

CHILEAN SOCIETY FOR CELL BIOLOGY

XXVIII ANNUAL MEETING

October, 26 – 30, 2014

Puerto Varas, Chile

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EXHIBITORS

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**CHILEAN SOCIETY FOR CELL BIOLOGY
XXVIII ANNUAL MEETING**

**OCTOBER, 26-30, 2014
PUERTO VARAS**

P R O G R A M

SUNDAY, OCTOBER 26, 2014

09:00 – 13:30 Registration
Convention Center Foyer

11:30 – 12:30 Technical Lectures – Calbuco Room
Macherey-Nagel and Andes Import Ltda.
Magnetic-bead based clean-up and size selection of NGS libraries
Ana Lozano, Sales Manager para Latinoamérica en Macherey-Nagel

Technical Lectures – Tronador Room
Merck Millipore and Merck Quimica Chile
Flow cytometry coupled to image: Applications of the Amnis FlowSight and ImageStreamX MKII
Shobana Vaidyanathan, Application Scientist Merck Millipore

12:30 – 13:30 Technical Lectures – Calbuco Room
GE Healthcare Life Sciences and Genexpress
Cell mutiparameter analysis using fluorescence microscopy. High-content analysis – Automated imaging and analysis of cellular assays
Sandra Rosa da Silva, Product Group Manager Latin America, GE Healthcare Life Sciences

Technical Lectures – Tronador Room
BioTek and Bios Chile IGSA
Automated wide field microscopy for the imaging of cells, 3D cell cultures, tissue sections and small organisms
Peter Banks, Scientific Director at BioTek Instruments, Inc.

13:30 – 15:30 Lunch

15:30 – 17:00 Inauguration
Volcanes Room
Chair: Mauricio González C.

Plenary Lecture “*Luis Izquierdo Fernández*”
Chilean Society for Cell Biology
Chair: Omar Porras

On the verge of a nervous breakdown: energy and signaling in the brain. L. Felipe Barros, Center for Scientific Studies, Valdivia, Chile.

17:00 – 18:00 Coffee Break – Exhibitors
Convention Center Foyer

18:00 – 20:00 Oral Presentations I
Volcanes Room
Chairs: Mauricio González and Brigitte van Zundert

- 18:00** A chaperone *Trypanosoma cruzi* molecule acts as a potent virulence factor and has antitumor effects. **Arturo Ferreira**. Programa Disciplinario de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile.
- 18:15** Novel interaction between c-Abl and Mfn2 modulates mitochondrial dynamic under ER stress. **Martinez A**^{1,2,3}, Valls C^{1,2}, Llambi F³, Fitzgerald P³, Green DR³, Alvarez AR^{1,2}. ¹Cell Signaling Lab, Cellular & Molecular Biology Department, Biological Sciences Faculty, ²CARE-Chile-UC, Pontificia Universidad Católica de Chile, Santiago, Chile. ³Department of Immunology, St. Jude Children's Research Hospital, Memphis, TN, USA.
- 18:30** Adult guinea pig neurogenic niche and the effect of the vitamin C-deficiency on neurogenesis. **Nery Jara**¹, Manuel Cifuentes², Fernando Martínez¹, Katterine Salazar¹ and Francisco Nualart¹. Center for Advanced Microscopy, CMA BIO BIO, University of Concepción¹; BIONAND, University of Málaga².
- 18:45** Expression of heterochronic genes in the central nervous system during *Xenopus* metamorphosis. **Faunes, F.**, Bruno, R., Carrasco-Wong, I., Larraín, J. Center for Aging and Regeneration, Millennium Nucleus in Regenerative Biology, Faculty of Biological Sciences, P. Universidad Católica de Chile, Alameda 340 Santiago, Chile.
- 19:00** Complex I inhibition produces metabolic remodeling and decreases migration in breast cancer cells: Role of glucose availability. **Félix A. Urra**^{1,3,5}, Felipe Muñoz-Córdova⁵, Jorge Toledo^{2,3,4}, Ramiro Araya-Maturana⁵ & César Cárdenas^{1,3}. ¹Laboratory of Cellular Metabolism and Bioenergetics. ²Laboratory of Scientific Image Analysis, SCIAN-Lab. ³Program of Morphology and Anatomy, ICBM, University of Chile. ⁴Biomedical Neuroscience Institute (BNI), Faculty of Medicine, University of Chile. ⁵Department of Organic and Physical Chemistry, Faculty of Chemical and Pharmaceutical Sciences, University of Chile.
- 19:15** Insights about brain metabolism through a novel monocarboxylic acid transporter (Chaski) expressed in central nervous system of *Drosophila melanogaster*. **María Graciela Delgado**^{1,2}, Estefanía López¹, Carlos Oliva¹, Karen Castillo², Omar Ramírez¹, Carlos González², L.Felipe Barros³ and Jimena Sierralta¹. ¹Program of Physiology and Biophysics, ICBM and Biomedical Neuroscience Institute, Faculty of Medicine, Universidad de Chile. ²CINV, Universidad de Valparaíso, Chile. ³CECS, Valdivia, Chile.
- 19:30** Schwann cell-derived exosomes are released by axonal activity and enhance neurite extension. **Frédéric Picou**¹, Jaime Alvarez¹, Patricio Manque², Felipe A. Court^{1,3}. ¹Millennium Nucleus for Regenerative Biology, PUC, Chile. ²Facultad de Ciencias, Universidad Mayor. ³Neurounion Biomedical Foundation, Chile.
- 19:45** Biological therapy for muscle degenerative disorders: Angiotensin (1-7) treatment promotes muscle regeneration *in vivo*. **Ramírez, A**¹; Kharraz, Y²; Muñoz-Canoves P², Brandan E¹. ¹Laboratorio de Diferenciación Celular y Patología, CARE-UC, Pontificia Universidad Católica de Chile, Santiago, Chile. ²Cell Biology Group, Department of Experimental and Health Sciences, Pompeu Fabra University, Barcelona, Spain.

20:00 **Dinner**

22:00 – 23:30 **Best Theses Awards Fundación Chilena para Biología Celular**
Volcanes Room
Chairs: Arturo Yudelevich and Mauricio González

Undergraduate

Hianara Bustamante Ruiz

Bioquímico

Universidad Austral de Chile

“Caracterización bioquímica y funcional del rol de la ubiquitinación y la maquinaria ESCRT en la degradación endo/lisosomal del fragment C99 en células de neuroglioma humano (H4)”.

Thesis Advisor: Patricia Burgos, Universidad Austral de Chile

Graduate

Fernando Bustos Fernández

PhD in Biological Sciences

Universidad de Concepción

“Rol de la proteína de andamiaje PSD-95 en la regulación de la arquitectura dendrítica: mecanismos epigenéticos involucrados en el control de su expresión durante el desarrollo”.

Thesis Advisors: Brigitte van Zundert and Martín Montecino, U. Nacional Andrés Bello

MONDAY, OCTOBER 27, 2014

08:00 Poster Mounting Session I: N° 1 to N° 88
Convention Center Foyer

09:00 – 11:00 Oral Presentations II
Volcanes Room
Chairs: Andrés Couve and Francisca Bronfman

09:00 Mitochondrial dynamics in neonatal and adult cardiomyocytes is targeted by chronic alcohol consumption. Verónica Eisner. Thomas Jefferson University.

09:15 RAB11-subapical endosome in the polarized traffic of apical GPI-anchored protein and basolateral VSVG in MDCK cells. Claudio Retamal^{1,2}, Erwin de la Fuente⁴, Pedro Zamorano², and Alfonso González^{1,2,3}. Centro de Envejecimiento y Regeneración (CARE)¹, Departamento de Biología Celular², Facultad Ciencias Biológicas¹, Departamento de Inmunología Clínica y Reumatología, Facultad Medicina³. Pontificia Universidad Católica de Chile. Facultad de Medicina, Universidad de la Serena⁴.

09:30 The IRE1 α interactome: Hps47 a new modulator involved in fine tuning of UPR signaling. Sepúlveda D, Rojas-Rivera D, Rodríguez D, Urra H, Dufey E, Hetz C. Biomedical Neuroscience Institute, Center for Molecular Studies of the Cell, ICBM, Faculty of Medicine, University of Chile, and Neurounion Biomedical Foundation, Santiago, Chile.

09:45 Axon-Schwann cell interactions during peripheral nerve regeneration in zebrafish larvae. Maria Laura Ceci¹, Camila Mardones-Krsulovic¹, Mario Sanchez¹, Leonardo E. Valdivia² and Miguel L. Allende^{1&}. ¹FONDAP Center for Genome Regulation. Facultad de Ciencias, Universidad de Chile. Casilla 653. Santiago. Chile. ²Department of Cell and Developmental Biology, University College London, UK.

10:00 The Rab5-Rab11 endosomes are required for BDNF-induced dendritic branching and activation of CREB transcription factor in hippocampal neurons. Andrés González, Guillermo Moya, Anibal Cáceres and Francisca Bronfman. Neuronal Cell Biology and Regeneration Lab, Pontificia Universidad Católica de Chile.

10:15 Wnt-5a/Frizzled-9 regulates dendritic spine formation through Gao and G β y stimulation. Valerie T. Ramirez, Eva Ramos-Fernandez, Nibaldo C. Inestrosa. Center of Aging and Regeneration. P. Catholic University of Chile. Santiago, Chile.

10:30 The cytoplasmic dynein complex is important for retroviruses infection. Andrea Garcés and Gloria Arriagada. Facultad de Ciencias Biológicas, Universidad Andrés Bello, Viña del Mar.

10:45 Astrocytic mitochondrial modulation by physiological levels of NH₄⁺. ^{1,2}Lerchundi Rodrigo; ^{1,2}Contreras-Baeza Yasna; ^{1,2}Fernández-Moncada Ignacio; ³Machler Philipp; ³Weber B., ¹Barros L. Felipe. ¹Centro de Estudios Científicos (CECs), Av. Arturo Prat 514, Casilla 1469, Valdivia, Chile. ²Universidad Austral de

Chile, Valdivia, Chile. ³Institute of Pharmacology and Toxicology, University of Zurich, Zurich, Switzerland.

11:00 – 13:30 Schools and Science: Students from South of Chile at the Chilean Society for Cell Biology
Business Center Room

11:00 – 13:00 Poster Viewing Session I: 1-88 Odd Numbers
Convention Center Foyer
Coordinators: Rebeca Aldunate, Jaime Meléndez, Omar Porras and Angara Zambrano

(1) Methyl- β -cyclodextrin promotes glucose uptake via GLUT4 in adult muscle fibers and reduces insulin-resistance in obese mice. Paola Llanos^{1,2}, Ariel Contreras-Ferrat^{1,2}, Cecilia Hidalgo¹, **Enrique Jaimovich**¹. ¹Center for Molecular Studies of the Cell, Facultad de Medicina, ²Institute for Research in Dental Sciences, Facultad de Odontología, Universidad de Chile. ejamovi@med.uchile.cl

(3) Characterization of a multiprotein complex containing Pannexin-1 in skeletal muscle cells. **Manuel Arias-Calderón**¹, Gonzalo Almarza¹, Ariel Contreras-Ferrat¹, Enrique Jaimovich¹ and Sonja Buvinic^{1,2}. ¹Center for Molecular Studies of the Cell, ICBM, Faculty of Medicine, Universidad de Chile; Santiago, Chile. ²Institute for Research in Dental Science, Faculty of Dentistry, Universidad de Chile; Santiago, Chile. m.arias@ciq.uchile.cl

(5) Bone morphogenetic protein 2 sequence modifications: a strategy to generate an improved protein for potential biopharmaceutical use. **Cristian Madrid**, Juan Reyes and Nelson Osses. Institute of Chemistry, P. Catholic University of Valparaíso, Chile. nelson.osses@ucv.cl

(7) Zebrafish adult-derived hypothalamic neurospheres generate gonadotropin-releasing hormone (GnRH) neurons. Christian Cortés-Campos^{1,3}, Joaquín Letelier^{1,4}, Stephanie Westmiller², and **Kathleen E. Whitlock**¹. ¹Centro Interdisciplinario de Neurociencia de Valparaíso (CINV), Universidad de Valparaíso; ²Dept. of Molecular Biology & Genetics, Cornell University, USA; ³Whitehead Institute for Biomedical Research (WIBR), Cambridge MA, USA; ⁴Centro Andaluz de Biología del Desarrollo, Sevilla, España.

(9) Over-expression of Connexin-43 increases human melanoma cells apoptosis sensitivity and reduces their proliferative and metastatic capacity. **Israel Guerrero**^{1,2}, Sebastian Sabanegh^{1,2}, M^a Alejandra Gleisner^{1,2}, Fabian Tempio^{1,2}, Ignacio Avalos^{1,2}, Fernando Lillo^{1,2}, Mercedes López^{1,2}, Flavio Salazar-Onfray^{1,2}. ¹Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile, 8380453 Santiago, Chile; ²Millennium Institute on Immunology and Immunotherapy, Universidad de Chile, 8380453 Santiago, Chile.

(11) Characterization of murine tolerogenic dendritic cells modulated with dexamethasone and monophosphoryl lipid A for treatment of collagen-induced arthritis. **Carolina Schäfer**^{1,2}, Octavio Aravena¹, Jaxaira Maggi^{1,2}, Katina Schinnerling^{1,2}, Pía Tobar^{1,2}, Diego Catalán^{1,2}, Karina Pino-Lagos¹ and Juan Carlos Aguillón^{1,2}. ¹Immune Regulation and Tolerance Research Group (<http://www.irtgroup.cl>), Programa Disciplinario de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile. ²Millennium Institute on Immunology and Immunotherapy. carolina.schafer.a@gmail.com

(13) Activated B cells expressing TIM-1 inhibit inflammatory T cell responses and induce FOXP3+ T cells. Aravena O.¹, Ferrier A.¹, Fonseca E.¹, Vega P.¹, Berendsen J.¹, Cerda A.¹, Pino-Lagos K.¹, Aguillón J.C.¹, Soto L.^{1,2}, Catalán D.¹.

¹Immune Regulation and Tolerance Research Group, Programa Disciplinario de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile. ²Hospital Clínico, Universidad de Chile. aravena.octavio@gmail.com

(15) Regulatory T cells promote allograft survival by inducing Nrpl and Eos expression on effector CD4+ T cells. Mauricio Campos-Mora, Rodrigo Morales, Francisco Pérez, Tania Gajardo, Javier Campos, Diego Catalan, Juan C. Aguillón and Karina Pino-Lagos. Immune Regulation and Tolerance Research Group, Programa Disciplinario de Inmunología, Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. mcamposm@ug.uchile.cl

(17) Involvement of dopamine receptor D5 in the inflammatory reflex associated to sepsis. Daniela Elgueta^{1,2}, Hugo González¹ and Rodrigo Pacheco¹. ¹Fundación Ciencia & Vida and ²Universidad Andrés Bello. dpelgueta@gmail.com

(19) *Helicobacter pylori* augments NKG2DL surface levels on gastric adenocarcinoma cells, inducing NK cell degranulation through NKG2D receptor. Hernández CJ^{1,2}, Garrido-Tapia M¹, Kramm K¹, Ribeiro CH¹, Molina MC¹. ¹Programa Disciplinario de Inmunología, ICBM. ²Escuela de Tecnología Médica, Facultad de Medicina, Universidad de Chile. carojimena@gmail.com

(21) *Drosophila* mushroom bodies organize central brain connectivity via a Robo-PTP receptor complex. Carlos Oliva^{1,2}, Natalia Mora², Alessia Soldano², Natalia Sanchez-Soriano³, Ariane Ramaekers², Natalie De Geest², Annelies Claeys², Maria-Luise Erfurth³, Dietmar Schmucker³, and Bassem Hassan². ¹Current Address: Biomedical Neuroscience Institute, Universidad de Chile. ²Laboratory of Neurogenetics Vlaams Instituut voor Biotechnologie (VIB), University of Leuven School of Medicine, Belgium. ³Institute of Translational Medicine, University of Liverpool, UK. ⁴Neuronal Wiring Laboratory, Vlaams Instituut voor Biotechnologie (VIB) Vesalius Research Center, 3000 Leuven, Belgium. Bassem.Hassan@cme.vib-kuleuven.be (Sponsor: J. Sierralta).

(23) Caspase-3 and Calpains become active during (and play a role in) injury-induced axonal degeneration but are not inhibited during NAD⁺-mediated protection. Nicolás Unsain^{1,2}, Aaron D Jhonstone² and Phil A Barker². ¹Current affiliation: Instituto Investigación Médica Mercedes y Martín Ferreyra (INIMEC-CONICET), Córdoba, Argentina. ²Montreal Neurological Institute, McGill University, Montreal, Canadá. nunsain@imhf.uncor.edu

(25) ON bipolar cells synthesize NO via nNOS in rat retina. Agurto A, Devia V, Vielma AH and Schmachtenberg O. Centro Interdisciplinario de Neurociencia de Valparaíso, Facultad de Ciencias, Universidad de Valparaíso, Chile. adolfo.agurto@cinv.cl

(27) Modulation of migratory properties of olfactory ensheathing cells in biomimetic conditions of spinal cord injury. Reginensi D, Nocentini S, Carulla P, Seira O, Torres-Espín A, Serra-Picamal X, Samitier J, Trepas X, Navarro X, Del Río JA. Parc Científic de Barcelona, España. diego.reginensi@gmail.com

(29) Wnt5a modulates mitochondrial distribution into synapses, regulating the dendritic spines morphology in hippocampal slices. Macarena S. Arrázola, Daniela Ordenes and Nivaldo C. Inestrosa. Centro de Envejecimiento y Regeneración (CARE). Departamento de Biología Celular y Molecular. Facultad de

Ciencias Biológicas. Pontificia Universidad Católica de Chile, Santiago, Chile. msarrazo@puc.cl

(31) Tumor necrosis factor α increases cyclin-dependent kinase 5 activity in vivo followed by increased Ca^{+2} influxes on trigeminal ganglia neurons from TNF- α conditional transgenic mice. Rozas P, Lazcano P, Barrios M, Piña R, Terse A, Prochazkova M, Cho A, Madrid R, Kulkarni AB, Gonzalez-Billault C, and Utreras E. Laboratory of Cellular and Neuronal Dynamics, Department of Biology, Faculty of Science, Universidad de Chile. elias.utreras@uchile.cl

(33) Experience dependent activity in the developing olfactory sensory system of the zebrafish. Benjumeda, I and Whitlock, K.E. Instituto Milenio CINV, Universidad de Valparaíso, Chile. kewhitlock@gmail.com

(35) Reacquisition of target innervations in a peripheral nerve after damage. Daniela Gutiérrez, María Laura Ceci and Miguel L. Allende. FONDAPE Center for Genome Regulation, Facultad de Ciencias, Universidad de Chile. allende@uchile.cl

(37) Wnt signaling in the processes of segmentation and elongation in the beetle *Tribolium castaneum*. Constanza C. Macaya, Viviana A. Nuñez and Andres F. Sarrazin. Instituto de Química, Facultad de Ciencias, Pontificia Universidad Católica de Valparaíso.

(39) Role of the adrenergic system in arousal induced taste neophobia. Rojas-Silva S, Jeréz-Baraona J, Quintana D, Díaz-Galarce R, Moraga-Amaro R, Stehberg J. ¹Laboratorio Neurobiología, Centro Investigaciones Biomédicas, Universidad Andrés Bello. seba.ars@gmail.com

(41) Developing a zebrafish model for non-regenerative peripheral nerve damage. Cristina Muñoz, Maria Laura Ceci and Miguel L. Allende. FONDAPE Center for Genome Regulation. Facultad de Ciencias, Universidad de Chile. Santiago, Chile. allende@uchile.cl; cmunozrehbein@gmail.com

(43) 7-hydroxycoumarins are protective agents against dopaminergic neurotoxicity-induced by Parkinsonian toxin MPP+. Yorka Muñoz, Pabla Aguirre, Olimpo García and Marco Tulio Nuñez. Faculty of Sciences, Universidad de Chile. yorkameister@gmail.com

(45) Epigenetic silencing of key bone phenotypic genes during neuronal differentiation: Consequences of forced expression. Rodrigo Aguilar, Fernando J. Bustos, Brigitte van Zundert, Martin Montecino. FONDAPE Center for Genome Regulation and Center for Biomedical Research, Universidad Andrés Bello, Santiago, Chile. rod.aguilar@unab.cl

(47) Ependymal cell differentiation and *IIIg9* expression is a synchronous process. Baeza, V., Martinez, F., Cifuentes, M[#], Nualart, F., Salazar, K. Center for Advanced Microscopy CMA BIOBIO, Department of Cell Biology, University of Concepcion. [#]Malaga University, Spain. katterinsalazar@udec.cl

(49) Regulation of *Hif-1a* on *twist*, *snail* y *cxcr4* during the neural crest development. Benavides I.V., and Reyes A.E. ¹Laboratorio de Biología del Desarrollo, Facultad de Ciencias Biológicas, Universidad Andrés Bello. ariel.reyes@unab.cl

(51) Reduced RECK levels improve the skeletal muscle regeneration and diminish the muscle damage and fibrosis of dystrophic *mdx* mice. Jaime Gutierrez^{1,2}, David Gonzalez¹, Enrique Brandan¹. ¹Laboratory of Cell Differentiation and Pathology, CARE. Department of Cell and Molecular Biology,

Catholic University of Chile. ²Faculty of Health Sciences, Universidad San Sebastián, Santiago, Chile.

(53) Effects of BMP-2 in gene expression and subcellular localization of FoxO1, Runx2 and PPAR γ in bone marrow mesenchymal stem cells from postmenopausal osteoporotic women. Carolina Figueroa, Ana María Pino, Juan Pablo Rodríguez. Laboratory of Cell Biology, INTA, University of Chile. carolinafigueroa@inta.uchile.cl

(55) Intracellular signaling by the P75 neurotrophin receptor. Carolina Cabeza^a, Claudia Escudero^a, D. Bruce Carter^b, Francisca Bronfman^a. ^aFaculty of Biological Sciences, Physiology Department, Pontificia Universidad Católica, Santiago, Chile. ^bDepartment of Biochemistry and Vanderbilt Brain Institute, Vanderbilt University Medical School, Nashville, USA. cncabeza@uc.cl

(57) High-fat diet alters both IP3-dependent mitochondria Ca²⁺ levels and membrane potential, reducing insulin-dependent GLUT4 translocation and glucose uptake in muscle fibers. Alexis Díaz¹, Yildy Utreras², Manuel Arias², Enrique Jaimovich², Ariel Contreras-Ferrat^{1,2}. ¹Center of Molecular Studies of the Cell, Facultad de Medicina y ²Department of Basic and Communitarian Sciences, Facultad de Odontología. Universidad de Chile. acontreras@med.uchile.cl

(59) Transcriptomic analysis of *Musca domestica* reveals 100My conservation of *D. melanogaster* decapentaplegic pathway. Christian Hodar, Jonathan Maldonado, Dante Travisany, Verónica Cambiazo. Laboratorio de Bioinformática y Expresión Génica, INTA. Laboratorio de Bioinformática y Matemática del Genoma, CMM. Universidad de Chile. Fondap Center for Genome Regulation (CGR). chodar@inta.cl

(61) Endothelin-Converting Enzyme-1c regulates migration and invasion of colon cancer cells through modulation of FAK and PI3K/Akt pathway. Hernán Huerta¹, Ignacio Niechi¹, Eduardo Silva¹, Ricardo Armisen², Cristina Fernandez², Julio C. Tapia^{1,2}. ¹Cell Transformation Laboratory, ²CITC: Center for Research and Treatment of Cancer; Faculty of Medicine, University of Chile. hernanhuertac@med.uchile.cl

(63) Role of the Endothelial Protein C Receptor (EPCR), caveolin-1 and β -catenin in the anti-angiogenic action of coagulation Factor X. Maximiliano Arce^{1,3}, Claudia Calderón^{2,3}, Andrew Quest^{2,3}, Gareth Owen^{1,3}. ¹Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. ²Facultad de Medicina, Universidad de Chile. ³Centro de Estudios Avanzados de Enfermedades Crónicas (ACCDIS). max.arce.arata@gmail.com

(65) Elucidating the role of CDC42 in sporadic colorectal cancer. Ximena Calderón⁽¹⁾, Ingrid Oyarzún⁽¹⁾, Adam Aguirre⁽¹⁾, Esteban Castillo⁽¹⁾, Francisco Martínez⁽¹⁾, Karin Álvarez⁽²⁾, Rodrigo Quera⁽²⁾, Francisco López⁽²⁾, Jaime Meléndez⁽¹⁾. ⁽¹⁾Departamento Farmacia, Facultad Química, P.U. Católica de Chile. ⁽²⁾Laboratorio Genética Molecular, Clínica Las Condes. jgmelend@uc.cl

(67) Role of CDC42 in the turnover of the epidermal growth factor receptor in sporadic colorectal cancer. Claudia Hoepfner⁽¹⁾, Ingrid Oyarzún⁽¹⁾, Ana María Wielandt⁽²⁾, Rodrigo Quera⁽²⁾, Francisco López⁽²⁾, Jaime Meléndez⁽¹⁾. ⁽¹⁾Departamento Farmacia, Facultad Química, P.U. Católica de Chile. ⁽²⁾Laboratorio Genética Molecular, Clínica Las Condes. jgmelend@uc.cl

(69) Soluble MICA determination in cancer gastric patient sera through Multiplex Luminex technology. Lohs-Rojas, A.¹, Lizama, L.², Collazo, N., Zuñiga, R., Kramm, K., Garrido, M., Hernández, C., Aguillón, J.¹, Ribeiro, CH.,

Molina, M¹. ¹Program of Immunology, Biomedical Sciences Institute (ICBM), Medicine Faculty, Universidad De Chile. ²Virology Program, Medicine Faculty, Universidad de Chile. agnes.lohs@gmail.com

(71) Identification of microRNAs from exosomes of bulk and stem cells from prostate cancer by next generation sequencing. Catherine Sánchez¹, Eliana Andahur, Rodrigo Valenzuela², Enrique Castellón², Christian Ramos¹, Juan Carlos Triviño³. ¹Urology Department, Clínica las Condes, Chile. ²Faculty of Medicine, University of Chile, Chile. ³Sistemas Genómicos, España. csanchezn@clc.cl (Sponsor: L. Norambuena).

(73) PERK pathway characterization in labial salivary glands of Sjögren syndrome's patients: An adaptive response? V. Bahamondes, S. Aguilera, J. Cortés, I. Castro, M.J. Barrera, U. Urzúa, S. González, C. Molina, C. Leyton and M.J. González. Laboratorio de Biología Celular, ICBM, Facultad de Medicina, Universidad de Chile. bacoveronica@gmail.com

(75) p53 expression in the inverse association between Alzheimer's Disease and Cancer: a possible relationship with PARP-1. Ponce DP²; Bravo M^{2,3}; Bruna, B²; Salech F^{2,3}; SanMartin C², Couve A^{2,3}; Herrera-Marschitz^{2,3} M; Behrens MI^{1,2,3,4}. ¹Departamento Neurología, HCUCH, ²BNI, ³CEMC, Facultad de Medicina, UCH, and ⁴Clínica Alemana de Santiago, Chile. maximiliano.bravo1989@gmail.com

(77) Tcf4 (Tcf712) expression is directly regulated by TGF-beta signaling: Implications for skeletal muscle biology. Oswaldo Contreras and Enrique Brandan. Pontificia Universidad Católica de Chile. ocontre@uc.cl; ebrandan@bio.puc.cl

(79) Effect of combined vitamin C/E treatment on plasma cholesterol levels and HDL protein composition in a murine model of ischemic heart disease. Susana Contreras-Duarte¹, Silvana Zanlungo¹, Attilio Rigotti^{1,2}. secontre@uc.cl. ¹Department of Nutrition, Diabetes and Metabolism, School of Medicine; and ²Center of Molecular Nutrition and Chronic Diseases; Pontificia Universidad Católica de Chile.

(81) Withdrawn

(83) Quantification of emamectin benzoate and oxytetracycline in plasma and muscle of rainbow trout (*Oncorhynchus mykiss*) and determination of its transcriptional effect on detoxification proteins. Arias L¹, Cuevas P¹ and Cárcamo JG^{1,2}. ¹Instituto de Bioquímica y Microbiología, ²Interdisciplinary Center for Aquaculture Research (INCAR), Universidad Austral de Chile. Valdivia. Chile. gcarcamo@uach.cl

(85) Role of adrenal androgens in human endothelial cell homeostasis. Catalina Garay¹, Verónica Torres-Estay¹, Daniela Carreño¹, Viviana P. Montecinos¹, Loreto Véliz¹, Paula Sotomayor², and Alejandro S. Godoy^{1,3}. Pontificia Universidad Católica de Chile¹ and Center for Integrative Medicine and Innovative Science², Universidad Andrés Bello, Santiago, Chile; Roswell Park Cancer Institute³, Buffalo, NY. cata.garay.rom@gmail.com (Sponsor: G. Owen)

(87) Effect of antiparasitic drugs on transcriptional levels of detoxification proteins in *Caligus rogercresseyi*. Mancilla A¹, Fuentes D¹, Castillo J¹. Cárcamo JG^{1,2}. ¹Instituto de Bioquímica y Microbiología, ²Interdisciplinary Center for Aquaculture Research (INCAR), Universidad Austral de Chile. Valdivia. Chile. gcarcamo@uach.cl

13:00 – 15:30 Lunch

**15:30 – 17:30 Symposium *Millennium Nucleus for Regenerative Biology*
“Mechanisms of Regeneration in the Nervous System”**

Calbuco Room

Chair: Francisca Bronfman

Spinal cord regeneration in frogs. Juan Larrain. Center for Aging and Regeneration and Millennium Nucleus in Regenerative Biology, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile.

The ependyma of the spinal cord: a stem cell niche for endogenous repair. Raúl E. Russo. Neurofisiología Celular y Molecular. Instituto de Investigaciones Biológicas Clemente Estable. Avenida Italia 3318, CP11600, Montevideo; Uruguay.

Axon-soma communication in neuronal regeneration. Mike Fainzilber. Department of Biological Chemistry, Weizmann Institute of Science, Rehovot 76100, Israel. mike.fainzilber@weizmann.ac.il

Symposium *Proyectos FONDECYT de Iniciación*

“Update in Antigen Presentation and Other Mechanisms Regulating the Induction of Tolerance”

Tronador Room

Chairs: Diego Catalán y Karina Pino-Lagos

Peptide repertoires presented by MHC molecules in thymus and periphery. María Teresa Ciudad, Javier Collado, Iñaki Álvarez, Dolores Jaraquemada. Universitat Autònoma de Barcelona, España.

Clinical Grade Manufacture of Regulatory T cells to promote transplantation tolerance: challenges and achievements. Lombardi G. and R. Lechler. MRC Centre for Transplantation, King’s College London, UK.

Antigen expression and processing in central tolerance. Iñaki Álvarez Pérez. Universitat Autònoma de Barcelona, Spain.

Ro The challenge of transplant rejection: from understanding allorecognition to inducing tolerance. Lombardi G. and R. Lechler. MRC Centre for Transplantation, King’s College London, UK.

17:00 – 19:30 Schools and Science: Students from South of Chile at the Chilean Society for Cell Biology

Business Center Room

17:30 – 19:30 Poster Viewing Session I: 1-88 Even Numbers

Convention Center Foyer

Coordinators Rebeca Aldunate, Jaime Meléndez, Omar Porrás and Angara Zambrano

(2) Role of insulin and adenosine in the regulation of L-arginine transport via hCAT-1 in human umbilical vein endothelium cells from preeclampsia. **R Salsoso**¹, T Sáez¹, E Guzmán-Gutiérrez^{1,2}, C Sanhueza¹, F Pardo¹, A Leiva¹, A Mate³, CM Vázquez³, L Sobrevia^{1,4}. ¹Cellular and Molecular Physiology Laboratory, Division of Obstetrics and Gynaecology, School of Medicine, Faculty of Medicine, Pontificia Universidad Católica de Chile, Santiago, Chile. ²Faculty of Health Sciences, Universidad San Sebastián, Concepción, Chile. ³Department of Physiology, Faculty of Pharmacy, Universidad de Sevilla, Sevilla, Spain. ⁴UQCCR, Faculty of Medicine and Biomedical Sciences, University of Queensland, Australia. mdsalsoso@uc.cl

(4) Mitochondrial complex I inhibition as inducer of bioenergetic change and death in human acute lymphoblastic leukemia cells. **Pablo Cruz**, Félix Urrea, Fabian Jaña, J. Cesar Cárdenas. Laboratory of Cellular Metabolism and Bioenergetics, Anatomy and Cell Developmental Biology Program, ICBM, Faculty of Medicine, University of Chile. pablo170693@gmail.com

(6) Fatty acid composition of the bone marrow and their relationship with bone mineral density in postmenopausal women. **Melissa Miranda**^a, Ana Maria Pino^a, Karen Fuenzalida^b, Juan Pablo Rodríguez^a. ^aCell Biology and ^bGenetics and Metabolic Diseases Laboratories, Institute of Nutrition and Food Technology, University of Chile, Santiago, Chile. jpdrodriguez@inta.uchile.cl

(8) The *Trypanosoma cruzi* Calreticulin antitumor effect is inhibited by specific antibodies. **Abello, Paula**; Maldonado, Ismael; Ferreira, Arturo. Immunology Program, ICBM, Faculty of Medicine, University of Chile, Santiago, Chile. Paula.abello.c@gmail.com

(10) The SDF1a/CXCR4b axis mediates neutrophil retention during development and the inflammatory response. **Susana Paredes Z**, Oscar A. Peña, Miguel L Allende. FONDAPE Center for Genome Regulation, Facultad de Ciencias, Universidad de Chile, Santiago, Chile. sparedesz@ug.uchile.cl, allende@uchile.cl

(12) Detection of antibodies against molluscan hemocyanins in unsensitized individuals: A possible role for complement activation in hemocyanins immunogenicity? **Javier Pizarro**¹, Ismael Maldonado¹, Eduardo Sosoniuk¹, Gerardo Vallejos¹, Carlos Rosas¹, Carolina Valck¹, María Inés Becker^{2,*}, Arturo Ferreira^{1,*}. ¹Laboratorio de Inmunología de la Agresión Microbiana, Programa de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile. ²Fundación Ciencia y Tecnología para el Desarrollo (FUCITED), Santiago, Chile. *These authors contributed equally to this work. jpizarrob@ug.uchile.cl

(14) Runx2 Transcription Factor regulates expression of immune evasion effectors genes in osteosarcoma. **Héctor Araya**^{1,4}, Andre van Wijnen², Flavio Salazar^{3,4}, Mario Galindo^{1,4}. ¹Programa de Biología Celular y Molecular, ICBM, Facultad de Medicina, Universidad de Chile. ²Department of Orthopedic Surgery & Biochemistry and Molecular Biology, Mayo Clinic, Rochester, USA. ³Programa de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile. ⁴Instituto Milenio en Inmunología e Inmunoterapia. mgalindo@med.uchile.cl

(16) Evaluation of a DNA vaccine for flagellar protein FliC of *Brucella abortus* in murine model. **Roberto Coloma**, Pablo Fernandez, Darwin Saez, Ángel Oñate. Laboratorio de Inmunología Molecular. Departamento de Microbiología. Facultad de Ciencias Biológicas. Universidad de Concepción. rcoloma@udec.cl

(18) Platelets effect in activation and differentiation of human monocyte-derived macrophages. **Gisselle Escobar**¹, Claudio Pérez³, Fabián Tempio^{1,2},

Flavio Salazar-Onfray^{1,2,3}, Mercedes López^{1,2,3}. ¹Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile; ²Millennium Institute of Immunology and Immunotherapy, Universidad de Chile; ³Clinical Hospital Universidad de Chile. gescobar@ug.uchile.cl

(20) Stimulation of dopamine receptor D3 expressed in glial cells contributes to neuroinflammation involved in Parkinson's disease. Andro Montoya¹, Hugo González¹, Francisco Contreras^{1,2}, Daniela Elgueta^{1,2} and Rodrigo Pacheco¹. ¹Fundación Ciencia & Vida and ²Universidad Andrés Bello. andro.mr1@gmail.com

(22) Expression pattern of guidance cues and extracellular matrix molecules along axonal navigation pathways in posterior commissure formation. Stanic K., González M., Saldivia N., Montecinos H., Caprile T. Axon Guidance Laboratory, Faculty of biological sciences, Universidad de Concepción, Chile. kstanic@udec.cl

(24) Superoxide generation via the NR2B-NMDAR/RasGRF1/NOX2 pathway promotes dendritogenesis. Sebastian Abarzúa¹, Alonso Pino¹, Estibaliz Ampuero¹, Christian González-Billault², Brigitte van Zundert B¹. ¹Center for Biomedical Research, Andrés Bello University, ²Laboratory of Cell and Neuronal Dynamics, Universidad de Chile. Seba041088@gmail.com

(26) Role of dopamine receptors in arousal-induced taste neophobia. Stehberg J. Rojas-Silva S, Jeréz-Baraona J, Díaz-Galarce R, Moraga-Amaro R, Quintana D. Laboratorio Neurobiología, Centro Investigaciones Biomédicas, Universidad Andrés Bello. jstehberg@unab.cl

(28) Generation of PINK1-deficient zebrafish using TALEN: A potential model of olfactory dysfunction in Parkinsonism. Allende-Castro, C., Borgonovo, J., Concha, M.L. Laboratory of Experimental Ontogeny, ICBM, University of Chile; Biomedical Neuroscience Institute, Santiago, Chile. allende.camilo@gmail.com, mconcha@med.uchile.cl

(30) In vivo MCT1 inhibition in tanycytes affects feeding behavior. Barahona MJ. Elizondo-Vega R, Cortés-Campos C, Garcia-Robles MA. Departamento de Biología Celular, Universidad de Concepción. mariajobarahona@udec.cl

(32) Role of the transcription factor XBP1s in an ALS/FTD model. Bargsted L.^{1,2,3}, Valenzuela V.^{1,2,3}, Muñoz N.^{1,2,3}, Hetz C.^{1,2,3} and Matus S.^{1,2}. ¹Neurounion Biomedical Foundation, Santiago, Chile, ²Biomedical Neuroscience Institute. University of Chile. ³Center for Molecular Studies of the Cell, ICBM, University of Chile. soledad.matus@neurounion.com

(34) Role of Oxidative stress controlling glutamatergic transmission. Francisco J. Carvajal & Waldo Cerpa. Laboratorio de Función y Patología Neuronal. Departamento de Biología Celular y Molecular, Pontificia Universidad Católica de Chile, Santiago. fvcarvajal@uc.cl

(36) TAp73 participates in the formation of dendritic spines. Cisterna-Jeldres M.^{1,2}, Gonzalez A^{1,2}, Alvarez AR^{1,2}. ¹Cell Signaling Lab, Cellular & Molecular Biology, Biological Sciences Faculty, P. Universidad Católica de Chile. ²CAREChile-UC. mhcisteruc.cl

(38) Astrocytes expressing the ALS-causing mutant SOD1^{G93A} release toxic factor(s) that trigger motoneuron death through activation of c-Abl. Fabiola Rojas¹, David Gonzalez¹, Nicole Cortes¹, Sebastián Abarzua¹, Elsa Fritz¹, Estibaliz Ampuero¹, Alejandra Alvarez² and Brigitte van Zundert¹. ¹Universidad Andrés Bello, ²Universidad Católica de Chile. folarojas@gmail.com

(40) Trophic actions of GABA: implications in brain sexual differentiation.

Franco R. Mir¹, Hugo F. Carrer¹, Luis G. Aguayo² and M. Julia Cambiasso¹.
¹Instituto de Investigación Médica Mercedes y Martín Ferreyra (INIMEC - CONICET - UNC). Córdoba, Argentina. ²Universidad de Concepción. Concepción, Chile. francomir@immmf.uncor.edu

(42) Introducing human induced pluripotent stem cells (iPSCs) technology as a model to study the neurodegenerative disease Amyotrophic Lateral Sclerosis (ALS).

Rodrigo Aguilar^{1,2}, Sandra Almeida³, Rodrigo Lopez³, Fabiola Rojas¹, Lorena Varela-Nallar¹, Fen-Biao Gao³, Martin Montecino^{1,2}, **Brigitte van Zundert**¹. ¹Center for Biomedical Research, Universidad Andres Bello, ²FONDAP C.G.R., and ³University of Massachusetts Medical School, Worcester, USA. bvanzundert@unab.cl

(44) Involvement of autophagy in axonal regeneration after peripheral nerve damage. Oñate M.

^{1,2,3}, Catenaccio A.¹, Hetz C.^{2,3,4} and Court F.A.^{1,4}. ¹Millennium Nucleus in Regenerative Biology, P. Catholic University of Chile, ²Biomedical Neuroscience Institute, ³Center for Molecular Studies of the Cell, University of Chile and ⁴Neurounion Biomedical Foundation. fcourt@bio.puc.cl

(46) Analysis of locomotory behavior during aging in *C. elegans* reveals increased asymmetry in body bending pattern. Héctor Arriagada

^{1,3}, Cristal Salcedo¹, Alicia N. Minniti² and Rebeca Aldunate¹. ¹Escuela de Biotecnología, Universidad Santo Tomás, Santiago, Chile. ²Facultad de Ciencias Biológicas P. Universidad Católica de Chile. ³Facultad de Química y Biología, Universidad de Santiago. raldunat@santotomas.cl

(48) Cellular and molecular characterization of a novel primary osteoblast culture from the vertebrate model organism *Xenopus tropicalis*. Bertin A.

Hanna P., Otarola G., Fritz A., Henríquez JP. and Marcellini S. Faculty of Biological Sciences, University of Concepcion, Chile. arianabertin@gmail.com, phanna@udec.cl

(50) The E3 ligase Nedd4 regulates the process of differentiation in satellite cell progeny, a key mechanism in the process of muscle regeneration. Felipe Cabezas M.

and Hugo Olguín. Depto. Biol. Cel. Molec., Fac. Ciencias Biológicas, Pontificia Universidad Católica de Chile. holguin@bio.puc.cl

(52) Towards autotrophic tissue engineering: photosynthetic gene therapy for regeneration. Chávez MN

¹, Schwarz C², Nickelsen J², Allende ML³, Egaña JT^{1,3}. ¹Dept. Plastic Surgery and Hand Surgery, University Hospital rechts der Isar, Technische Universität München, Germany; ²Molekulare Pflanzenwissenschaften, Biozentrum Ludwig-Maximilians-Universität München, Germany; ³FONDAP Center for Genome Regulation, Facultad de Ciencias, Universidad de Chile, Santiago, Chile. m.n.chavezrosas@gmail.com

(54) Expression of the heterotrimeric G-protein GEFs, Ric-8A and Ric-8B, and the Wnt receptors Frizzled, during the differentiation of motoneuron-like NSC34 cells. Beyer, A.

Pinto, C., Henríquez, J., Torrejón, M. Laboratory of Molecular Genetics, Department of Biochemistry and Molecular Biology, Faculty of Biological Sciences, Universidad de Concepción. abeyer@udec.cl

(56) Constitutive InsP₃ calcium release is essential for mitochondrial fusion.

Alenka Lovy¹, Galdo Bustos² and **Cesar Cardenas**². ¹Department of Neuroscience, Center for Neuroscience Research, Tufts School of Medicine, Boston, USA. ²Cellular Metabolism and Bioenergetics Lab, Anatomy and Developmental Biology

Program, Institute of Biomedical Sciences, University of Chile, Santiago, Chile.
jcesar@u.uchile.cl

(58) HDAC2 tyrosine phosphorylation by c-Abl induces neuronal gene repression in Alzheimer Diseases models. González-Zúñiga M.^{1,2}, Contreras P.^{1,2}, Chamorro D.^{1,2}, Estrada L.^{1,2}, Seto-E.³, Villagra A.³, Álvarez A.R.^{1,2}. ¹Cell Signaling Lab. Biological Sciences Faculty. Pontificia Universidad Católica de Chile. ²CARE-Chile UC. ³Moffitt Cancer.Center and Research Institute,.USA. magonzal@uc.cl

(60) The Wnt receptor Frizzled-9 is distributed in peripheral regions of the maturing neuromuscular junction (NMJ). Jorge Ojeda(1), Jessica Mella(1), Viviana Pérez(1), Daniel Herzberg(2), Daniel Sandoval(3), Juan Pablo Henríquez(1). Departments of (1)Cell Biology, Millennium Nucleus of Regenerative Biology and CMA Bio-Bio, (2)Clinical Sciences and Clinical Veterinary; (3)Pathology and Preventive Medicine, University of Concepción, Concepción, Chile. jhenriquez@udec.cl

(62) Leptin could modulate exosome release in ovarian cancer: A preliminary approach. Abarzúa-Catalán, L.¹, Kato, S.¹, Owen, G.I.², Cuello, M.A.¹. ¹Division of Obstetrics and Gynecology, Faculty of Medicine. ²Faculty of Biological Sciences, Pontificia Universidad Católica de Chile, Santiago, Chile. labarzuua@uc.cl

(64) Defining the role of mitochondrial electron transport chain complex I on the modulation of Ca²⁺ homeostasis: Effects of metformin on cancer cell metabolism. Galdo Bustos, J. César Cárdenas, Fabián Jaña. Laboratory of Cellular Metabolism and Bioenergetics, Anatomy and Cell Developmental Biology Program, ICBM, Faculty of Medicine. galdo.bustos.c@gmail.com

(66) Neogenin-1 expression is upregulated in basal cell carcinoma of the skin and participates in tumor progression. Casas B.^{1,2}, Adolphe C.³, Gallegos I.⁴, Cabané P., Gac P., Bustamante E., Wainwright B.³ & Palma V.^{1,2}. ¹CTYBD Laboratory, ²FONDAP Center for Genome Regulation, University of Chile. ³Institute for Molecular Bioscience, The University of Queensland. ⁴Clinical Hospital University of Chile & School of Medicine, University of Chile. barbara.s.casas@gmail.com

(68) Glucose generates a pro-inflammatory stromal microenvironment which favors the expression of malignancy traits in breast tumor cells. Kallens V, ¹Tobar N, ¹Mendez N. and Martínez J. Laboratorio de Biología Celular, INTA, Universidad de Chile. viokallens@ug.uchile.cl

(70) Proof of concept study: High potassium intake improves skeletal muscle fibrosis in dystrophic mice. María José Acuña^{1,2}, Enrique Brandan², Carlos Vío¹. ¹Laboratory of Renal Physiology and Pathology, ²Laboratory of Cell Differentiation and Pathology, Center for Aging and Regeneration UC (CARE-UC), Faculty of Biological Sciences, Catholic University of Chile. mjacuna1@uc.cl

(72) The chilean acid sphingomyelinase A359D mutation causes Niemann-Pick disease type B. Mariana Acuña^{1,2}, Pablo Martínez^{1,2}, Carol Moraga^{2,3}, Rodrigo Gutiérrez^{2,3}, Peter Nuernberg⁴, Mauricio González⁵, Edward Schuchman⁶, Juan Francisco Miquel^{1,2}, Paulina Mabe⁷, Silvana Zanlungo^{1,2}. ¹Facultad de Medicina, P. Universidad Católica de Chile (UC), ²FONDAP Center for Genome Regulation (CGR), ³Facultad de Ciencias Biológicas, PUC, ⁴Cologne Center for Genomics, University of Cologne, ⁵INTA, Universidad de Chile, ⁶Mount Sinai School of Medicine, ⁷Hospital Exequiel González Cortés.

(74) HT-22 hippocampal cell line as model to study the neuropathogenic mechanisms of anti-ribosomal P autoantibodies from lupus patients. M. Bravo-Zehnder^{1,2,3}, C.S Espinoza^{2,3}, A. Nuñez¹, L. Massardo¹, A. González^{1,2,3}. Departamento de Inmunología Clínica y Reumatología, Facultad Medicina¹. Centro de Envejecimiento y Regeneración², Facultad Ciencias Biológicas³, Pontificia Universidad Católica de Chile, Chile. mbravo@med.puc.cl

(76) Serotonin receptor HTR2B decreases insulin secretion increasing PGC-1 α and UCP2 levels in MIN6 cells. Cataldo LR, Santos JL and Cortés V. Department of Nutrition, Diabetes and Metabolism, P. Universidad Católica de Chile. rcataldo@ciq.uchile.cl, jsantos@med.puc.cl, vcortes@med.puc.cl

(78) New c-Abl kinase inhibitors protect against A β damage and have potential as treatment for Alzheimer disease. Lila González-Hódar¹, David Chamorro², Nancy Leal², Becky King³, Chris Dextras³, Xin Hu³, Marc Ferrer³, Andres Dulcey³, Juan Marugan³, Silvana Zanlungo¹, Alejandra Alvarez R². ¹Gastroenterology Department, School of Medicine, Pontificia Universidad Católica de Chile. ²Cellular and Molecular Biology Department, Biological Science Faculty, Pontificia Universidad Católica de Chile. ³National Center for Advancing Translational Sciences, National Institutes of Health. ldgonzal@uc.cl

(80) Screening for neuroprotective properties of natural compounds from Chilean flora using a high throughput microscopy platform. González M.^{1,2,3}, Rivas A.^{1,3}, Vidal R.⁴, Manque P.² and Hetz C.^{1,3,4}. ¹Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, ²Center for Genome and Bioinformatics, Universidad Mayor. ³Institute of Biomedical Sciences, Center for Molecular Studies of the Cell. University of Chile. ⁴Neurounion Biomedical Foundation, Santiago, Chile. chetz@hsph.harvard.edu

(82) Role of actin cytoskeleton in ATP-dependent GLUT4 translocation and glucose uptake in skeletal muscle cells. César Osorio-Fuentealba, [¶]M^a Fernanda Álvarez, [¶]Erick Vergara and [£]Enrique Jaimovich. ^{*}Departamento de Kinesiología, Universidad Metropolitana de Ciencias de la Educación. [†]Escuela de Kinesiología, Universidad Bernardo O'Higgins. [¶]Departamento de Biología, Universidad Metropolitana de Ciencias de la Educación. [£]Centro de Estudio Moleculares de la Célula, ICBM, Facultad de Medicina, Universidad de Chile. caosoriof@gmail.com

(84) Genotypification of *Echinococcus granulosus* metacestode from liver and lungs of cattle in Chile. Correa, Felipe¹, Stoore, Caroll¹, Burotto, Colette¹, Andrade, Constanza¹, Horlacher, Pamina¹, Jimenez, Edgar¹, Hidalgo, Christian¹, Ferreira, Henrique², Barros, Guilherme², Paredes, Rodolfo¹. ¹Escuela de Medicina Veterinaria, Universidad Andrés Bello, Santiago, Chile. ²Laboratório de Genômica Estrutural e Funcional, Centro de Biotecnologia, UFRGS, Porto Alegre, RS, Brasil. correaletelier@uandresbello.edu

(86) Early and late membrane depolarization dependent of TRP and GluR-like channels activation induced by copper excess in *Ulva compressa*. Melissa Gómez, Alejandra Moenne. Facultad de Química y Biología, Universidad de Santiago de Chile. alejandra.moenne@usach.cl (Sponsor: M. Imarai).

(88) Interaction of human platelets with *E. coli* strains increases platelet procoagulant activity, thrombin generation and adhesion to endothelial cells. Valeska Molina, Guillermo Valenzuela, Constanza González, Claudia Sáez, Patricia Hidalgo, Karla Pereira-Flores, Jaime Pereira, Diego Mezzano, and Valeria

Matus. Department of Hematology-Oncology, School of Medicine, Pontificia Universidad Católica de Chile, Santiago, Chile. vmatus@med.puc.cl

19:30 – 20:30 Plenary Lecture “*Federico Leighton Puga*”
Fundación Chilena para Biología Celular
Volcanes Room
Chairs: Arturo Yudelevich and Juan Pablo Henríquez

Embryonic Origins of Adult Neural Stem Cells. Arturo Alvarez-Buylla.
Department of Neurological Surgery and The Eli and Edythe Broad Center of Regeneration Medicine and Stem Cell Research, University of California, San Francisco, School of Medicine, 35 Medical Center Way, Room RMB-1036, Campus Box 0525, San Francisco, CA 94143-0525.

20:30 Dinner

TUESDAY, OCTOBER 28 2014

08:00 **Poster Mounting Session I: N° 89 to N° 177**
Convention Center Foyer

09:00 – 11:00 **Oral Presentations III**
Volcanes Room
Chairs: Patricia Burgos y Christian González-Billaut

09:00 **Phosphorylated tau potentiates A β -induced mitochondrial damage in mature neurons.** **Rodrigo A Quintanilla**¹, Juan A. Godoy³, Rommy von Bernhardt⁴, Nibaldo C. Inestrosa³, Gail V.W. Johnson². ¹Centro de Investigación Biomédica, Universidad Autónoma de Chile, ²Department of Anesthesiology, University of Rochester Medical Center, Rochester, NY, USA, ³Centro de Envejecimiento y Regeneración (CARE), PUC, Santiago, Chile, ⁴Laboratorio de Neurociencias, Departamento de Neurología, PUC, Santiago, Chile.

09:15 **Lipid raft localization of BDNF receptor TrkB, after fluoxetine treatment. Co-distribution with NMDA receptor subunits.** **Sandoval, M.**, Wyneken U. Neuroscience laboratory, Los Andes University.

09:30 **The olfactory sensory system develops from coordinated movements within the neural ectoderm.** **Torres-Paz J.** and Whitlock K. Centro Interdisciplinario de Neurociencias de Valparaiso, Universidad de Valparaiso.

09:45 **Integrity of perisynaptic ECM in homeostatic and synaptic plasticity.** **Constanze Seidenbecher**, Leibniz Institute for Neurobiology, AG Perisynaptic Extracellular Matrix, Brenneckestr. 6, 39118 Magdeburg, Germany.

10:00 **Contribution of Reactive Oxygen Species to the establishment of hippocampal neuronal polarity.** **Carlos Wilson**, M. Tulio Núñez, and Christian González-Billaut. Faculty of Sciences, Universidad de Chile, Chile.

10:15 **Exome-capture sequencing strategy identifies a novel susceptibility locus for early-onset cholesterol gallstone disease in Chilean families.** **Bustos BI**¹, Pérez-Palma E¹, Azócar L², Moraga C³, Gutiérrez RA^{3,4}, De Ferrari GV^{1,4} and Miquel JF^{2,4}. ¹Centro de Investigaciones Biomédicas, Facultad de Ciencias Biológicas, Universidad Andrés Bello; ²Depto. Gastroenterología, Facultad de Medicina and ³Depto. Genética Molecular y Microbiología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile; ⁴FONDAP Center for Genome Regulation (CGR).

10:30 **Role of TFEB-mediated autophagy in the turnover and proteolytic processing of the Amyloid Precursor Protein (APP).** **Alexis E. González**¹, Vanessa Muñoz¹, José Martina², Victor Cornejo³, Claudio Hetz³, Rosa Puertollano², Gonzalo A. Mardones¹ and Patricia V. Burgos¹. ¹Laboratory of Cell & Molecular Biology, Faculty of Medicine, Universidad Austral de Chile; ²Laboratory of Cell Biology, NIH, Bethesda; ³Faculty of Medicine, University of Chile.

10:45 **Role of astrocytes in depression and anxiety.** **Stehberg J**¹, Simon F², Sáez JC³, Retamal MA⁴, Orellana JA⁵. ¹Laboratorio Neurobiología, Centro de

Investigaciones Biomédicas, Universidad Andres Bello. ²Laboratorio de Fisiopatología Integrativa, Universidad Andres Bello. ³Departamento de Fisiología, Pontificia Universidad Católica and Centro Interdisciplinario de Neurociencias de Valparaíso. ⁴Departamento de Fisiología, Clínica Alemana–Universidad del Desarrollo. ⁵Laboratorio de Neurociencias, Departamento Neurología, Pontificia Universidad Católica.

**11:00 – 13:30 Schools and Science: Students from South of Chile at the Chilean Society for Cell Biology
Business Center Room**

**11:00 – 13:00 Poster Viewing Session II: 89-177 Odd Numbers
Convention Center Foyer
Coordinators: María de los Angeles García, César Osorio, R. Quintanilla and Julio Tapia**

(89) Role of ER stress in early turnover, trafficking and proteolytic processing of amyloid precursor protein (APP). Hianara Bustamante, Claudia Yefi, Viviana Cavieres, Gonzalo A. Mardones and Patricia V. Burgos. Faculty of Medicine, Universidad Austral de Chile, Valdivia, Chile. lahianara@gmail.com

(91) LIPIN-1 and LPP-1 regulate ligand-independent EGFR endocytosis. Metz, Claudia and González, Alfonso. Departamento de Inmunología Clínica y Reumatología, Facultad de Medicina, Centro de Envejecimiento y Regeneración, Facultad de Ciencias Biológicas. Pontificia Universidad Católica de Chile, 6510260 Santiago, Chile. cmetz@med.puc.cl

(93) EGFR levels at cell surface can be regulated by p75^{NTR}. Beatriz Vásquez S. and Alfonso González. Centro de Envejecimiento y Regeneración (CARE), Facultad de Ciencias Biológicas and Departamento de Inmunología Clínica y Reumatología, Facultad Medicina, Pontificia Universidad Católica, Chile. bgvasquez@uc.cl

(95) Modulation of β -arrestin interaction with Ca_v1.2 by AngII. Nayareth Hidalgo¹, Matías Encina¹, Cristian Moreno¹, Tamara Hermosilla¹, Luis Michea^{1,2}, Diego Varela¹. ¹CEMC & ICBM, Facultad de Medicina, Universidad de Chile, 838-0453, Santiago, Chile. ²Millennium Institute on Immunology and Immunotherapy. dvarela@bitmed.med.uchile.cl

(97) Exogenous expression of GKRP in tanycytes modulates glucosensing in pancreatic beta cells. Carril C, Salgado M, Órdenes P, Villagra M, Millán C and García-Robles MA. Departamento Biología Celular, Universidad de Concepción, Chile. ccarril@udec.cl

(99) Exosomes released by huvec from normal pregnancy exposed to high glucose alter L-arginine transport and endothelial function in normal-glucose cells. Sáez, T.¹, Salsoso, R.¹, Fuenzalida, B.¹, Sanhueza, C.¹, Pardo, F.¹, Leiva, A.¹, Faas, M.², Sobrevia, L.¹. ¹Cellular and Molecular Physiology Laboratory (CMPL), Division of Obstetrics and Gynecology, School of Medicine, Faculty of Medicine, Pontificia Universidad Católica de Chile. ²Immunoendocrinology, Department of Pathology and Medical Biology, University Medical Center Groningen, The Netherlands. sobrevia@me.com

(101) Real-time detection of the antioxidant capacity of bone marrow mesenchymal stromal cells from postmenopausal osteoporotic women. Carla

Urrea^a, Omar Porras^a, Diego Varela^b, Juan Pablo Rodríguez^a. ^aInstituto de Nutrición y Tecnología de los Alimentos y ^bFacultad de Medicina, Universidad de Chile, Santiago, Chile. jprodrig@inta.uchile.cl

(103) Interaction of *Gallus gallus* complement system with *Trypanosoma cruzi*. Sosoniuk-Roche, E., Abello, P., Vallejos, G., Pizarro, J., Weinberger, K., Rosas, C., Maldonado, I., Ferreira, A., Valck, C. Programa Disciplinario de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile. ecevalck@u.uchile.cl

(105) Pro-inflammatory cytokines induce ATF6 α pathway activation. Barrera MJ, Aguilera S, Castro I, Cortés J, Bahamondes V, Urzúa U, Molina C, González S, Leyton C and González MJ. ICBM-Facultad de Medicina-Universidad de Chile. mariajosebarrera@ug.uchile.cl

(107) Determination of the activation of the innate immune response by different vaccines against *Flavobacterium psychrophilum* in zebrafish. Solís CJ, Reyes AE, Avendaño-Herrera R, Feijóo CG. Facultad de Ciencias Biológicas, Universidad Andrés Bello. cfeijoo@unab.cl

(109) Longitudinal characterization of lymphocytes obtained from pregnancies as low or high risk of preeclampsia. Fabián Tempio^{1,2}, Cristina Rivera¹, Ana Adélia Ribeiro¹, Mercedes López^{1,2,3}, Flavio Salazar-Onfray^{1,2}, Mauro Parra-Cordero^{1,3}. ¹Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile; ²Millennium Institute of Immunology and Immunotherapy, Universidad de Chile; ³University of Chile Hospital. fabian.tempio@hotmail.com

(111) Immunological evaluation of a new recombinant chimeric vaccine against *B. abortus* in infected mice. Emilia Escalona, Darwin Sáez, Ángel Oñate. Laboratorio de Inmunología Molecular, Universidad de Concepción. emiescalona@udec.cl

(113) Frequency of Natural Killer T cells and regulatory T cells in the peripheral blood of gastric cancer patients. Felipe Galvez-Jiron¹, K. Kramm¹, M. Bustamante², M.J. Siña¹, J.C. Aguillón¹, M.C. Molina¹, and C.H. Ribeiro¹. ¹Laboratorio de Inmunovigilancia y Evasión Inmune, ICBM and ²Departamento de Cirugía Digestiva, Hospital del Salvador, Facultad de Medicina, Universidad de Chile, Santiago, Chile. felipe.galvez.j@gmail.com

(115) Dopamine receptor D5 expressed on effector CD4⁺ T-lymphocytes favors the pathogenic immune response associated to Experimental Autoimmune Encephalomyelitis. Francisco Osorio B., Carolina Prado and Rodrigo Pacheco. Laboratorio de Neuroinmunología, Fundación Ciencia & Vida. f.osoriobarrios@gmail.com

(117) Spectral-confocal, 3D-rendering and laser microdissection analysis to define SVCT2 transporter expression in hypothalamic cells. Martínez, F., Osorio, G., Salazar, K. and Nualart F. Center for Advanced Microscopy CMA BIOBIO, University of Concepcion. frnualart@udec.cl

(119) Glucose-dependent modulation of subcellular localization of GK and GKRP in hypothalamic tanycytes. Magdiel Salgado, Patricio Órdenes, Elena Uribe and María de los Ángeles García. Depto. de Biología Celular, Facultad de Ciencias Biológicas, Universidad de Concepción. magsalgado@udec.cl

(121) Astrocytes expressing the ALS-causing mutation SOD1^{G93A} release toxic factor(s) that increase hemichannel activity in primary spinal cord neurons. Eugenia Aldrete¹, Luis A. Cea², Nicole Cortés¹, Juan C. Saéz^{2,3*}, Brigitte van Zundert^{1*}. ¹Center for Biomedical Research, Andrés Bello University, ²Department

of Physiology, Pontificia Universidad Católica, ³Instituto Milenio, Centro Interdisciplinario de Neurociencias de Valparaíso. euge_aldrete@hotmail.com

(123) Zebrafish models to study the role of LRRK2-G2019S in the pathogenesis of motor and non-motor symptoms associated to Parkinson Disease. Borgonovo, J., Allende-Castro, C., Concha, M.L. Laboratory of Experimental Ontogeny (LEO), ICBM, Faculty of Medicine, University of Chile; Biomedical Neuroscience Institute (BNI), Santiago, Chile. janiborgonovo@gmail.com, mconcha@med.uchile.cl

(125) Role of ERp57 in the nervous system and its contribution to neurodegeneration. Castillo, V.¹, Oñate, M.¹, Andreu, C.¹, Woehlbie, U.¹ Torres, M.¹, Court F.A.^{2,3} and Hetz, C.^{1,2}. ¹Biomedical Neuroscience Institute, Faculty of Medicine, and Center for Molecular Studies of the Cell, University of Chile, ²Neurounion Biomedical Foundation, ³Department of Physiology, P. Catholic University of Chile, Santiago, Chile.

(127) Wnt5a modulates mitochondrial dynamics through Drp1 activation in hippocampal neurons. Silva-Alvarez C., and Inestrosa NC. Center for Aging and Regeneration (CARE), Department of Cell and Molecular Biology, Faculty of Biological Sciences, P. Catholic University of Chile, Chile. csilva@bio.puc.cl

(129) Exo70 drives synaptogenesis and modulates dendrite morphology in dissociated hippocampal neurons. Matías Lira¹, Yocelin Cruz¹, Jonathan García², Sergio Leal-Ortiz³, Viviana Torres⁴, Nibaldo C. Inestrosa^{5,6}, Craig C. Garner³, and Pedro Zamorano^{1,6}. ¹Departamento Biomédico, ²Instituto Antofagasta, Universidad de Antofagasta. ³Department of Psychiatry and Behavioral Sciences, Stanford University, Palo Alto, CA, USA. ⁴Centro de Microscopia Avanzada, CMA Bio-Bio, Universidad de Concepción. ⁵Centro de Envejecimiento y Regeneración (CARE), ⁶Departamento de Biología Celular y Molecular, Pontificia Universidad Católica de

(131) Visualization of α -synuclein cell-to-cell transfer *in vivo* in dopaminergic neurons. Mercado G.¹, Parsons G.³, Armentano D.³ and Hetz C.^{1,2}. ¹Biomedical Neuroscience Institute, ICBM, Faculty of Medicine, University of Chile, Santiago, Chile, ²Neurounion Biomedical Foundation, Santiago, Chile, ³Genzyme Corporation, MA, USA. gabriela.mercado.guerra@gmail.com, chetz@hsph.harvard.edu

(133) Reelin regulates Schwann cell migration by activating the Rho GTPase Rac1. Consuelo Pasten², Ignacio Jausoro², Alfredo Caceres¹, María Paz Marzolo². ²Laboratory of Intracellular Trafficking and Signaling; Facultad de Ciencias Biológicas; MINREB, P. Universidad Católica de Chile, Santiago, Chile; ¹Laboratory of Neurobiology; Instituto Mercedes y Martin Ferreyra (INIMEC) CONICET, Córdoba, Argentina.

(135) The role of the P53 family members during neural development. Cancino GI, Fatt MP, Miller FD, Kaplan DR. Hospital for Sick Children-University of Toronto, Canada. gonzalo.cancino@sickkids.ca (Sponsor: A. Alvarez)

(137) Analysis of differentiation and the cellular distribution of SVCT2 in neurospheres treated with vitamin C or vitamin A. Francisca Espinoza, Katterine Salazar, Nery Jara, Fernando Martínez, Francisco Nualart. Centro de Microscopía Avanzada CMA BIO-BIO, Laboratorio de Neurobiología y Células Madre, Universidad de Concepción. franespinoza@udec.cl

(139) Effect of Angiotensin 1-7 in skeletal muscle satellite cells. Sebastián Pérez González¹, Claudio Cabello-Verrugio² and Hugo Olgún¹. ¹Laboratory of Tissue

Repair and Adult Stem Cells, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile. ²Laboratory of Molecular Biology and Physiopathology, Faculty of Biological Sciences, Universidad Andrés Bello. holguin@bio.puc.cl

(141) Muscle-tendon junction role in the epithelium morphogenesis of *Drosophila melanogaster*. Manieu C.¹, Manríquez G.¹, Bosveld F.², Bellaiche Y.², Olguín P.¹. ¹Lab. Genética del Desarrollo de *D. melanogaster*, Programa de Genética, ICBM, Facultad de Medicina, Universidad de Chile. ²Polarity, Division and Morphogenesis Lab., Institute Curie, Paris, France. cmanieus@ug.uchile.cl, patricioolguin@med.uchile.cl

(143) Ric-8A regulates neural crest cells induction in *Xenopus tropicalis*. Rodríguez, M., Toro-Tapia, G., Villaseca, S., Hinrichs, M., Torrejón, M. Laboratorio de Genética Molecular Dpto. Bioquímica y Biología Molecular, Universidad de Concepción. marionrodriguez@udec.cl

(145) Role of IP3R in smooth muscle cell death induced by 7-ketocholesterol. Basualto-Alarcón, C., Jaña, F., Cárdenas, J.C. Cellular Metabolism and Bioenergetics Laboratory. Anatomy and Cell Developmental Biology. Institute of Biomedical Science, Medicine Faculty, University of Chile. cbasualto@med.uchile.cl

(147) GM2-ganglioside accumulation mediates endoplasmic reticulum calcium depletion and PERK signaling activation. María José Virgolini; Pablo Lopez; Mariana Bollo. INIMEC-CONICET-UNC.

(149) Core clock genes modulate glucokinase transcription *in vitro*. Paula Llanos^{1,3}, David Rhoads¹, Goli Ardestani¹, Carola Millán^{2,3}. ¹Pediatric Endocrine Unit. Mass General Hospital, Boston, USA. ²Facultad de Artes Liberales, Universidad Adolfo Ibáñez, Chile. ³Facultad de Ingeniería y Ciencias, Universidad Adolfo Ibáñez, Chile. Paula.llanos@uai.cl (Sponsor: M.A. García).

(151) Anti-tumoral and autophagic effects of D-Propranolol in B16F10 mouse melanoma. Ronan Shaughnessy, Andrea Soza, Fabian Segovia, Claudia Oyanadel, Patricia Burgos, Alfonso González. Departamento de Inmunología Clínica y Reumatología, Facultad Medicina. Centro de Envejecimiento y Regeneración (CARE), Departamento de Biología Celular y Molecular, Facultad Ciencias Biológicas. Pontificia Universidad Católica de Chile. rpshaughnessy@uc.cl

(153) Targeting the phosphatidic acid/PKA pathway with D-propranolol reduces proliferation and induces apoptosis in breast cancer cells. Fabián J. Montecino¹, Gareth Owen², Alfonso González^{1,3}, Andrea Soza^{1,3}, Claudia Metz^{1,3}. Centro de Envejecimiento y Regeneración (CARE)¹ and Unidad de Reproducción y Desarrollo², Facultad Ciencias Biológicas. Departamento de Inmunología Clínica y Reumatología, Facultad Medicina³. Pontificia Universidad Católica de Chile. fjmontec@uc.cl

(155) Inhibition of inositol 1,4,5-trisphosphate receptor-calcium release leads to decreased migration in different tumor cell lines. Natalia Smith¹, Vicente A. Torres², Melany Ríos¹, J. Cesar Cardenas¹. ¹Laboratory of Cellular Metabolism and Bioenergetics, Anatomy and Cell Developmental Biology Program, ICBM, Faculty of Medicine and ²Institute for Research in Dental Sciences, Faculty of Dentistry, Universidad de Chile. Natalia.fsc@gmail.com

(157) Identification by microarray analysis of immunological molecular markers associated to clinical response in DC-vaccinated melanoma patients.

Cristian Pereda¹, Tamara Garcia¹, Andrea Villablanca¹, Franziska Matthäus², Andrés Tittarelli¹, Alexis M. Kalergis¹, Johannes Norgauer³, Jörg Hoheisel⁴, Peter Gebicke-Haerter¹, Mercedes N. López¹, and Flavio Salazar-Onfray¹. ¹Millennium Institute on Immunology and Immunotherapy, Faculty of Medicine, University of Chile, 8380453 Santiago, Chile. ²Interdisciplinary Center for Scientific Computing, University of Heidelberg, Heidelberg, Germany. ³Department of Dermatology, Universitätsklinikum Jena, Germany. ⁴Functional Genome Analysis, German Cancer Research Centre (DKFZ), 69120 Heidelberg, Germany. cristian.pereda@inmunotron.med.uchile.cl

(159) Mitochondrial dysfunction and oxidative stress: a pathogenic mechanism for Niemann-Pick C disease. **Elisa Balboa**¹, Tamara Marín¹, Juan Castro¹, Alejandra Alvarez², Silvana Zanlungo¹. ¹Departamento de Gastroenterología, Facultad de Medicina y ²Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, P. Universidad Católica, Santiago, Chile. ebalboa@gmail.com

(161) Vascular endothelial fibrosis induced by endotoxin: model for endothelial dysfunction during sepsis syndrome. **Cesar Echeverría**^{1,2,5}, Ignacio Montorfano¹, Alvaro Becerra¹, Tamara Hermosilla^{3,4}, Ricardo Armisen^{4,5}, Claudio Cabello-Verrugio¹, Diego Varela^{3,4} and Felipe Simon^{1,6}. ¹Departamento de Ciencias Biológicas, Facultad de Ciencias Biológicas, Universidad Andrés Bello, ²Laboratorio de Bionanotecnología, Universidad Bernardo O'Higgins, ³Centro de Estudios Moleculares de la Célula, ⁴Instituto de Ciencias Biomédicas, ⁵Laboratorio de Fisiopatología Molecular del Cáncer, Facultad de Medicina, Universidad de Chile, ⁶Millennium Institute on Immunology and Immunotherapy, Santiago, Chile. cesar.echeverria@ubo.cl, fsimon@unab.cl

(163) Three-dimensional porous nanocomposite scaffolds for cells culture: A model for potential applications in bone tissue engineering. **Forero J.C.**^{1,2}, Acevedo C.A.², Olguín Y.², Roa E.¹, Osses N.¹. ¹Instituto de Química, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile. ²Centro de Biotecnología, Universidad Técnica Federico Santa María, Valparaíso, Chile. jcarlosforero@gmail.com

(165) Cytoplasmic polyadenylation binding proteins binds to the mRNA of insulin receptor impairing the expression of the protein in diabetic conditions. **Moisés Sandoval**¹, Natalia Pérez¹, Pamela Silva¹, Raúl Méndez², Alejandro Yáñez¹. ¹Instituto de Bioquímica y Microbiología, Facultad de Ciencias, Universidad Austral de Chile, Valdivia, Chile. ²Instituto de Investigación Biomédica IRB, Barcelona, España, email: msandoval11@gmail.com

(167) Vitamin E dietary supplementation improves neurological symptoms and decreases c-Abl/p73 activation in Niemann-Pick C mice. **Tamara Marín**¹, Pablo Contreras², Juan F. Castro¹, David Chamorro², Elisa Balboa¹, Mónica Bosch-Morató³, Francisco J. Muñoz³, Alejandra R. Alvarez², and Silvana Zanlungo¹. ^{1,2}Department of Gastroenterology, Medicine Faculty and Department of Cellular and Molecular Biology, Biological Sciences Faculty, Pontificia Universidad Católica de Chile, Santiago. ³Department of Experimental and Health Sciences, Universitat Pompeu Fabra, Barcelona. tamara.marin.m@gmail.com

(169) Wnt pathway modulates glucose metabolism in neurons: Role in Alzheimer's disease. **Pedro Cisternas**, Paulina Salazar, Carlos P. Vio and Nivaldo C. Inestrosa. Centro de Envejecimiento y Regeneración (CARE), Facultad de

Ciencias Biológicas, Pontificia Universidad Católica de Chile, Santiago, Chile.
peisternas@bio.puc.cl

(171) ACE2 is augmented in dystrophic skeletal muscle and plays a role in decreasing associated fibrosis. Cecilia Riquelme¹, María José Acuña*¹Javiera Torrejón¹, Daniela Rebolledo¹, Daniel Cabrera¹, Robson Santos² and Enrique Brandan¹. ¹Center for Aging and Regeneration, CARE Chile UC and Department Cell and Molecular Biology, Faculty of Biological Sciences, Catholic University of Chile, Santiago, Chile. ²Department of Physiology and Biophysics, Biological Sciences Institute, Federal University of Minas Gerais, Belo Horizonte, Brazil.

(173) New approach for the detection of different strains of *Flavobacterium psychrophilum* isolated from freshwater farms in Chile. Hidalgo, Christian¹; Poblete, Matías^{2,3}; Irgang, Rute²; Avendaño-Herrera, Ruben^{2,3}; Paredes, Rodolfo¹. ¹Escuela de Medicina Veterinaria, Facultad de Ecología y Recursos Naturales, Universidad Andrés Bello. ²Laboratorio de Patología de Organismos Acuáticos y Biotecnología Acuícola, Facultad de Ciencias Biológicas, Universidad Andrés Bello. ³Interdisciplinary Center for Aquaculture Research (INCAR), Concepción, Chile. christian.hidalgo@unab.cl

(175) Defining the role of TMBIM/BI-1 family in intrinsic apoptosis. Lisbona F., Pihán P., Rojas-Rivera D. and Hetz C. Biomedical Neuroscience Institute, Center for Molecular Studies of the Cell, ICBM, Faculty of Medicine, University of Chile, and Neurounion Biomedical Foundation, Santiago, Chile. chetz@hsph.harvard.edu

(177) Dynein complex regulatory proteins are involved in early stages of murine leukemia virus infection. Roger Valle-Tenney and Gloria Arriagada. Facultad de Ciencias Biológicas, Universidad Andrés Bello, Viña Del Mar. r.valle@uandresbello.edu

13:00 – 15:00 Lunch

**15:00 –17:00 Symposium *Biomedical Neuroscience Institute and International Centre for Genetic Engineering and Biotechnology*
“Cellular Basis of Aging-Related Processes”
Calbuco Room
Chair: Enrique Jaimovich**

Proteostasis impairment in age-related disorders affecting the nervous system. Claudio Hetz, Biomedical Neuroscience Institute (BNI), Faculty of Medicine, University of Chile; Center for Molecular Studies of the Cell, ICBM, University of Chile. chetz@hsph.harvard.edu

Recognition memory and expression of Ryanodine Receptor during aging. Alejandra Arias-Cavieles¹, Tatiana Adasme², M. Cecilia Hidalgo^{2,3}, Pablo Muñoz⁴. ¹Programa de Doctorado en Ciencias, mención Neurociencias, Universidad de Valparaíso, Valparaíso, Chile. ²CEMC & BNI, Facultad de Medicina, Universidad de Chile, Santiago, Chile. ³Physiology & Biophysics Program, ICBM, Facultad de Medicina, Universidad de Chile, Santiago, Chile. ⁴Escuela de Medicina, Facultad de Medicina, Universidad de Valparaíso, Valparaíso, Chile. pablo.munozca@uv.cl

The impact of diet and exercise for building neuronal resilience to neurological disorders. Fernando Gomez-Pinilla, Professor, Depts. of Neurosurgery and Integrative Biology and Physiology, University of California Los Angeles, USA.

Mutations in the *pak3* gene responsible for intellectual disability impact synaptic plasticity and adult neurogenesis. Domenichini, F; Poëa-Guyon S; Rousseau, V; Kreis, P; Thévenot, E; Combeau, G; Barnier, J.-V. Université Paris-Sud XI, Centre de Neurosciences Paris-Sud, UMR 8195 CNRS, Orsay, France.

**Symposium P. Universidad Católica de Chile y FONDECYT (114134)
“Cellular and Molecular Basis of the Metabolic Syndrome”**

Tronador Room

Chair: Víctor Cortés

Characterization of post-transcriptional regulators of fatty acid synthesis. Jay D. Horton. UT Southwestern Medical Center – Dallas.

Adipose tissue, insulin resistance and systemic metabolic flexibility. Philipp E. Scherer. Touchstone Diabetes Center, UT Southwestern Medical Center – Dallas.

Metabolic syndrome: a medical and biological journey from obesity to lipodystrophy. Víctor Cortés, Pontificia Universidad Católica de Chile, School of Medicine. vcortes@med.puc.cl

**17:00 – 19:30 Schools and Science: Students from South of Chile at the Chilean Society for Cell Biology
Business Center Room**

**17:00 – 19:00 Poster Viewing Session II: 89-177 Even Numbers
Convention Center Foyer
Coordinators: María de los Angeles García, César Osorio, R. Quintanilla and Julio Tapia**

(90) Constitutive Endocytosis and Endocytic Recycling of the Sodium-dependent Vitamin C transporter 2 (SVCT2) are regulated by ascorbic acid in a Clathrin and Rab11-dependent manner. Adriana Covarrubias-Pinto¹, Eduardo Papic¹, Patricia V. Burgos², Maite A. Castro¹; ¹Department of Molecular Metabolism and ²Department of Physiology, School of Medicine, Universidad Austral de Chile.

(92) Structural dynamics of the endoplasmic reticulum and its relation to luminal protein transport. Jorge Toledo^{1,2,3}, Nicolás Navarro^{2,3}, Pamela Romero^{1,2,3}, Félix Urra⁴, Mauricio Cerda^{2,3}, Felipe Santibañez^{2,3}, Omar Ramirez^{1,2,3}, Steffen Härtel^{2,3}, Andrés Couve^{1,3}. ¹Laboratory of Cellular and Molecular Neurobiology, ²Laboratory of Scientific Image Analysis, SCIAN-Lab, ³Biomedical Neuroscience Institute (BNI), Universidad de Chile, ⁴Laboratory of Cellular-Metabolism and Bioenergetics, Universidad de Chile. jorgetoledoh@gmail.com

(94) Analysis of GOLPH3 depletion in human glioblastoma multiforme T98G cells. Cecilia Arriagada, Viviana Cavieres, Alexis González, Marcelo Aguilar,

Patricia V. Burgos, and Gonzalo A. Mardones. Instituto de Fisiología, Facultad de Medicina, Universidad Austral Chile, Valdivia. carriagada88@gmail.com

(96) GK regulatory protein in brain glucosensing. Órdenes P, Villagra M, Salgado M, Elizondo-Vega R, Carril C, Barahona MJ, García-Robles MA. Departamento de Biología Celular, Universidad de Concepcion, Chile. paordenes@udec.cl

(98) Altered ATP extrusion and mitochondrial Calcium signaling in aged mice. Andrea Del Campo, Ignacio Contreras, Yildy Utreras, Enrique Jaimovich. ¹Center for Molecular Studies of the Cell, ICBM, Faculty of Medicine, Universidad de Chile, Santiago, Chile. andreadelcamposfeir@gmail.com

(100) Role of androgens in female and male donor-derived human endothelial cells. Verónica Torres-Estay¹, Catalina Garay¹, Jaime Lizama¹, Daniela Carreño¹, Loreto Véliz¹, Viviana P. Montecinos¹, and Alejandro Godoy^{1,2}. Pontificia Universidad Católica de Chile¹, Santiago, Chile; Roswell Park Cancer Institute², Buffalo, NY. vtorres@bio.puc.cl (Sponsor: R. Moreno).

(102) Dexamethasone-treated and monophosphoryl lipid a-activated dendritic cells induce antigen-specific naive cd4+ t cells hyporesponsiveness. Jaxaira Maggi, ^{1,2}Bárbara Pesce, ^{1,2}Katina Schinnerling, ¹Karina Pino-Lago García-Robles, ^{1,2}Diego Catalán, ^{1,2}Juan Carlos Aguillón. ¹Immune Regulation and Tolerance Research Group (<http://www.irtgroup.cl>), Programa Disciplinario de Inmunología, Instituto de Ciencias Biomédicas (ICBM), Facultad de Medicina, Universidad de Chile. ²Millennium Institute on Immunology and Immunotherapy (MIII). jaxaira.maggi@gmail.com

(104) Tumor Antigen Presenting Cells (TAPCells) induce homing receptor expression to T lymphocytes associated with migration to tumor sites. Ignacio AVALOS, M^a Alejandra Gleisner, Cristian Pereda, Mercedes López, Fermin González, Flavio Salazar-Onfray. ¹Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile, 8380453 Santiago, Chile; ²Millennium Institute on Immunology and Immunotherapy, Universidad de Chile, 8380453 Santiago, Chile. ignacio.avalos.c@gmail.com

(106) IL-10 secretion on B cells is regulated by Siglec 2 and Siglec 10 receptors. Berendsen, J.¹, Ferrier, A^{1.}, Aravena, O^{1.}, Pino-Lagos, K^{1.}, Aguillón, JC^{1.}, Soto, L^{1,2.}, Catalán, D^{1.}. ¹Immune Regulation and Tolerance Research Group, Programa Disciplinario de Inmunología, ICBM, Facultad de Medicina, and ²Hospital Clínico, Universidad de Chile. berendsen84@gmail.com

(108) Development and production of an anti-MICA single chain variable fragment (scFv) and its binding potential to recombinant and native MICA. Daniel Contreras, Lohs-Rojas, A., Leiva, L.E., Collazo, N., Zuñiga, R., Gutiérrez-González, M., Ribeiro, C.H., Aguillón, J.C., and Molina M.C. Centro de InmunBioTecnología, Programa Disciplinario de Inmunología, Instituto de Ciencias Biomédicas (ICBM), Facultad de Medicina, Universidad de Chile, Santiago, Chile. danielcontreras.qf@gmail.com

(110) Calreticulin from *Triatoma infestans* inhibits in the complement system of vertebrate hosts: A proposal. Weinberger, K^{*}, Maldonado, I^{*}, Aguillón, J.C.^{*}, Molina, M.C.^{*}, Apt, W.[□], Cattán, P^θ, Ferreira A.^{*}. ^{*}Programa Disciplinario de Inmunología, [□]Programa de Biología Celular y Molecular, ICBM, Facultad de Medicina, Universidad de Chile. ^θ Departamento de Ciencias Biológicas Animales, Facultad de Ciencias Veterinarias y Pecuarias, Universidad de Chile. kta.weinberger@gmail.com

(112) Dynamic of T regulatory cells population in skin graft transplanted mice treated with exogenous IL-33. Tania Gajardo C., Rodrigo Morales C., Francisco Perez, Mauricio Campos-Mora, Javier Campos and Karina Pino-Lagos. Immune Regulation and Tolerance Research Group, Programa Disciplinario de Inmunología, Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. taniagc@ug.uchile.cl

(114) Characterization of macrophage behavior during inflammation in zebrafish larvae. Rodrigo A. Morales, Miguel L. Allende. FONDAF Center for Genome Regulation, Facultad de Ciencias, Universidad de Chile. ramoralescastro@gmail.com

(116) Poor cytotoxic response in LSP1 deficient mice is associated with a reduced cross-presentation by CD8⁺ DCs. Rachel Acland and Gabriel Morón. CIBICI-CONICET, Universidad Nacional de Córdoba, Argentina. racland@fcq.unc.edu.ar

(118) c-Abl is involved in the BDNF/TrkB signaling pathway, promoting dendritic arborization in hippocampal neurons. Chandía A.^{1,3}, Brofmann F.^{2,3}, Álvarez A.R.^{1,3}. ¹Cell Signaling Lab, Cellular & Molecular Biology, Biological Sciences Faculty, ²Physiological Sciences Faculty, ³CAREChile-UC, Pontificia Universidad Católica de Chile, Santiago, Chile. avchandia@uc.cl

(120) Aldolase C is secreted by forebrain astrocytes in an exosome fraction. Luarte, A., Gomez-Molina C., Wyneken U. Laboratorio de Neurociencias, Centro de Investigaciones Biomédicas, Universidad de los Andes, Santiago, Chile. alejandroluarten@gmail.com

(122) Nitric oxide modulates retinal bipolar and ganglion cell responses. Joaquín Araya, Adrian G Palacios, Oliver Schmachtenberg. Centro Interdisciplinario de Neurociencias de Valparaíso, Facultad de Ciencias, Universidad de Valparaíso. Joaquin.araya@cinv.cl

(124) Genomic plasticity in the olfactory epithelium is correlated with odorant exposure in Zebrafish (*Danio rerio*). Calfún C¹, Domínguez C^{1,2}, Pérez-Acle T^{1,2} and Whitlock KE¹. ¹Instituto Milenio CINV, Universidad de Valparaíso, Chile. ²Computational Biology Lab, Fundación Ciencia & Vida. cristian.calfun@gmail.com

(126) Potential mechanisms of altered excitability in Huntington's disease. Chacon MA and Faber DS. Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, New York, USA. marcelo.chacon@einstein.yu.edu

(128) Effect of A β oligomers over BBB integrity in *in vitro* and *in vivo* Alzheimer's disease models. David Chamorro¹, Cristián Valls¹, Alejandra Alvarez^{1,2} and Lisbell Estrada^{1,2}. ¹Laboratorio de Señalización Celular, ²CARE-ChileUC, Depto. de Biología Celular y Molecular. P. Universidad Católica de Chile. lestrada@bio.puc.cl

(130) Guillain Barre syndrome-associated anti-glycan antibodies alter growth cone cytoskeleton from growing DRGs neurons. Rozés Salvador, V (1); Heredia, F (1); Wojnacki, J (1); Palandri, A (1); Cáceres, A (1); López, PHH (1, 2). (1)INIMEC-CONICET-UNC; (2) Facultad de Psicología-UNC. vrozes@immf.uncor.edu

(132) Dopamine D3 receptor deficiency induces chronic depression, increased anxiety and decrease in taste neophobia. Rodrigo Moraga-Amaro¹, Hugo Gonzalez², Raúl Díaz-Galarce¹, Rodrigo Pacheco^{2,3} and Jimmy Stehberg¹.

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(134) Overrepresentation of glutamate signaling pathway in Alzheimer's disease. Pérez-Palma E¹, Bustos BI¹, Villamán C¹, Ávila M¹, and De Ferrari GV¹. ¹Centro de Investigaciones Biomédicas, Facultad de Ciencias Biológicas and FONDAF Center for Genome Regulation, Universidad Andrés Bello, Santiago, Chile. gdeferrari@unab.cl

(136) Deubiquitinase Usp7 regulates early differentiation of muscle precursor cells. Eduardo de la Vega, Francisco Bustos and Hugo Olgún. Molecular and Cell Biology Department, Faculty of Biological Sciences, P. Universidad Católica de Chile, Santiago, Chile. holguin@bio.puc.cl

(138) Characterization of taxonomically-restricted genes as new targets of Zerknullt (Zen) in the early *D. melanogaster* embryo. Ricardo Gutiérrez, ¹Michael Pino, ¹Calixto Dominguez, ^{1,2}Christian Hodar, ^{1,2}Verónica Cambiazo. ¹Laboratorio de Bioinformática y Expresión Génica, INTA-Universidad de Chile & ²Fondap Center for Genome Regulation (CGR).

(140) Can transcriptional enhancers tolerate the presence of highly repeated sequences? An *in vivo* RNA-seq and ChIP-seq study performed with *Xenopus tropicalis* osteoblasts. Hanna P.¹, Godoy F.¹, Contreras P.¹, Bertin A.¹, Fritz A.¹, Muñoz D.¹, Buisine N.², Sach L.² and Marcellini S.¹. Faculty of Biological Sciences, University of Concepcion, Chile¹ and CNRS, Paris, France². phanna@udec.cl, fgodoy@gmail.com

(142) p53-related protein kinase (PRPK) is necessary for haemocytes migration in *Drosophila*. Emiliano Molina and Álvaro Glavic. Center FONDAF for Genome Regulation, Faculty of Sciences, Universidad de Chile. emolinareyes@gmail.com

(144) Diverse epigenetic mechanisms operate during expression control of master transcription factors: exploring the contribution of differentially composed chromatin-remodeling complexes. Hugo Sepúlveda, Gustavo Torres and Martín Montecino. Center for Biomedical Research and FONDAF Center for Genome Regulation, Faculty of Biological Sciences and Faculty of Medicine, Andres Bello University. hugosepulvedainostroza@gmail.com

(146) Co-expression of Ric-8A and Gα13 increases their solubility. Leal, J., Maureira, A., Olate, J., Torrejón, M. Laboratorio de Genética Molecular Dpto. Bioquímica y Biología Molecular, Universidad de Concepción. juanileal@udec.cl

(148) Whole *Tribolium castaneum* embryo culture gives insights into the role of FGF signaling pathway during body segmentation in arthropods. Patricio E. Saavedra, Viviana A. Nuñez, Andres F. Sarrazin. Instituto de Química, Pontificia Universidad Católica de Valparaíso, Chile. patricio.saavedra.guerin@gmail.com; andres.sarrazin@ucv.cl

(150) Sumoylation modulates vitamin D-mediated transcriptional up-regulation in osteoblasts. Paola Merino, Kazherine Salinas and Martín Montecino. Center for Biomedical Research and FONDAF Center for Genome Regulation, Faculty of Biological Sciences and Faculty of Medicine, Universidad Andrés Bello, Santiago, Chile. paola.v.merino@gmail.com

(152) Modulation of human prostate stromal cell myodifferentiation by VEGF-A and TGFβ1. Conejeros M. Paola¹, Cerda-Infante Javier¹, Godoy Alejandro²,

Montecinos Viviana¹. Hematology-Oncology¹ & Fisiology² Departments, Pontificia Universidad Católica de Chile. paoconejeros.m@gmail.com (Sponsor: F. Nualart)

(154) Role of mitochondrial metabolism on human breast cancer cells: Glutamine dependence and cell proliferation. Melany Ríos, Félix Urra, Natalia Smith & César Cárdenas. Laboratory of Cellular Metabolism and Bioenergetics, Anatomy and Cell Developmental Biology Program, ICBM, Faculty of Medicine, University of Chile. melany_rm1490@hotmail.com

(156) Netrin1 acts a survival factor in SHH-derived medulloblastoma. Falcón P.^{1,2} & Palma V.^{1,2}. ¹CTYBD Laboratory, ²FONDAP Center for Genome Regulation, Universidad de Chile. paulina.falcon.u@gmail.com

(158) Galectin-8 stimulates proliferation of HELA cells through activation of the sonic hedgehog pathway. Elizabeth Riquelme¹, Remziye Doger¹, Breyan Ross³, Gonzalo Mardones³, Andrea Soza^{1,2}, Alfonso Gonzalez^{1,2}. Instituto de Fisiología Facultad de Medicina, Centro de Investigación Sur-Austral en Enfermedades del Sistema Nervioso (CISNe), Universidad Austral de Chile, Valdivia³. Departamento de Inmunología Clínica y Reumatología, Fac. Medicina¹. Centro de Envejecimiento y Regeneración (CARE) Fac. Ciencias Biológicas². Pontificia Universidad Católica de Chile. ecriquel@uc.cl

(160) The inflammatory environment alters mucin secretory process in salivary glands of Sjögren's syndrome patients. I. Castro, S. Aguilera, M.J. Barrera, J. Cortés, V. Bahamondes, S. González, C. Molina, U. Urzúa, C. Leyton, M.J. González. ICBM-Facultad de Medicina. Universidad de Chile. iv_castro@med.uchile.cl

(162) The tyrosine kinase c-Abl modulates dopaminergic cell loss in a pharmacological model of Parkinson's disease. Valls C^{1,2}, Martínez A^{1,2}, Alvarez AR^{1,2}. ¹Cell Signaling Lab, Biological Sciences Faculty, ²CARE-Chile-UC, Pontificia Universidad Católica de Chile, Santiago, Chile.

(164) Metallothionein modulates the transcriptional response of Srebfl under copper physiological exposure. Daniela Fuentes, Ricardo Gutierrez, Omar Porras, Mauricio González. INTA, University of Chile. danielafuentesvasquez@ug.uchile.cl

(166) TGF- β signaling is induced in transgenic SOD1^{G93A} fibrotic muscles. David González¹, Brigitte van Zundert², Enrique Brandan¹. ¹P. Universidad Católica de Chile, ²Universidad Andrés Bello.

(168) Detection of misfolded forms of human wild-type superoxide dismutase 1 in mouse spinal cord. Medinas DB, Lucero C, Rozas P, Valenzuela V, Hetz C. Biomedical Neuroscience Institute, Center for Molecular Studies of the Cell, ICBM, Faculty of Medicine, University of Chile, and Neurounion Biomedical Foundation, Santiago, Chile. chetz@hsph.harvard.edu

(170) Role of α -SNAP on glucose homeostasis: insights from an *in vivo* model. María Paz Miró¹, Cristian Fernandoi¹, Tomás Contreras¹, Luis Federico Bátiz¹. ¹Instituto de Anatomía, Histología y Patología. Facultad de Medicina, UACH. fbatiz@uach.cl

(172) Effect of emamectin benzoate, erythromycin, florfenicol and oxytetracycline treatments on CYP3A27 mRNA expression levels in liver and intestine of Rainbow Trout (*Onchorhynchus mykiss*). Cuevas P¹, Arias L¹ and Cárcamo JG^{1,2}. ¹Instituto de Bioquímica y Microbiología, ²Interdisciplinary Center for Aquaculture Research (INCAR), Universidad Austral de Chile. Valdivia. Chile. gcarcamo@uach.cl

(174) The fish immune system is modulated by epigenetic mechanisms in response to infection with IPNV. Manríquez R. A.^{1,2,3}, Vera T.^{1,2}, Avendaño-Herrera R.² and Cárcamo JG^{1,2}. ¹Instituto de Bioquímica y Microbiología, Universidad Austral de Chile. Valdivia. Chile. ²Interdisciplinary Center for Aquaculture Research (INCAR). ³Programa de Doctorado en Ciencias de la Acuicultura, Universidad Austral de Chile, Puerto Montt, Chile. gcarcamo@uach.cl

(176) Characterization of Chilean isolates of Pancreatic Necrosis Virus (IPNV): A comparison of their levels of cytopathogenicity. Vera T^{1,2}, Manríquez R^{1,2} and Cárcamo JG^{1,2}. ¹Instituto de Bioquímica y Microbiología, ²Interdisciplinary Center for Aquaculture Research (INCAR), Universidad Austral de Chile. Valdivia. Chile. gcarcamo@uach.cl

19:00 – 20:00 Plenary Lecture *International Society for Neurochemistry and Universidad de los Andes*
Volcanes Room
Chair: Constanze Seidenbecher

Mechanisms of neurotransmitter release in the brain – Organization and plasticity of the active zone. Eckart D. Gundelfinger, Leibniz Institute for Neurobiology, 39118 Magdeburg, Germany. gundelfi@LIN-magdeburg.de

20:00 – 21:30 Society Members Meeting

21:00 Dinner

WEDNESDAY, OCTOBER 29, 2014

- 08:00** **Poster Mounting Session I: N° 178 to N° 264**
Convention Center Foyer
- 09:00 – 11:00** **Oral Presentations IV**
Volcanes Room
Chairs: Silvana Zanlungo and Juan Pablo Henríquez
- 09:00** **Crosslinking is an essential posttranslational event for assembly of Collagen IV scaffolds for animal tissue development, architecture and evolution.**
Roberto Vanacore, Vanderbilt University, USA.
- 09:15** **Distribution of the Wnt effector β -catenin in models of amyotrophic lateral sclerosis (ALS) motoneurons.** **Cristina Pinto**(1), Brigitte van Zundert(2), Nelson Osses(3), Juan Pablo Henríquez(1). (1)Department of Cell Biology, Millennium Nucleus of Regenerative Biology and CMA Bio-Bio, University of Concepción, Concepción; (2)Center for Biomedical Research, Universidad Andrés Bello, Santiago; (3)Institute of Chemistry, P. Universidad Católica de Valparaiso, Valparaiso; Chile.
- 09:30** **Effect of cell transplantation in spinal cord regeneration in *Xenopus laevis*.**
Emilio Méndez-Olivos^{1,2}, Juan Larraín^{1,2}. ¹Center for Aging and Regeneration, P. Universidad Católica de Chile. ²Millennium Nucleus for Regenerative Biology, P. Universidad Católica de Chile.
- 09:45** **cAbl tyrosine kinase promotes amyloidogenic APP processing in a Niemann-Pick type C disease model.** **Yáñez MJ**^{1,2,3}, Beblin O⁴, Lleó A⁴, Alvarez AR^{1,2}, Zanlungo S³. ¹Cell Signaling Lab, Cellular & Molecular Biology Department, Biological Sciences Faculty, ²CARE-Chile-UC, ³Department of Gastroenterology, School of Medicine, P. Universidad Católica de Chile, Santiago, Chile, ⁴Neurology Department, IIB-Santpau, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain.
- 10:00** **Characterization of the transcriptional regulatory network of dopaminergic neurogenesis.** **Enrique M. Toledo**¹, Kim E. van Wijk¹, Satish Srinivas Kitambi¹, Shanzheng Yang¹, Carlos Villaescusa¹, Daniel Gyllborg¹, Simon Stott², Roger Barker², Patrik Ernfors¹, Sten Linnarsson¹, Ernest Arenas¹. ¹Laboratory for Molecular Neurobiology, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden. ²Cambridge Centre for Brain Repair, Department of Clinical Neurosciences, University of Cambridge, Cambridge, UK.
- 10:15** **Local trafficking of voltage-gated sodium channels in peripheral axons.**
Carolina González^{1,2}, José Cánovas^{1,2}, María Javiera Fresno^{1,2}, Eduardo Couve⁴, Felipe Court⁵ and Andrés Couve^{1,2}. ¹Physiology and Biophysics, ICBM and ²Biomedical Neuroscience Institute (BNI), Faculty of Medicine, Universidad de Chile. ⁴Faculty of Science, Universidad de Valparaíso. ⁵Faculty of Biological Sciences, Pontificia Universidad Católica de Chile.
- 10:30** **Regulation of memory formation by the transcription factor XBP1.** **G. Martínez**, R.L. Vidal, F.G. Serrano, P. Mardones, C. Molina, P. Valdés, B.

Schneider, B. Kerr, J.L. Valdés, L.H. Glimcher, N.C. Inestrosa and C. Hetz. Biomedical Neuroscience Institute, U. of Chile - CARE, P. Catholic University of Chile and Neurounion Biomedical Foundation. gabriela.martinezbravo@gmail.com, chetz@hsph.harvard.edu Neurobiology

10:45 FoXO1 subcellular dynamic and its impact on redox homeostasis in endothelial cells. Porras O.H., Varela, D. & Benítez J.P. INTA-Universidad de Chile. omar.porras@inta.uchile.cl

**10:30 – 13:00 Schools and Science: Students from South of Chile at the Chilean Society for Cell Biology
Business Center Room**

**11:00 – 13:00 Poster Viewing Session III: 178-264 Odd Numbers
Convention Center Foyer
Coordinators: María Julieta González, Felipe Simon, Diego Varela and Cecilia Leyton**

(179) C-terminal tail of transmembrane BMP receptor type II localize at the cell nucleus and binds to DNA in motor neuron-like cells. Estefani Saint-Jour¹, Diego Zelada¹, Juan Pablo Henríquez² and Nelson Osses¹. ¹Institute of Chemistry, P. Catholic University of Valparaiso and ²Department of Cell Biology and CMA Bio-Bio, University of Concepción, Chile. e.saintjour.c@gmail.com

(181) Innexin-formed hemichannels in *Trypanosoma cruzi*. Ivan Barria¹, Juan San Francisco², Jorge González², Juan Carlos Sáez³, José Luis Vega¹. ¹Laboratorio de Fisiología Experimental, ²Departamento de Tecnología Médica, Universidad de Antofagasta, Antofagasta, Chile and ³Departamento de Fisiología, Pontificia Universidad Católica de Chile, Santiago, Chile. ivan.barria.o@gmail.com

(183) Breakdown of the Golgi apparatus by the infusion of the plant *Plantago major*. Charlotte Luchsinger¹, Felipe Rivera^{1,2}, Roger Sánchez^{1,2}, Marcelo Aguilar¹, and Gonzalo A. Mardones¹. ¹Instituto de Fisiología, Facultad de Medicina, Universidad Austral Chile, Valdivia, and ²Colegio Laico, Valdivia, Chile. chluchsingerf@gmail.com

(185) Sonic hedgehog polarized sorting depends on its lipid modifications. Lisette Sandoval, Mariana Labarca, Paula Sánchez, Claudio Retamal, Juan Larraín and Alfonso González. Departamento de Inmunología Clínica y Reumatología, Facultad de Medicina. Centro de Envejecimiento y Regeneración, Facultad de Ciencias Biológicas. Pontificia Universidad Católica de Chile, Santiago, Chile. lisette.moni@gmail.com

(187) Morphology and dynamics of ER-to-Golgi intermediate compartment (ERGIC) in hippocampal neurons. Juricic M.A.^{1,3}, Cerda M.^{2,3}, Härtel S.^{2,3}, Couve A.^{1,3}. ¹Physiology and Biophysics, ²Anatomy and Developmental Biology, ICBM, ³Biomedical Neuroscience Institute (BNI), Faculty of Medicine, Universidad de Chile. mangelesj@gmail.com

(189) Effect of IL-33 and Retinoic acid in the polarization of T cell-mediated immunity. Francisco Pérez, Rodrigo Morales, Tania Gajardo, Mauricio Campos-Mora, Javier Campos, Diego Catalan, Juan C. Aguillón and Karina Pino-Lagos. Immune Regulation and Tolerance Research Group, Programa Disciplinario de Inmunología, Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. franciscopb90@ug.uchile.cl

(191) Gap junctions intercellular communication participates in CD8⁺ T cells mediated cytotoxicity of melanoma. Fernando Lillo, Israel Guerrero, M^a Alejandra Gleisner, Mercedes López, Flavio Salazar-Onfray. ¹Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile, 8380453 Santiago, Chile; ² Millennium Institute on Immunology and Immunotherapy, Universidad de Chile, 8380453 Santiago, Chile. f.lillo@ug.uchile.cl

(193) Monophosphoryl Lipid A-activated dendritic cells conditioned with rapamycin re-program CD4⁺ T cell response promoting allograft acceptance *in-vivo*. Javier Campos, Francisco Pérez, Edgar Narváez, Mauricio Campos-Mora, Tania Gajardo, Diego Catalán, Juan C. Aguillón, Karina Pino-Lagos. Immune Regulation and Tolerance Group, Programa Disciplinario de Inmunología, Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. jvrcamposa@gmail.com

(195) Dendritic cells from rheumatoid arthritis patients conditioned with dexamethasone and activated with monophosphoryl lipid-A, exhibit strong migratory capacity and impaired T cell responses to synovial antigens. Paulina García-González¹, Jaxaira Maggi¹, Pia Tobar¹, Diego Catalán¹, Katina Schinerling¹, Juan Carlos Aguillón¹. ¹IRTGroup, Programa Disciplinario de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile. Garcia.gonzalez.pa@gmail.com

(197) Identification of danger signals from heat-conditioned cancer cells for DC-based immunotherapy: Preliminary data. Fermín E. González¹, Cristián Pereda¹, Juan Astorga-Wells², Roman Zubarev², and Flavio Salazar-Onfray¹. ¹Millennium Institute on Immunology and Immunotherapy, University of Chile, Chile; ²Department of Medical Biochemistry and Biophysics, Karolinska Institute, Sweden. fgonzalez@u.uchile.cl

(199) Expression of key molecules involved in natural killer T cell activation in gastric cancer patients. K. Kramm¹, V. Pola¹, F. Galvez-Jiron¹, G. Ascui¹, M.J. Siña¹, M. Bustamante², C.J. Hernández¹, M. Garrido-Tapia¹, J.C. Aguillón¹, M.C. Molina¹, and Carolina H. Ribeiro¹. ¹Laboratorio de Inmunovigilancia y Evasión Inmune, Programa Disciplinario de Inmunología, ICBM, and ²Departamento de Cirugía Digestiva, Hospital del Salvador, Facultad de Medicina, Universidad de Chile. chager@med.uchile.cl

(201) Olfm4 as a molecular marker for differential inflammatory response. Salomé Muñoz S, Carlos Muñoz M, Rodrigo Morales C, Mario Sánchez R, Margarita Parada K, Pablo Maturana V, Miguel L Allende. Centro FONDAF de Regulación del Genoma. Universidad de Chile. allende@uchile.cl

(203) Modifications in extrasynaptic GABAA receptors leads to altered long term inhibitory transmission. Carlos A. Lafourcade^{1,2}, Fabia Vogt¹, Francine Deprez¹, Ursula Wyneken², Jean-Marc Fritschy¹. ¹University of Zurich, Institute of Pharmacology and Toxicology. ²Laboratorio de Neurociencias, Universidad de los Andes.

(205) Unfolded protein response (UPR) regulates the accumulation of Amyloid beta deposits in experimental model of Alzheimer's disease. Claudia Duran-Aniotz^{1,2}, Sandra Espinoza^{1,2}, Andrew Foley^{1,2}, Víctor Hugo Cornejo^{1,2}, Gabriela Martínez^{1,2}, Rene Vidal^{1,2} and Claudio Hetz^{1,2,3}. ¹Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, ²Center for Molecular Studies of the Cell, Institute of Biomedical Sciences, Faculty of Medicine, University of Chile,

Santiago, Chile. ³Neurounion Biomedical Foundation, Santiago, Chile. duran.aniotz@gmail.com and chetz@hsph.harvard.edu

(207) Dehydroascorbic acid recycling and the protective function of the astrocyte. Luciano Ferrada, Katterine Salazar, Fernando Martínez, Francisco Nualart. Centro de Microscopía Avanzada, CMA BIOBIO, Laboratorio de Neurobiología y Células Madres, Universidad de Concepción, Concepción, Chile. luferrada@udec.cl

(209) Characterization of innexins in the circadian pacemaker neurons in *Drosophila melanogaster*. Elsa Fritz, Jorge M. Campusano, Juan Carlos Sáez. Pontificia Universidad Católica de Chile. eefritz@uc.cl

(211) Serum microvesicles as potential biomarkers for major depressive disorder. Gomez-Molina C., Ampuero, E., Luarte, A., Wyneken U. Laboratorio de Neurociencias, Centro de Investigaciones Biomédicas, Universidad de los Andes, Santiago, Chile. cgomez@ciq.uchile.cl

(213) The anxiolytic effects of Glucocorticoids in the Insular Cortex: lessons from arousal induced taste neophobia in rats. Juan Manuel Jerez-Baraona, Sebastián Rojas, Rodrigo Moraga-Amaro, Raúl Díaz-Galarce, Daisy Quintana and Jimmy Stehberg. Laboratorio Neurobiología. Centro Investigaciones Biomédicas. Universidad Andrés Bello. jjerezbaraona@gmail.com

(215) Frizzled- 1 receptor regulates neurogenesis in the hippocampus of adult mouse brain. Muriel D. Mardones¹, Daniel B. Bustamante¹, Gabriela A. Andaur¹, Manuel Varas-Godoy², Nibaldo C. Inestrosa³ and Lorena Varela-Nallar¹. ¹Centro de Investigaciones Biomédicas (CIB), Facultad de Ciencias Biológicas y Facultad de Medicina, Universidad Andrés Bello. ²Fundación Ciencia y Vida. ³Centro de Envejecimiento y Regeneración (CARE), Facultad de Ciencias Biológicas, P. Universidad Católica de Chile. mu.mardones@uandresbello.edu

(217) Transforming growth factor β 1 increases cyclin-dependent kinase 5 signaling pathway in cultured primary trigeminal ganglia neurons. Lazcano P., Rozas P., Barrios M., Gonzalez-Billault C., Utreras E. Laboratory of Cellular and Neuronal Dynamics, Department of Biology, Faculty of Science, Universidad de Chile. pab.lazcano@gmail.com

(219) Axonal degeneration is mediated by an energy/redox imbalance. Martinez N.W.^{1, 3}, L. Felipe Barros³, Court F.A.^{1,2}. ¹Millennium Nucleus in Regenerative Biology (MINREB), Catholic University of Chile. ²Neurounion Biomedical Foundation and ³Center for Scientific Studies (CECs). wnmartin@uc.cl

(221) Targeting astrocytes in the treatment of psychiatric disorders. Rodrigo Moraga-Amaro, Raúl Díaz Galarce, Sebastián Rojas Silva, Jimmy Stehberg. Laboratorio Neurobiología. Centro Investigaciones Biomédicas. Universidad Andrés Bello. rod.moraga@uandresbello.edu

(223) *Drosophila* Rho-Kinase is required in tendon cells for muscle development. Franco Vega, Catalina Manieu and Patricio Olgún. Programa de Genética Humana, ICBM, Facultad de Medicina, Universidad de Chile. franco.vega.2714@gmail.com, patricioolguin@med.uchile.cl

(225) C-terminal tail of BMP receptor type II modulate morphological differentiation of motor neuron-like cells. Diego Zelada¹, Daniela Díaz¹, Juan Pablo Henríquez² and Nelson Osses¹. ¹Institute of Chemistry, P. Catholic University of Valparaiso and ²Department of Cell Biology and CMA Bio-Bio, University of Concepción, Chile. d.z.varas@gmail.com

(227) Mutually exclusive signaling signatures define the hepatic and pancreatic progenitor cell lineage divergence. Elisa Rodríguez-Seguel^{1,2}, Francesca Spagnoli¹. ¹Laboratory of Molecular and Cellular Basis of Embryonic Development, Max-Delbrück Centrum für Molekulare Medizin, Berlin-Germany. ²Departamento de Ciencias Químicas y Recursos Naturales, Facultad de Ingeniería y Ciencias, Universidad de La Frontera, Temuco-Chile. elisa.rodriguez@ufrontera.cl, francesca.spagnoli@mdc-berlin.de (Sponsor: G. Arriagada).

(229) Galectin-8 is a novel extracellular stimulus of proteasomal activity. Christopher Holmes^{1,2}, Teo Feuerhake^{1,2}, Priscilla Cortes^{1,2}, Claudia Oyanadel^{1,2}, Alfonso González^{1,2}, and Andrea Soza^{1,2}. Centro de Envejecimiento y Regeneración (CARE), Facultad Ciencias Biológicas¹, Departamento de Inmunología Clínica y Reumatología, Facultad Medicina². Pontificia Universidad Católica de Chile. ceholmes@uc.cl

(231) Netrins, secreted by human Wharton's Jelly Mesenchymal Stem Cells (WJ-MSC), contribute to angiogenic response in human umbilical vein endothelial cells (HUVEC). Prieto CP¹, Meza D¹, Arros A¹, Elliot M¹, Bazán C², Irigoyen S², Aedo S^{2,3}, Palma V¹. ¹CTYBD Laboratory, FONDAP Center for Genome Regulation, University of Chile, ²Obstetrics and Gynaecology Service, Tisné Hospital Santiago, ³Department of Obstetrics and Gynaecology, School of Medicine, University of Chile. cpprieto@uchile.cl

(233) CRTC2 interacts with chromatin remodeling factors to modulate B cell differentiation. Ingrid Lagos¹, Constanza Carcamo¹, Rani Najdi², Michael Teitell² and Angara Zambrano¹. ¹Instituto de Bioquímica y Microbiología, Facultad de Ciencias, Universidad Austral de Chile. Chile. ²Department of Pathology and Laboratory Medicine. University of California Los Angeles. USA. angarahzambrano@gmail.com

(235) Spatial proximity of translocation partners RUNX1 and RUNX1T1 in hematopoietic stem cells: Role of Wnt/ β -catenin signaling. Vargas MF¹, Ugarte GD¹, Medina MA¹, Elorza AA¹, Loyola A² and De Ferrari GV¹. ¹Center for Biomedical Research and FONDAP Center for Genome Regulation, Universidad Andrés Bello, Santiago, Chile. ²Fundación Ciencia & Vida, Santiago, Chile. gdeferrari@unab.cl

(237) Short term human tumor xenografts: a model of human angiogenesis in an intact tissue microenvironment. Cerda-Infante Javier¹, Sotomayor Paula³, Alcayaga-Miranda Francisca⁴, Ocaña Macarena⁴, Godoy Alejandro S.^{2,4} & Montecinos Viviana P.¹. Departamento ¹Hematología-Oncología & ²Fisiología, Pontificia Universidad Católica de Chile. ³Center for Integrative Medicine and Innovative, Universidad Andrés Bello. ⁴Facultad de Medicina, Universidad de los Andes. jcerda.infante@gmail.com (Sponsor: M.A. García)

(239) Expression of obesity- induced inflammatory markers during ovarian epithelium carcinogenesis. Trigo C.¹, Kato S¹, Abarzua-Catalan L.¹, Barriga MI², Le-Cerf P.², Cuello M.¹. ¹Division of Obstetrics and Gynecology, Faculty of Medicine, ²Hospital Sotero del Río, Pontificia Universidad Católica de Chile, Santiago, Chile.

(241) RUNX2 regulates osteopontin expression and promote adhesion of osteosarcoma cells to human pulmonary endothelial cells. Francisco Villanueva^{1,2}, Mercedes Lopez^{1,3}, Flavio Salazar-Onfray^{1,3}, Andre van Wijnen⁴, Mario Galindo^{1,3}. ¹Millennium Institute on Immunology and Immunotherapy,

²Programa de Biología Celular y Molecular, ³Programa de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile. ⁴Departments of Orthopedic Surgery & Biochemistry and Molecular Biology, Mayo Clinic. mgalindo@med.uchile.cl

(243) Macrophages treated with leptin contribute to a metastatic-initiating-cell-like phenotype in ovarian cancer cells *in vitro*. Solar, IF¹, Abarzua-Catalan, L.¹, Kato, S.¹, Owen, G.I.², Cuello, MA¹. ¹Division of Obstetrics and Gynecology, Faculty of Medicine. ²Faculty of Biological Sciences, Pontificia Universidad Católica de Chile, Santiago, Chile. ifsolar@uc.cl

(245) AGPAT2 is required for brown adipogenesis and brown adipocytes survival in mice. Pablo Tapia¹, Marta Fernández-Galillea¹, Kelly Cautivo¹, and Víctor Cortés¹. ¹Department of Nutrition, Diabetes and Metabolism, Pontificia Universidad Católica de Chile. pjtapia@uc.cl

(247) Mitochondrial targeted catalase reduces oxidative stress in DS cells. Zamponi Emiliano¹, Busciglio Jorge², Helguera Pablo¹. ¹Instituto de Investigaciones Médicas Mercedes y Martín Ferreyra, Cordoba, Argentina. ²Institute for Memory Impairment and Neurological Diseases, Irvine, California. ezamponi@immf.uncor.edu

(249) Novel gene therapy to target the proteostasis network in Parkinson disease. Vidal, R.¹, Verges, C.^{1,2,3}, Gonzalez M.^{1,2,3}, and Hetz, C.^{1,2,3}. ¹Neurounion Biomedical Foundation, ²Biomedical Neuroscience Institute and ³Center for Molecular Studies of the Cell, University of Chile Santiago, Chile. rene.vidal@neurounion.com

(251) Inhibition of canonical Wnt Signaling induces an increase in the A β levels and cognitive impairment in both wild-type and J20 mice model of Alzheimer disease. Cheril Tapia-Rojas and Nibaldo C. Inestrosa. Centro de Envejecimiento y Regeneración (CARE), Departamento de Biología Celular y Molecular, P. Universidad Católica de Chile. cheril.tapia@gmail.com

(253) Impairment of endocytic trafficking of Sodium dependent Vitamin C transporter 2 SVCT2 in cellular models of Huntington's Disease. Eduardo Papic, Adriana Covarrubias-Pinto, Alejandra V. Parra, Aníbal I. Acuña, Iлона I. Concha and Maite A. Castro. Instituto de Bioquímica y Microbiología, Universidad Austral de Chile. epapicv@gmail.com

(255) Modulation of fibrotic markers in skeletal muscle by HIF-1 α . Daniela Rebolledo, David González, Enrique Brandan. Laboratorio de Diferenciación Celular y Patología. P. Universidad Católica de Chile. drebolledo@bio.puc.cl

(257) Bovine IgG subclasses and fertility of *Echinococcus granulosus* metacestode with concomitant *Fasciola hepatica* infections. Stoore, Carol, Andrade, Constanza, Corrêa, Felipe, Burotto, Colette, Horlacher, Pamina, Jiménez, Edgar Mauricio, Aravena, Guillermo, Hidalgo, Christian, Paredes, Rodolfo. Escuela de Medicina Veterinaria, Facultad de Ecología y Recursos Naturales, Universidad Andrés Bello. cstoorep@gmail.com

(259) Comparative gene expression associated with growth in zebrafish larvae with different growth rate. Rafael Opazo, Jaime Romero and Luis Valladares. INTA, Universidad de Chile. ropazo@inta.cl

(261) Zebrafish as an infection model of *Flavobacterium psychrophilum*. Soto D., Poblete M., Bravo K., Solís C., Avendaño-Herrera R., Feijóo C.G., Reyes A.E. Laboratorio de Biología del Desarrollo, Facultad de Ciencias Biológicas, Universidad Andrés Bello. ariel.reyes@unab.cl

(263) Endoplasmic reticulum stress modulates migration of fetal endothelium from maternal obesity. ^{1,2}**Villalobos-Labra, R.**, ^{1,2}Sáez, P.J., ³González I., ^{1,2}Westermeyer, F., ^{1,2}Sobrevia, L., ^{1,4}Casanello, P., ³Owen, G.I., ^{1,2}Farías-Jofré, M. ¹Division of Obstetrics and Gynecology, ²Cellular and Molecular Physiology Laboratory (CMPL), Medical Research Centre (CIM), Faculty of Medicine, Pontificia Universidad Católica de Chile; ³Faculty of Biological Sciences, Pontificia Universidad Católica de Chile and ⁴Perinatal Research Laboratory (PRL), Faculty of Medicine, P. Universidad Católica de Chile, Santiago, Chile. roberto.e.villalobos@gmail.com

13:00 – 15:00 Lunch

15:00 – 17:00 Symposium *Chilean Society for Cell Biology*
“New Roles of Glia and Neurons on Disease and Therapies”
Volcanes Room
Chair: Luis Aguayo

Pathogenic role of phenotypically aberrant glial cells in ALS. Luis Barbeito. Institut Pasteur de Montevideo, Uruguay.

Pharmacological modulation of spinal glycine receptors in chronic pain. Gonzalo E. Yévenes^{1,2}, Cesar Lara¹, Carlos F. Burgos¹, Mario Acuña², Hanns U. Zeilhofer². ¹Department of Physiology, Faculty of Biological Sciences, U. Concepción, Chile. ²Institute of Pharmacology and Toxicology, U. Zurich, Switzerland. gyevenes@udec.cl

Vitamin C recycling: SVCT2 versus GLUTs. Francisco Nualart, Katterine Salazar, Pedro Cisternas, Nery Jara, Luciano Ferrada, Fernando Martínez. Center for Advanced Microscopy CMA BIO-BIO, Neurobiology and Stem Cell Laboratory, Concepcion University, Chile.

Characterization of ethanol resistant ligand gated ion channels and development of abuse disorders therapy. Luis G. Aguayo, Braulio Muñoz, Benjamin Forskera, Trinidad Mariqueo, Loreto San Martín and Jose L. Guzman. Department of Physiology, University of Concepcion, Chile.

16:00 – 18:30 Schools and Science: Students from South of Chile at the Chilean Society for Cell Biology
Business Center Room

17:00 – 19:00 Poster Viewing Session III: 178-264 Even Numbers
Convention Center Foyer
Coordinators: María Julieta González, Felipe Simon, Diego Varela and Cecilia Leyton

(178) Influence of aging on vitamin C transporter expression patterns in the kidney. Katherine Forman, Fernando Martínez, Luciano Ferrada, Francisco Nualart. Centro de Microscopía Avanzada, CMA BIO BIO, Department of Cell Biology, Universidad de Concepción. kforman@udec.cl

(180) Thy-1-induced migration requires β 3-Integrin expression in TNF- α treated primary astrocytes. Raúl Lagos-Cabré, Álvaro Álvarez, Milene Kong, Areli Cárdenas, Francesca Burgos, Andrew Quest, Lisette Leyton. Laboratorio de Comunicaciones Celulares, Centro de Estudios Moleculares de la Célula. Instituto de Neurociencias Biomédicas (BNI). ICBM-Facultad de Medicina. Universidad de Chile. rclagos@uc.cl

(182) Protein S (PS) potentiates the inhibitory effect of tissue factor pathway inhibitor (TFPI) on tissue factor-dependent procoagulant activity (TF-PCA) of human platelets. Gustavo Soto, César González, Diego Mezzano, Olga Panes. Departamento Hematología–Oncología, Escuela de Medicina, Pontificia Universidad Católica de Chile. opanes@med.puc.cl

(184) Role of acyl-protein thioesterases on membrane association and spatial organization of H-Ras. Pedro M.P., Vilcaes A.A. and Daniotti J.L. CIQUIBIC-(UNC-CONICET), Fac. Cs. Químicas, Universidad Nacional de Córdoba, Córdoba, Argentina. ppedro@fcq.unc.edu.ar

(186) Lysosomes sense early disturbances of the secretory pathway leading to a cellular TFEB-transcriptional response. Claudia Yefi¹, Viviana Cavieres¹, Alexis González¹, José Martina², Rosa Puertollano², Gonzalo A. Mardones¹ and Patricia V. Burgos¹. ¹Faculty of Medicine, Universidad Austral de Chile, Valdivia, Chile and ²Laboratory of Cell Biology, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, USA. claudiayefi@gmail.com

(188) Internalization of Ca_v1.2 and AT₁R in cells stimulated with AngII. Moreno C, González M, Linsam Barth S, Alfaro H, Varela D, Hermosilla T. CEMC & ICBM, Facultad de Medicina, Universidad de Chile, 838-0453, Santiago, Chile. dvarela@bitmed.med.uchile.cl

(190) Impaired immunosuppressive properties of menstrual blood and bone marrow derived mesenchymal stem cells echo a distinct clinical potential. Torres MJ, Luz-Crawford P, Illanes S, Figueroa F, Khoury M. Laboratory of Nano-Regenerative Medicine, Faculty of Medicine, Universidad de Los Andes, Santiago. mariajosetorress@gmail.com (Sponsor: U. Wyneken).

(192) Expression of MICA on the surface of tumor cells promotes decreased NKG2D receptor expression on NK cells from gastric cancer patients. Karina Kramm¹, Ribeiro C.H.¹, Bustamante M.², Garrido Tapia M.¹, Hernández C.J.¹, and Molina M.C.¹. ¹Programa Disciplinario de Inmunología, Instituto de Ciencias Biomédicas, and ²Departamento de Cirugía Digestiva, Hospital del Salvador-Universidad de Chile, Santiago, Chile. karina.kv@gmail.com

(194) Imiquimod enhances the antitumor response elicited by tapcells. Iván Flores¹, Felipe Falcón¹, Cristián Falcón¹, Fabián Tempio^{1,2}, Flavio Salazar-Onfray^{1,2,3}, Mercedes López^{1,2,3}. ¹Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile ²Millennium Institute of Immunology and Immunotherapy, Universidad de Chile ³Clinical Hospital Universidad de Chile. ivn.flores@gmail.com

(196) Regulatory B cells from Systemic Sclerosis patients have a reduced IL-10-secretion capacity: A Fc γ RIIB overexpression effect. Ferrier, A¹, Aravena, O¹, Fonseca, E¹, Pino-Lagos, K¹, Aguillón, J.C.¹, Soto, L^{1,2}, Catalán, D¹. ¹Immune Regulation and Tolerance Research Group, Programa Disciplinario de Inmunología, ICBM, Facultad de Medicina, and ²Hospital Clínico, Universidad de Chile. afe.whasf@gmail.com

(198) Effects of chronic endoplasmic reticulum (ER) stress on a recombinant antibody-producing cell line. Gutiérrez-González, M; Zúñiga, R; Leiva, L; Aguillón, JC; Molina, MC. Centro de Inmunobiología, Programa de Inmunología, ICBM, Facultad de Medicina, Universidad de Chile. mgutierz@ciq.uchile.cl

(200) Cytotoxic T cells CD4+ against intracellular bacteria model. Darwin Sáez, Emilia Escalona and Ángel Oñate. Laboratorio de Inmunología Molecular. Departamento de Microbiología. Facultad de Ciencias Biológicas. Universidad de Concepción. dasaez@udec.cl

(202) High tumor infiltration by CD8+ and absence of FoxP3+ T lymphocytes correlates with gallbladder cancer patients prolonged survival. Daniel Rojas, Paula Fluxa, M^aAlejandra Gleisner, Mercedes López, Flavio Salazar-Onfray. Millennium Institute on Immunology and Immunotherapy, University of Chile, Santiago, Chile, Instituto de Ciencias Biomédicas, Universidad de Chile, Santiago, Chile. daniel.rs@qf.uchile.cl

(204) Diabetic retinopathy *in vitro*. Valdes J¹, Trachsel L², Sahaboglu A³, Trifunovic D³, Miranda M², Paquet-Durand F³, Schmachtenberg O¹. ¹Interdisciplinary Center of Neuroscience of Valparaiso, University of Valparaiso, Chile. ²University CEU Cardenal Herrera, Spain. ³Institute for Ophthalmic Research, University of Tübingen, Germany. joaquin.valdes@cinv.cl

(206) A lactate channel in astrocytes. ^{1,2}Sotelo-Hitschfeld T, ¹Niemeyer M.I., ¹Ruminot, I., ^{1,2}Lerchundi, R., ^{1,2}Garrido-Gerter, P., ^{1,2}Contreras-Baeza, Y., ¹San Martín, A., ¹Sepúlveda, F.V., ¹Barros, L.F. ¹Centro de Estudios Científicos (CECs), Valdivia, Chile. ²Universidad Austral de Chile, Valdivia, Chile. tsotelo@cecs.cl

(208) Presence of ethanol sensitive glycine receptors in the nucleus accumbens of BL6/C57 mice. B. Förster, B. Muñoz, P. Murath, L.G. Aguayo. Department of Physiology, University of Concepción, Concepción, Chile. bforster@udec.cl

(210) The A β peptide activates EphA4/c-Abl signaling *in vivo*; its blockage by KYL-peptide prevents A β induced damage. Adrián González^{1,2} and Alejandra Álvarez^{1,2}. ¹Cell Signaling Lab, Department of Cell and Molecular Biology and ²Centre for Aging and Regeneration (CARE), Pontificia Universidad Católica de Chile, Santiago de Chile, Chile. agonzal1@uc.cl

(212) Chick embryonic cerebrospinal fluid analysis by 2D-PAGE. Melissa González, Karen Stanic, Hernán Montecinos, Teresa Caprile. Laboratorio de Guía Axonal, Departamento de Biología Celular, Universidad de Concepción. meligonzalez@udec.cl

(214) Bi-directional epigenetic modulation of endogenous PSD95 gene expression to regulate neuronal refinement and fear memory. Nur Jury¹, Miguel Guerra¹, Claudio Salas¹, Estibaliz Ampuero¹, Fernando Bustos¹, Jimmy Stehberg¹, Lorena Varela-Nallar¹, Marianne Rots², Martín Montecino^{1,3}, Brigitte van Zundert¹. ¹Center for Biomedical Research, Andrés Bello University; ²UMCG, the Netherlands; ³FONDAP C.G.R. nur.cjg@gmail.com

(216) BDNF signaling engages the unfolded protein response (UPR) on a stress-independent manner. Pablo Mardones, René Vidal, Gabriela Martínez, and Claudio Hetz. Biomedical Neuroscience Institute, Center for Molecular Studies of the Cell. Faculty of Medicine, University of Chile, and Neurounion Biomedical Foundation. p.mardones.hiche@gmail.com and chetz@hsph.harvard.edu

(218) PPAR γ is upregulated in axons after injury and promotes regeneration in both peripheral and central neurons. Juan Pablo Lezana¹, Shachar Y Dagan²,

Miguel Bronfman¹, Mike Fainzilber², Francisca C Bronfman¹. ¹MINREB and CARE Center, PUC. ²Department of Biological Chemistry, Weizmann Institute of Science, Israel. jplezana@uc.cl

(220) Dendritogenesis *in vitro* and *in vivo* is regulated by expression of NMDA receptor subunits and their scaffold protein PSD95. Pablo Martínez, Nicole Cortés, Nur Jury, Gonzalo Arévalo, Freddy Caques, Fernando Bustos, Brigitte van Zundert. Center for Biomedical Research, Andrés Bello University. martinezc.pabloa@gmail.com

(222) SCO-spondin from embryonic cerebrospinal fluid binds lipoproteins to regulate the early neurogenesis. América Vera, Antonia Recabal, Esteban Riffo, Hernán Montecinos, Teresa Caprile. Departamento Biología Celular, Universidad de Concepción. amevera@udec.cl

(224) Expression of Cx43 in hypothalamic GnRH neurons in zebrafish. Ceriani R, Martinez A. D. and Whitlock K.E. Centro interdisciplinario de neurociencia de Valparaíso. CINV. Universidad de Valparaíso. ricardo_ceriani@hotmail.com

(226) Hindsight acts through *jitterbug/Filamin*, *off-track (otk)* and *tiggrin* to regulate photoreceptor axon targeting. Maureira, M., Oliva, Canovas, J., C Molina, C., López, E., Sierralta J., Olguín, P. Programa de Genética Humana, Programa de Fisiología y Biofísica, ICBM, Facultad de Medicina, Universidad de Chile. miguel.maureira@bq.uchile.cl, patricioolguin@med.uchile.cl

(228) CK2-dependent phosphorylation regulates Pax7 stability in proliferating muscle satellite cells. Natalia González¹, John Yates² and Hugo Olguín¹. ¹Laboratory of Tissue Repair and Adult Stem Cells, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile. ²Department of Chemical Physiology, Scripps Research Institute, USA. holguin@bio.puc.cl

(230) NOX2-related intracellular signaling in skeletal muscle cells after electrical stimuli and exercise. Alexis Díaz-Vegas^{1,#}, Carlos Henríquez-Olguín^{1,#}, Alejandra Espinosa², Francisco Altamirano¹, Denisse Valladares¹, and Enrique Jaimovich¹. ¹Centro de Estudios Moleculares de la Célula, ICBM, ²Escuela de Tecnología Médica, Facultad de Medicina, Universidad de Chile. #: Both authors contributed equally to this work. adiavegas@gmail.com

(232) Rapid demethylation of lysine 27 at histone H3 accompanies vitamin D3-mediated transcriptional activation of the 24-Hydroxylase gene in osteoblasts. Daniel Moena and Martin Montecino. Center for Biomedical Research and FONDAF Center for Genome Regulation, Faculty of Biological Sciences and Faculty of Medicine, Universidad Andres Bello, Santiago, Chile. daniel.moena@gmail.com

(234) DAXud as a transcriptional regulator for oxidative stress response. Zúñiga-Hernández J.¹, Travisany D.², Maass A.², Allende M.¹, Glavic A.¹. ¹Facultad de Ciencias, Universidad de Chile. ²Centro de Modelamiento matemático, Facultad de Ingeniería, Universidad de Chile. jomzuniga@ug.uchile.cl

(236) Transcriptional inhibitions of canonical Wnt Signaling generate changes in the synapsis structure. Roxana C. Ureta, Cheril Tapia-Rojas and Nibaldo C. Inestrosa. Center for Aging and Regeneration (CARE), Department of Cell and Molecular Biology, Faculty of Biological Sciences, P. Catholic University of Chile. rmureta@uc.cl

(238) Complex formation between E-cadherin and caveolin-1 blocks caveolin-1 phosphorylation on tyrosine 14 and suppresses caveolin-1-enhanced migration and invasión of metastatic cancer cells. Díaz-Valdivia, N.^{1,2,3}, Leyton, L.^{1,3},

Quest, AFG^{1,2}. ¹Laboratory of Cellular Communication, Center for Molecular Studies of the Cell (CEMC), ²Advanced Center for Chronic Diseases (ACCDiS), ³Biomedical Neuroscience Institute (BNI), Faculty of Medicine, University of Chile. nataliadiazvaldivia@gmail.com

(240) MSCs isolated from menstrual blood show an unmatched anti-tumoral effect on a human pancreatic carcinoma cell line. Fernandez, Ainoa², Martin, Aldo², Alcayaga, Francisca³, Rosati, Antonella³, Khoury, Maroun¹. ¹Faculty of Medicine, Universidad de Los Andes, ²Universidad de Andrés Bello, ³Cells for Cells, Santiago, Chile. (Sponsor: U. Wyneken).

(242) Tumor epithelial factors and glucose modulate lactate transport in normal mammary stromal cells. Tobar, N., Porras, O. and Martinez J. Laboratorio de Biología Celular, INTA, Universidad de Chile. nicolastobar@gmail.com

(244) CK2 phosphorylates endothelin converting enzyme-1c thereby regulating its protein stability and modulating migration of colon cancer cells. Ignacio Niechi¹, Hernán Huerta¹, Julio C. Tapia¹. Faculty of Medicine, ICBM, University of Chile, Santiago, Chile. ignacio.niechi@gmail.com

(246) Characterization of a new c-Abl tyrosine kinase inhibitor for the potential treatment of Alzheimer disease. Andreas Tapia L.¹, David Chamorro¹, Lisbell Estrada^{1,2}, Chris Dextras³, Xin Hu³, Marc Ferrer³, Andres Dulcey³, Juan Marugan³, Silvana Zanlungo⁴ and Alejandra Alvarez R.^{1,2}. ¹Cell signaling Lab, Biological Science Faculty, Pontificia Universidad Católica de Chile, ²CARE-Chile-UC, ³National Center for Advancing Translational Sciences, National Institutes of Health, ⁴Gastroenterology Department, School of Medicine, Pontificia Universidad Católica de Chile. andreas.tapia23@gmail.com

(248) Molecular and cellular characterization of *P. salmonis* infection. Zúñiga A., ¹Pulgar R., ²Travisany D., ^{2,3}Maass A. and ^{1,3}Cambiazio V. ¹Laboratorio de Bioinformática y Expresión Génica, INTA; ²CMM, Departamento de Ingeniería Matemática, FCFM, Universidad de Chile & ³Center for Genome Regulation (CGR). alejandrozunigap@gmail.com

(250) Sodium tungstate inhibits processes involved in the generation of renal damage in kidney cell lines. Silva P., Blaña C., Oyarzún R., Sandoval M., Yañez A. Universidad Austral de Chile. pamesilvalv@gmail.com

(252) Changes in extracellular matrix induce CTGF expression by LPA in myoblasts. Camilo Riquelme and Enrique Brandan. Cellular Differentiation and Pathology Laboratory, P. Catholic University of Chile. crguzman@ug.uchile.cl

(254) c-Abl inhibitors reduce cholesterol accumulation and are attractive therapeutic tools for Niemann-Pick C disease. Contreras P.^{1,2,3}, González-Hódar L.³, González-Zuñiga M.^{1,2}, Dulcey A.⁴, Marugan J.⁴, Alvarez A.R.^{1,2}, Zanlungo S.³. ¹Laboratorio Señalización Celular, ²CARE-Chile-UC, ³Escuela de Medicina, Pontificia Universidad Católica de Chile. ⁴NCGC, National Institutes of Health, Rockville, USA. prcontre@uc.cl

(256) Astroglial response to spinal cord injury in *Xenopus laevis*. Gabriela Edwards-Faret, Juan Larraín. CARE, MINREB, P. Universidad Católica de Chile. gaedwards@uc.cl

(258) Characterization of oxidative damage and its temporal relationship with liver damage and dysfunction in NPC mice. María-José Pérez¹, Juan Castro¹, Tamara Marín¹, Gonzalo Carrasco², Silvana Zanlungo¹. ¹Departamento Gastroenterología, Facultad de Medicina, Pontificia Universidad Católica de Chile.

²Department of Pathology, Icahn School of Medicine at Mount Sinai, NY. mjperez7@uc.cl

(260) Transcriptional effect of the anti-salmon lice drug emamectin benzoate in Atlantic salmon (*Salmo salar*) kidney. Fuentes D¹, Aguilar MN¹ and Cárcamo JG^{1,2}. ¹Instituto de Bioquímica y Microbiología, ²Interdisciplinary Center for Aquaculture Research (INCAR), Universidad Austral de Chile, Valdivia. Chile. gcarcamo@uach.cl

(262) Comparative study on the isolation of exosomal proteins and RNA in urine by three different methods. Oyarzún R., Silva P., Yañez A. Instituto de Bioquímica y Microbiología. Universidad Austral de Chile. royrazunoliva@gmail.com

(264) Innervation, regeneration and denervation in human deciduous teeth. Suzuki K⁴, Schmachtenberg O^{2,3}, and Couve E^{1,3}. ¹Instituto de Biología; ²Centro Interdisciplinario de Neurociencia de Valparaíso (CINV); ³Facultad de Ciencias; ⁴Clínica de Odontología Pediátrica y del Adolescente, Facultad de Odontología, Universidad de Valparaíso, Valparaíso, Chile. kiyo.suzuki.41@gmail.com

**19:00 – 20:00 Plenary Lecture *Institut Curie and Chilean Society for Cell Biology*
Volcanes Room
Chair: María Isabel Yussef**

Coordinating cell function with cell migration. Pablo Vargas, Mélina Heuzé, Mélanie Chabaud, Marine Bretou, Gabrielle-Faure-André, Pablo Saez, Matthieu Maurin, Paolo Maiuri, Raphaël Voituriez, Matthieu Piel and Ana-Maria Lennon-Duménil. Institut Curie, Paris, France.

**20:00 – 21:00 Plenary Lecture *Chilean Society for Cell Biology*
Volcanes Room
Chair: Mauricio González**

Science, society and the anthropocene era. Juan Carlos Castilla, Profesor Emérito, Facultad de Ciencias Biológicas. P. Universidad Católica de Chile, Casilla 114-D., Santiago, Chile. jcastilla@bio.puc.cl

**21:15 Awards Ceremony
Volcanes Room**

**Nikon - Loncotec: Best Images in Cell Biology
Genexpress: Best Presentations in Oral and Poster Communications**

22:00 Dinner