conditioning. Mario Sanchez[1,2,3], Mauricio Saez[1,3], Gino Nardocci[1,3], Elvis Acevedo[1,3], Martin Montecino[1,3], Brigitte van Zundert[1,2]. [1]Institute for Biomedical Sciences, Universidad Andres Bello, Santiago, Chile. [2]Center for Aging and Regeneration (CARE-UC). [3]FONDAP Center for Genome Regulation. Mario.sanchez.rubio@gmail.com

83. Polycystin-2 is required for hyperosmotic stress-induced autophagy. Daniel Peña-Oyarzun[1,2], Rodrigo Troncoso[1,3], Catalina Kretschmar[1,2], Cecilia Hernando[1,2], Sergio Lavandero[1,4], Mauricio Budini[2], Eugenia Morselli[5], and Alfredo Criollo[1,2]. [1]ACCDIS, Facultad Ciencias Químicas y Farmacéuticas & Facultad Medicina, Universidad de Chile. [2]ICOD, Facultad de Odontología, Universidad de Chile. [3]INTA, Universidad de Chile. [4]Department of Internal Medicine (Cardiology Division), UTSW Medical Center. [5]Departamento de Fisiología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile.

85. Pharmacological activation of the nucleotide exchange factor eIF2B enhances cognition. Aditya Anand & Peter Walter. University of California, San Francisco, CA 94143. aditya@walterlab.ucsf.edu

87. Participation of MeCP2 in the response to DNA damage in Ramos B cells. Ayleen Godoy, Yennyfer Arancibia, Constanza Cárcamo, Angara Zambrano. Instituto de Bioquímica y Microbiología, Universidad Austral de Chile. Valdivia.

89. Palmitic acid reduces the autophagic flux and insulin sensitivity through the activation of the Free Fatty Acid Receptor 1 (FFAR1) in hypothalamic neuronal cells. Lilian Toledo-Valenzuela[1], María Paz Hernández-Cáceres[1], Yenniffer Ávalos[1], Alfredo Criollo[2], Eugenia Morselli[1]. [1]Pontificia Universidad Católica de Chile. [2]Universidad de Chile.

91. Osteoporosis affects the glycolytic metabolism of bone marrow mesenchymal stem cells (MSCs). Patricia V. Jorquera[1], Cecilia Salazar[1], Karen Fuenzalida[2], Patricio Guerrero[2], Ana María Pino[1], Juan Pablo Rodríguez[1]. [1]Laboratory of Cell Biology, Instituto de Nutrición y Tecnología de los Alimentos (INTA), Universidad de Chile. [2]Laboratorio de Enfermedades Metabólicas, Instituto de Nutrición y Tecnología de los Alimentos (INTA), Universidad de Chile.

93. OCRL participates in ApoER2 intracellular traffic: implication for nervous system alterations in Lowe Syndrome. Luz María Fuentealba, María-Paz Marzolo. Departamento de Biología Celular y Molecular, Facultad de Ciencias, Universidad Católica de Chile.

95. Novel role of endocannabinoid signalling in hypothalamic glial cells to regulate food intake. Fernando J. Sepulveda[1,2]. Macarena Konar-Nie[1], Alejandra Palma[1], Patricio Ordenes[1], Joaquin Rojas[4],

Felipe Maurelia[2], Carla Azocar[2], Maria de los Angeles Garcia-Robles[1,3]. [1]Laboratorio de Biologia Celular UdeC. [2]Laboratorio de Bioquímica y Biologia Celular UdeC. [3]Centro de Estudios Avanzados para la Vida (CREAV) UdeC.

97. Novel function of the ER stress transducer IRE1α in cell invasion and metastasis. **Celia M Limia[1,2],** Hery Urra[1,2] and Claudio Hetz[1,2]. [1]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, Santiago, Chile. [2]Center for Geroscience, Brain Health and Metabolism (GERO), Santiago, Chile.

99. NIH3T3 cell migration is controlled by Ric-8A, a GPCR signaling enhancer. **Andrea Beyer[1],** Pablo José Saez[2], Ana María Lennon-Dumènil[2], Juan Pablo Henríquez[1], Marcela Torrejón[1]. [1]Faculty of Biological Sciences, University of Concepción, Chile. [2]Immunity and Cancer Unit U932, Institut Curie, France.

101. New synthetic compounds similar to Xestospongin B: Evaluation of the anti-migratory effect in breast cancer cell lines. **Paula Farías[1,2],** Félix A. Urra[1,2], Alenka Lovy[3], Armen Zakarian[4], César Cárdenas[1,2,4,5]. [1]Anatomy and Developmental Biology Program, ICBM, University of Chile. [2]Geroscience Center for Brain Health and Metabolism, Santiago, Chile. [3]Department of Neuroscience, Center for Neuroscience Research, Tufts University School of Medicine, Massachusetts, USA. [4]Department of Chemistry and Biochemistry, University of California, USA. [5]The Buck Institute for Research on Aging, California, USA.

103. Neuroprotective effects of a potential repositioned drug (molN) on amyloid beta induced toxicity in hippocampal rat neurons. **J. González-Sanmiguel[1],** D. Bascuñan[1], N. Riffo-Lepe[1], E.J. Fernández-Pérez[1], C.F. Burgos[1], L.F. Aguilar[2], L.G. Aguayo[1]. [1]Laboratory of Neurophysiology. Department of Physiology. Universidad de Concepción, Concepción, Chile. [2]Laboratory of Photophysics and Molecular Spectroscopy. Chemistry Institute. Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile.

105. NEDD4-1 participates in the modulation of mitophagy in myogenic cells. **Jeremy Salas,** Verónica Eisner and Hugo Olguín. Molecular and Cell Biology Department, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile.

107. N-cadherin coordinates Myosin-II dependent internalization of the zebrafish neural plate. **Claudio Araya[1,2]**, Mauricio Cerda[3], and Luis Carcamo[1]. [1]Laboratory of Developmental Biology, Instituto de Ciencias Marinas y Limnológicas, Facultad de Ciencias, Universidad Austral de Chile, Campus Isla Teja, 5090000, Valdivia, Chile. [2]Centro Interdisciplinario de Estudios del Sistema Nervioso (CISNe), UACh. [3]Anatomy and Developmental Biology Program, Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile.

109. Molecular interplay between Down syndrome and Alzheimer's disease: a bioinformatics approach. **W. Gomez[1,2],** A.G Gómez-Contreras[2], F. Garcia[1], V. Maracaja-Coutinho[2], M. Nassif[1], V. Parra[2]. [1]Center for Integrative Biology (CIB) U. Mayor, Santiago, Chile. [2]Advanced Center for Chronic Diseases – ACCDiS, Facultad de Ciencias Químicas y Farmacéuticas, U. Chile, Santiago, Chile.

111. Modulation of the Integrated Stress Response (ISR) signaling pathway delays amyotrophic lateral sclerosis progression. **Luis Osorio[1,2,3],** Carolina Jerez[1,2,3], Claudio Hetz[2,3], Soledad Matus[1,2,3]. [1]Fundación Ciencia & Vida. [2] Biomedical Neuroscience Institute (BNI), University of Chile. [3]Geroscience Center for Brain Health and Metabolism (GERO). losorio@cienciavida.org

113. Modulating ALS progression by UPR upregulation. **Daniela Becerra[1,2,3],** Eileen Cors[1,2,3], Pablo Sardi[4], Kasey Jackson[4], Vicente Valenzuela[1,2,3] and Claudio Hetz[1,2,3]. [1]Biomedical Neuroscience, Faculty of Medicine, University of Chile, Santiago, Chile; [2]Center for Geroscience, Brain Health and

Metabolism, Santiago, Chile; [3]Program of Cellular and Molecular Biology, Biomedical Sciences Institute (ICBM), University of Chile, Santiago,

115. Microbial intervention restores normal social behavior in environmental and idiopathic mouse models of ASD. **Sean Dooling** & Mauro Costa. Baylor College of Medicine, Houston, TX 77030. Sean.Dooling@bcm.edu

117. Mechanical stress increases cell surface levels of αVβ3 integrin in astrocytes. **Leonardo Pérez**[1,2] and Lisette Leyton[1,2]. [1]Cellular Communication Laboratory, Programa de Biología Celular y Molecular, Instituto de Ciencias Biomédicas (ICBM), Facultad de Medicina, Universidad de Chile, Santiago, Chile. [2] Advanced Center for Chronic Diseases (ACCDiS), Center for studies on Exercise, Metabolism and Cancer (CEMC), Instituto de Ciencias Biomédicas (ICBM), Facultad de Medicina, Universidad de Chile, Santiago, Chile.

119. Lysosomal damage response as a potential anti-tumoral mechanism of D-propranolol. **Ibarra, P.[1,2],** Shaughnessy, R[1,3], Oyanadel C[1], Soza A[1], Burgos, P.V.[1,3] and Gonzalez, A.[1,2,3]. [1]Centro de Biología Celular y Biomedicina, Facultad de Medicina y Ciencia, Universidad San Sebastián, [2]Fundación Ciencia y Vida, [3]Centro de Envejecimiento y Regeneración, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile.

121. Long-term effects of Nifedipine treatment on muscle function in aged mice. **Sebastián Peña[1],** Carlos Chacón[1], Gonzalo Jorquera[2], Mauricio Henríquez[1], Mariana Casas[1]. [1]ICBM, University of Chile. [2]University of Valparaíso.

123. Lactate administration activates molecular pathways differentially according to skeletal muscle type in mouse. Hugo Cerda-Kohler[1,2], Carlos Henríquez-Olguín[1,2,3], Mariana Casas[1], Thomas E. Jensen[3], Paola Llanos[4] & **Enrique Jaimovich[1].** [1]Faculty of Medicine, Center for Exercise, Metabolism and Cancer, Physiology and Biophysics Program, ICBM, Universidad de Chile, Santiago, Chile. [2]Laboratory of Exercise Science, Clínica MEDS, Santiago, Chile. [3]Department of Nutrition, Exercise and Sports, Molecular Physiology Group, Faculty of Science, University of Copenhagen, Copenhagen, Denmark. [4]Institute for Research in Dental Sciences.

125. ISRIB-induced cognitive reset involves transcriptional and translational remodeling of the hippocampus. **Morgane Boone** & Peter Walter. University of California, San Francisco, CA 94143. morgane@walterlab.ucsf.edu

127. IRE1 regulates breast cancer cell migration through cleavage of junction plakoglobin mRNA. **McGrath EP[1,2,3,4],** Urra H[3,4], Almanza A[1,2], Logue SE[1,2], Hetz C[3,4], Samali A[1,2]. [1]Apoptosis Research Centre, National University of Ireland Galway, University Road, Galway, H91 TK33, Ireland. [2]School of Natural Sciences, National University of Ireland Galway, University Road, Galway, H91 TK33, Ireland. [3]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile. [4]Center for Geroscience, Brain Health and Metabolism (GERO), Santiago, Chile.

129. Intermittent alcohol hangover during adolescence activates astroglial hemichannels and pannexons in the hippocampus: effects on neuroinflammation and astrocyte arborization. **Juan E. Oyarzun[1],** Gonzalo I. Gomez[1], Consuelo Rojas-Vidal[1], Romina V. Falcón[1], Carola J. Maturana[1], Valeria C. Labra[1], Nicole Salgado[1], Cristián Cortez[5], Waldo Cerpa[2,3], Rodrigo A. Quintanilla[4,3], Juan A. Orellana[1,3]. [1]Departamento de Neurología, Escuela Medicina, Pontificia Universidad Católica de Chile. [2]Departamento Biología Celular/Molecular, Pontificia Universidad Católica de Chile. [3]Centro Investigación y Estudio del Consumo de Alcohol en Adolescentes. [4]Laboratory of Neurodegenerative Diseases, Universidad Autónoma de Chile. [5]Centro Genómica/Bioinformática. Universidad Mayor.

131. Inhibition of the integrated stress response reverses cognitive deficits after brain injury. **Elma Frias** & Susanna Rosi. University of California, San Francisco, CA 94143. Elma.frias@ucsf.edu

133. Implementation of a method to measure the total antioxidant capacity in natural extracts. **Víctor Barraza F[1],** María Raquel Ibáñez H[1], Francisco Castañeda[2], Loretto Contreras[2] and Francisca C Bronfman[1]. [1]CARE UC, Department of Physiology, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile, Santiago, Chile. [2]Departamento de Ecología y Biodiversidad. Facultad de Ciencias de la Vida. Universidad Andrés Bello.

135. Human monoclonal antibody therapy against lethal Andes hantavirus infection *in vivo*. **Maria I. Barria[1],** Jose L. Garrido[1,2], Joseph Presscott[3], Mario Calvo[4], Felipe Bravo[1,2], Brandi N. Williamson[5], Elaine Haddock[5], Heinz Feldmann[5]. [1]Faculty of Biological Science, Department of Microbiology, Center of Biotechnology, Universidad de Concepción, Chile. [2]Ichor Biologics LLC, New York, USA. [3]Comparative Immunology of Risk Group-4 viruses, Center for Biological Threats and Special Pathogens, Robert Koch Institute, Berlin, Germany. [4]Institute of Medicine, Universidad Austral de Chile. Valdivia, Chile. [5]Laboratory of Virology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rocky Mountain Laboratories, Hamilton, USA. mbarriac@udec.cl (Sponsor: J.P. Henríquez).

137. Hantavirus pulmonary syndrome (HPS): What do we know about the receptors expression in a lethal animal model? **Amelina Albornoz[1],** Rebecca Brocato[2], Carola Otth[3], Jay W. Hooper[2], Nicole D. Tischler[1]. [1]Fundación Ciencia & Vida, Molecular Virology Laboratory, Santiago, Chile. [2]United States Army Medical Research Institute for Infectious Diseases, Virology Division, Fort Detrick, USA. [3]Universidad Austral de Chile, Facultad de Medicina, Instituto de Microbiología Clínica, Valdivia, Chile.

139. GLUT2 and GLUT6 distribution in the median eminence of adult and aged rats subjected to acute hyperglycemia. **Fernando Martínez[1],** Manuel Cifuentes[2], Katterine Salazar[1], Soto Conzuelo[1], Camila Albarrán[1] and Francisco Nualart[1]. [1]Laboratory of Neurobiology and Stem Cells, NeuroCellT, Department of Cell Biology, Center for Advanced Microscopy CMA BIOBIO, University of Concepcion. [2]Department of Cell Biology, Genetics and Physiology, and CIBER-BBN, University of Malaga.

141. Galectin 9 expression within gastric tumours mediates anti-PD1 resistance by increasing MDSCs and Treg infiltration and T cell exhaustion. **Charlotte Nicole Hill,** Camille Cabrolier, Maximiliano Arce, Elisa Cumsille, Gareth Owen. P. Universidad Católica de Chile.

143. Expression of E3 ubiquitin ligases in adult neural progenitors during proliferation and differentiation. **Muriel D. Mardones,** Lorena Varela-Nallar. Instituto de Ciencias Biomédicas, Facultad de Medicina y Facultad de Ciencias de la Vida, Universidad Andrés Bello.

145. Epigenetic changes in brains of humans and mice chronically exposed to air pollution. **Andrea Herrera-Soto[1],** Nur Jury-Garfe[1,2], Lilian Calderón-Garcidueña[3], Pablo Ruiz- Rudolph[4], Brigitte van Zundert[1,2], Lorena Varela-Nallar[1]. [1]Instituto de Ciencias Biomédicas (ICB), Facultad de Medicina y Facultad de Ciencias de la Vida, Universidad Andrés Bello (Chile). [2]Centro de Envejecimiento y Regeneración (CARE UC) (Chile). [3]Univerisidad del Valle de México and University of Montana (EEUU). [4]Programa de Salud Ambiental, Instituto de Salud Poblacional, Facultad de Medicina, Universidad de Chile.

147. Defining non-AUG translation initiation through eukaryotic initiation factor 2A (eIF2A). **Hannah Toutkoushian** & Peter Walter. University of California, San Francisco, CA 94143. hannah@walterlab.ucsf.edu

149. c-Abl kinase signaling mediates RIPK3 activation in Gaucher Disease models. Yáñez MJ[1], Klein AD[4], Alvarez AR[2,3] and Zanlungo S[1]. [1]Facultad de Medicina, [2]Facultad de Ciencias Biológicas, [3]CARE-CHILE-UC, Pontificia Universidad Católica de Chile, [4]Centro de Genética y Genómica, Facultad de Medicina, Universidad del Desarrollo, Santiago, Chile.

151. Axonal trafficking of L1CAM in cortical neurons. Javiera Gallardo[1,2], Guillermo Moya[3], Alejandro Luarte[1,2], Francisca Bronfman[3], Andrés Couve[1,2]. [1]Neuroscience Department, [2]Biomedical Neuroscience Institute (BNI), Faculty of Medicine, Universidad de Chile; [3]Program of Physiology, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile.

153. Andrographolide enhance proliferation and neurogenesis in the hippocampus of the APPswe/PS1ΔE9 mouse model of Alzheimer's disease. Sebastián B. Arredondo[1], Andrea Herrera-Soto[1], Nibaldo C. Inestrosa[2], Lorena Varela-Nallar[1]. [1]Instituto de Ciencias Biomédicas. Facultad de Medicina y Facultad de Ciencias de la Vida. Universidad Andrés Bello. Santiago, Chile. [2]Centro de Envejecimiento y Regeneración Celular (CARE) Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, Santiago Chile. siarredo@gmail.com

13:00 – 14:30 Lunch

14:30 –15:30 A Conversation About Science & Biotechnology
Chair: Cristian Hernández, Creator of the Biotechtonics Format
Volcanes Room

THE VALUE OF SCIENCE IN THE BIOTECH WORLD: A CONVERSATION WITH BILL RUTTER. William Rutter. Chairman & CEO of Synergenics; Chairman Emeritus of Chiron Corporation & Herzstein Professor of Biochemistry Emeritus at the University of California, San Francisco, CA.

15:30 – 17:30 Power Hour "EL SENTIDO DE LA INVESTIGACION"
Volcanes Room
Chair: Virginia Garretón, Ex Directora Iniciativa Científica Milenio (ICM)

17:00 – 19:30 Schools and Science
Maullín Room

17:30 – 19:30 Poster Viewing Session II: 78-154 Even Numbers
Convention Center Foyer

78. *Xenopus tropicalis* osteoblasts express the "cartilage master gene" Sox9 and its targets Col2a1 and Col27a1. Fret Cervantes-Diaz, David Muñoz, Teresa Caprile, and Sylvain Marcellini. Department of Cell Biology, Faculty of Biological Sciences, University of Concepcion, Chile.

80. Stem cell characterization and SVCT2/GLUT1 expression in rat brain ventricular zones during post-natal development. Natalia Saldivia[1], Katterine Salazar[1,2] and Francisco Nualart[1,2]. [1]Laboratory of Neurobiology and Stem Cells, NeuroCellT. [2]Center for Advanced Microscopy, CMA BIO BIO. Faculty of Biological Sciences, University of Concepción, Chile.

82. Preliminary study of the effect of ascorbic acid on primary cultures of canine mammary tumors. Tamara San Martín, Javiera Pérez, Sebastián Ramírez, **Pablo Nelson**. Laboratorio de Investigación del Departamento de Ciencias Básicas, Facultad de Ciencias, Universidad Santo Tomás, Sede Santiago. (Sponsor: J. Cancino).

84. Pharmacological inhibition of PERK pathway to prevent dopaminergic neuron loss in a PD model. **Nélida López,** Constanza González, Alexis Martínez, Peter Walter and Claudio Hetz. Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, and FONDAP Center for Brain Health and Metabolism, and UCSF, San Francisco, USA. hetz@med.uchile.cl

86. Peripheral inflammatory biomarkers and risk of dementia in the Chilean GERO cohort. **Orellana Paulina[1]**, Durán-Aniotz Claudia[1,2], Forno Gonzalo[1, 3], Toledo Carolina[1], Navarro Jazmín[1], Haag Paulina[1], Gonzalez-Billault Christian[1,4,5] and Slachevsky Andrea[1,3,6]. [1]Geroscience Center for Brain Health and Metabolism (GERO), Chile. [2]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile. [3]Memory and Neuropsychiatric Clinic (CMYN), Neurology Department, Hospital del Salvador & University of Chile. [4]Laboratory of Cell and Neuronal Dynamics, Faculty of Sciences, University of Chile. [5]The Buck Institute for Research on Aging, Novato, USA. [6]Physiopathology Department, ICBM East Neuroscience Department, Faculty of Medicine, University of Chile. pau.orellana@gmail.com

88. Pannexin-1 channels are functionally coupled to the α7 nicotinic acetylcholine receptor. **M. Constanza Maldifassi,** Ximena Báez-Matus, M. José Guerra, Jaime Maripillán, Agustín D. Martínez, Ana María Cárdenas. Centro Interdisciplinario de Neurociencias de Valparaíso (CINV), Universidad de Valparaíso. constanza.maldifassi@cinv.cl (Sponsor: J. Ewer).

90. Pacer as a new autophagy protein involved in ALS pathogenesis. **Sebastián Beltrán[1],** Melissa Nassif[1], Emiliano Vicencio[1], Javiera Arcos$_1$, Luis Labrador[1], Cristian Cortez[2], Danilo Medinas[3], Claudio Hetz[3], Diego Rojas-Rivera[1], Mathiew Bertrand[4], Patricio Manque[1], Ute Woehlbier[1]. [1]Center of Integrative Biology, Universidad Mayor, Chile. [2]Center of Genomic and Bioinformatics, Universidad Mayor, Chile. [3]Brain Neuroscience Institute (BNI), University of Chile, Chile. [4]VIB-UGent Center for Inflammation Research, University of Ghent, Belgium.

92. On the homology of bone and dentine: evolutionary origin of the Sp7/Dlx5 regulatory module. **David Muñoz[1],** Stéphanie Bertrand[2], Hector Escrivá[2], Catherine Boisvert[3], Mélanie Debiais-Thibaud[4] and Sylvain Marcellini[1]. [1]Laboratory of Development and Evolution, University of Concepción, Chile. [2]CNRS, Laboratoire Arago, France, [3]Curtin University, Perth, Australia, [4]Institut des sciences de l'évolution de Montpellier, France.

94. Novel role of the thymus during inflammatory immune responses. **Sarah Núñez[1],** Yessia Hidalgo[2], Justine Castañeda[3], María Rosa Bono[2], Mario Rosemblatt[1,4]. [1]Fundación Ciencia y Vida. [2]Departamento de Biología, Facultad de Ciencias, Universidad de Chile. [3]Facultad de Química y Biología, Universidad de Santiago de Chile. [4]Facultad de Ciencias de la Vida, Universidad Andrés Bello.

96. Novel IIIG9 localization in cell-cell adhesion complexes during embryonic and postnatal brain development. **Victor Baeza,** María José Oviedo, Fernando Martínez, Francisco Nualart, Katterine Salazar. Laboratory of Neurobiology and Stem Cells, Neuro CellT, Center for Advanced Microscopy CMA BIOBIO, Concepcion University. victorbaeza@udec.cl

98. Non-adhesive cadherin cluster characterization in early embryo killifish. **Aceitón P.[1,3,4],** Canales N.[1,4], Castaginni D.[1,,4], Ale L[1,4], Catalán C.[1,3,4], Lavado A[1,4], Maffud I.[1], Toro P.[1], Reyes C.[1,2,4], Rodríguez S.[1,3,4], Castañeda V.[1,2,4], Toledo J.[1,3,4], Concha M.L.[5,6], and Härtel S.[1,4]. [1]Laboratory of Scientific Image Analysis; [2]Medical Technology School, University of Chile; [3]Laboratory of Experimental Ontogeny; 4: Biomedical Neuroscience Institute. Pabloaceiton21@gmail.com

100. Newly synthetized histone H3 is degraded by chaperone mediated autophagy. **Hormazabal J[1,2],** Francisco Saavedra[1], Loyola A[1], Alfaro I.E[2]. Laboratory of Chromatine and Epigenetics[1] and Laboratory

of Lysosome Biology and Autophagy[2], Fundación Ciencia y Vida, Santiago, Chile. Hormazabal.js@gmail.com

102. Neuroprotective role of Reelin in cellular dysfunction induced by Rotenone. Vania Macías[1], Silvana Zanlungo[2], María Paz Marzolo[1]. [1]Department of Cell and Molecular Biology, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile. [2]Faculty of Medicine, Pontificia Universidad Católica de Chile. vpmacias@uc.cl

104. Neuronal-surface-P-antigen (NSPA) is a target of lupus antiribosomal P autoantibodies in kidney and liver cells. Espinoza S.[1,2], **Bravo-Zehnder M.[1,2]**, Gajardo P.[2], Toledo T.[2], Labarca M.[2], Massardo L.[1,2] and González A.[1,2]. [1]Centro de Envejecimiento y Regeneración Facultad Ciencias Biológicas, Pontificia Universidad Católica de Chile y [2]Centro de Biología Celular y Biomedicina, Facultad de Medicina y Ciencia, Universidad San Sebastián, Santiago-Chile. maria.bravo@uss.cl

106. Nanoscopic organization of E-cadherin clusters in killifish enveloping cells layer. Reyes C.[1,2,4], Canales N.[1,4], Santibáñez F.[1,4], Aceitón P.[1,3,4], Maffud I.[1], Toro P.[1], Reig G.[3,4], Castaginni D.[3,4], Cerda M.[1,6], Concha M.L.[5,6], Toledo J.[1,5,6], and Härtel S.[1,6]. [1]Laboratory of Scientific Image Analysis; [2]Medical Technology School, University of Chile; [3]Laboratory of Experimental Ontogeny; [4]Biomedical Neuroscience Institute. claudiareyes13@gmail.com

108. Mouse masseter muscle activity promotes IL-1β/IL-6 synthesis and release through extracellular ATP signaling. Carolina Beato[1], Mariana Casas[2], Sonja Buvinic[1]. [1]ICOD, Faculty of Dentistry, [2]CEMC, Faculty of Medicine; Universidad de Chile.

110. Modulation of the response of antigen-specific cytotoxic T cells by activation of iNKT cells by glycolipid-modified recombinant bacteria. Bravo-Rodríguez Paula[1], Bueno Susa[n2], Kalergis Alexis[2], Carreño Leandro[1]. [1]Millennium Institute of Immunology and Immunotherapy. Programa de Inmunología, Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile, Santiago. [2]Millennium Institute of Immunology and Immunotherapy. Facultad de Medicina, Universidad de Chile.

112. Modulation of glucose metabolism in hippocampal neurons by adiponectin and resistin. Javier Fernandez[1], Nibaldo C. Inestrosa[1,3], G. William Wong[2] and **Pedro Cisternas[1]**. [1]Centro de Envejecimiento y Regeneración (CARE-UC), Facultad de Ciencias Biológicas, P. Universidad Católica de Chile, Santiago, Chile. [2]Department of Physiology, The Johns Hopkins University School of Medicine, Baltimore, USA. [3]CEBIMA, Universidad de Magallanes, Punta Arenas. Chile. pcisternas@bio.puc.cl

114. Mitochondrial mass, morphology and function is normal in differentiating preadipocytes of lipodystrophic *Agpat2* $^{-/-}$ mice. Ana María Figueroa[1], Verónica Eisner[2], Víctor Cortés[1]. [1]Departments of Nutrition and [2]Cellular and Molecular Biology. Pontifical Catholic University of Chile. vcortesm@uc.cl

116. Mechanisms underlying microbial-mediated changes in social behavior in the Shank3B-/- model of autism. Martina Sgritta & Mauro Costa. Baylor College of Medicine, Houston, TX 77030. Martina.Sgritta@bcm.edu

118. Malignant ascites-derived exosomes increase the metastatic capacity of ovarian cancer-initiating cells. Carrasco J.[1], Liberona M.F.[1], Kato S.[1], Santibañez D.[1], Ibañez C.[2], and Cuello M.[1]. [1]Department of Obstetrics and Gynecology, [2]Department of Hematology and Oncology, School of Medicine; Pontificia Universidad Catolica de Chile.

120. LSD1 neuronal-specific splicing variant modulates acute and chronic responses to amphetamine in mice. **Merello, G.,** Olivares, M., González, M., Noches, V., Suazo, P., Battaglioli, E. and Andrés, M.E. Pontificia Universidad Católica de Chile. Gbmerello@uc.cl (Sponsor: P. Zamorano).

122. Linolenic acid prevents the inhibition of autophagic flux induced by palmitic acid in hypothalamic cells. **María Paz Hernández-Cáceres,** Yenniffer Ávalos, Flavia Cifuentes-Araneda, Eugenia Morselli. Physiology Department, Faculty of Biological Sciences. Pontificia Universidad Católica de Chile, Santiago, Chile.

124. KCTD5 participates in the regulation of intracellular Ca2+ and focal adhesions dynamics. **Jimena Canales[1,2],** Denise Riquelme[3], Elías Leiva-Salcedo[3], Óscar Cerda[1,2]. [1]Programa de Biología Celular y Molecular, Instituto de Ciencias Biomédicas (ICBM), Facultad de Medicina, Universidad de Chile. [2]Millennium Nucleus of Ion Channels-Associated Diseases (MiNICAD), Universidad de Chile. [3]Facultad de Química y Biología, Universidad de Santiago de Chile.

126. Is Gonadotropin-Releasing Hormone (GnRH) dispensable in zebrafish? **K.E. Whitlock[1],** C. Wegener[2], R. Ceriani[1], J. Postlethwait[3], and J. Ewer[1]. [1]Interdisciplinary Center for Neuroscience, University of Valparaiso, Chile. [2]Neurobiology and Genetics, University of Würzburg, Germany. [3]Institute of Neuroscience, University of Oregon, USA.

128. Intravenous delivery of AAV-mediated gene therapy to treat ALS. **Javiera de Solminihac[1,2,3],** Daniela Becerra[1,2,3], Eileen Cors[1,2,3], Younis Hazari[1,2,3], Miguel Sena-Esteves[4], Claudio Hetz[1,2,3] and Vicente Valenzuela[1,2,3]. [1]Biomedical Neuroscience, Faculty of Medicine, University of Chile, Santiago, Chile; [2]Center for Geroscience, Brain Health and Metabolism, Santiago, Chile; [3]Program of Cellular and Molecular Biology, Biomedical Sciences Institute (ICBM), University of Chile, Santiago, Chile; [4]UMASS Medical Center, University of Massachusetts, Worcester MA. chetz@med.uchile.cl

130. iNKT cell stimulation by glycolipid ligands modified from α-galactosylceramide results in differential cytokine secretion profiles. **Carolina Schäfer[1,2];** Valentina Carrillo[1,2]; Daniela Schneider[1,2]; Romina Falcón[1,2]; Leandro J. Carreño[1,2]. [1]Programa de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile. [2]Millennium Institute on Immunology and Immunotherapy.

132. Isolation and characterization of adult neural progenitor cells from a mouse model of Alzheimer's disease. **Daniela Valenzuela-Bezanilla**, Sebastián B. Arredondo, Andrea Herrera-Soto, Miguel V. Guerra, Lorena Varela-Nallar. Instituto de Ciencias Biomédicas. Facultad de Medicina y Facultad de Ciencias de la Vida Universidad Andrés Bello. danielavbezanilla@gmail.com

134. Hypothalamic GLUT2 alpha tanycytes as regulators of the feeding behavior and gut hormone ghrelin secretion. **Barahona MJ[1],** Escobar K[1], Labouèbe G[2], Thorens B[2] and García-Robles MA[1]. [1]Cell Biology Laboratory. Faculty of Biological Sciences, University of Concepción, Concepción, Chile and [2]Center for Integrative Genomics, University of Lausanne.

136. High release of ATP, through pannexin channel, induces an inflammatory response related to insulin resistance in skeletal muscle from high-fat diet-fed mouse. **Meneses-Valdés R[1],** Rosales G[1], Llanos P[1,2], Casas M[1,3], Jaimovich E[1,3], Jorquera G[4]. [1]Centro de Estudios del Ejercicio, Metabolismo y Cáncer, ICBM, Facultad de Medicina, Universidad de Chile. [2]Instituto de Investigación en Cs. Odontológicas, Facultad de Odontología, Universidad de Chile. [3]Programa de Fisiología y Biofísica, ICBM, Facultad de Medicina, Universidad de Chile. [4]Centro de Neurobiología y Fisiopatología Integrativa, Instituto de Fisiología, Facultad de Ciencias, Univ.

138. G*αi*2 regulates focal adhesion disassembly and collective cell polarity during cranial neural crest cell migration in *Xenopus*. **Soraya Villaseca,** Gabriela Toro-Tapia, Juan Ignacio Leal, Andrea Beyer,

Marcela Torrejon. Laboratory of Signaling and Development, Department of Biochemistry and Molecular Biology, University of Concepcion.

140. Galectin-8 in the brian: Role in AMPAR function and memory. **Francisca Barake[1,2,3],** Sofía Espinoza[1,2,3], Francisco Carvajal[2], Waldo Cerpa[2], Nancy Leal[2,3], Alejandra Álvarez[2,3], Adely de la Peña[1,2], Claudia Oyanadel[1], Claudio Retamal[1], Evelyn Pardo[3], Andrea Soza[1,3], Alfonso González[1,3]. [1]Centro de Biología Celular y Biomedicina, Facultad de Medicina y Ciencia, Universidad San Sebastián. [2]Departamento de Biología Celular y Molecular and [3]Centro de Envejecimiento y Regeneración, Facultad Ciencias Biológicas, Pontificia Universidad Católica de Chile. mfbarake@uc.cl

142. Function and modulation of tubulin polyglutamylation in neurons. **Cristopher Villablanca[1,2],** Satish Bodakuntla[3], Maria M. Magiera[3], Carsten Janke[3], Christian González-Billault[1,2]. [1]Cellular and neuronal Dynamics Lab (CENEDYN), Universidad de Chile, Santiago, Chile. [2]Geroscience Center for Brain Health and Metabolism (GERO), Santiago, Chile. [3]Institut Curie, PSL Research University, Orsay, France.

144. Establishment of optimal conditions to orally deliver a lipophilic extract from native Chilean seaweed in *C. elegans*. **Maria Raquel Ibañez[1],** Rebeca Aldunate[2] and Francisca C Bronfman[1]. [1]CARE, UC, Department of Physiology, Faculty of Biological Sciences, Pontifícia Universidad Católica de Chile, Santiago, Chile. [2]Escuela de Biotecnología, Universidad Santo Tomás, Santiago, Chile. mibanez@bio.puc.cl

146. Diterpenes-mediated neuroprotection against amyloid-β peptide. **Zolezzi JM[1,4]**, Lindsay CB[1], Serrano FG[1], Ureta RC[1], Theoduloz C[2], Schmeda-Hirschmann G[3] and Inestrosa NC[1,4]. [1]CARE Chile-UC, Fac. de Ciencias Biológicas, P. Universidad Católica, Santiago, Chile. [2]Lab. de Cultivo Celular, Fac. de Ciencias de la Salud, Universidad de Talca, Talca, Chile. [3]Lab. de Química de Productos Naturales, Inst. de Química de Recursos Naturales, Universidad de Talca, Talca, Chile. [4]CEBIMA, Universidad de Magallanes, Punta Arenas, Chile. jzolezzi@bio.puc.cl

148. Canonical Wnt signaling modulates the expression of resident pre- and post-synaptic proteins in hippocampal neurons. **Milka Martínez[1],** Viviana Torres[1], Nibaldo C. Inestrosa[1,2]. [1]CARE Chile-UC, Facultad de Ciencias Biológicas, Pontificia Universidad Católica, Santiago, Chile. [2]CEBIMA, Universidad de Magallanes, Punta Arenas, Chile. mmartinez@bio.puc.cl

150. Biochemical characterization of extracellular vesicles containing Wnt ligands. **Daniela P. Barrera[1],** Viviana I. Torres[1], Nibaldo C. Inestrosa[1,2]. [1]CARE Chile-UC, Fac. de Ciencias Biológicas, P. Universidad Católica, Santiago, Chile. [2]CEBIMA, Universidad de Magallanes, Punta Arenas, Chile. vtorresa@bio.puc.cl

152. Axonal signaling endosomes mediates long-distance dendritic branching by activating PI3K-mTOR in cell bodies. **Guillermo Moya-Alvarado** and Francisca C Bronfman. CARE UC, Department of Physiology, Faculty of Biological Sciences, Pontifícia Universidad Católica de Chile, Santiago, Chile.

154. Andrographolide and α-synuclein dynamics: potential role in Parkinson's disease. **Sussy Bastías-Candia**[1], Milka Martinez[1], Nibaldo C. Inestrosa[1,2]. [1]CARE Chile-UC, Fac. de Ciencias Biológicas, P. Universidad Católica, Santiago, Chile. [2]CEBIMA, Universidad de Magallanes, Punta Arenas, Chile. sbastias@bio.puc.cl

19:30 Society Members Meeting

21:00 Dinner

THURSDAY, OCTOBER 25, 2018

08:00 Poster Mounting Session III: 155 to N° 231
Convention Center Foyer

09:00 – 10:45 Oral Presentations IV
Calbuco Room
Chairs: Luis Aguayo, Universidad de Concepción
Francisco Nualart, Universidad de Concepción

09:00 Wnt-induced activation of glucose metabolism mediates the in vivo neuroprotective roles of Wnt signaling in Alzheimer disease. **Pedro Cisternas[1]**, G. William Wong[2] and Nibaldo C. Inestrosa[1,3]. [1]Centro de Envejecimiento y Regeneración (CARE-UC), Facultad de Ciencias Biológicas, P. Universidad Católica de Chile, Santiago, Chile. [2]Department of Physiology, The Johns Hopkins University School of Medicine, Baltimore, Maryland, United States of America. [3]CEBIMA, Universidad de Magallanes, Punta Arenas. Chile. pcisternas@bio.puc.cl

09:17 Administration of secretome derived from preconditioned mesenchymal stem cells prevents diabetic neuropathy progression. **Cristian De Gregorio[1],** David Contador[1], Mario Campero[2], Daniela Santapau[1], Marcelo Ezquer[1], Fernando Ezquer[1]. [1]Center for Regenerative Medicine, School of Medicine Clínica Alemana-Universidad del Desarrollo. [2]Department of Neurology and Neurosurgery. Hospital Clínico J.J. Aguirre, Universidad de Chile.

09:34 GCN2 plays a protective role in pharmacological induced demyelination. **Falcón P.[1,2,3],** Brito A.[1,2,3], Escandón M.[1,2], Jeréz C.[1,2,3], Matus S[1,2,3]. [1]Laboratory of Neurodegeneration Biology. Fundación Ciencia & Vida. Santiago. [2]Biomedical Neuroscience Institute, BNI. [3]FONDAP Geroscience Center for Brain Health and Metabolism.

09:51 Glutamate signaling including NMDAR and VGLUT participate in neural tube formation. **Patricio Castro[1],** Laura Borodinsky[2], Nicolas Zúñiga[1], Fernando Neira[1], Ingrid Pinto[1], Mariana Tovar[1], Camila Benavides[1], Alejandra Ilabaca[1]. [1]Laboratorio de Fisiología del Desarrollo, Departamento de Fisiología, Facultad de Ciencias Biológicas, Universidad de Concepción. [2]Department of Physiology & Membrane Biology, UC Davis School of Medicine, CA, USA. pacastro@udec.cl

10:08 The intracellular domain of the Pentameric Ligand Gated Ion Channel is an essential domain controlling its functional properties and its sensitivity to allosteric modulators. **Gustavo Moraga-Cid,** Victoria P. San Martín, Cesar O. Lara, Ana M. Marileo, Anggelo Sazo, Carlos F. Burgos, Carola Muñoz-Montesino, Jorge Fuentealba, Patricio A. Castro, Leonardo Guzmán, Luis G. Aguayo, Gonzalo E. Yévenes. Department of Physiology, Faculty of Biological Sciences, University of Concepcion, Chile.

10:25 Alpha-1-antitrypsin pathology and modulation of Unfolded Protein Response. **Younis Hazari[1],** Arif Bashir[2], Dibyajyoti Maity[3], Claudio Hetz[1] and K.M.Fazili[2]. [1]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, and FONDAP Center for Brain Health and Metabolism. [2]Department of Biotechnology, University of Kashmir, Srinagar–190006, J&K–India. [3]Computational Data Sciences, Indian Institute of Science, Bengaluru–560012-India.

Oral Presentations V
Tronador Room
Chairs: Brigitte van Zundert, Universidad Andrés Bello
Claudio Hetz, Universidad de Chile

09:00 Tension-dependent regulation of mammalian Hippo signaling through LIMD1. **Consuelo Ibar**, Elmira Kirichenko, Benjamin Keepers, Edward Enners, Katelyn Fleisch and Kenneth D. Irvine. Waksman Institute for Microbiology and Department of Molecular Biology and Biochemistry, Rutgers University, Piscataway NJ 08854. conibar@waksman.rutgers.edu

09:17 Non-canonical function of the unfolded protein response sensor IRE1α as a structural determinant of mitochondrial-associated ER membranes. **Alfredo Sagredo[1-3],** Amado Carreras-Sureda[1-3], Fabián Jaña[2,3], Eva Ramos-Fernández[4], Hery Urra[1-3], Philippe Pihán[1-3], Matías Gonzalez-Quiroz[1-3], Galdo Bustos[2,4], Nibaldo C. Inestrosa[4], Julio César Cárdenas[2,3] and Claudio Hetz[1-3]. [1]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, Santiago, Chile. [2]Center for Geroscience, Brain Health and Metabolism, Santiago, Chile. [3]Program of Cellular and Molecular Biology, ICBM, University of Chile, Santiago, Chie. [4]CARE, Department of Cell and Molecular Biology, Faculty of Biological Sciences, Pontifical Catholic University.

09:34 An epigenetic mechanism to silence non-neural genes during early stages of neurogenesis. **Martín Montecino,** Hugo Sepúlveda, Gino Nardocci, Brigitte van Zundert. Institute of Biomedical Sciences, Faculty of Medicine, Universidad Andres Bello, Chile.

09:51 A new uncoupler of OXPHOS that inhibits migration in triple-negative breast cancer cells via Sirt1/AMPK/β1-integrin pathway. **Félix A. Urra[1,2],** Felipe Muñoz[1,2], Melany Rios[1,2], Pablo Cruz[1,2], Ulises Ahumada-Castro[1,2], Galdo Bustos[1,2], Eduardo Silva-Pavez[1,2], Rodrigo Pulgar[3], César Cárdenas[1,2,4,5] and Ramiro Araya-Maturana[6]. [1]Anatomy and Developmental Biology Program, ICBM-University of Chile. [2]Geroscience Center for Brain Health and Metabolism. [3]Laboratorio de Bioinformática y Expresión Génica, INTA-Universidad de Chile. [4]Department of Chemistry and Biochemistry, University of California, USA. [5]The Buck Institute for Research on Aging, USA. [6]Instituto de Química de Recursos Naturales, Universidad de Talca.

10:08 Redox homeostasis controls neuronal insulin release and the aging process in *C. elegans*. Minniti, A. N.[2], Arriagada, H.[1], Zúñiga, S.[1], Alfaro, I. E.[3] and **Aldunate R.[1].** [1]Escuela de Biotecnología, Facultad de Ciencias, Universidad Santo Tomás. Chile. [2]Departamento de Biología Celular y Molecular. Facultad de Ciencias Biológicas. Pontificia Universidad Católica de Chile. [3]Fundacion Ciencia & Vida. rebecaaldunatem@gmail.com

10:25 Crosstalk between TDP-43 and Chaperone Mediated Autophagy (CMA): what do we know? Fernando Ormeño[1,2], Jose Moreno[1,2], Felipe Riquelme[1], Juan Hormazabal[3], Amelina Albornoz[3], Ivan Alfaro[3], **Mauricio Budini[1,2].** [1]Research Institute in Dentistry Sciences, University of Chile. [2]Autophagy Research Center [3]Fundación Ciencia & Vida. mbudini@u.uchile.cl

10:30 – 13:00 Schools and Science
Maullín Room

11:00 – 13:00 Poster Viewing Session III: 155-231 Odd Numbers
Convention Center Foyer

155. Genistein activates TFEB and decreases lysosomal abnormalities in NPC cells. Graciela Argüello, Maria Jose Yañez, Pablo Tapia, Juan Castro, Silvana Zanlungo. Pontificia Universidad Católica de Chile, Departamento de Gastroenterología, Facultad de Medicina.

157. NFATs in the differentiation of adult neuronal progenitor cells. Sebastián H. Santibañez, Sebastián B. Arredondo, Lorena Varela-Nallar. Instituto de Ciencias Biomédicas. Facultad de Medicina y Facultad de Ciencias de la Vida. Universidad Andrés Bello, Santiago, Chile.

159. Promotors of metastasis incorporated in to Exosomes increases the tumor nodules in breast cancer model. Lobos-González Lorena[1,2], Verónica Silva[3], Eduardo Duran[1], Alba Avila[1], América Campos[2,4], Marcelo Ezquer[1]. [1]Centro de Medicina Regenerativa, Facultad de Medicina, Universidad del Desarrollo-Clínica Alemana. [2]Centro de Enfermedades Crónicas ACDDIS, Universidad de Chile. [3]Fundacion Ciencia y Vida. [4]Laboratorio de Comunicaciones Celulares, Facultad de Medicina, Universidad de Chile.

161. The protein kinase, Mars1, is a critical component of the chloroplast unfolded protein response. Karina Perlaza & Peter Walter. University of California, San Francisco, CA 94143. karina@walterlab.ucsf.edu

163. Reelin regulates lysosome traffic through its canonical pathway in a dopaminergic model. Pacheco A., Caracci M., Macías V., Marzolo MP. Laboratorio de Tráfico Intracelular y Señalización, Facultad de Ciencias Biológicas, Pontifica Universidad Católica de Chile. aapacheco@uc.cl

165. Reprimo (RPRM) is involved in epithelial-mesenchymal transition (EMT) in zebrafish and human cancer cells. Cristian Reyes[1], Charlotte Hill[1], Maximiliano Arce[1], Wilda Olivares[2], Alejandro Corvalán[2], Gareth Owen[1], Julio Amigo[1]. [1]Departamento de Fisiología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. [2]Departamento de Hematología y Oncología, Facultad de Medicina, Pontificia Universidad Católica de Chile.

167. Ric-8A/Gαq signaling controls cranial neural crest cell migration in *Xenopus tropicalis*. Gabriel Romero, Soraya Villaseca, Juan I. Leal, Marcela Torrejón. Laboratory of Signaling and Development, Department of Biochemistry and Molecular Biology, University of Concepcion. gabromero@udec.cl

169. Role and regulation of hemichannels and pannexons in the neuropathic form of Gaucher's disease. Consuelo Rojas-Vidal[1,2], Juan E.Oyarzún[1,2], María J.Yañez[1], Cristián Cortez[3], Juan A.Orellana[2], Silvana Zanlungo[1]. [1]Departamento de Gastroenterología, Facultad de Medicina, Pontificia Universidad Católica de Chile. [2]Departamento Neurología y Centro Interdisciplinario de Neurociencias, Facultad de Medicina, Pontificia Universidad Católica de Chile. [3]Centro de Genómica y Bioinformática, Universidad Mayor.

171. Role of autophagy receptors in cells lacking of macroautopha. Cristóbal Cerda-Troncoso[1,2], Karina Cereceda[1,2], Nicolás Albornoz[1], Andrea Soza[1,3], Patricia V. Burgos[1,2,3]. [1]Centro de Biología Celular y Biomedicina, Universidad San Sebastián. [2]Autophagy Research Center. [3]Centro CARE-Chile UC.

173. Role of HERPUD1 in lysosomal RecovERy after stress. Cortés O[1,2], Vargas G[3], Yefi C[1], Catalán J[3], Lavandero S[4] and Burgos PV[2,3]. [1]Instituto de Fisiología, Universidad Austral de Chile; [2]Centro CARE-Chile UC; [3]Centro de Biología Celular y Biomedicina, Universidad San Sebastián; [4]Advanced Center for Chronic Diseases (ACCDiS), Universidad de Chile.

175. Role of lactate and tanycyte-released β-hydroxybutyrate (β-HB) in POMC-neurons. **Magdiel Salgado[1],** Patricio Órdenes[1], Scarlett Gallegos[2], Pablo Villar[3], Ricardo Araneda[3] and Maria García[1]. [1]Cell Biology Laboratory, Biological Sciences Faculty, University of Concepcion. [2]Neurophysiology Laboratory, Biological Sciences Faculty, Universidad de Concepción. [3]Neurobiology Laboratory, Biological Sciences Faculty, Universidad de Concepción, Biology Department, University of Maryland.

177. Role of mTORC1 pathway in modulation of metabolic pathways during DNA damage in B cell. **Marcos Castro-Guarda**, Paola Oyarzo, Cristopher Matamala, Constanza Cárcamo, Yennyfer Arancibia 1 and Angara Zambrano. Instituto de Bioquímica y Microbiología, Universidad Austral de Chile. Valdivia.

179. Role of the Autism Spectrum Disorder associated gene VPS50 in synaptic function. **Fernando J Bustos[1,2],** Henny Haensgen[1], Feng Zhang[1], H. Robert Horvitz[1], Martha Constantine-Paton[1]. [1]McGovern Institute for Brain Research at MIT, Cambridge, USA. [2]Universidad Andres Bello, Santiago, Chile.

181. Role of the Slit/Robo pathway in the connectivity of the *Drosophila melanogaster* visual system. **Pablo Guzmán Palma,** Carlos Oliva. Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile.

183. S-nitrosylation regulates the surface expression of adhesion proteins and instability of the adherens junction. Possible role in extravasation of tumor cells. **Koning T[1],** Aguilar A[1], Zamorano P[1], Córdoba F[1], Ehrenfeld P[2], Sarmiento J[3], Boric M[4], Durán W[5], Sánchez F[1]. [1]Inmunología. [2]Patología and [3]Fisiología, Facultad de Medicina, Universidad Austral de Chile, [4]Fisiología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, [5]Department of Pharmacology, Physiology and Neuroscience, New Jersey Medical School.

185. Saturated fatty acid treatment induces lysosomal damage response in a cell line of hypothalamic neurons. **Cereceda K[1,2],** Cerda-Troncoso C[1,2], Hernandez S[1,2,3], Budini M[2,4], Morselli E[2,5] and Burgos PV[1,2,3]. [1]Centro de Biología Celular y Biomedicina, Universidad San Sebastián; [2]Autophagy Research Center; [3]Centro CARE-Chile UC; [4]Instituto de Investigación en Ciencias Odontológicas (ICOD), Facultad de Odontología, Universidad de Chile; [5]Laboratory of Autophagy and Metabolism, Department of Physiology, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile.

187. Social isolation stress in adolescent rats modifies the regulation of nucleus accumbens dopamine levels mediated by type-1 corticotropin releasing factor receptor. **Javier Novoa[1]**, Annabell Segarra[2], Katia Gysling[1]. [1]Department of Cellular and Molecular Biology, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile, Santiago, Chile [2]Physiology Department, University of Puerto Rico, San Juan, Puerto Rico.

189. Structure-function relationships of human Cx50 channels: A role for the electrostatic potential in ionic conductivity. **Claudia Pareja Barrueto[1,2],** Viviana Berthoud[3], Felipe Villanelo[1], Peter Minogue[3], Erick Beyer[3], Donglin Bai[4], Tomás Perez-Acle[1,2]. [1]Computational Biology Lab, Fundacion Ciencia & Vida, Ñuñoa, Chile. [2]Centro Interdisciplinario de Neurociencias de Valparaíso. Universidad de Valparaíso, Valparaíso, Chile. [3]Department of Pediatrics, University of Chicago, Chicago, IL USA. [4]Department of Physiology and Pharmacology, University of Western Ontario, London, Canada. (Sponsor: M Roesmblatt).

191. Sublocalization of the endocannabionoids-producing DAGL*α* enzyme in the arcuate nucleus in response to glucose. **Macarena Konar,** Magdiel Salgado, Patricio Órdenes, María de los Ángeles García, Fernando Sepúlveda. Laboratorio de Biología Celular, Facultad de Ciencias Biológicas, Universidad de Concepción.

193. Synaptic mitochondrial dysfunction is associated to increase phosphorylated tau levels during aging. **Angie K. Torres,** Claudia Jara and Cheril Tapia-Rojas. Laboratory of Neurobiology of Aging, Centro de Biología Celular y Biomedicina (CEBICEM), Universidad San Sebastián, Chile.

195. The antitumoral activity of tomatine againts hepatoceliular carcinoma in mouse. Javier Echeverría[1], Aldo Martin[2], Felipe Simon[3] and **César Echeverría[2]**. [1]Facultad de Química y Biología, Universidad de Santiago de Chile, Santiago, Chile, [2]Facultad de Medicina, Universidad de Atacama, Copiapo, Chile, [3]Laboratorio de Fisiopatología Integrativa, Departamento de Ciencias Biológicas, Facultad de Ciencias Biológicas and Facultad de Medicina, Universidad Andrés Bello, Santiago, Chile.

197. The Cdk5/p35 complex increases P2X2/3R signaling in nociceptive trigeminal neurons. **Rodrigo Sandoval[1],** Pablo Lazcano[1], Patricio Castro[2], Nicolás Pinto[1], Christian González-Billault[1,3], Claudio Coddou[2] and Elías Utreras[1]. [1]Department of Biology, Faculty of Sciences, Universidad de Chile. [2]Faculty of Medicine, Universidad Católica del Norte. [3]GERO, Santiago, Chile.

199. The combination of simvastatin and metronomic cyclophosphamide reduces the metastatic potential of cancer-initiating cells in ovarian cancer. **Liberona MF[1],** Kato S.[1], Cerda-Infante J[2], Montecinos V[2], and Cuello M[1]. [1]Department of Gynecology and [2]Hematology/Oncology, School of Medicine, Pontificia Universidad Católica de Chile. mflibero@uc.cl

201. The effect of a high-sucrose diet on the periventricular areas of the hypothalamus and brain stem. **Sergio López Fonseca,** Antonia Recabal, María de los Ángeles García. Laboratorio de Biología Celular, Departamento de Biología Celular, Facultad de Ciencias Biológicas, Universidad de Concepción, Concepción, Chile.

203. The inhibition of dopamine receptor D3 signalling in CD4$^+$ T-cells exerts a therapeutic effect attenuating Parkinson's disease development in a mouse model. **Daniela Elgueta[1,2],** Francisco Contreras[1], Carolina Prado[1], Andro Montoya[1], Miguel A. Abellanas[3], María S. Aymerich[3], Rafael Franco[4], Rodrigo Pacheco[1,2]. [1]Universidad Andrés Bello, [2]Fundación Ciencia & Vida, [3]Centro de Investigación Médica Aplicada, [4]Universidad de Barcelona. dpelgueta@cienciavida.org

205. The overexpression of the transcription factor XBP1s reduces the accumulation of Amyloid beta deposits on an experimental model of Alzheimer's disease. **Catalina Rivera-Krstulović[1,2],** Sandra Espinoza[1], Javiera Acevedo[1], Gabriel Quiroz[1,2], Javier Diaz[1,2], Claudio Soto[3], Adrian Palacios[4], Alvaro Ardiles[4], Ricardo Piña[4], Darwin Contreras[4], Carlos Rozas[5], Bernardo Morales[5], Claudio Hetz[1,2] and Claudia Duran-Aniotz[1,2]. [1]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, [2]FONDAP Center for Brain Health and Metabolism, [3]University of Texas, USA, [4]University of Valparaiso, Chile, [5]University of Santiago, Chile. duran.aniotz@gmail.com

207. The role of mab21l2 during zebrafish eye development. **Cristian Sobarzo[1],** Julie Plaisancie[2], Lisa Tucker[2], Sydney Leaman[2], Vicencio E[1], Rebecca Wycliffe[2], Steve W. Wilson[2], Leonardo E. Valdivia[1]. [1]Center for Integrative Biology, Facultad de Ciencias, Universidad Mayor, Chile. [2]Department of Cell and Developmental Biology, University College London, UK.

209. The sorting of corticotropin releasing factor binding protein to the regulated secretory pathway is determined by two conserved amphipathic alpha-helixes. **Cristian P Bastías,** Elias H Blanco, Carlos F Lagos, Katia Gysling. Department of Cellular and Molecular Biology, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile, Santiago, Chile.

211. The transcriptional coactivator factor Yorkie/YAP in primitive meroistic polytrophic ovary in insects. **Felipe Córdova[1],** Paula Irles[1,2]. [1]Pontificia Universidad Católica de Chile. [2]Universidad de O'Higgins.

213. The Ubiquitin-like domain in HERPUD1 is required for the maintenance of endoplasmic reticulum homeostasis **Vargas G[1],** Cortés O[1,2,3], Catalán J[1], Hernandez S[1], and Burgos PV[1,2,3]. [1]Centro de Biología Celular y Biomedicina, Universidad San Sebastián, [2]Universidad Austral de Chile and [3]Centro CARE-Chile UC.

215. The Wnt-effector Tcf7l2 modulates mesenchymal progenitor cell fates. **Osvaldo Contreras[1,2],** Marine Theret[2], Hesham Soliman[2], Gabrielle Johnston[2], Elena Groppa[2], Fabio M. Rossi[2], Enrique Brandan[1]. [1]Departamento de Biología Celular y Molecular and Center for Aging and Regeneration (CARE-ChileUC), Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, Santiago, Chile. [2]Biomedical Research Centre, Department of Medical Genetics, University of British Columbia, Vancouver, BC, Canada. osvaldo@brc.ubc.ca

217. Tr1 cells and their suppressive mechanisms differ from classical Tregs in a murine melanoma model. **Pamina Contreras-Kallens,** Dario Vergara and Karina Pino-Lagos. Universidad de los Andes, Chile.

219. Translational control by eIF2 regulates synaptic and behavioral effects of cocaine. **Sanjeev Khatiwada** & Mauro Costa. Baylor College of Medicine, Houston, TX 77030. sanjeev.khatiwada@bcm.edu

221. Uncovering ion channel transcripts in peripheral nerve axons. **Leslie Vargas-Saturno[1],** Victor Hugo Cornejo[1], Elías Utreras[2], Andrés Couve[1]. [1]Department of Neuroscience and Biomedical Neuroscience Institute (BNI), Facultad de Medicina, Universidad de Chile, Santiago, Chile. [2]Facultad de Ciencias, Universidad de Chile, Santiago, Chile.

223. VEGF-A induce activation of fibroblasts through of NRP-1. **Victoria Velásquez**, Javier Cerda-Infante, Marianela Sánchez and Viviana P. Montecinos. Departments of [1]Hematology-Oncology, [2]Cellullar Biology and Physiology. Pontificia Universidad Católica de Chile.

225. Vitamin E prevents deleterial effects of long term glucocorticoid treatment of skeletal muscles through reduced connexin hemichannels expression. **Elisa Balboa[1]**, Fujiko Saavedra[1], Valeria Ramirez[1], Rosalba Escamilla[1,2], Juan C. Sáez[1, 2]. [1]Departamento de Fisiología, Pontificia Universidad Católica de Chile [2]Instituto de Neurociencias, Centro Interdisciplinario de Neurociencias, Universidad de Valparaíso, Chile. eibalboa@uc.cl

227. Wnt5a modulates the activation of small Rho GTPases and regulates the expression of their downstream signaling targets. **Daniela Vallejo[1]**, Carolina B. Lindsay[1], Christian González-Billault[2], and Nibaldo C. Inestrosa[1,3]. [1]CARE Chile-UC, Fac. de Ciencias Biológicas, P. Universidad Católica, Santiago, Chile. [2]Departamento de Biología, Fac. de Ciencias, Universidad de Chile, Santiago, Chile. [3]CEBIMA, Universidad de Magallanes, Punta Arenas, Chile. dvallejo@bio.puc.cl

229. XBP1s and ATF6f modulates the misfolded proteins and neurodegeneration process. **Constanza Gonzalez[1,3,4],** Paula Garcia-Huerta[1,3,4], Paulina Troncoso-Escudero[1,3,4], Valentina Castillo[1,2,3], Claudio Hetz[1,3,4,5,6] and René L. Vidal[1,2,3]. [1]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile. [2]Center for Integrative Biology, Universidad Mayor. [3]Center for Geroscience, Brain Health and Metabolism. [4]Program of Cellular and Molecular Biology, Institute of Biomedical Sciences, University of Chile. [5]Buck Institute for Research on Aging, USA. [6]Department of Immunology and Infectious diseases, HSPH, Harvard University.

231. Assessment of the role of Pacer and Rubicon in experimental models of Alzheimer's disease. S. Espinoza[1], J. Henriques[1], A. Vasquez[1], B. Cortes[1], C. Cortez[1], C. Bergmann[1], P. Murgas[1], C. Duran[2], C.

Hetz[2], P. Manque[1], U. Woehlbier[1], **M. Nassif[1]**. [1]Center for Integrative Biology (CIB), U. Mayor. [2]Universidad de Chile, Santiago, Chile. melissa.calegaro@mayor.cl

13:30 – 15:30 Lunch

16:00 – 18:30 Schools and Science
Maullín Room

16:30 – 18:30 Poster Viewing Session III: 155-231 Even Numbers
Convention Center Foyer

156. Inhibition of cathepsins B/D reduces cholesterol accumulation in cellular hepatic models of lysosomal storage diseases. Juan E. Oyarzún[1], Consuelo Rojas-Vidal[1], Fabián Campos[1], María J. Yañez[1], Cristián Cortez[2], Silvana Zanlungo[1]. [1]Departamento de Gastroenterología, Escuela Medicina, Pontificia Universidad Católica de Chile. [2]Centro Genómica y Bioinformática. Universidad Mayor.

158. Production of mono-biotinylated BDNF to study signaling endosomes dynamics. Nicolás Stuardo C, Guillermo Moya-Alvarado, Francisca C Bronfman. CARE UC, Department of Physiology, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile, Santiago, Chile.

160. Probing the attenuation of IRE1 with optogenetics. Vladislav Belyy & Peter Walter. University of California, San Francisco, CA 94143. vlad@walterlab.ucsf.edu

162. RAB5 promotes nuclear localization of β-catenin in oral dysplasia. Montserrat Reyes and Vicente A. Torres. Institute for Research in Dental Sciences, Faculty of Dentistry, University of Chile. montserrat.reyes.r@gmail.com, vicenrock@gmail.com

164. Regulation of NF-H protein levels and cellular localization by Chaperone Mediated Autophagy in a Motor Neuron cell line model. Jose Moreno[1,3], Fernando Ormeño[1,3], Ivan Alfaro[2], Mauricio Budini[1,3]. [1]Research Institute in Dentistry Sciences, Faculty of Dentistry, University of Chile. [2]Fundación Ciencia & Vida. [3]Autophagy Research Center (ARC). josemorenopaz@gmail.com; mbudini@u.uchile.cl

166. Ric-8A regulates mesoderm formation in *Xenopus tropicalis*. Maria Jose Ruiz, Soraya Villaseca, Marcela Torrejón. Laboratory of Signaling and Development, Department of Biochemistry and Molecular Biology, University of Concepcion.

168. Role and regulation of astroglial hemichannels and pannexons by HIV-1 TAT protein. Cristián A. Santibáñez and Juan A. Orellana. Departamento de Neurología. Escuela de Medicina and Centro Interdisciplinario de Neurociencias. Pontificia Universidad Católica de Chile.

170. Role of alpha-SNAP in the pathogenesis of neurodevelopmental disorders: the M105I mutation modifies AMPK activity, proliferative rate and cell fate decision in neural stem cells. Felipe Andrés Bustamante[1,2], María Paz Miró[1,2], Pamela Ehrenfeld[1,2], Luis Federico Bátiz[2,3]. [1]Instituto de Anatomia, Histologia y Patologia; [2]Center for Interdisciplinary Studies on the Nervous System (CISNe), Universidad Austral de Chile, Valdivia, Chile; [3]Centro de Investigación Biomédica (CIB), Facultad de Medicina, Universidad de los Andes, Santiago, Chile. lbatiz@uandes.cl

172. Role of ERp57 chaperone in amyotrophic lateral sclerosis. José González-Teuber[1,2], Pablo Rozas[1,2], Rodrigo Díaz[1,2], Ojeda J[3], Pinto C[3], Perez V[3], Kerr B[4], Woehlbier U[5], Henriquez JP[3], Danilo B. Medinas[1,2] and Claudio Hetz[1,2]. [1]Biomedical Neuroscience Institute, [2]Center for Geroscience, Brain Health and Metabolism (GERO), University of Chile, Santiago. [3]Department of Cell Biology, Faculty of Biological Sciences, Center for Advanced Microscopy, University de Concepcion, Concepcion. [4]Centro

de Estudios Cientificos, Valdivia. [5]Center for Integrative Biology, Faculty of Science, Universidad Mayor, Santiago.

174. Role of IP3R on changes in gene expression of the MCU complex induced by electrical stimulation in adult skeletal muscle. **Esteban Quezada[1],** Alexis Díaz-Vegas[1], Mariana Casas[1,2], Enrique Jaimovich[1,2]. [1]Center for Exercise, Metabolism and Cancer, ICBM, Faculty of Medicine, University of Chile. [2]Physiology and Biophysics Program, ICBM, Faculty of Medicine, University of Chile.

176. Role of LAP* in mesenchymal stem cell lineage commitment. **M. Carrasco-Jeldres,** G. Nardocci, E. Acevedo and M. Montecino. Institute of Biomedical Sciences and FONDAP Center for Genome Regulation, Universidad Andrés Bello, Santiago, Chile.

178. Role of PDIA3 in the pathogenesis of nervous system disorders. **Danilo B. Medinas[1,2,3],** Sajid Malik[4], Esra Yıldız-Bölükbaşı[5], Janina Borgonovo[1,2,3], Muhammad Afzal[4], Gabriel Quiroz[1,2,3], Darwin Contreras[6], Pablo Rozas[1,2,3], Sara Mumtaz[4], Rodrigo Díaz[1,2,3], Felipe Cabral[1,2,3], Ute Woehlbier[7], Ricardo Piña[6], Vicente Valenzuela[1,2,3], Amado Carreras[1,2,3], Carlos Rozas[6], Ozgun Uyan[8], Christopher Reardon[8], Bernardo Morales[6], Miguel Sena-Esteves[8], Robert H. Brown[8], Miguel L. Concha[1,2,3], Aslıhan Tolun[5], Claudio Hetz[1,2,3,9,10]. [1]BNI, Chile. [2]GERO, Chile. [3]ICBM, University of Chile, Chile. [4]Human Genetics Program, Quaid-i-Azam University, Pakistan. [5]Department of Molecular Biology and Genetics, Boğaziçi University, Turkey. [6]University of Santiago de Chile, Chile. [7]Universidad Mayor, Chile. [8]University of Massachusetts Medical School, USA. [9]Buck Institute, USA. [10]Harvard School of Public Health, USA.

180. Role of the genetic pathway Lin28/let-7 in the thyroid hormone homeostasis during Xenopus metamorphosis. Bastián Pérez[1], Sofía Espinoza[1], Daniel Guzmán-Gundermann[2], Juan Larraín[2], **Fernando Faunes[1]**. [1]Facultad de Ciencias de la Vida, Universidad Andrés Bello, Viña del Mar, Chile. [2]Center for Aging and Regeneration, Millennium Nucleus in Regenerative Biology, Faculty of Biological Sciences, P. Universidad Católica de Chile.

182. Rubicon family of proteins in the interplay between Down's syndrome and Alzheimer's disease. **F. Garcia[1]**, W. Gomez[1], S. Espinoza[1], J. Henriquez[1], A. Velásquez[1], C. Bergmann[1], D. Ponce[2], M.I. Behrens[2], V. Parra[3], M. Nassif[1]. [1]Center for Integrative Biology (CIB), U. Mayor. [2]Centro de Investigación Clínica Avanzada (CICA), HCUCh, [3] U. de Chile, Santiago, Chile. felipe.garcia@mayor.cl

184. Saturated and Polyunsaturated fatty acids regulate the autophagic flux modulating inflammation in hypothalamic astrocytes. **Flavia Cifuentes-Araneda,** María Paz Hernández-Cáceres, Paulina Burgos, Yenniffer Ávalos, Rodrigo Ramírez, Eugenia Morselli. Physiology Department, Faculty of Biological Sciences. Pontificia Universidad Católica de Chile, Santiago, Chile.

186. Senescent human gingival fibroblast show abnormal proliferative and cytoskeletal functions but do not display an inflammatory phenotype. **Jassir Páez[1],** Romina Hernández[2], Paulina Zapata[2], Javier Espinoza[2], Leticia Rojas[2], Constanza Martínez[2], Jorge Martínez[3], Patricio Smith[2]. [1]Faculty of Dentistry, Universidad Andrés Bello, Chile. [2]School of Dentistry, Faculty of Medicine, Pontificia Universidad Católica de Chile. [3]INTA. University of Chile.

188. Structure of the nucleotide exchange factor eIF2B reveals mechanism of memory-enhancing molecule. **Lakshmi Miller-Vedam** & Adam Frost. University of California, San Francisco, CA 94143. lmillervedam@msg.ucsf.edu

190. Studies of the interaction between sigma 1 receptor and the heteromer formed by D1 dopamine and type 2 corticotropin releasing factor receptors. **Antonia Besomi,** Constanza López, Héctor Yarur, Katia Gysling. Department of Cellular and Molecular Biology, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile.

192. Synaptic mitochondrial dysfunction in the hippocampus and its contribution to memory loss during aging. **Margrethe A. Olesen** and Cheril Tapia-Rojas. Laboratory of Neurobiology of Aging, Centro de Biología Celular y Biomedicina (CEBICEM), Facultad de Medicina y Ciencia, Universidad San Sebastián, Chile.

194. The accumulation of intracelular dehydroascorbic acid affects neuritic growth. **Rocío Magdalena[1],** Francisca Espinoza[1], Katterine Salazar[1,2], Francisco Nualart[1,2]. [1]Laboratory of Neurobiology and Stem Cells, NeuroCellT. [2]Center for Advanced Microscopy, CMA BIO BIO, Fac. of Biologycal Sciences, University of Concepción, Chile.

196. The CD73 ectonucleotidase enhances the proliferative response of naïve CD8+ T cells. Mariana Rosemblatt[1,3,4], Bárbara Cuadra[1], Felipe Flores-Santibáñez[1], Brian Parra[1], Sofía Puvogel[1], Mario Rosemblatt[1,5,6], María Rosa Bono[1] and **Daniela Sauma[1,2,5].** [1]Departamento de Biología, Facultad de Ciencias, Universidad de Chile. [2]Instituto Milenio en Inmunología e Inmunoterapia (IMII). [3]Facultad de Medicina, Universidad San Sebastián. [4]Doctorado en Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. [5]Fundación Ciencia & Vida. [6]Facultad de Ciencias Biológicas, UNAB.

198. The co-repressor complex mSin3A/HDAC1 is involved in the down-regulation of CRTC2 target genes during B cell differentiation. **Yennyfer Arancibia,** Constanza Cárcamo & Angara Zambrano. Laboratorio Biología Molecular. Instituto de Bioquímica y Microbiología. Facultad de Ciencias. Universidad Austral de Chile.

200. The crosstalk between haemocytes and fat body throught Upd3/Dome pathway mediate the pro-inflammatory response in high-sugar-fed larvae in *Drosophila melanogaster*. **Sebastián Díaz[1],** Fernanda Lourido[1], Mauricio Gonzales[2,3], Verónica Cambiazo[2,3], Nicolás Tobar[1,2]. [1]Cellular Biology Laboratory, INTA-Universidad de Chile. [2]Bioinformatics and Genetic Expression Laboratory, INTA-Universidad de Chile. [3]Fondap Center CGR3.

202. The endogenous parvoviral element Odegus4 encodes a protein with nuclear localization. **Angélica Bravo[1],** Eduardo Cena[1], Rodrigo Ibarra[1], Luis Mercado[2], Gonzalo Mardones[3], Gloria Arriagada[1]. [1]Departamento de Ciencias Biológicas, Facultad de Ciencias de la Vida, Universidad Andrés Bello. [2]Instituto de Biología, Facultad de Ciencias, Pontificia Universidad Católica de Valparaíso. [3]Centro de Biología Celular y Biomedicina, Universidad San Sebastián. ange.bravo@uandresbello.edu

204. The main forces that drive axial elongation in the beetle *Tribolium castaneum*. **Rodrigo E. Cepeda,** Karina I. Quevedo, Renato V. Pardo, Andres F. Sarrazin. Laboratorio Bioquímica de Sistemas. Instituto de Química, Facultad de Ciencias, Pontificia Universidad Católica de Valparaíso (PUCV).

206. The protein Pacer, a new link between autophagy and cell death in amyotrophic lateral sclerosis. **Luis Labrador[1],** Sebastian Beltran[1], Diego Rojas-Rivera[1], Mathiew Bertrand[2], Patricio Manque[1], Ute Woehlbier[1]. [1]Center for Integrative Biology (CIB), Universidad Mayor, Chile. [2]VIB-UGhent Center for Inflammation Research, University of Ghent, Belgium.

208. The role of the UPR stress sensor IRE1α in the DNA damage response. **Matías González-Quiroz[1-2],** Estefanie Dufey[1-2], Alfredo Sagredo[1-2], Daniela Gutiérrez[3], Cristian Valls[3], Peter Walter[4], Alejandra Álvarez[3], Claudio Hetz[1-2]. [1]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, Santiago, Chile. [2]Center for Geroscience, Brain Health and Metabolism, Santiago, Chile. [3]Department of Cell & Molecular Biology, Pontificia Universidad Católica de Chile, Santiago, Chile. [4]Howard Hughes Medical Institute, UCSF, San Francisco, USA.

210. The structure of eIF2 bound to eIF2B. **Lillian Rose Kenner** & Adam Frost. University of California, San Francisco, CA 94143. lkenner@fraserlab.com

212. The tyrosine kinase c-Abl regulates cortical brain development in mice. **Begoña Aranda-Pino[1],** M. Agustina Roccatagliata[1], Alejandra R. Alvarez[2], Gonzalo I. Cancino[1]. [1]Center for Integrative Biology, Facultad de Ciencias, Universidad Mayor. [2]Pontificia Universidad Católica de Chile.

214. The use of planarian flatworms to understand the role of the immune system during regeneration. **Constanza Vásquez Doorman** and Miguel L Allende. Departamento de Biología, Facultad de Ciencias, Universidad de Chile.

216. TNF-a increases production of reactive oxygen species through Cdk5 activation in nociceptive neurons. Rodrigo Sandoval[1], Pablo Lazcano[1], Franco Ferrari[1], Nicolás Pinto-Pardo[1], Christian González-Billault[1,2], **Elías Utreras[1].** [1]Department of Biology, Faculty of Sciences, Universidad de Chile. [2]GERO, Santiago, Chile.

218. Transcriptome analysis of tumor cells treated with oligonucleotides targeted to the Antisense noncoding mitochondrial RNAs. **Bendek, M[1,2],** Fitzpatrick, C.[1,2], Boland, A.[3], Deleuze, J.F.[3], Burzio, L.O.[1,2], Burzio, V.[1,2]. [1]Facultad de Ciencias de la Vida, Universidad Andrés Bello; [2]Fundación Ciencia & Vida/Andes Biotechnologies. [3]Centre National de Recherche en Génomique Humaine (CNRGH).

220. Tumor-infiltrating CD8$^+$ T lymphocytes displaying a resident memory phenotype in human renal cell carcinoma. **Sofía Hidalgo[1],** Ernesto López[1], Luis Alarcón[2], Vincenzo Borgna[1,2], Alvaro Lladser[1]. [1]Laboratory of Gene Immunotherapy, Fundación Ciencia & Vida. Santiago, Chile. [2]Servicio de Urología, Hospital Barros Luco Trudeau, Santiago, Chile**.** alladser@cienciavida.org

222. USP7 loss of function results in myoblast transcriptome changes and differentiation impairment. **Natasha Blanco[1,2],** Eduardo de La Vega[1,2], Marcela Sjoberg[2], Hugo Olguín[1,2]. [1]Laboratory of Tissue Repair and Adult Stem Cell, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile. Santiago, Chile. [2]Molecular and Cell Biology Department, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile. Santiago, Chile.

224. Vitamin C induces glioblastoma invasiveness by increasing perivascular satellitosis. **Eder Ramírez[1],** Nery Jara[1], Fernando Martínez[1], Katterine Salazar[1], Arabel Vollmann-Zwerenz[2], Peter Hau[2] and Francisco Nualart[1]. [1]Laboratory of Neurobiology and Stem Cells, NeuroCellT, Center for Advanced Microscopy, CMA Bio-Bio, University of Concepción, Chile. [2]Department of Neurology and Wilhelm Sander – NeuroOncology Unit, University Hospital Regensburg, Germany.

226. Wnt/β-catenin-dependent cell proliferation in axial elongation and segmentation in the beetle *Tribolium castaneum*. **Renato V. Pardo,** Belén G. Riveros, Rodrigo E. Cepeda, Marco Mundaca-Escobar, Valentina Núñez-Pascual, Andres F. Sarrazin. Laboratorio Bioquímica de Sistemas. Instituto de Química, Facultad de Ciencias, Pontificia Universidad Católica de Valparaíso.

228. Wnt7a induces the clustering of presynaptic proteins by a mechanism independent of protein synthesis. **Viviana I. Torres[1]**, Paulette Saavedra[1], Jasson Espinoza[1], Juan A. Godoy[1], Nibaldo C. Inestrosa[1,2]. [1]CARE Chile-UC, Fac. de Ciencias Biológicas, P. Universidad Católica, Santiago, Chile.[2]CEBIMA, Universidad de Magallanes, Punta Arenas, Chile. vtorresa@bio.puc.cl

230. α-synuclein-induced death and dysfunction of astrocytes involve the opening of hemichannels and pannexons. **Esteban F. Díaz,** Valeria C. Labra, Rodrigo A. Quintanilla and Juan A. Orellana. Departamento de Neurología. Escuela de Medicina y Centro Interdisciplinario de Neurociencias. Pontificia Universidad Católica de Chile. jaorella@uc.cl

19:00 – 20:00 PLENARY LECTURE "Sociedad de Biología Celular de Chile"
Volcanes Room
Chair: Francisca Bronfman, President SBCCH, P. Universidad Católica de Chile

ECUACIONES DE REACCION-DIFUSION, DINAMICA DE POBLACIONES Y GENERO. Salomé Martínez, Departamento de Ingeniería Matemática, Centro de Modelamiento Matemático, UMI 2807 CNRS-UChile, Universidad de Chile.

20:30 AWARDS CEREMONY
Volcanes Room
Nikon - Loncotec: Best Images in Cell Biology
Genexpress: Best Presentations in Oral and Poster Communications

21:00 Closing Remarks
Volcanes Room
Chair: Francisca Bronfman, President SBCCH, P. Universidad Católica de Chile

21:30 Dinner