CHILEAN SOCIETY FOR CELL BIOLOGY

XXVI ANNUAL MEETING
October, 23 – 27th, 2012
Puerto Varas

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CHILEAN SOCIETY FOR CELL BIOLOGY
XXVI ANNUAL MEETING

OCTOBER, 23-27, 2012
PUERTO VARAS

PROGRAM

TUESDAY, OCTOBER 23, 2012

09:00 – 13:00 Registration
Convention Center Foyer

11:30 – 12:30 Technical Lectures - Calbuco Room
MBF Bioscience Inc. and Arquimed
Cuantificación Celular por Estereología y Reconstrucción Neuronal en 3D
Jose Maldonado, PhD, MBF Latino América, Brasil

Technical Lectures - Tronador Room
Tecnigen
Actin Cytoskeleton and Plant Stomata
Juan A. Negrón-Berríos, Interamerican University of Puerto Rico

12:30 – 13:30 Technical Lectures - Calbuco Room
BioTek Instruments and BiosChile IGSA
Cell-based Assays in Drug Discovery for Lead Generation and Probing Drug Effects
Peter Banks, PhD, Scientific Director, BioTek Instruments, Inc.

Technical Lectures - Tronador Room
Agilent and Genexpress
From Human to Plants: Applications of targeted sequence capture and next-generation sequencing technologies in studies of human genetic disorders, cancer and model organisms.
Yuri Moreira, Latin America Field Application Scientist, Agilent.

13:30 – 15:30 Lunch

16:00 – 17:00 Inauguration
Volcanes Room
Chair: María Rosa Bono

Plenary Lecture Luis Izquierdo Fernandez
Chair: Juan Larraín

Skeletal Muscle and Disease: A journey from the bench side to the bed side. Enrique Brandan. Department of Cell and Molecular Biology, CARE, MIFAB, Catholic University of Chile. Santiago, Chile.

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

18:00 – 19:30 **Minisymposium I "**Traffic, Signals, Receptors and Synapses**"**
Calbuco Room
Chair: Maria Rosa Bono and Co-Chair: Francisca Bronfman

BDNF induces a retrograde apoptotic signaling endosome containing p75 neurotrophin receptor (p75) in sympathetic neurons (SCGs). Escudero CA, Galleguillos C, Flores CM, Bronfman FC. Millennium Nucleus in Regenerative Biology (MINREB), Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, Santiago, Chile. caescude@gmail.com

Sorting nexin 17-binding cluster within the cytoplasmic tail of LRP1 mediates receptor recycling through the basolateral sorting endosome. Pamela Farfán[1,2], Jiyeon Lee[3], Jorge Larios[1,2], Pablo Sotelo[1], Guojun Bu[3] and María-Paz Marzolo[1,2]. [1]Laboratorio de Tráfico Intracelular y Señalización, Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, [2]MINREB; P. Universidad Católica de Chile [3]Dept. Neurosci, Mayo Clinic, Jacksonville, Florida 32224, USA.

Frizzled receptors in progenitor and immature neurons of the adult hippocampus. Lorena Varela-Nallar[1,2], Carla Calderon Toledo[1] and Nibaldo C. Inestrosa[1]. [1]Centro de Envejecimiento y Regeneración (CARE), Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, P. Universidad Católica de Chile, [2]Centro de Investigaciones Biomedicas, Facultad de Ciencias Biologicas y Facultad de Medicina, Universidad Andres Bello, Santiago, Chile. lpvarela@uc.cl

Diapause formation and downregulation of Insulin-like signaling via DAF-16/FOXO delays axonal degeneration and neuronal loss. Andrea Calixto[1], Juan S. Jara[1] and Felipe A. Court[1,2]. [1]Catholic University of Chile and [2]Neurounion Biomedical Foundation. acalixto@bio.puc.cl

Polycomb-Group proteins (PcG) Ezh1 and Ezh2 differentially regulate PSD-95 gene expression in developing hippocampal neurons. Berta Henríquez[1], Fernando J Bustos[1,2,3], Francisca Blanco[1,2], Alvaro Becerra[1], Claudio Salas[1], Felipe Simón[1], Martín Montecino[1,2], Brigitte van Zundert[1].[1]Biological Sciences Faculty, Andres Bello University. [2]FONDAP Center for Genome Regulation. [3]University of Concepcion. berta.henriquez.cabezas@gmail.com

Wnt signaling at the vertebrate neuromuscular junction analyzed through *in vivo* electroporation. Juan Pablo Henríquez*, Sylvain Marcellini, Daniel Sandoval, Jaime Teneb, Javier Espinoza. Department of Cell Biology and CMA Bio-Bio, Universidad de Concepcion, Concepcion, Chile. *jhenriquez@udec.cl

Minisymposium II "Cell Biology of Disease**"**
Tronador Room
Chair: Mauricio González and Co-Chair: Silvana Zanlungo

Novel mechanisms contributing to hepatic steatosis and insulin resistance in the AGPAT2 deficient mouse model of congenital generalized lipodystrophy. Víctor Cortés [1,2], Anil Agarwal[3], Abhimanyu Garg[3] and Jay D. Horton[2,3]. [1]Department of Nutrition, Diabetes and Metabolism, School of Medicine, Pontificia Universidad Católica de Chile. [2]Departments of Molecular Genetics and [3]Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX, USA. vcortes@med.puc.cl

Maternal supraphysiological hypercholesterolemia in pregnancy leads to placental endothelial dysfunction. Leiva A, Diez de Medina C, Guzmán-Gutiérrez E, Abarzúa E, Pardo F, Sobrevia L. Cellular and Molecular Physiology Laboratory (CMPL), Division of Obstetrics and Gynecology, Faculty of Medicine, Pontificia Universidad Católica de Chile. aaleiva@puc.cl

Mitochondrial fusion dynamics in skeletal muscle of healthy and alcoholic rat. Veronica Eisner[1], Guy Lenaers[2], Gyorgy Hajnoczky[1]. (1)Thomas Jefferson University, Philadelphia, PA. (2) INSERM U-583, Institut des Neurosciences de Montpellier, France. veronica.eisner@jefferson.edu

Hemeoxygenase 1 as a therapeutic target for Systemic Lupus Erithematosus. Juan P. Mackern[1], Carolina Llanos[2], Leandro J. Carreño[1], Camila B. Schmidt[1], Ignacio Anegon[3], Sergio H. Jacobelli[2] and Alexis M. Kalergis[1,2]. [1]Millennium Institute on Immunology and Immunotherapy. Departamento de Genética Molecular y Microbiología. Facultad de Ciencias Biológicas. Pontificia Universidad Católica de Chile. [2]Departamento de Inmunología Clínica y Reumatología, Facultad de Medicina, Pontificia Universidad Católica. [3]INSERM U1064, Nantes, France. jmackern@bio.puc.cl

C1 interaction with *Trypanosoma cruzi* calreticulin mediates *ex vivo* infection of human placenta. Castillo C, Duaso J, Maldonado I, Ramírez G, Valck C, Kemmerling U* and Ferreira A*. ICBM, Faculty of Medicine, University of Chile. aferreir@med.uchile.cl

Mutations in protein disulfide isomerases are linked to the development of ALS. Woehlbier U., Gonzalez-Perez P., Colombo A., Andreu C., Torres M., Valenzuela V., Diaz A., Armisen A., Sagredo A., Palma K., Concha M., Brown R. and Hetz C. Biomedical Neuroscience Institute, and Center for Molecular Studies of the Cell, ICBM, Faculty of Medicine, University of Chile, Santiago Chile and University of Massachusetts, USA.

20:30 Dinner

22:00 – 23:00 Plenary Lecture The Biomedical Neuroscience Institute, a Millennium Science Initiative (MSI) Institute.
Volcanes Room
Chair: Andrés Couve

Smell and the single neuron: Three-dimensional reconstructions of olfactory neurons offer insights into neuronal morphologic diversity and odor coding. Kristin Baldwin. Department of Cell Biology, Scripps Res Inst, La Jolla, CA, USA.

WEDNESDAY, OCTOBER 24, 2012

08:00 Poster Mounting Session I: N° 1 to N° 80
Convention Center Foyer

09:00 – 11:00 Symposium Millennium Institute on Immunology and Immunotherapy
Calbuco Room
Chair: Alexis Kalergis

"Translational Immunology"

Effects of a transforming human retrovirus (HTLV) on the cellular response to DNA damage. Susan J. Marriott, Department of Molecular Virology and Microbiology, Baylor College of Medicine, One Baylor Plaza, Houston, Texas.

The alarmin Interleukin-33 receptor and its role in inflammatory responses. Marcela Hermoso, Facultad de Medicina, Universidad de Chile.

Molecular modulation of the immunological synapse to improve the human immune response. Alexis M. Kalergis, Facultad de Ciencias Biológicas y de Medicina, P. Universidad Católica de Chile.

The heartbreak of studying glucocorticoid receptors at the NIH. John A. Cidlowski, Molecular Endocrinology Group, Laboratory of Signal Transduction, NIEHS, NIH, DHHS, Research Triangle Park, North Carolina, USA

Symposium The Biomedical Neuroscience Institute, a Millennium Science Initiative (MSI) Institute and The Fogarty International Research Collaboration Award (FIRCA)-NIH
Tronador Room
Chair: Lisette Leyton

"Cell-Cell Interactions Governing Cell Migration"

Regulation of Rho GTPase activity by adhesion molecules and mechanotransduction. Keith Burridge, Elizabeth Lessey, Elizabeth Monaghan-Benson and Christophe Guilluy, Cell and Developmental Biology, Lineberger Comprehensive Cancer Center, and McAllister Heart Institute, University of North Carolina, Chapel Hill, NC 27599, USA. keith_burridge@med.unc.edu

Signaling in astrocyte migration induced by the neuronal protein Thy-1. Kong, M., Alvarez, A. Cárdenas, A., Quest, AFG. and Leyton, L. Laboratorio de Comunicaciones Celulares, Centro de Estudios Moleculares de la Célula. Facultad de Medicina. Universidad de Chile. lleyton@med.uchile.cl

Adhesive and tensile interactions underlying individual and collective cell migration *in vivo*. Germán Reig[1,3], Eduardo Pulgar[1,2,3], Felipe Santibañez[2,3], Valeria Larenas[1,3], Ricardo Figueroa[1,3], Steffen Hartel[1,2,3], Miguel Concha[1,3]. [1]Laboratory of Experimental Ontogeny – LEO and [2]SCIAN-Lab, ICBM, Faculty of Medicine, University of Chile; [3]Biomedical Neuroscience Institute, Santiago, Chile. mconcha@med.uchile.cl

10:30 – 13:00 Schools and Science: Students from Puerto Varas at the Chilean Society for Cell Biology
Room Business Center

11:00 – 13:00 Poster Viewing Session I: 1-80 Odd Numbers
Convention Center Foyer
Coordinators: Rebeca Aldunate – Andrea Paula-Lima – Mario Galindo

(1) Role of c-Abl in the processing of APP and its implication in Niemann-Pick type C disease models. Yañez MJ[1,2], Alvarez AR[1], Zanlungo, S[2]. [1]Departamento de Biología Celular y Molecular,

Facultad de Ciencias Biológicas. [2]Departamento de Gastroenterología, Facultad de Medicina. Pontificia Universidad Católica de Chile. myanezh@gmail.com

(3) Synaptic plasticity induced by BDNF requires ROS and RyR-mediated Ca^{2+} signals. [$]Adasme T, [$]Figueroa P, [$]Bruna B, [#]Paula-Lima AC, [$,§]Hidalgo C. [$]CEMC, BNI & [§]ICBM, F. Medicina, [#]F. Odontología, Universidad de Chile. tadasme@ciq.uchile.cl

(5) RSV infects dendritic cells and changes tyrosine phosphorylation in T cell signaling molecules. Cinthia A. Alvarez[1] and Alexis Kalergis[1,2]. [1]Millennium Institute on Immunology and Immunotherapy, Departamento de Genética Molecular y Microbiología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. [2]Departamento de Inmunología Clínica y Reumatología, Facultad de Medicina, Pontificia Universidad Católica. cinthialvarezm@gmail.com

(7) The FC fraction of immunoglobulin G attenuates the secretion of IL-10 by regulatory B cells. Aravena O, Ferrier A, Pino-Lagos K, Aguillón JC, Soto L, Catalán D. IRTGroup, Programa Disciplinario de Inmunología, ICBM, and Hospital Clínico, Universidad de Chile. aravena.octavio@gmail.com

(9) Identification of Moloney Murine Leukemia Virus (MLV) pre-integration complex (PIC) interacting host cell proteins. Gloria Arriagada[1,2] and Stephen P. Goff[1]. [1]Department of Biochemistry and Molecular Biophysics, Howard Hughes Medical Institute, Columbia University, New York, NY 10032, USA. [2]Departamento de Ciencias Biológicas, Universidad Andrés Bello, Campus Viña del Mar. gloria.arriagada@unab.cl

(11) Galectin-8 is pro-fibrotic in human gingival fibroblasts. Patricio Avila, Anibal Romero A, Mónica Cáceres M, Patricio Smith, Andrea Soza, Alfonso González. Centro de Envejecimiento y Regeneración (CARE), Facultad de Ciencias Biológicas[1]. Departamento de Inmunología Clínica y Reumatología[2], y Odontología[3], Facultad de Medicina. Pontificia Universidad Católica de Chile. pat.avila.p@gmail.com

(13) Intracelular localization of cerebral dopamine neurotrofic factor (CDNF). Anllely Fernández, Sheyla Guzmán, Yocelyn Cruz, Marysol Paz, Jorge Escobar, Pedro Zamorano*. Faculty of Health Sciences, University of Antofagasta, Chile. *zamorano@gmail.com

(15) Microtubule-associated protein 1B (MAP1B) regulates the establishment of presynaptic contacts *in vitro* and interacts with the presynaptic protein Snapin. Bodaleo Felipe[1], Montenegro-Venegas Carolina[1], Hartel Steffen[2] and González-Billault Christian[1]. (1)Laboratory of Cellular and Neuronal Dynamics, Department of Biology, Faculty of Sciences, Universidad de Chile. (2)Laboratory for Scientific Image Analysis, Faculty of Medicine, Universidad de Chile. bodaleo@gmail.com

(17) A computational study of methods for estimating diffusion coefficient in frap experiments. Luis Briones[1], Mauricio Cerda[1], Jorge Toledo[1,2], Omar Ramirez[1], Takeshi Asahi[3], Andres Couve[2], and Steffen Härtel[1]. [1]SCIAN-Lab, [2]Couve-Lab, BNI, Faculty of Medicine, [3]CMM, FCFM; U-Chile. lbriones@med.uchile.cl

(19) Mitochondrial and respiratory effects of copper deprivation in erythropoietic cells. Rodrigo Bustos, Lina Ruiz, Maria Isabel Lasso, Susana Grant and Alvaro Elorza. Experimental Bioenergetics Laboratory, Universidad Andres Bello. aelorza@unab.cl

(21) Post-transductional cleavage of C-terminal tail of BMP receptor type II in motor neuron-like cells. Pilar Cárdenas[1], Juan Pablo Henríquez[2] and Nelson Osses[1]. [1]Institute of Chemistry, P. Catholic University of Valparaiso and [2]Department of Cell Biology and CMA Bio-Bio, University of Concepción, Chile. cheerree@gmail.com

(23) Small depolarization of muscle fibers induced by external ATP can activate IP_3-dependent Ca^{2+} signals related to muscle plasticity. Casas, M., Llanos, P. Hidalgo J., Jorquera, G., Buvinic S. and Jaimovich, E. Centro de Estudios Moleculares de la Célula. ICBM, Facultad de Medicina, Universidad de Chile. mcasas@med.uchile.cl

(25) Increased angiogenesis *in vitro* induced by VEGF-A secreted from carcinoma-associated stroma of invasive prostate cancer. Javier Cerda-Infante[1], Ignacio San Francisco[2], Alejandro Godoy[3], Gary Smith[3], Viviana Montecinos[1]. [1]Hematology-Oncology and [2]Urology Departments, Pontificia Universidad Católica de Chile. [3]Urology department, Roswell Park Cancer Institute, Buffalo NY. jcerda.infante@gmail.com (Sponsor: M.A. García).

(27) TrkB receptor induces the activation and nuclear translocation of the tyrosine kinase c-Abl in hippocampal neurons. Chandía A.[1,2], Bronfman F.C[3], Lazo OM[3], Álvarez A.R[1,2]. [1]Laboratorio de Señalización Celular, [2]CARE-Chile-UC, [3]Departamento de Ciencias Fisiológicas, Pontificia Universidad Católica de Chile. america.chandia.c@gmail.com

(29) Expression of dopamine receptor D3 on $CD4^+$ T-cells favors Th1 immunity. Francisco Contreras[1,2], Carolina Prado[1,2], Hugo González[1,2], Dafne Franz[1], Daniela Elgueta[1], Rodrigo Pacheco[1]. [1]Fundación Ciencia & Vida, [2]Universidad Andrés Bello. crenovich@gmail.com

(31) Functional characterization of cargo binding sites on the μ2-subunit of adaptor protein complex 2. Esteban Corales, Yimo Lin, Patricia V. Burgos, Gonzalo A. Mardones. Instituto de Fisiología, Facultad de Medicina, Universidad Austral de Chile. corales.esteban@gmail.com

(33) Evaluation of Synaptotagmin-I involvement in salivary gland hypofunction of Sjögren's Syndrome patients. Characterization of Ca^{2+} signaling in 3D acini. Cortés J, Hidalgo J, Bahamondes V, Urra H, Barrera MJ, Castro I, Aguilera S, González S, Molina C, Leyton C, Urzúa U, Sepúlveda D and González MJ. ICBM-Facultad de Medicina, Universidad de Chile. cortesjf@ciq.uchile.cl

(35) Altered expression of SLAM family receptors and their adaptor proteins in lupus-prone mice. N. Crisóstomo[1], A. Gleisner[1], M. Rosemblatt[1,2,3], M.R. Bono[1]. [1]Departamento de Biología, Facultad de Ciencias, Universidad de Chile. [2]Fundación Ciencia &Vida. [3]Universidad Andrés Bello. ncrisostomo@ug.uchile.cl

(37) Galectin-8 regulates the homeostasis of T and B lymphocytes. Cristobal Curkovic[1,2*], Evelyn Pardo[1,2*], David Valenzuela[3], Alfonso González[1,2] and Andrea Soza[1,2]. Centro de Envejecimiento y Regeneración (CARE), Fac. Ciencias Biológicas[1]. Departamento de Inmunología Clínica y Reumatología, Fac. Medicina[2]. Pontificia Universidad Católica de Chile. Regeneron Pharmaceuticals Inc, N.Y. USA[3]. *Pardo E. and Curkovic C. contributed equally to this study. epardo@uc.cl

(39) Novel glucocorticoid-response elements in *st2* distal promoter are responsible for transcriptional activity in mast cells. Díaz-Jiménez D.[1], Sepúlveda H [2], Montecino M.[2], Quera R.[3], Hermoso MA[1]. [1]Innate Immunity Lab, Immunology Program, ICBM, Faculty of Medicine, Universidad de Chile. [2]Center for Biomedical Research and FONDAP Center for Genome Regulation, Universidad Andres Bello. [3]Gastronterology Unit, Clínica Las Condes, Chile. davordijim@gmail.com

(41) Glucocorticoid receptor localization in the diabetic kidney. Romina Bertinat[1], Karen Jaramillo[1], Pamela Silva[1], Rodrigo Gatica[1], Francisco Nualart[2], Alejandro Yáñez[1]. [1]Instituto de Bioquímica y Microbiología, Universidad Austral de Chile. [2]Departamento de Biología Celular y Centro de Microscopía Avanzada (CMA BIO-BIO), Universidad de Concepción. romibert@gmail.com

(43) **Effect of 5'**-methylthioadenosine on CD4+ T cell differentiation towards Treg and Th17 cells. Cristian Doñas, Macarena Fritz, Paz Reyes, Alejandra Loyola and Mario Rosemblatt. Fundación Ciencia para la Vida, Universidad Andrés Bello. c.donasc@gmail.com

(45) Mn-Superoxide dismutase modulates cytotoxicity induced by *Senecio sp* (Chachacoma) in breast cancer cells under hypoxia. Carlos Echiburú-Chau, Cristian Salas, Mauricio Cuéllar, Susana Alfaro, Juan Pablo Ogalde and Gloria Calaf. Instituto de Alta Investigación, Universidad de Tarapacá, Arica, Chile.cechiburu@uta.cl (Sponsor: G. Cabello).

(47) Inflammation alters the expression of iron transporters DMT1, FPN1 and ZIP14 in neurons, astrocytes and microglia. Urrutia P., Aguirre P., Esparza A. and Núñez MT. Department of Biology, Faculty of Science, University of Chile. andres.esparza@gmail.com

(49) Primary cilium markers disappear as oligodendrocyte precursor cells differentiate and become unresponsive to Shh. [1,2]Paulina Falcón U, [1]Carlos Carrasco P, [1]Alejandro Roth M. & [2]Verónica Palma A. Departamento de Biología, Facultad de Ciencias, Universidad de Chile. paulina.falcon.u@gmail.com

(51) Antioxidant activity of the Bios-p peptide analogue in HEK293T cells. Pamela Fernández[1,2], Ignacio Jofre[1], Patricia Navarrete[1], Magdalena Cuevas[1], Ximena Romo[2], Jorge Parodi[3], Fernando Romero[1]. [1]Center of Neurosciences and Peptides Biology- CEBIOR-BIOREN-CEGIN, Universidad de La Frontera, Temuco, Chile. [2]Departamento de Ciencias Biológicas, Facultad de Ciencias Biologicas, Universidad Andres Bello, Sede Concepción, Chile. [3]Laboratorio de Fisiología de la Reproducción, Núcleo de Producción Alimentaria, Escuela de Medicina Veterinaria, Facultad de Recursos Naturales, Universidad Católica de Temuco, Temuco, Chile. pamelafernm@gmail.com

(53) Galectin-8 expression and chemotherapeutic drug resistance in ovary cancer cells. Felipe Garay[1,2,3], Felipe Leiva[3], Alfonso Gonzalez[1,2], Andrea V. Leisewitz[3], Andrea Soza[1,2]. Centro de Envejecimiento y Regeneración (CARE)[1], Facultad de Ciencias Biológicas, Departamentos de Inmunología Clínica y Reumatología[2] y Hematología-Oncología[3], Facultad de Medicina, Pontificia Universidad Católica de Chile. figaray@uc.cl

(55) Bci-1: a new tissue specific, negative regulator of autophagy. Gherardelli C[1], Vicencio E[1], Matamala JM[2], Rojas M[1], Hetz C[2], and Manque P[1]. [1]Center for Genomics and Bioinformatics, Universidad Mayor, [2]Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile, Chile. Patricio.manque@umayor.cl

(57) ALS astrocytes release factors that trigger c-Abl phosphorylation in motoneurons: role of sodium channel activity and oxidative stress. David Gonzalez[1], Fabiola Rojas[1,2], Elsa Fritz[1,2], Alexis Martinez[3], Sebastian Abarzua[1], Nicole Cortes[1], Alejandra Alvarez[3], Brigitte van Zundert[1]. [1]Andrés Bello University; [2]University of Concepción; [3]P. Universidad Católica de Chile. da.gonzalez.f@uandresbello.edu

(59) Participation of monoclonal antibodies in detection and study of RSV-induced pathogenesis through **FcγRs.** Roberto Gómez[1], Kelly Cautivo[1] and Alexis Kalergis[1,2]. [1]Millennium Institute on Immunology and Immunotherapy, Departamento de Genética Molecular y Microbiología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. [2]Departamento de Inmunología Clínica y Reumatología, Facultad de Medicina, Pontificia Universidad Católica. rsgomezj@gmail.com

(61) Polarization of Cx43 towards the immunological synapse induces NK-mediated tumor cell death by granzyme-B and calcium dependent mechanisms Guerrero I., Tittarelli A., Mendoza-Naranjo A., Farías M., Salazar-Onfray F. Tumor Immunology Laboratory, Faculty of Medicine, University of Chile. israel.biologo@hotmail.com

(63) N-terminus domain contributes to thermal and chemical sensitivity of TRPM8 channel. Hardy, P.[1], van Zundert, B.[2], Madrid, R.[1], Viana, F.[3] and Pertusa, M.[1]. [1]Departamento de Biología, Facultad de Química y Biología, Universidad de Santiago de Chile. [3]Centro de Investigaciones Biomédicas, Universidad Andrés Bello, [2]Instituto de Neurociencias de Alicante, UMH-CSIC, España. maria.pertusa@usach.cl

(65) Two-dimensional electrophoresis of different culture conditions of the fish pathogen *Streptococcus phocae*. Christian Hidalgo, Rodolfo Paredes, Julio Retamales and Rubén Avendaño-Herrera. Universidad Andrés Bello. chissock@gmail.com

(67) Adult guinea pig brain has a lateral ventricle extention involved in neurogenesis. Jara, N., Rodríguez, F., Oyarce, K. and Nualart, F. Neurobiology and Stem Cells Laboratory, Department of Cell Biology, University of Concepción. neryalejara@udec.cl

(69) Evaluation of a Chilean extract of *Ugni molinae Turcsz*, generator of vasodilation in rat aortas and antioxidant effect in CRL1730 cell line. Ignacio Jofré[1], Javier Retamal[1], Erick Scheuermann[2], Jorge Parodi[3], Fernando Romero[1]. [1]Center of Neurosciences and Peptides Biology-BIOREN-UFRO.

[2]Center of Food Biotechnology and Bioseparations-BIOREN-UFRO,[3]Laboratory of Reproductive Physiology, UCT. ignaziojf@gmail.com

(71) Expression and polarized distribution of the cell surface protein target of anti-P autoantibodies from lupus patients. Angel Jurado-Torres[1,2], Fabián Segovia[1,2], Marcela Bravo-Zehnder M [1,2], Carlos Céspedes[2,3], Carlos Vio[2,3], Loreto Massardo L[1], David Valenzuela[3], and Alfonso González [1,2]. Departamento de Inmunología Clínica y Reumatología, Facultad Medicina[1]. Centro de Envejecimiento y Regeneración[2] and Departamento de Fisiología[3], Fac. Ciencias Biológicas. Pontificia Universidad Católica de Chile. Regeneron Pharmaceuticals Inc, N.Y. USA[3]. angel.juradot@gmail.com

(73) Thymic stromal lymphopoietin is produced by human metapneumovirus-exposed human airway epithelial cells. Margarita K. Lay, Pablo Céspedes, Alexis M. Kalergis. [1]Millennium Institute on Immunology and Immunotherapy, Departamento de Genética Molecular y Microbiología, Facultad de Ciencias Biológicas, [2]Departamento de Reumatología, Facultad de Medicina, P. Universidad Católica de Chile. mlay@bio.puc.cl

(75) Schwann cell-derived exosomes enhance axonal regeneration in the peripheral nervous system. Lopez-Verrilli M.A.[1], Court F.A.[1,2]. [1]Millennium Nucleus in Regenerative Biology, Catholic University of Chile and [2]Neurounion Biomedical Foundation. alejanddra@gmail.com, fcourt@bio.puc.cl

(77) Plasticity of Treg and Th17 cells during immune response and tolerance induction. G. Tejón[1,2], V. Manríquez[1], J. R. Mora[2], M.R. Bono[1], M. Rosemblatt[1,3,4]. [1]Departamento de Biología, Facultad de Ciencias, Universidad de Chile. [2]Gastrointestinal Unit, Massachusetts General Hospital, Harvard Medical School. [3]Fundación Ciencia & Vida. [4]Universidad Andrés Bello. gabriela_tejon@yahoo.com

(79) The kynase c-Abl is activated in Amyotrophic Lateral Sclerosis motor neurons and participates in neurodegeneration in the SOD1^{G86R} mice. Alexis Martínez[1,2], Cristián Valls[1,2], Brigitte Van Zundert[3], Claudio Hetz[4], Alejandra Álvarez[1,2]. [1]Laboratorio de Señalización Celular, [2]CARE-Chile-UC, Pontificia Universidad Católica de Chile. [3]Center for Biomedical Research. University Andres Bello. [4]Laboratory of Cellular Stress and Biomedicine, University of Chile. amartin1@uc.cl

13:00 – 14:00 Plenary Lecture Sociedad de Biologia Celular de Chile
Volcanes Room
Chair: Christian Gonzalez-Billaut

Regulation of membrane protein trafficking during neuronal polarization. Alfredo Cáceres, Instituto Investigación Médica Mercedes y Martin Ferreyra (Inimec-Conicet), Universidad Nacional de Cordoba, Argentina.

14:00 – 15:30 Lunch

15:30 – 16:30 Plenary Lecture Centro de Investigaciones Biomédicas y Centro FONDAP de Regulación del Genoma, Universidad Nacional Andres Bello
Volcanes Room
Chair: Giancarlo de Ferrari

The genetics of Parkinson's disease: moving from variant to function. Andrew Singleton. Laboratory of Neurogenetics, National Institute on Aging, National Institutes of Health, Bethesda, MD, USA. (for the International Parkinson's Disease Genomics Consortium) singleta@mail.nih.gov

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

16:30 – 18:30 Poster Viewing Session I: 1-80 Even Numbers
Convention Center Foyer
Coordinators: Marcela Bravo – Gareth Owen – Rodolfo Paredes

(2) *Reprimo*, a potential biomarker for prospective clinical trial in gastric cancer. Maturana MJ., Olivares W., Garcia E., Torres V., Padilla O., Aguayo F., Calvo A., Ferreccio C., Corvalán AH. Pontificia Universidad Católica de Chile. mmaturanar@med.puc.cl

(4) Cardiac Rho kinase activation early after experimental acute myocardial infarction. Claudia Mera, María Ocaranza, Renato Ramírez, Soledad Veliz, Iván Godoy, Jorge Jalil. Departamento de Enfermedades Cardiovasculares, Laboratorio de Cardiología Molecular, Escuela de Medicina, P. Universidad Católica de Chile. claudiamera@gmail.com (Sponsor: S. Lavandero).

(6) Jitterbug(jbug)/Filamin and protein tyrosine phosphatase 69D (PTP69D) are required for tendon cell adaptation to mechanical stress and axon growth. Claudia Molina and Patricio Olguín. Programa de Genética Humana, ICBM, Facultad de Medicina, Universidad de Chile. claudiavetera@gmail.com

(8) Role of Panx1 hemichannels in the secretory activity of neuroendocrine chromaffin cells. Fanny Momboisse[1], Catherine Estay[1], María J. Guerra[1], Ximena Baéz[1], Juan C. Saez[2], Agustin D. Martínez[1] and Ana M. Cárdenas[1]. Centro Interdisciplinario de Neurociencias de Valparaíso, [1]Universidad de Valparaíso, Valparaíso, and [2]Departamento de Fisiología, P. Universidad Católica de Chile, Santiago. fanny.momboisse@cinv.cl

(10) Release of gliotransmitters through astroglial connexin 43 hemichannels is necessary for fear memory consolidation in the basolateral amygdala. Jimmy Stehberg, Rodrigo Moraga-Amaro, Cristián Salazar, Álvaro Becerra, Cesar Echeverría, Juán Andrés Orellana, Geert Bultynck, Raf Ponsaerts, Luc Leybaert, Felipe Simon, Juán Carlos Sáez, Mauricio Retamal. Universidad Nacional Andrés Bello (Chile), Universidad del Desarrollo (Chile), Pontificia Universidad Católica de Chile (Chile), Katholieke Universiteit Leuven (Belgium), Ghent University (Belgium). rod.moraga@uandresbello.edu

(12) Activation of signalling pathways in response to spinal cord injury in *Xenopus*. Mauricio Moreno[1], Dasfne Lee[1], Leonardo Almonacid[2], Francisco Melo[2], Juan Larraín[1]. [1]Center for Aging and Regeneration and Millennium Nucleus in Regenerative Biology [2]Molecular Bioinformatics Laboratory, Millennium Institute on Immunology and Immunotherapy. Pontificia Universidad Católica de Chile. mmoreno@bio.puc.cl

(14) IL-6 muscle levels are elevated in cachexia using a murine model of cancer. Neira J., Espinoza A., Lobos L., Quest AFG, Jaimovich E. Centro de Estudios Moleculares de la Célula, ICBM, Facultad de Medicina, Universidad de Chile. jordana.nf @ gmail.com

(16) Differential patterns of RPRM expression throughout different multistep progression of gastric cancer. Olivares W[1], Gonzalez C[1], Maturana MJ[1], Cerda J[1], Montecinos V[1], Aguayo F[2], Corvalán AH[1]. [1]Hematology-Oncology Department, P. Universidad Católica de Chile & [2]Virology Department, U. Chile. wildapucv@gmail.com

(18) Neogenin- 1 mediates angiogenesis induced by non-classical angiogenic factors produced by **human Wharton's Jelly mesenchymal stem cells (WJ-**MSC). Carolina Ortiz[1], Cynthia Villarroel[1], Catalina Prieto[1], Rodrigo Pinto[2], Verónica Palma[1]. [1]Laboratory of Stem Cells and Development. Faculty of Sciences, University of Chile. [2]Laboratory of Stem Cells & Tissue Regeneration, Faculty of Biological Sciences, PUC. carolina.ortiz.rojo@gmail.com

(20) Caveolin-**1 and β**-catenin levels are increased in LPS-stimulated dendritic cells. César Oyarce[1,2], Andrés Herrada[1], Nicolás Bustamante[1], Andrew Quest[2] and Álvaro Lladser[1]. [1]Laboratory of Gene Immunotherapy, Fundación Ciencia & Vida. [2]Laboratory of Cellular Communication, Universidad de Chile. alvaro.lladser@bionova.cl

(22) Prenatal-stress affects Reelin and p35 expression *in vivo* and *in vitro*: A connection between stress response and molecular signaling involved in neuronal plasticity. Palacios-García Ismael[1,2], Díaz-Véliz Gabriela[3], Aboitiz Francisco[2], Gonzalez-Billault Christian[1]. [1]Laboratory of Cell and Neuronal Dynamics, Department of Biology, Faculty of Sciencies, Universidad de Chile. [2]Centro de Investigación Médica, Pontificia Universidad Católica. [3]Programa de Farmacología Molecular y Clínica, Instituto de

Investigación Biomédica, Universidad de Chile. ipalacios@ug.uchile.cl

(24) Sodium-dependent vitamin C transporter 2 (SVCT2) trafficking is altered in Huntington's disease. [1]Alejandra Parra, [1]Aníbal Acuña, [1]Adriana Covarrubias, [1]Macarena Solís, [2]Claudio Hetz, [1]Ilona Concha and [1]Maite Castro. [1]Instituto Bioquímica y Microbiología, UACh, [2]ICMB, U. Chile. parrap.alejandra@gmail.cl

(26) Beneficial effect of atorvastatin on nitric oxide and reactive oxygen species production by human endothelial cells exposed to cocaine or plasma from cocaine addicts. Pereira-Flores K, Ebensberger R, Mezzano D, Pereira J, Sáez CG. Pontificia Universidad Católica de Chile, Santiago, Chile. kpereiraf@gmail.com

(28) Web-based platform for biomedical ground truth. Raquel Pezoa[1,2], Victor Castañeda[1], Steffen Härtel[1]. [1]SCIAN-Lab/CEDAI SpA at BNI & Faculty of Medicine, University of Chile, [2]CCTVal-UTFSM. raquel.pezoa@usm.cl

(30) Gene expression of neurotrophic factors and related molecules after stroke. Claudia Pissani[1,2*], Katherine Stack[1,2], Gareth I. Owen[1], Francisca C Bronfman[1,2]. [1]Physiology Department, Pontificia Universidad Católica de Chile. [2]Millennium Nucleus in Regenerative Biology (MINREB). chpissan@uc.cl

(32) Steroid regulation of the Protease Activated Receptor 4 (PAR4) in breast cancer. Ramírez C.[1,2], Orihuela P.[1], Owen G.I[2], Oliva B. [2], González P.[2], Bravo M.L.[2]. [1]Facultad de Química y Biología, USACH. [2]Facultad de Ciencias Biológicas, PUC. carolina.ramireza@usach.cl

(34) Overexpression of DNA repair glycosylases TcOGG1 and TcNTH1 in *Trypanosoma cruzi.* Santiago Ramírez, Iván Ponce, Sofía Sepúlveda, Lucía Valenzuela, Soledad Sierra, Paula Bahamondes, Natalia Muñoz, Ulrike Kemmerling, Norbel Galanti, Gonzalo Cabrera. Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. santiagovet1@hotmail.com

(36) Synchronizing basolateral traffic from recycling endosomes by activating a phosphatidic acid/PKA pathway. Claudio Retamal and Alfonso González. Departamento de Inmunología Clínica y Reumatología, Fac. Medicina. Centro de Envejecimiento y Regeneración (CARE). Fac. Cs. Biológicas. Pontificia Universidad Católica de Chile. claudio.retamal@gmail.com

(38) NKT cells and regulatory T cells: players of the immunosuppressive response observed in human gastric cancer. CH Ribeiro, F Cristi, G Pérez, K Kramm, M Bustamante, M Tapia, C Hernández, JC Aguillón, and MC Molina. Programa Disciplinario de Inmunología (ICBM) and Departamento de Cirugía Digestiva, Hospital Salvador, Facultad de Medicina, Universidad de Chile, Santiago, Chile. chager@med.uchile.cl

(40) Carbon monoxide decreases endosome-lysosome fusion and inhibits soluble antigen presentation by dendritic cells. Virginie Tardif[4], Leandro J. Carreño[1], Séverine Remy[4], Sebastián A. Riquelme[1], Claudia M. Cortés[3], Thomas Simon[4], Marcelo Hill[4], Cédric Louvet[4], Claudia A. Riedel[3], Philippe Blancou[4], Jean-Marie Bach[5], Ariel Savina[6], Christine Chauveau[4], Ignacio Anegon[4] and Alexis M. Kalergis[1,2]. [1]Millennium Institute on Immunology and Immunotherapy, Departamento de Genética Molecular y Microbiología, Facultad de Ciencias Biológicas, [2]Departamento de Reumatología, Facultad de Medicina, Pontificia Universidad Católica de Chile. [3]Millenium Institute on Immunology and Immunotherapy, Departamento de Ciencias Biológicas, Facultad de Ciencias Biológicas y Facultad de Medicina Universidad Andrés Bello. [4]Centre de Recherche en Transplantation et Immunologie, Université de Nantes, France. [5]ONIRIS, France. [6]Institut Curie, France. sariquelme@uc.cl

(42) An shRNA-based adjuvant against IκBα promotes antitumor T cell responses mediated by DNA vaccines . Jonathan Roco, Andrés Herrada, Alvaro Lladser. Laboratory of Gene Immunotherapy, Fundación Ciencia y Vida, Santiago, Chile. jroco@cienciavida.cl.

(44) Characterization of T cell receptor **Vβ usage in response to the respiratory syncytial virus.** Hernán G. Correa[1], Bruno A. Ramirez[1], Roberto S. Gomez[1], Jorge E. Mora[1] and Alexis M. Kalergis[1,2].

[1]Millennium Institute on Immunology and Immunotherapy, Departamento de Genética Molecular y Microbiología, Facultad de Ciencias Biológicas, [2]Departamento de Reumatología, Facultad de Medicina, Pontificia Universidad Católica de Chile. nanocorrea.ua@gmail.com

(46) Structural and functional characterization of cargo-binding sites for tyrosine-based signals on the µ1A-subunit of adaptor protein complex 1. Breyan Ross, Esteban Corales, Yimo Lin, Patricia V. Burgos, Gonzalo A. Mardones. Instituto de Fisiología, Facultad de Medicina, Universidad Austral de Chile. breyanross@gmail.com

(48) Remodeling of mitochondrial OXPHOS complexes by copper defficiency alters energetic output. Lina Ruiz, Erik Jensen, Rodrigo Bustos and Alvaro Elorza. Experimental Bioenergetics Laboratory, Universidad Andres Bello (UNAB). aelorza@unab.cl

(50) Role of mitochondria in neuronal Ca^{2+} and ROS signals induced by the Alzheimer´s disease-associated amyloid-β peptide oligomers. [1]SanMartín CD, [1,2]Hidalgo C, [1,3]Paula-Lima AC. [1]CEMC, BNI and [2]ICBM; Facultad de Medicina; [3]Facultad de Odontología. Universidad de Chile.

(52) Evolutionary origin of segment formation mechanisms in animals. Sarrazin, A.F.[1,-3], Peel, A.D.[2], Abdo Abou Issa, A.[3], Manuel, M.[3], Averof, M.[2]. Instituto de Química, P. Universidad Católica de Valparaíso[1]; IMBB, Heraklion, Greece[2]; UPMC, Paris, France[3]. andres.sarrazin@ucv.cl (Sponsor: N. Osses).

(54) EGFRvIII-dependent cell growth in a glioblastoma cell line can be counteracted by inhibitors of phosphatidic acid phosphohydrolase. Ronan Shaughnessy[1,2], Carolina Otero[1,2], Andrea Soza[1,2], Alfonso Gonzalez [1,2]. Departamento de Inmunología Clínica y Reumatología, Facultad Medicina[1], Centro de Envejecimiento y Regeneración (CARE), Facultad Ciencias Biológicas[2], Pontificia Universidad Católica de Chile. rpshaughnessy@uc.cl

(56) Effects of chitosan particles on cell proliferation in gingival fibroblasts. Silva D, Arancibia R, Cáceres M, Acuña C, Tapia C, Diaz-Dosque M, Martínez J, Smith PC. Odontología. Facultad de Medicina. Pontificia Universidad Católica de Chile, Facultad de Ciencias Químicas y Farmacéuticas e INTA, Universidad de Chile. danielbq@gmail.com

(58) *Trypanosoma cruzi* calreticulin, exogenously bound to epimastigotes cellular membranes, promotes adhesion and penetration into host cells. Sosoniuk, E., Aguilar, L., Coddou, F., Maldonado, I., Orellana, J., Valck, C*., Ferreira, A*. Laboratorio de Inmunología de la Agresión Microbiana, PDI, ICBM, Facultad de Medicina, Universidad de Chile. e.sosoniuk@hotmail.com

(60) RUNX2 promote angiogenesis in osteosarcoma by modulating pro-angiogenic target genes. Andrés Stevenson[1,2], Sofia Jerez[1,2], Paola Casanello[3], Gary Stein[4], Andre van Wijnen[5], Mario Galindo[1,2]. [1]Millennium Institute on Immunology and Immunotherapy, [2]Programa de Biología Celular y Molecular, ICBM, Facultad de Medicina, Universidad de Chile. [3]Instituto de Investigaciones Medicas, Facultad de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile. [4]Department of Biochemistry, Vermont Cancer Center for Basic and Translational Research, University of Vermont. [5]Departments of Orthopedic Surgery & Biochemistry and Molecular Biology, Mayo Clinic. mgalindo@med.uchile.cl

(62) Frizzled-9 mediates postsynaptic maturation at the vertebrate neuromuscular junction. Jaime Teneb, Juan Pablo Henríquez*. Department of Cell Biology and CMA Bio-Bio, University of Concepcion, Concepcion, Chile. *jhenriquez@udec.cl

(64) Diffusion and cell-surface dynamics of TRPM8-containing vesicles is affected by agonist stimulation in a positive feedback loop. Carlos A. Toro, Deny Cabezas and Sebastián Brauchi. Instituto de Fisiología, Facultad de Medicina, Universidad Austral de Chile, Valdivia.

(66) The protein disulfide isomerase family member ERp57 modulates prion protein turnover. Torres M.[1,2,3], Woehlbier U.[1,2,3], Andreu C.[1,2,3], Solda T.[4], Molinari M.[4], Hetz C.[1,2,3]. [1]Biomedical Neuroscience Institute, [2]Center for Molecular Studies of the Cell, Faculty of medicine, University of

Chile, and [3]Neurounion Biomedical Foundation, Santiago, Chile, [4]Institute for Research in Biomedicine, Bellinzona, Switzerland. chetz@med.uchile.cl

(68) Imatinib decrease the expression of BACE1. Chamorro D.[1,2], Estrada LD. [1,2] and Alvarez A.R.[1,2]. [1]Laboratorio de Señalización Celular, Depto. de Biología Celular y Molecular, Facultad de Ciencias Biológicas, [2]CARE-Chile-UC, Pontificia Universidad Católica de Chile. ddchamor@uc.cl

(70) A possible role for astrocytes in the neuroprotective effect of ketone bodies. Rocío Valdebenito and L. Felipe Barros. Centro de Estudios Científicos (CECs), Valdivia, Chile. rociovaldebenito@cecs.cl

(72) SCO-spondin from embryonic cerebrospinal fluid is required for neuroepithelial differentiation. Vera A, Stanic K, Gonzalez M, Montecinos H, Caprile T. Departamento Biología Celular, Universidad de Concepción. amevera@udec.cl

(74) PRPK and Rab35 regulate axon elongation during development. Villarroel D[1] and González-Billault C[1]. [1]Cellular and Neuronal Dynamics Laboratory, Department of Biology, Faculty of Sciences, Universidad de Chile, Santiago, Chile. davidbiovilla@gmail.com

(76) Calcium release from the endoplamic reticulum after injury triggers axonal degeneration. Villegas R.[1] and Court, F.A.[1,2]. [1]Millennium Nucleus in Regenerative Biology, (MINREB), Catholic University of Chile and [2]Neurounion Biomedical Foundation. fcourt@bio.puc.cl, rosariovs@gmail.com

(78) Loss of *Drosophila* RhoGEF3 causes defects in salivary gland migration. Alejandro Zúñiga, and Verónica Cambiazo. Laboratorio de Bioinformática y Expresión Génica, INTA-Universidad de Chile & Fondap Center for Genome Regulation. jano@inta.uchile.cl

(80) Gestational thyroid hormone deficiency affects the role of astrocytes on neuronal development, synapsis formation and immunogenicity in the offspring. Katherine Acevedo[1], Gabriela Zúñiga[1], Pablo Cisternas[1], Betsi Flores[1], Cecilia Opazo[1], Leandro J. Carreño[3], Helene Boudin[4], Susan Bueno[2], Alexis M. Kalergis[2] and Claudia A. Riedel[1]. [1]F. de Ciencias Biológicas, U. Andrés Bello. [2]Departamento de Genética Molecular y Microbiología, F. de Ciencias Biológicas, P.U. Católica de Chile. Instituto Milenio de Inmunología e Inmunoterapia. [3]Albert Einstein College of Medicine, New York, USA. [4]INSERM UMR643, CHU Nantes, Nantes, France. katherine.acevedo.milla@gmail.com

18:30 – 20:30 Oral Presentations I
Volcanes Room
Chair: Brigitte van Zundert and Co-Chair: Manuel Kukuljan

Regulation of PSD95 gene expression during development and memory formation. Fernando J Bustos[1,3,4], Rodrigo Aguilar[3,4], Berta Henríquez[3], Rodrigo Moraga[3], Jimmy Stehberg[3], Marianne Rots[2], Martín Montecino[3,4], Brigitte van Zundert[3]. [1]University of Concepción; [2]UMCG, The Netherlands; [3]Center for Biomedical Research, Andres Bello University; [4]FONDAP C.G.R. fbustosf@gmail.com

Wnt5a regulates microRNAs in hippocampal neurons. Juan F. Codocedo, Nibaldo C. Inestrosa. Centro de Envejecimiento y Regeneración (CARE), Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, P. Universidad Católica de Chile. jfcodoce@uc.cl

Ctip1/Bcl11a is required for the development of corticospinal projection neurons. Cánovas J.[1], Berndt F.A.[1], Sepúlveda H.[2], Aguilar R.[2], Montecino M.[2], Sierralta J.[1], Kukuljan M.[1]. [1]Biomedical Neuroscience Institute, Faculty of Medicine, Universidad de Chile. [2]Center for Biomedical Research, Faculty of Biological Sciences, Universidad Andrés Bello. canovas.sch@gmail.com

Caveolin-1-enhanced metastatic cancer cell migration is matrix dependent and requires tyrosine-14. Rina Ortiz[1], Vicente Torres[1,2], María Inés Díaz[1], Justin Cooper-White[3], Víctor Castañeda[1], Steffen Härtel[1], Lisette Leyton[1] and Andrew F.G. Quest[1]. [1]Center for Molecular Studies of the Cell, Faculty of Medicine, Universidad de Chile. [2]Department of Basic and Communitarian Sciences, Faculty of Dentistry, Universidad de Chile, [3]Univerity of Queensland, Australia. rortizdiban@gmail.com

Innate immune response activated by adherent-invasive *Escherichia coli* strains isolated from Crohn´s disease patients. [1]Marjorie De la Fuente, [3]Rodrigo Quera, [2]Roberto Vidal, [1]Marcela Hermoso. [1]Immunology and [2]Microbiology Program, ICBM, Faculty of Medicine, Universidad de Chile. [3]Gastroenterology Unit, Clínica Las Condes, Chile. mkdelafu@gmail.com

Network-based pathway analysis of genome wide associations studies in Alzheimer's disease. Eduardo Pérez-Palma, Bernabé Bustos, Camilo Villamán, Marcelo Alarcón, Miguel Avila, Alexis Peralta, Matias Medina, Giorgia Ugarte and Giancarlo V. De Ferrari. Center for Biomedical Research, Universidad Andrés Bello, Santiago, Chile. gdeferrari@unab.cl

Tyr-coumarin functional incorporation into proteins synthesized by HEK293T cells. X. Steinberg°, J. Villegas°, J. Galpin*, S. Goodchild*, C. Ahern* and S. Brauchi°*. University of British Columbia* and Universidad Austral de Chile°. MECESUP ximena.steinberg@gmail.com

Following a glycolitic enzyme inside exosomes. Alejandro Luarte, Javier Rubio, Ursula Wyneken. Universidad de los Andes. santiagoisburning@gmail.com

20:30 Dinner

22:00 – 23:30 Tribute to Federico Leighton Puga
Volcanes Room
Chair: Nibaldo C. Inestrosa

Best Theses Awards Fundacion Chilena para Biologia Celular
Volcanes Room
Chair: Arturo Yudelevich and Co-Chair: Maria Rosa Bono

Undergraduate
Vicente Valenzuela Paterakis, Master in Biological Sciences, Universidad de Chile.
Función del estrés de retículo endoplasmático y la respuesta a proteinas mal plegadas en la recuperación locomotora frente a una hemisección a la medulla espinal.
Thesis Advisors: Claudio Hetz, U. de Chile and Felipe Court, P. U. Católica de Chile

Graduate
Leonardo Valdivia Alvarez, PhD in Sciences, Universidad de Chile
Identificación de genes esenciales para el desarrollo de la línea lateral y la diferenciación de las células mecanosensoriales en el pez cebra.
Thesis Advisor: Miguel Allende, U. de Chile

THURSDAY, OCTOBER 25, 2012

08:00 Poster Mounting Session II: N° 81 to N° 159
Convention Center Foyer

09:00 – 11:00 Symposium FONDECYT 1095089 and 1100137
Calbuco Room
Chair: Christian Gonzalez-Billaut and Co-Chair: Andrés Couve

"Functional Intracellular Dynamics"

Molecular mechanism of filopodia formation. Sohail Ahmed. Institute of Medical Biology, Singapore 138678.

Actin-dependent nuclear positioning contributes to cell polarity in migrating cells. Gregg G. Gundersen, Eric S. Folker and Wakam Chang. Department of Pathology & Cell Biology, Columbia University, New York, NY.

Role of ER shape and dynamics in regulating mitochondrial morphology. Gia Voeltz. Department of Molecular, Cellular & Developmental Biology, University of Colorado Boulder, USA.

Symposium Center for Molecular Studies of the Cell (CEMC) and Department of Basic Sciences, Faculty of Dentistry, Universidad de Chile
Tronador Room
Chair: Andrew Quest and Co-Chair: Vicente A. Torres

"Tumor Cell Migration and Metastasis"

A non-canonical role for Arhgef28 in facilitating early focal adhesion kinase (FAK) activation at cell adhesion sites. Nichol L. G. Miller, Christine Lawson, Sean Uryu, and David D. Schlaepfer. Moores University of California San Diego Cancer Center, La Jolla, CA USA. dschlaepfer@ucsd.edu

On the role of Caveolin-1 in tumor cell migration and metastasis. Andrew F.G. Quest. Laboratorio de Comunicaciones Celulares, Centro de Estudios Moleculares de la Célula (CEMC), Facultad de Medicina, Universidad de Chile. aquest@med.uchile.cl

Unexpected roles for a caspase in cell migration. Dwayne Stupack. Department of Reproductive Medicine, Moores UCSD Cancer Center, La Jolla, CA, USA 92093. dstupack@ucsd.edu

Role of Rab5 in focal adhesion dynamics and tumor cell migration, Vicente A. Torres. Department of Basic and Communitarian Sciences, Faculty of Dentistry, Universidad de Chile, Santiago, Chile. vatorres@med.uchile.cl

10:30 – 13:00 Schools and Science: Students from Puerto Varas at the Chilean Society for Cell Biology
Room Business Center

11:00 – 13:00 Poster Viewing Session II: 80-159 Odd Numbers
Convention Center Foyer
Coordinators: Marcela Hermoso – Julieta González – Julio César Cárdenas

(81) Neuronal transport of ascorbic acid is impaired in Huntington'disease. [1]Aníbal I. Acuña, [1]Magdalena Esparza, [1]Felipe A. Beltrán, [1]Carlos Kramm, [3]Carlos Cepeda, [4]Claudio Hetz, [1]Ilona I. Concha, [2]Sebastián Brauchi, [3]Michael Levine, [1]Maite A. Castro. [3]Semel, UCLA; [4]ICBM, U. Chile; [1]I. Bioquímica y Microbiología, [2]I. Fisiología, UACh. aacuna.sanmartin@alumnos.uach.cl.

(83) Hypothyroidism during pregnancy increases the severity of experimental autoimmune encephalomyelitis in the adult offspring. [1,2]Eduardo Albornoz, [2,3]Tomás Rivero, [2,3]Janyra Espinoza [2,4]Leandro Carreño, [1,2]Claudia –Cortes, [1,2]Pablo Gonzalez, [1,2]Pablo Cisternas, [2]Kelly Cautivo, [2]Tamara Catalán, [4]Eliseo Eugenin, [4]Joan Berman, [2,3]Susan Bueno, [2,3]Alexis Kalergis and [1,2]Claudia Riedel. [1]Facultad de Ciencias Biológicas Universidad Andrés Bello. [2]Millennium Institute on Immunology and Immunotherapy. [3]Facultad de Ciencias Biológicas Pontificia Universidad Católica de Chile. [4]Albert Einstein College of Medicine New York. edua.albornoz@uandresbello.edu

(85) Pharmacologic induction of ERBB2 receptor endocytosis. María José Apud, Claudio Retamal, Andrea Soza, Alfonso González. Departamento de Inmunología Clínica y Reumatología, Facultad Medicina, Centro de Envejecimiento y Regeneración (CARE), Fac. Ciencias Biológicas, Pontificia Universidad Católica de Chile. apud.mari@gmail.com

(87) Immunomodulatory effect of Mesenchymal Stem cells on Treg/Th17 balance is IL-6 dependent. Argaluza M.F., Contreras R., Vega A.M., Fernández X., Bravo-Alegría J., Ibáñez C., Kurte M., Fuentealba R., Carrión F. Laboratorio de Inmunología Celular y Molecular, Universidad de los Andes. maria.argaluza@gmail.com

(89) Netrin-4 is important for neuroblastoma survival through inhibition of pro-apoptotic activity of Neogenin-1, a mediator of SHH activity in cancer. Andrea Arros[1], Natalie Espinoza[1], Luis A. Milla[1], Verónica Palma[1]. [1]Laboratory of Stem Cells and Development. Faculty of Sciences, University of Chile. andrea.arros.v@gmail.com

(91) Oscillatory glycolytic switch in neurons. [1,2]Felipe Baeza-Lehnert, [1,2]Robin Gutiérrez and [1]L. Felipe Barros. [1]Centro de Estudios Científicos (CECs), Valdivia, Chile & [2]Universidad Austral de Chile, Valdivia, Chile. fbaeza@cecs.cl

(93) Expression of PD-L1 on dendritic cells modulate the proliferation and differentiation to sub-populations of t cells *in vitro*. Behrens C[1,2], Falcón C[1,2], Tempio F[1,2], Pereda C[1,2], Salazar-Onfray F[1,2], López MN[1,2]. [1]Millennium Institute on Immunology and Immunotherapy; [2]Disciplinary Program of Immunology, ICBM, University of Chile, Santiago, Chile. carolina_behrens@hotmail.com

(95) Turnover of C99 requires incorporation into multivesicular bodies mediated by ESCRT machinery but independent of its ubiquitination. Hianara Bustamante, Andrés Rivera-Dictter, Viviana Cavieres, Alexis González, Vanessa Muñoz, Gonzalo A. Mardones and Patricia V. Burgos. Instituto de Fisiología, Facultad de Medicina, Universidad Austral de Chile, Valdivia, Chile. lahianara@gmail.com

(97) Mas-1 receptor expression is regulated in skeletal muscle atrophy. Vázquez, Y., Morales, MG., Cabello-Verrugio, C. Laboratorio de Biología y Fisiopatología Molecular, Facultad de Ciencias Biológicas, Universidad Andres Bello. claudio.cabello@unab.cl

(99) 2'-7'-Dichlorodihydrofluorescein diacetate: a good indicator of intracellular reactive oxygen species? [1]Pino JA, [1]Carmona E, [1]Reyes JG. [1]Instituto de Química, P. Universidad Católica de Valparaíso, Chile. emersoncr207@gmail.com

(101) AGPAT2 deficiency determines impaired adipogenic differentiation and abnormal lipid droplet structure in mouse embryonic fibroblasts. Kelly Cautivo[1,2] and Víctor Cortés[1]. [1]Department of Nutrition, Diabetes and Metabolism, School of Medicine, Pontificia Universidad Católica de Chile. [2]Doctoral Program in Biological Sciences, Microbiology and Molecular Genetics, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile. kmcautiv@uc.cl

(103) Optical flow for motion estimation and tracking of subcellular, cellular and supracellular dynamics. Mauricio Cerda[1], Jorge Jara[1,4], Alex Córdova[1], Jorge Toledo[1,2], Eduardo Pulgar[3], Carmen-Gloria Lemus[3], Omar Ramírez[1], Jarno Ralli[1,5], Miguel Concha[3], Steffen Härtel[1]. [1]SCIAN-Lab, [2]Couve-Lab and [3]LEO-Lab at BNI & Faculty of Medicine; [4]DCC; University of Chile. [5]University of Granada. mauriciocerda@med.uchile.cl

(105) Dehydroascorbic acid modulates glycolytic, pentose-phosphate pathway and glutathion activity in cortical neurons. Pedro Cisternas, Elena Uribe, Karina Oyarce, Paula Llanos, Carmen Silva-Alvarez and Francisco Nualart. Department of Cell Biology, University of Concepcion. pecister@udec.cl

(107) Possible topology of neuronal surface P antigen involved in neuropsychiatric lupus. Marcela Bravo-Zehnder[1,2], Fabián Segovia-Miranda[1,2], Francisca Barake[1], Loreto Massardo[2], Alfonso González[1,2]. Centro de Envejecimiento y Regeneración (CARE), Facultad de Ciencias Biológicas[1], Departamento de Inmunología Clínica y Reumatología, Facultad de Medicina[2], Pontificia Universidad Católica de Chile.

(109) Niemann Pick type C models show increased levels of HDAC2 mediated by the c-Abl kinase. Contreras P.[1,2], González Z.M.[1,2], Yañez M.J.[1,2,3], Zanlungo S.[3], Alvarez A.R.[1,2]. [1]Laboratorio Señalización Celular, [2]CARE-Chile-UC, [3]Escuela de Medicina, Pontificia Universidad Católica de Chile. prcontre@uc.cl

(111) The ER stress factor XBP1 controls secretion of amyloid-β in experimental models of **Alzheimer's Disease.** Víctor Hugo Cornejo[1,2], Peter Thielen[1,2], René Vidal[1,2], Claudia Molina[1,2], Gabriela Martinez[1,2], Andrea Paula-Lima[1,2], and Claudio Hetz[1,2,3]. [1]Biomedical Neuroscience Institute, [2]Center for Molecular Studies of the Cell, Faculty of Medicine, Universidad de Chile and [3]Neurounion Biomedical Foundation, Santiago, Chile. chetz@med.uchile.cl

(113) SRPKs expression in the rat CNS and the assembly of the active zones. Yocelin Cruz, Viviana Torres, Pedro Zamorano*. Faculty of Health Sciences, University of Antofagasta, Chile. *zamorano@gmail.com

(115) Atlastin is required for morphogenesis of the endoplasmic reticulum in *Drosophila* muscle cells. Cristian De Gregorio[1,2], Guillermo Moya[1,2], Jimena Sierralta[1,2] and Andrés Couve[1,2]. [1] Program of Physiology and Biophysics, ICBM, Faculty of Medicine, University of Chile. [2] Biomedical Neuroscience Institute, Faculty of Medicine, University of Chile. cdegregorio@med.uchile.cl

(117) Identification and characterization of a novel protein complex of the trans-Golgi network (TGN). Priscilla Cortés[1,2], Gonzalo Mardones, Claudia Oyanadel[1,2], Claudio Retamal[1,2] and Alfonso González[1,2]. Centro de Envejecimiento y Regeneración (CARE), Facultad de Ciencias Biológicas[1], Departamento de Inmunología Clínica y Reumatología, Facultad de Medicina[2], Pontificia Universidad Católica de Chile. Instituto de Fisiología, Facultad de Medicina, Universidad Austral de Chile[3]. pcortema@gmail.com

(119) Rab5 activation is required for Caveolin-1 mediated cell migration, Rac1 activation and invasion of cancer cells. Jorge Díaz[1,2], Pablo Mendoza[2], Lisette Leyton[1], Andrew F.G. Quest[1], Vicente Torres[2]. [1]FONDAP Center for Molecular Studies of the Cell, Faculty of Medicine, Universidad de Chile. [2]Laboratory of Cellular and Molecular Biology, Department of Basic and communitarian Sciences, Faculty of Dentistry, Universidad de Chile. jbdiaz1@gmail.com

(121) Chromatin modifications during Treg and Th17 cell differentiation. Macarena Fritz, Cristian Doñas, Marjorie Reyes, Paz Reyes, Mario Rosemblatt, and Alejandra Loyola. Fundación Ciencia y Vida; Universidad Andrés Bello. macarena.fritz@bionova.cl

(123) Cellular characterization of the response to spinal cord injury of *Xenopus laevis*. Gabriela Edwards, Dasfne Lee-Liu, Mauricio Moreno, Felipe Court, Juan Larraín. Center for Aging and Regeneration, Millennium Nucleus in Regenerative Biology, Pontificia Universidad Católica de Chile. gabriela.edwards@gmail.com

(125) Impaired learning due to RSV infection. Janyra A. Espinoza[1], Claudia M. Cortes[2], Javier A. Valenzuela[3], Rodrigo A. Sandoval[3], Pablo F. Céspedes[1], Roberto S. Gomez[1], Floria C. Pancetti[3], Susan M. Bueno[1,5], Claudia A. Riedel[2,5] and Alexis M. Kalergis[1,4,5]. [1]Millenium Institute on Immunology and Immunotherapy, Departamento de Genética Molecular y Microbiología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. [2]Millenium Institute on Immunology and Immunotherapy,

Departamento de Ciencias Biológicas, Facultad de Ciencias Biológicas y Facultad de Medicina Universidad Andrés Bello. [3]Laboratorio de Neurotoxicología Ambiental, Departamento de Ciencias Biomédicas, Facultad de Medicina, Universidad Católica del Norte. [4]Departamento de Reumatología, Facultad de Medicina, Pontificia Universidad Católica de Chile. janyra.espinoza@gmail.com

(127) Exogenous mucins induce pro-inflammatory response. Barrera MJ, Hermoso M, Castro I, Cortés J, Sepúlveda D, Aguilera S, Molina C, González S, Urzúa U, Langjahr P, Leyton C and González MJ. ICBM, Facultad de Medicina, Universidad de Chile. mariajosebarrera@ug.uchile.cl

(129) Axotomy induces a retrograde signaling response that activates the cAMP response element-binding (CREB) transcription factor in compartmentalized cortical cultures. Carlos Flores, Andrés González and Francisca Bronfman. Physiology Department, Pontificia Universidad Católica de Chile. cflores@bio.puc.cl

(131) ER stress and ST2 inflammatory pathway in intestinal goblet cells. [1]Garcia M., [1]Romero D., [2]González MJ, [3]Quera R., [1]Hermoso MA. [1]Immunology and [2]Cell Biology Program, ICBM, Faculty of Medicine, Universidad de Chile. [3]Gastronterology Unit, Clínica Las Condes Chile. marinagmiguel@hotmail.cl

(133) Optimizing the retroviral transduction of T cells with chimeric antigen receptors (CARs) against the carcinoembryonic antigen (CEA) for a potential antitumor immunotherapy. Paula González-Figueroa[1], Paola Murgas[1], Álvaro Lladser[1]. [1]Laboratory of Gene Immunotherapy, [1]Fundación Ciencia y Vida, Santiago, Chile. pgonzalez@cienciavida.cl

(135) Differential gene expression and altered cell viability induced by inflammatory damage in astrocytes from offspring gestated in hypothyroxinemic mothers. [1]Pablo González, [1]Ma. Cecilia Opazo, [1]Eduardo Albornoz, [2, 3]Leandro Carreño, [2]Susan Bueno, [2]Alexis Kalergis and [1, 2]Claudia Riedel. [1]Laboratorio de Biología Celular y Farmacología, Facultad de Ciencias Biológicas, Universidad Andrés Bello. [2]Instituto Milenio de Inmunología e Inmunoterapia. Pontificia Universidad Católica de Chile. [3]Albert Einstein College of Medicine, New York. pabloa.gonzalez@uandresbello.edu

(137) Fibroblast-like synoviocytes from rheumatoid arthritis patients express and secrete galectin-8. Claudia Gordillo D[1], Claudia Metz B[2,3], Jorge Gordillo P[2], Alfonso González[2,3]. Universidad de Chile[1]. Departamento de Inmunología Clínica y Reumatología, Fac. Medicina[2]. Centro de Envejecimiento y Regeneración (CARE) Facultad de Ciencias Biológicas[3]. Pontificia Universidad Católica de Chile. clau.gordillo.d@gmail.com

(139) RECK a novel MMP inhibitor regulates the canonical Wnt signaling through a syndecan-4 dependent mechanism in muscle precursor cells. Jaime Gutiérrez, Cristian Droppelmann, Enrique Brandan. Laboratory of Cell Differentiation and Pathology, CARE. Department of Cell and Molecular Biology, Catholic University of Chile. Santiago, Chile. jagutiep@puc.cl

(141) Role of Src kinase-substrate cortactin in cortical actin organization and exocytosis in bovine chromaffin cells. Valentina Haro, María J. Olivares, Catherine Estay, Arlek González, María J. Guerra, Ximena Baéz, Fanny Momboisse, Ana M. Cárdenas. Centro interdisciplinario de Neurociencia de Valparaíso, Universidad de Valparaíso. valentina.haro@cinv.cl (Sponsor: J. Ewer).

(143) Characterization of different B cell populations generated after immunization. Yessia Hidalgo[1], Leonardo Vargas[1], María José Morales[1], Mario Rosemblatt[1,2,3], María Rosa Bono[1]. [1]Departamento de Biología, Facultad de Ciencias, Universidad de Chile. [2]Fundación Ciencia &Vida. [3]Universidad Andrés Bello. yhidalgo@ug.uchile.cl

(145) Copper overload modulates differentiation of erythropoietic cells *in vivo*. Erik Jensen, Yancing Rossel, Alvaro Elorza. Experimental Bioenergetics Laboratory, Universidad Andres Bello. aelorza@unab.cl

(147) Dihydropyridine receptor (DHPR) regulates gene expresion related to muscle plasticity. Jorquera G[1], Altamirano F[1], Buvinic S[1], Contreras-Ferrat A, Gentil C[2], Garcia L[2], Petri-Rouxel F[2],

Jaimovich E[1], Casas M[1]. [1]CEMC, Medicine Faculty, Universidad de Chile, Santiago-Chile. [2]Institut de Myologie, Université Paris VI, Paris-France. gjorquera@med.uchile.cl

(149) Isolation and characterization of ovarian cancer initiating cells. Kato S.[1], Bravo L.[2], Gonzalez P.[2], Barriga MI.[1], Castellón EA[3]., Owen GI.[2], Cuello M[1]. [1]Division of Obstetrics and Gynecology, Faculty of Medicine, [2]Department of Physiological Sciences, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile, [3] Laboratory of Molecular and Cellular Andrology, University of Chile. skato@med.puc.cl

(151) Collateral sprouting and locomotor recovery after spinal cord injury is triggered by axonal degeneration. Lemaitre D.[1], Collyer E.[1], Catenaccio A.[1], and Court, F.A.[1,2]. [1]Millennium Nucleus in Regenerative Biology, (MINREB), Catholic University of Chile and [2]Neurounion Biomedical Foundation. fcourt@bio.puc.cl, dlemaitrem@uc.com

(153) Pharmacologic induction of EGFR endocytosis decreases proliferation of cancerous MNK45 gastric cells. Alejandro López-González A.[1,2], Marcela Bravo-Zehnder[1,2], Andrea Soza[1,2], Alfonso González[1,2]. Departamento de Inmunología Clínica y Reumatología, Facultad Medicina[1], Centro de Envejecimiento y Regeneración (CARE), Fac. Ciencias Biológicas, Pontificia Universidad Católica de Chile[2]. alejandro.lopezgp@gmail.com

(155) Reprogramming antigen-specific Th17 and Regulatory T Cells *in vitro*. V. Manríquez[1], G. Tejón[1], P. Maldonado[1], M.R. Bono[1], M. Rosemblatt[1,2,3]. [1]Departamento de Biología, Facultad de Ciencias, Universidad de Chile. [2]Fundación Ciencia & Vida. [3]Universidad Andrés Bello. vmanriquezr@gmail.com

(157) Mild mitochondrial uncoupling delays axonal degeneration *in vitro* and *in vivo*. Martinez N.W.[1] and Court F.A.[1,2]. [1]Millennium Nucleus in Regenerative Biology (MINREB), P. Catholic University of Chile and [2]Neurounion Biomedical Foundation. fcourt@bio.puc.cl, wnmartin@uc.cl

(159) Fasudil and atorvastatin reduce RhoA/Rho kinase pathway activation in human endothelial cells exposed to plasma from cocaine addicts. Mendoza C, Pereira-Flores K, Pereira J, Mezzano D, Sáez CG. Pontificia Universidad Católica de Chile, Santiago, Chile. cnmendoz@uc.cl

13:00 – 15:00 Lunch

15:00 – 16:30 Minisymposium III "Cell Homeostasis and Cell Fate"
Calbuco Room
Chair: Juan Pablo Henríquez and Co-Chair: Felipe Court

Role of Wnt/beta-catenin in pluripotency and differentiation of mouse embryonic stem cells. F. Faunes[1], P. Hayward[1] and Alfonso Martinez-Arias[1]. [1]Department of Genetics, University of Cambridge, United Kingdom. ffaunesq@gmail.com (Sponsor: J. Larraín)

Axonal degeneration is assisted cell non-autonomously by glial cells. Catenaccio A.[1] and Court, F.A.[1,2]. [1]Millennium Nucleus in Regenerative Biology, (MINREB), Catholic University of Chile and [2]Neurounion Biomedical Foundation. fcourt@bio.puc.cl, alecatenaccio@gmail.com

Relationships between the golgi and mitosis in *Drosophila*: role of p115. Ibar, C., Cataldo, V. and Glavic, A. FONDAP CRG - Facultad de Ciencias - Universidad de Chile. con_ibar@ug.uchile.cl

Role of the SOX2+ cells in spinal cord regeneration in *Xenopus laevis*. Muñoz, Rosana; Edwards, Gabriela; Tapia, Karina; Farías, Marjorie and Larraín, Juan. Center for Aging and Regeneration, Millennium Nucleus in Regenerative Biology. Facultad de Ciencias Biológicas, P. Universidad Católica de Chile, Chile. rosanavmunoz@gmail.com

XBP-1 controls the homeostasis of tissue-resident dendritic cells. Fabiola Osorio, Sophie Janssens, Bart Lambrecht. Unit of Immunoregulation; Department for Molecular Biomedical Research(DMBR); VIB-Ghent University; Belgium. (Sponsor: M.R. Bono). fabiola.osorio@dmbr.vib-ugent.be

Daam1 controls asymmetric morphogenesis of Parapineal-Habenulo-Interpenduncular circuit in zebrafish. Alicia Colombo[1], Karina Palma[1], Lorena Armijo[1], Ailen Signore[1], Camila Morales[1], Néstor Guerrero[1], Miguel Concha[1]. [1]Institute of Biomedical Sciences, University of Chile, Santiago, Chile. acolombo@med.uchile.cl

Minisymposium IV "Cell Physiology"
Tronador Room
Chair: Nelson Osses and Co-Chair: Pedro Zamorano

Aβ-oligomers decrease and altered APP processing in Alzheimer's disease by Imatinib treatment. Estrada L. D[1,2], Chamorro D[1,2], von Bernhardi R[3], and Alvarez A.R[1,2]. [1]Laboratorio de Señalización Celular, [2]CARE-Chile-UC, [3] Escuela de Medicina, P. Univ. Catolica de Chile. lestrada@bio.puc.cl

Unraveling the Ca^{2+} signaling pathways that mediate the neuronal dysfunctions induced by amyloid-**β peptide oligomers.** Paula-Lima, A.C.[1], San Martin[2], C., Baratini, P.[2], Perez-Luco, T. [2], Plaza, J. [2], Adasme T.[2] and Hidalgo C.[2]. [1]Faculty of Dentistry, [2]Faculty of Medicine, Universidad de Chile. apaula@med.uchile.cl

Different models for chronic and transitory skeletal muscle fibrosis. Cabrera D.[1], Morales MG.[1], Acuña MJ.[1], Cabello-Verrugio C.[2], Santos R.[3], and Brandan E.[1]. [1]Catholic University of Chile, Chile. [2]Andres Bello University, Chile. [3]Minais Gerais Federal University, Brazil. dacabrer@puc.cl

Chronic administration of nifedipine reduces resting calcium concentration and damage in dystrophic *mdx* muscles. Altamirano F, López JR, Henríquez C, Valladares D, Casas M, Allen PD, Jaimovich E. CEMC, ICBM, Facultad de Medicina, Universidad de Chile. Chile. Brigham and Women's Hospital, Harvard Medical School, USA. ejaimovi@med.uchile.cl

MICU1 is a essential gatekeeper for MCU-mediated mitochondrial Ca^{2+} uptake that regulates cell survival. Cardenas C.[1,2], Mallilankaraman K.[3], Doonan P.[3] , Mak D.[2], Foskett J.K.[2], and Madesh M.[3]. [1]Anatomy and Developmental Biology Program, Institute of Biomedical Sciences, University of Chile, Santiago, Chile, [2]Department of Physiology, University of Pennsylvania, Philadelphia, Pennsylvania, USA, [3]Department of Biochemistry, Temple University, Philadelphia, Pennsylvania, USA. jcesar@u.uchile.cl

A common minor groove shape readout mechanism is shared by proteins from different DNA-repair pathways. Juan José Cifuentes and Francisco Melo. [1]Molecular Bioinformatics Laboratory, Millennium Institute on Immunology and Immunotherapy; [2]Departamento de Genética Molecular y Microbiología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. fmelo@bio.puc.cl

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

16:30 – 18:30 Poster Viewing Session II: 80-159 Even Numbers
Convention Center Foyer
Coordinators: Maria Carmen Molina – Alicia Minitti – Elías Utreras

(82) Control of dopaminergic neuron survival by the unfolded protein response transcription factor XBP1. Mercado G.[1*], Valdés P.[1*], Vidal R.[1,2], Parsons G.[3], Court F.[4], Martinez A.[1], Armentano D.[3], Schneider B.[5], Aebischer P.[5], and Hetz C.[1,2]. [1]Biomedical Neuroscience Institute, [2]Neurounion Biomedical Foundation, Santiago, Chile, [3]Genzyme Corporation, MA, USA, [4]P. Catholic University of Chile, Santiago, Chile and [5]Brain Mind Institute, Lausanne, Switzerland. [*]Equal contribution. chetz@med.uchile.cl

(84) RoleS for NKG2D ligands in the immune response against human gastric cancer. Carolina Hager Ribeiro[1], Macarena Garrido-Tapia[1], Carolina J. Hernández[1,2], Karina Kramm[1], Marco Bustamante[3],

Juan Carlos Aguillón[4,5], and María Carmen Molina[1,4]. [1]Programa Disciplinario de Inmunología (ICBM), [2]Escuela de Tecnología Médica, [3]Departamento de Cirugía Digestiva, Hospital Salvador, [4]Centro de InmunoBioTecnología (ICBM), [5]Instituto Milenio de Inmunología e Inmunoterapia – Facultad de Medicina, Universidad de Chile, Santiago, Chile.

(86) The dependence receptor function is conserved by *Drosophila* Frazzled. [1,2]Luis Solano R., [2]Diego Rojas B., [2]Álvaro Glavic M. and [1]Verónica Palma A. [1]Laboratory of Stem Cells and Development. [2]Laboratory of Developmental Biology Faculty of Sciences, University of Chile. FONDAP Center of Genome Regulation. lmasolano@gmail.com

(88) Transactivation of IRE1 and PERK by a small molecule kinase inhibitor. Morales M[1,2], Alfaro J[1], Mendez A[3], Li H[3], Gotthardt K[3], Walter P[3], Shokat K[3] and Bernales S[1]. [1]Fundación Ciencia &Vida, [2]Universidad Andrés Bello, [3]UCSF. morales.fcpv@gmail.com

(90) Association of NMDA receptor and DLG proteins in the larval neuromuscular synapse (NMJ) of *Drosophila*. Guillermo Moya and Jimena Sierralta. Biomedical Neuroscience Institute, Faculty of Medicine, Universidad de Chile. guillermo.moya@usach.cl

(92) Myoblasts fusion is induced by a mechanism involving the vitamin C transporter SVCT2 and Wnt3a-dependent signaling. Jorge Ojeda, Katterine Salazar, Giancarlo V. De Ferrari(2), Francisco Nualart, Juan Pablo Henríquez*. Department of Cell Biology and CMA Bio-Bio, Universidad de Concepcion, Concepcion; (2)Center for Biomedical Research, Universidad Andrés Bello, Santiago; Chile. *jhenriquez@udec.cl

(94) Involvement of the unfolded protein response in locomotor recovery after sciatic nerve injury. Oñate M.[1,2,3], Hetz C.[1,2,4] and Court F.A.[3,4]. [1]Biomedical Neuroscience Institute, [2]Center for Molecular Studies of the Cell, University of Chile. [3]Millennium Nucleus in Regenerative Biology, Catholic University of Chile. [4]Neurounion Biomedical Foundation. monatevalenzuela@gmail.com, chetz@hsph.harvard.edu, fcourt@bio.puc.cl

(96) TGF-**β induces neuronal po**larity through a ERK MAPK-mechanism. Osorio J.[1,2], von Bernhardi R.[2] and Alvarez A.R.[1,3]. [1]Laboratorio de Señalización Celular, [2]Laboratorio de Neurociencia, [3]CARE-Chile-UC, Pontificia Universidad Católica de Chile. jaosorio@uc.cl

(98) Neural stem cell differentiation induces a short form of SVCT2. Karina Oyarce, Luciano Ferrada and Francisco Nualart. Cell Biology Department, Neurobiology and Stem Cell Laboratory, University of Concepción. karinaoyarce@udec.cl

(100) Sonic Hedgehog transactivates and induces not-degradative endocytosis of EGFR in HeLa cells. Margarita Parada[1, 2], Claudia Oyanadel[2], Alfonso Gonzalez[2] and Verónica Palma[1]. [1]Laboratorio de Células Troncales y Biología del Desarrollo, Facultad de Ciencias, Universidad de Chile. [2]Departamento de Inmunología Clínica y Reumatología, Fac. Medicina. Centro de Envejecimiento y Regeneración (CARE). Fac. Ciencias Biológicas. Pontificia Universidad Católica de Chile. margarita.parada@gmail.com

(102) Wnt signaling activation is decreased in a model of motor disease in spite of conserved expression of Wnt effectors. Cristina Pinto, Nelson Osses(2), Juan Pablo Henríquez*. Department of Cell Biology and CMA Bio-Bio, University of Concepcion, and (2)Institute of Chemistry, P. Catholic University of Valparaiso, Chile. *jhenriquez@udec.cl

(104) The antiviral drug Akt-IV reveals a novel Akt/PERK pathway that promotes cell death. Daniela Pérez-Munizaga[1], Jennifer Alfaro[1], Sebastián Bernales[1]. [1]Fundación Ciencia para la Vida. danielapm81@gmail.com

(106) Inhibition of dopamine transporter by arachidonic acid oxidation is associated with isoketal adduct formation in PC12 cells. [1]Pino JA, [2]Torres GE, [1]Osses N, [1]Reyes JG. [1]Instituto de Química, P. Universidad Católica de Valparaíso, Chile; [2]Department of Neurobiology, University of Pittsburg, USA. jose.pino.r@mail.pucv.cl

(108) Differential susceptibility to H_2O_2-induced death of human lymphocytes correlates with the reported inverse association between cancer and Alzheimer disease. [1]Ponce DP, [1]Silva M, [1]Salech F, [1]Merino D, [1]Sinning M, [1]Torres V, [3]Henríquez M, Roe CM, [2,3]Quest AFG, [1]Behrens MI. [1]HCUCH, [2] CEMC, [3]ICBM, Faculty of Medicine, UCH dponcedelavega@gmail.com

(110) Role of DLG in the regulation of volume and area of glutamate receptors in the *Drosophila* larval neuromuscular synapse (NMJ). Mauricio Ramírez, César Astorga, Jimena Sierralta. BNI, Faculty of Medicine, Universidad de Chile. m.ramirez045@gmail.com

(112) Changes in localization of Caveolin-1 in acini of salivary glands of Sjögren´s Syndrome patients. Díaz-Valdivia N, Bahamondes V, Castro I, Aguilera S, Brito M, Leyton L, Barrera MJ, Quest, A.F.G, González MJ. ICBM, Facultad de Medicina, Universidad de Chile. nataliadiazvaldivia@gmail.com

(114) Role of innate immunity during mechanosensory cell regeneration in zebrafish larvae. Simón Carrillo, Nicole Reynaert, Miguel L. Allende. FONDAP Center for Genome Regulation, Facultad de Ciencias, Universidad de Chile. nicole.reynaert@gmail.com; allende@uchile.cl

(116) *Wnt* pathways modulate the α-7 nAChR activities in hippocampal neurons and protect neurons from Aβ oligomers. Juan A Godoy[1,2], Juvenal A. Rios[2], Felipe G. Serrano[1,2], Rodrigo Varas[3], and Nibaldo C. Inestrosa[1,2]. [1]Centro de Envejecimiento y Regeneración (CARE), [2]Departamento de Biología Celular y Molecular, [3]Departamento de Fisiología, Pontificia Universidad Católica de Chile.

(118) Rough surface scaffolds with hydroxyl groups enhance osteoblastic differentiation in mesenchymal cells. Eduardo Roa[1], Juan Reyes[1], Juan Pablo Henríquez[2] and Nelson Osses[1]. [1]Institute of Chemistry, P. Catholic University of Valparaiso and [2]Department of Cell Biology and CMA Bio-Bio, University of Concepción, Chile. e_roa_t@yahoo.com

(120) Lysine-methyltransferases and demethylases regulate transcription of the Runx2 gene during osteogenesis. Adriana Rojas[1,2,3], Miguel Allende[2] and Martín Montecino[1]. FONDAP Center for Genome Regulation, [1]Faculty of Biological Sciences, Andrés Bello Univesity and [2]Faculty of Sciences, University of Chile, [3]Faculty of Medicine, Javeriana University.

(122) Roles and functional interactions of *Drosophila melanogaster* Kae1, a putative tRNA modifying enzyme. Rojas-Benítez D. and Glavic A. Centro FONDAP de Regulación del Genoma. Facultad de Ciencias – Universidad de Chile. diegorojasb@ug.uchile.cl

(124) Participation of ADAM metalloproteinases in soluble toll-like receptor 2 (sTLR2) production. Rubio E., Langjahr P., Hermoso MA. Innate Immunity Lab, Immunology Program, ICBM, Faculty of Medicine, Universidad de Chile. estefhanyr@gmail.com

(126) Anti-tumoral function of antigen-specific Th17 cells. Juan José Sáez[1], Sarah Núñez[1], Felipe Flores[1], Mario Rosemblatt[1,2,3], María Rosa Bono[1], Daniela Sauma[1,2]. [1]Departamento de Biología, Facultad de Ciencias, Universidad de Chile. [2]Fundación Ciencia & Vida. [3]Universidad Andrés Bello. juan.j.saez.p@gmail.com

(128) Identification of molecular requirements for the ethanol insensitivity in the α3-containing subunit inhibitory glycine receptor. Sánchez. A, Yevenes, G., San Martin. L., Burgos, F., Ramírez, A., Aguayo. L.G. Department of Physiology, University of Concepcion, Chile. andrsanc@udec.cl

(130) Identification of LSD1 and associated complexes in the early development of the cerebral cortex. Saud K, Fuentes P, Berndt, F, Kukuljan M. Biomedical Neuroscience Institute, Faculty of Medicine, Universidad de Chile. ksaud@med.uchile.cl.

(132) Bacterial RNAs as determinants of human disease. Amir Shmaryahu and Pablo DT Valenzuela. Fundación Ciencia para la Vida, Av. Zañartu 1482. Ñuñoa. Santiago. Chile. amir.shmaryahu@gmail.com

(134) Regulation of extracellular matrix-associated proteins (EMAPs) upon *Neisseria gonorrhoeae* challenge in the Fallopian tube. Paula Solar[1,2], Paula Rodas[1,2], Natalia Juica[1,2], Luis Velasquez[1, 2]. [1]Center of Integrative Medicine and Innovative Sciences, Facultad de Medicina, Universidad Andres Bello, Santiago. [2]Centro para el Desarrollo de la Nanociencia y Nanotecnologia, Universidad de Santiago de Chile, Santiago, Chile. paula.solar@unab.cl (Sponsor: G. Owen).

(136) Predicted NES and NLS motifs affects subcellular localization of the ionic channel TRPM1. Sotelo P, Brauchi S. Universidad Austral de Chile. pame@brauchilab.org.

(138) *Andrographolide* activates the Wnt pathway and modulates the APP processing possibly by **direct inhibiton of GSK3β.** Cheril Tapia-Rojas[1,2], Hianara Bustamante[3], Patricia V. Burgos[3], Nibaldo C. Inestrosa[1,2]. [1]Centro de Envejecimiento y Regeneración (CARE), [2]Departamento de Biología Celular y Molecular, Pontificia Universidad Católica de Chile, [3]Instituto de Fisiología, Facultad de Medicina, Universidad Austral de Chile, Valdivia, Chile. cheril.tapia@gmail.com

(140) Connective Tissue Growth Factor modulates TGF-beta-dependent mammary fibroblast differentiation by a non-Smads-dependent mechanism. Tobar N[1]., Avalos C[1]., Urra C[1]. Smith P.C[2] and Martínez J[1]. [1]Laboratorio de Biología Celular y Molecular, INTA, Universidad de Chile and [2]Carrera de Odontología. Facultad de Medicina. Pontificia Universidad Católica de Chile. nicotobarba@gmail.com

(142) Ric-8A is required for neural crest cells migration. Gabriela Toro, Jaime Fuentealba, Lester Riquelme, Marion Rodriguez, Juan Olate, Marcela Torrejón. Universidad de Concepción. gabrielatoro@udec.cl

(144) The oligomerization of GPCRs is a dynamic phenomenon modulated by the ligand. Trigo C., Brauchi S., Gonzalez C. Institute of Physiology, Faculty of Medicine, UACH, Chile. cesartrigohidalgo@gmail.com

(146) *In vivo* TNF-α-mediated regulation of Cdk5 Activity during inflammatory pain. Elias Utreras[1,2], Pablo Lazcano[2], Pablo Rozas[2], Monserrat Barrios[2], Christian Gonzalez-Billault[2], and Ashok Kulkarni[1]. [1]FGS, LCDB, NIDCR, NIH, Bethesda MD, and [2]Laboratory of Cellular and Neuronal Dynamics, Department of Biology, Faculty of Science, University of Chile. elias.utreras@uchile.cl

(148) The transcription factor CREB is activated by IGF-1 to regulate *myostatin* expression during myoblast differentiation. Rodrigo Zuloaga, Jorge Aedo, Alfredo Molina and Juan Antonio Valdés. Universidad Andrés Bello, Facultad de Ciencias Biológicas, Laboratorio de Biotecnología Molecular, Santiago, Chile. r.zuloaga@uandresbello.edu

(150) **Targeting the UPR transcription factor XBP1 protects against Huntington's disease** *in vivo*. Vidal, R.[1,2,3], Zuleta A. [1,2], Figueroa A. [1,2], Molina C.[1,2], and Hetz, C. [1,2,3]. [1]Biomedical Neuroscience Institute, [2]Center for Molecular Studies of the Cell, University of Chile and [3]Neurounion Biomedical Foundation, Santiago, Chile. renevidalg@gmail.com

(152) Defining metrics to compare skeleton estimation methods applied to biological structures. Sergio Villarroel[1,4], Felipe Santibañez[1], Omar Ramírez[1], Mauricio Cerda[1], Karina Palma[1,3], Nancy Hitschfeld[4], Miguel Concha[3], Steffen Härtel[1]. svillarr@dcc.uchile.cl. [1]SCIAN-Lab, [2]Couve-Lab and [3]Leo-Lab at BNI & Faculty of Medicine; [4]DCC; University of Chile.

(154) Does *Trypanosoma cruzi* calreticulin promote the expression of antiangiogenic genes in endothelial cells? Vivanco, F., Duaso, L., Sosoniuk, E., Rosas, C., Aguilar, L., Valck, C*., Ferreira, A*. PDI, ICBM, Facultad de Medicina, Universidad de Chile fvivanco.tm@gmail.com

(156) Mesoderm and ECM are required for coordinated convergence movements of the zebrafish neural plate. Claudia Yefi, Cecilia Arriagada, Miguel Miranda and Claudio Araya. Universidad Austral de Chile. claudiayefi@gmail.com (Sponsor: P. Burgos).

(158) Zebrafish CSRNPs, *csrnp1a* and *csrnp1b,* have redundant functions during nervous system development and hematopoiesis. Zúñiga J., Allende M & Glavic A. Centro FONDAP de Regulación del Genoma. Facultad de Ciencias, Universidad de Chile. jmzuniga@ug.uchile.cl

18:30 – 20:30 Oral Presentations II
Volcanes Room
Chair: Martín Montecino and Co-Chair: Verónica Cambiazo

Chronic stress impairs cortical synaptic plasticity and expression of brain-derived neurotrophic factor in rat. Negrón-Oyarzo I.[#*], Dagnino-Subiabre A[*], Muñoz P[#]. #Centro Interdisciplinario de Neurociencia de Valparaíso, Universidad de Valparaíso, Valparaíso, Chile. *Centro de Neurobiología y Plasticidad del Desarrollo, Universidad de Valparaíso, Valparaíso, Chile. ignacio.negron@cinv.cl

Axonal degeneration proceeds by necroptosis. Barrientos S.A.[1], Calixto A.[1] and Court, F.A.[1,2]. [1]Catholic University of Chile and [2]Neurounion Biomedical Foundation. fcourt@bio.puc.cl, snbarrie@uc.cl

Runx2 and osteopontin promove adhesion of osteosarcoma cells to human pulmonary endothelial cells. Francisco Villanueva[1,2], Oscar Vega[1,2], Mercedes Lopez[1,3], Flavio Salazar-Onfray[1,3], Gary Stein[4], Andre van Wijnen[5], Mario Galindo[1,3]. [1]Millennium Institute on Immunology and Immunotherapy, [2]Programa de Biología Celular y Molecular, [3]Programa de Inmunologia, ICBM, Facultad de Medicina, Universidad de Chile. [4]Department of Biochemistry, Vermont Cancer Center for Basic and Translational Research, University of Vermont. [5]Departments of Orthopedic Surgery & Biochemistry and Molecular Biology, Mayo Clinic. mgalindo@med.uchile.cl

Metformin, at concentrations corresponding to the treatment of diabetes, potentiates the cytotoxic effects of carboplatin in cultures of ovarian cancer. Erices R [1,3,8], Bravo ML[1,8], González P[1,8], Oliva B[1,8] Racordon D[1], Garrido M[2], Ibañez C[2], Kato S[2], Brañes J[2], Pizarro J[4], Barriga M[4], Barra A[5], Bravo E[6], Alonso C[6], Bustamante E[7], Jimenez P[7], Barrena N[7],Cuello M[2], and Owen G[1,8]. Facultades de Ciencias Biologicas[1] y Medicina[2], Pontificia Universidad Católica de Chile, [3]Universidad Andrés Bello. Hospitales: [4]Sotero del Rio, [5]Barros Luco-Trudeau, [6]Gustavo Fricke; [7]Fundation Arturo Lopez Pérez. [8]Biomedical Research Consortium of Chile. rafaela.erices@gmail.com

Galectin-8 modulates cell proliferation activating the sonic HEDGEHOG pathway. Remziye Doger[1], Claudia Oyanadel[1], Elizabeth Riquelme, Yimo Lin[3], Breyan Ross[3], Gonzalo Mardones[3], Andrea Soza[1,2], Alfonso Gonzalez[1,2]. Departamento de Inmunología Clínica y Reumatología, Fac. Medicina[1]. Centro de Envejecimiento y Regeneración (CARE) Fac. Ciencias Biológicas[2]. Pontificia Universidad Católica de Chile. Instituto de Fisiología Facultad de Medicina, Centro de Investigación Sur-Austral en Enfermedades del Sistema Nervioso (CISNe), Universidad Austral de Chile, Valdivia[3]. remziye.doger@gmail.com

A transcriptomics analysis of spinal cord regeneration in *Xenopus laevis*. Dasfne Lee-Liu[1], Mauricio Moreno[1], Leonardo I. Almonacid[2], Víctor Tapia[1], Rosana Muñoz[1], Francisco Melo[2], Juan Larraín[1]. [1]Center for Aging and Regeneration and Millenium Nucleus in Regenerative Biology; [2]Molecular Bioinformatics Laboratory, Millennium Institute on Immunology and Immunotherapy; Pontificia Universidad Católica de Chile. dnlee@uc.cl

Cellular stress enhances turnover of C99 dependent on proteasomal and lysosomal activities. Alexis González, Hianara Bustamante, Viviana Cavieres, Vanessa Muñoz, Andrés Rivera-Dictter, Gonzalo A. Mardones and Patricia V. Burgos. Instituto Fisiología, Facultad de Medicina, Universidad Austral Chile, Valdivia Chile. alexisgonzalez003@gmail.com

Muscle fiber degeneration induced by ATP stimulation in a dystrophic mouse model. Valladares D., Almarza G., Jaimovich E. Centro de Estudios Moleculares de la Célula, ICBM, Facultad de Medicina, Universidad de Chile. dvalladares@med.uchile.cl

20:30 Dinner

22:00 – 23:00 Plenary Lecture Millennium Institute on Immunology and Immunotherapy
Volcanes Room
Chair: Alexis Kalergis

Chronic *Salmonella* carriage is controlled by host a host regulator of fatty acid metabolism. Denise Monack. Department of Microbiology and Immunology, Stanford School of Medicine, Stanford University, CA, USA.

FRIDAY, OCTOBER 26, 2012

08:00 Poster Mounting Session III: N° 160 to N° 238
Convention Center Foyer

09:00 – 11:00 Symposium Proyectos FONDECYT de Cooperación Internacional 1120512 (AA) - 1110310 (SZ)
Calbuco Room
Chair: Alejandra Alvarez and Co-Chair: Silvana Zanlungo

"To Die or Not to Die: Neuron Signaling"

Triosephosphate isomerase nitrotyrosination by amyloid ß-peptide induces neuronal death. Marta Tajes, Fanny Rubio-Moscardó, Biuse Guivernau, Eva Ramos-Fernández, Abel Eraso, Mònica Bosch-Morató, Ernest Palomer, Francesc-Xavier Guix and Francisco J. Muñoz. Laboratory of Molecular Physiology and Channelopathies, Universitat Pompeu Fabra (UPF), Barcelona, Spain. paco.munoz@upf.edu

The c-Abl/p73 proapoptotic system is a relevant signaling pathway involved in Niemann-Pick type C neuron death. Silvana Zanlungo[1], Mary Carmen Vázquez[1], Andres Klein[1], Lina M. Vargas[2], Fermín Robledo[1], Francisco J. Muñoz[3], Alejandra R. Alvarez[2]. [1]Departamento de Gastroenterología, Facultad de Medicina, [2]Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile.[3] Grup de Fisiologia Molecular i Canalopaties, Department of Experimental and Health Sciences, Universitat Pompeu Fabra, Barcelona, Spain. silvana@med.puc.cl

c-Abl activation mediates the AβO induced synapses loss; a new signaling involved in Alzheimer's disease synaptic alterations. Alejandra R. Alvarez[1], Lina M. Vargas[1], Gonzalo I. Cancino[1], Nancy R. Leal[1], Lisbell A. Estrada[1], Elena Pasquale[3], Silvana Zanlungo[2]. [1]Laboratorio de Señalización Celular, Departamento de Biología Celular y Molecular., Facultad de Ciencias Biológicas [2]Departamento de Gastroenterología, Facultad de Medicina, Pontificia Universidad Católica de Chile, [3]Sanford-Burnham Medical Research Institute, La Jolla, California, USA.

Aß oligomers alter zinc neuromodulatory signal**ing: Relevance to Alzheimer's disease.** Jorge Busciglio and Emily Vogler. Department of Neurobiology and Behavior, Institute for Memory Impairments and Neurological Disorders (iMIND), and Center for the Neurobiology of Learning and Memory (CNLM), University of California, Irvine, CA 92697.

Symposium Anillo ATC-71 e Instituto Milenio, Centro Interdiciplinario de Neurociencias de Valparaíso.
Tronador Room
Chair: Juan Carlos Saez

"Intercellular Comunication Via Pannexin and Connexin-based Channels in Health and Disease"

A hemichannel construct rescues left-right patterning in embryos depleted of Connexin43.4: implications for epithelial lumen formation. Julia M. Hatler[1], Jeffrey J. Essner[2], Scott O'Grady[3] and Ross G. Johnson[1]. [1]Dept. of Genetics, Cell Biology and Development, Univ. of Minnesota, Minneapolis, MN, and [2]Dept. of Genetics, Development and Cell Biology, Iowa State Univ., Ames, IA and [3]Dept. of Animal Science, Univ. of Minnesota, St. Paul, MN USA.

Connexin channels and cell calcium, two partners engaged in extensive cross-talk. Luc Leybaert, Dept. Basic Medical Sciences, Fac. Medicine & Health Sciences, Ghent University, Ghent, Belgium.

The cellular life of pannexins and their function in health and disease. Silvia Penuela, Dale W. Laird. Department of Anatomy and Cell Biology, University of Western Ontario, London ON N6A5C1 Canada.

Glial hemichannels: an alternative target for neuroprotection in Alzheimer's disease. Christian Giaume, CIRB, Collège de France, Paris, France.

10:30 – 13:00 Schools and Science: Students from Puerto Varas at the Chilean Society for Cell Biology
Room Business Center

11:00 – 13:00 Poster Viewing Session III: 160-238 Odd Numbers
Convention Center Foyer
Coordinators: Patricio Smith – Claudia Metz – María de los Angeles García

(161) Characterization of A359D mutation in acid sphingomyelinase causing Niemann-Pick type B disease in chilean patients. Acuña M[1], Martínez P[1], Latorre M[2], Castro V[3], Lagos M[4], Guiche V[3], González M[3,5], Miquel JF[1,5], Mabe P[6], Zanlungo S[1,5]. [1]Departamento de Gastroenterología, Facultad de Medicina, Pontificia Universidad Católica de Chile, [2]INTA, Universidad de Chile, [3]Facultad de Ciencias Universidad de Chile, [4] Departamento de Laboratorios Clínicos, Pontificia Universidad Católica de Chile, [5]FONDAP Center for Genome Regulation (CGR), [6]Hospital Exequiel González Cortés. moacuna@puc.cl

(163) Reduced CTGF expression prevents fibrosis in the stressed myocardium. Riquelme, CA, Morales, G, Godoy, I* and Brandan, E. Center for Aging and Regeneration (CARE), Faculty of Biological Sciences; *Cardiology Laboratory, School of Medicine. Catholic University of Chile. criquelme@bio.puc.cl

(165) Anti-inflammatory effects of chitosan nanoparticles in human gingival fibroblasts. Arancibia R, Silva D, Cáceres M, Tobar N, Tapia C, Martinez J, Smith PC. Carrera de Odontología. Facultad de Medicina. Pontificia Universidad Católica de Chile, Facultad de Ciencias Químicas y Farmacéuticas e INTA, Universidad de Chile. rarancibia@med.puc.cl

(167) Characterization of a muscle cell line stably expressing recombinant Pannexin-1. Arias, M[1], Jaimovich, E[1] and Buvinic, S[1,2]. [1]Laboratorio de Fisiología Celular del Músculo, Centro de Estudios Moleculares de la Célula, ICBM, Facultad de Medicina; [2] Departamento de Ciencias Básicas y Comunitarias, Facultad de Odontología. Universidad de Chile. Santiago, Chile. mariasc@ug.uchile.cl

(169) Syndecan-**4 inhibits Wnt/β**-catenin pathway, regulates the levels of signaling components, and is required for the inhibitory function of Wnt5a. Pablo Astudillo, Nicolás Cumplido, Héctor Carrasco and Juan Larraín. Laboratory of Developmental Biology and Regeneration, Center for Aging and Regeneration, Pontificia Universidad Católica de Chile. prastudi@uc.cl

(171) Expression of the human APE1 endonuclease and its negative dominant form in *T. cruzi* epimastigotes exposed to oxidative agents. Paula Bahamondes, Iván Ponce, Sofía Sepúlveda, Lucía Valenzuela, Santiago Ramírez, Soledad Sierra, Natalia Muñoz, Ulrike Kemmerling, Norbel Galanti, Gonzalo Cabrera. Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. bahamondes.paula@gmail.com

(173) Interplay between stress hormones and brain monoamines in the insular cortex modulates the reaction to emotionally arousing experiences. Rodrigo Moraga-Amaro, Raúl Díaz, Andrés Cortes, Sebastián Rojas, Jimmy Stehberg. Universidad Andrés Bello. raul.diaz@uandresbello.edu

(175) Characterization and response to chemotherapy of cancer cell populations originating from ovarian cancer patients. [1,8]Bravo, ML., [1,8]Gonzalez, P., [1,8]Kato, S., [2]Brañes, J., [2]Garrido, M., [2]Ibañez, C., [3]Bravo, E., [3]Alonso, C., [4]Jimenez, P., [4]Bustamante, E., [4]Barrena, N., [5]Barra, A., [6]Celis, M., [6]Aguilera, B., [7]Barriga, MI., [7]Pizarro, J., [2,8]Cuello, M., [1,8]Owen, GI. [1]Factultad de Ciencias Biologicas y [2]Medicina, Pontificia Universidad Católica de Chile. Hospitals: [3]Gustavo Fricke, [4]Fundación Arturo López-Pérez, [5]Barros Luco, [6] Luis Tisné, [7]Sótero del Río. [8]Biomedical Research Consortium of Chile (CTU06). marialoretobravo@gmail.com

(177) Identification of common genetic variants between Alzheimer's disease (AD) and Schizophrenia (SZ). Bernabé Bustos, Camilo Villamán, Eduardo Pérez, Mario Caracci, Flavia Román,

Pablo León and Giancarlo V. De Ferrari. Center for Biomedical Research, Universidad Andrés Bello, Santiago, Chile. gdeferrari@unab.cl

(179) PSD-95 suppresses dendritic arbor development in mature hippocampal neurons by occluding synaptic insertion of NR2B-NMDA receptors. Matias Campos[1], Fernando Bustos[1,2], Lorena Varela-Nallar[3], David Gonzalez[1], Berta Henriquez[1], Nibaldo Inestrosa[3] and Brigitte van Zundert[1*]. [1]Andres Bello University; [2]University of Concepción; [3]Pontifical Catholic University de Chile. mati.campost@gmail.com

(181) EPC cells as a model of ribosomal biogenesis in cyprinus carpio during seasonal acclimatization. Fumeron R., Carvajal PA.*, Rudolffi P., Dupre G., Molina A., Vera MI., Alvarez M. Laboratorio de Biología Celular y Molecular, F. de Ciencias Biológicas, Universidad Andrés Bello, Viña del Mar, Chile, *Biotecnología, Universidad de Antofagasta. malvarez@unab.cl (Sponsor: G. Arriagada).

(183) Controlled heterodimerization of C99 with organelle resident proteins provide information **about its intracellular trafficking and location for its proteolytic cleavage by □-secretase.** Viviana Cavieres, Andrés Rivera-Dictter, Prabbuddha Sengupta, Gonzalo Mardones and Patricia V. Burgos. Instituto de Fisiología, Facultad de Medicina, Universidad Austral de Chile, Valdivia, Chile. cavieres.viviana@gmail.com

(185) **Role of IRE1α in cytoskeleton regulation and cell migration: a novel function beyond ER stress**. Urra H[1,2]., Rodríguez R[1,2]., Henríquez D[3]., González-Billault C[3]., and Hetz C[1,2]. [1]Biomedical Neuroscience Institute, [2]Center for Molecular Studies of the Cell, Faculty of Medicine, [3]Department of Cell Biology, Faculty of Sciences, University of Chile. Santiago, Chile. chetz@med.uchile.cl

(187) Cdk5 regulates Rap1 activity through phosphorylation of C3G. Elias Utreras[1], Erick Contreras-Vallejos[1], Daniel Henriquez[1], Cristina Olmos[1], Alex Di Genova[2], Alejandro Maass[2], Ashok Kulkarni[3] and Christian Gonzalez-Billault[1]. [1]Laboratory of Cell and Neuronal Dynamics, Department of Biology, Faculty of Sciences and [2]Mathematical Modeling Center, Faculty of Physics and Mathematics Sciences, Universidad de Chile and [3]LCDB, NIDCR, NIH, USA. erickcontreras@gmail.com

(189) Antidepressant effect on functional recovery and neurotrophic factors expression in an animal model of intracortical stroke. *Valentina Contreras, *Rodrigo Zepeda, *Claudia Pissani, Gareth I. Owen, Francisca C Bronfman. Physiology Department, Pontificia Universidad Católica de Chile. *Contributed equally. vlcontre@uc.cl, chpissan@uc.cl

(191) Development of an RNAi-based genetic adjuvant silencing STAT3 for DNA vaccines against tumors. Nicole Rojas-Colonelli, Andrés Herrada, Paola Murgas, Manuel Varas, Alvaro Lladser. Laboratory of Gene Immunotherapy, Fundación Ciencia & Vida. nicole.rojas.c@gmail.com

(193) Constitutive endocytosis of the sodium-dependent vitamin C transporter 2 SVCT2. [1]Adriana Covarrubias, [1]Aníbal I. Acuña, [2]Sebastian Brauchi, and [1]Maite A. Castro. [1]Instituto de Bioquímica y Microbiología, [2]Instituto de Fisiología, UACh. acovapinto@gmail.cl

(195) **Angiotensin II induces fibrosis in kidney tubule epithelial cells via Wnt/β-catenin signaling pathway.** Catherina A. Cuevas[1,2,4], Alexis A. González[4,5], Nibaldo C Inestrosa[1,3] , Carlos P. Vio[1,2] , Minolfa C Prieto[3,4]. [1]Center for Aging and Regeneration, [2]Department of Physiology, [3]Department of Cellular and Molecular Biology, P. Universidad Católica de Chile, Santiago, Chile. [4]Department of Physiology, [5]Hypertension and Renal Center of Excellence, Tulane University, New Orleans, LA, USA. clcuevas@uc.cl

(197) Extracellular ATP produces both H_2O_2 increase and *NRF2* activation in cultured fibers of skeletal muscle. Díaz A.[1,2], Campos C.[1], Espinosa A[1] and Jaimovich E[2]. [1]Escuela de Tecnología Médica, Universidad de Chile and [2]Centro de Estudios Moleculares de la Célula, Facultad de Medicina, Universidad de Chile. adiazvegas@gmail.com

(199) New elements of Wnt-5a signaling in hippocampal neurons: Identification of frizzled receptor and role of G protein. V.T. Ramirez and N.C. Inestrosa. Centro de Envejecimiento y Regeneración

(CARE), Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, P. Universidad Católica de Chile. vtramire@uc.cl

(201) Discovery and assessment of novel Dpp/Mad target genes and their enhancers in the early *D. melanogaster* embryo. Calixto Domínguez, Michael Pino, Rodrigo Pulgar and Verónica Cambiazo. Laboratorio Bioinformatica y Expresión Génica, INTA-Universidad de Chile and Fondap Center for Genome Regulation (CRG). cdportilla@yahoo.com

(203) **A novel function of the ER stress sensor IRE1α in DNA damage responses.** Estefanie Dufey[1,2], Diego Rodriguez[1,2], Diego Rojas-Rivera[1,2], Hery Urra[1,2], Juana Pincheira[3] and Claudio Hetz[1,2,4]. [1]Biomedical Neuroscience Institute, [2]Center for Molecular Studies of the Cell, [3]Human Genetics Program, Faculty of medicine, and [4]Neurounion Biomedical Foundation, Santiago, Chile. chetz@med.uchile.cl

(205) Lactate affects the expression of orexigenic and anorexigenic neuropeptides in hypothalamic neurons. Elizondo-Vega R, Carril C, Cortés-Campos C, Nualart F, García-Robles M. Departamento de Biología Celular, Universidad de Concepción. mgarcia@udec.cl

(207) Recombinant Wnt3 distributes in a vesicular pattern in chick motor neurons and motor neuron-like NSC-34 cells. Javier Espinoza, Pedro Zamorano(2), Juan Pablo Henríquez*. Department of Cell Biology and CMA Bio-Bio, University of Concepción, and (2)Faculty of Health Sciences, University of Antofagasta, Chile. *jhenriquez@udec.cl

(209) Evaluation of the epigenetic response generated by ENOSC complex during cellular energy restriction in *Cyprinus carpio* seasonal acclimatization. Fernández de la Reguera C., Nardocci G., Carvajal P., Molina A., Vera MI., Alvarez M., L. de Biología Celular y Molecular, F. de Ciencias Biológicas, U. Andrés Bello, Viña del Mar, Chile. malvarez@unab.cl; c.fernandezde.c@uandresbello.edu

(211) Skeletal muscle hypertrophy in fish *in vivo* is regulated via Akt/TOR and MAPK/ERK signaling pathways affecting differentially the IGF system and atrogenes. Eduardo N. Fuentes[a], Ingibjörg Eir Einarsdottir[b], Rodolfo Paredes[a], Christian Hidalgo[a], Juan Antonio Valdes[a], Björn Thrandur Björnsson[b], Alfredo Molina[a]. [a]Facultad de Ciencias Biológicas, Universidad Andrés Bello, Av. Republica 217, Santiago, Chile. [b]Fish Endocrinology Laboratory, University of Gothenburg, Box 463, S-40530 Göteborg, Sweden.

(213) Potential biological markers in melanoma patients treated with immunotherapy based in dendritic cells. Garcia T, Tittarelli A, Villablanca A, Pereda C, Matthäus F, Beltrán A, López M, Norgauer J, Hoheisel J, Gebicke-Haerter P, Salazar F. Tumor Immunology Laboratory, Faculty of Medicine, University of Chile. tgarcia@med.uchile.cl

(215) Comparative expression of PCNA, AMACR and HMWCK in human, canine and experimental murine prostatic lesions, and their potential diagnostic value. González C[1]; Armisén R[2]; Stutzin A[2]; Landerer E[1]; Paredes R[1]; Contreras I[1]; Muñoz C[1]. [1]Universidad Andrés Bello, [2]Centro de Estudios Moleculares de la Célula & Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. carlosgonzalez@unab.cl

(217) Personalized cancer therapy for ovarian cancer patients. P. González[1,8], M.L. Bravo[1,8], S. Kato[2,8], M. Garrido[2], J. Brañes[2], J. Pizarro[3], M.I. Barriga[3], H. Leon[4], E. Bustamante[4], C. Alonso[5], E.Bravo[5], M .A. Celis[6], B. Aguilera[6], A. Barra[7], N. Barrena[4], C. Ibañez[4],P. Jimenez[4], M.A Cuello[2,5], G. I. Owen[1,5]. [1]Facultad de Ciencias Biológicas, [2]Facultad de Medicina, Pontificia Universidad Católica de Chile, Hospitales: [3]Sotero del Rio, [4]Fundación Arturo López Pérez, [5]Gustavo Fricke, [6]Luis Tisné, [7]Barros Luco. [8]Biomedical Research Consortium of Chile (CTU06) & FONDECYT 3120003. pagonzax@puc.cl

(219) An inducible novel apical-basolateral transcytotic route in polarized epithelial cells. Catalina Grabowski[2], Claudio Retamal[2], Fabiola Sánchez[3] and Alfonso González[1,2]. Departamento de Inmunología Clínica y Reumatología, Fac. Medicina[1]. Centro de Envejecimiento y Regeneración (CARE). Fac. Cs. Biológicas[2]. Pontificia Universidad Católica de Chile. Departamento de Inmunología, Facultad de Medicina, Universidad Austral de Chile[3]. cgrabowskipgmail.com

(221) Identification and characterization of lymphoid T cells of atlantic salmon (*Salmo salar*) using monoclonal antibodies. Halcartégaray N., Wilhelm V., Bono M.R., Valenzuela P., Rosemblatt M. Fundación Ciencia y Vida, Universidad Andrés Bello, Sciences Faculty, Universidad de Chile. nicole.halcartegaray@gmail.com

(223) Altered NF-κB–dependent gene expression after depolarization-induced ROS in dystrophic MDX muscle cells. Henríquez C., Altamirano F. and Jaimovich E. Centro de Estudios Moleculares de la Célula, ICBM, Facultad de Medicina, Universidad de Chile. Santiago, Chile.

(225) The two major regulators of extra-embryonic tissue specification are conserved in higher dipterans outside of Drosophila species. Christian Hodar Q., Verónica Cambiazo A. Laboratorio Bioinformatica y Expresión Génica, INTA-Universidad de Chile and Fondap Center for Genome Regulation (CRG). chodar@inta.uchile.cl

(227) Effects of HMG-CoA reductase inhibition in craniofacial development of zebrafish. Carolina Jeréz[1], Allison Ávalos[1], Karol Cortés[1], José Suazo[2] and Alicia Colombo[1]. [1]Institute of Biomedical Sciences, University of Chile, Santiago, Chile; [2]School of Medicine, P. Universidad Católica de Chile. jerez.biotec@gmail.com

(229) Extracellular matrix-associated proteins expression in Fallopian tubes explants infected with *Neisseria gonorroheae*. Natalia Juica[1,2], Paula Solar[1], Luis Velásquez[1]. [1]Center for Integrative Medicine and Innovative Science, Universidad Andrés Bello [2]Universidad de Santiago de Chile. natajuica@hotmail.com (Sponsor: R. Moreno).

(231) Tiam1/Rac1 are required for DITNC1 astrocyte migration induced by Thy-1. Kong M, Cárdenas A, Alvarez A, Quest AFG, Leyton L. Laboratorio de Comunicaciones Celulares, Centro de Estudios Moleculares de la Célula. Facultad de Medicina. Universidad de Chile. mkong@uantof.cl

(233) Identification of HNT targets in *Drosophila* photoreceptor cells. Estefanía López, Carlos Oliva, Patricio Olguín, and Jimena Sierralta. BNI, ICBM, Facultad de Medicina, Universidad de Chile. VIB Center for the biology of disease, Katholieke Universiteit Leuven. estefanialopezarenas@gmail.com

(235) **Astrocyte αvβ3**-integrin induces neuronal retraction by increasing Thy-1-CBP interaction and Src inactivation. Maldonado, H., Ramirez, O., Haertel, S., Quest, A.F.G., Leyton, L. Laboratorio de Comunicaciones Celulares, Centro de Estudios Moleculares de la Célula. Facultad de Medicina. Universidad de Chile. Maldonadolorca@ug.uchile.cl

(237) RPRM gene silencing by methylation in gastric cancer models. Marchant M.[1,2], Guzman L.[1] and Corvalán A.[2]. [1]Instituto de Química, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Valparaíso. [2]Centro de Investigaciones Médicas, Pontificia Universidad Católica de Chile. marchant.mariajose@gmail.com

13:00 – 15:00 Lunch

15:00 – 17:00 Oral Presentations III
Volcanes Room
Chair: Francisco Nualart and Co-Chair: Maite Castro

The Rab11-recycling endosome is required for BDNF-induced activation of CREB transcription factor in hippocampal neurons. Andrés González, Oscar Lazo, and Francisca Bronfman. Neuronal Cell Biology and Regeneration Lab, Pontificia Universidad Católica de Chile. augonzal@uc.cl

Delivery of Adeno Associated Viruses to express XBP-1s in central nervous system prolongs life span of an ALS mouse model. Valenzuela V.[1,2,3], Matus S.[1,2,3], Nasiff M.[1,2,3] and Hetz C.[1,2,3]. [1]Biomedical Neuroscience Institute, Faculty of Medicine. [2]Center for Molecular Studies of the Cell, Institute of Biomedical Sciences, University of Chile, Santiago, Chile. [3]Neurounion Biomedical Foundation, Santiago, Chile.

Scorbutogenic diet reduces angiogenic activity in a guinea pig model for glioblastoma multiforme. Rodríguez, F., Jara, N., Salazar, K. and Nualart, F. Neurobiology and Stem Cells Laboratory, University of Concepción. frodrigu@udec.cl

Induced alloantigen-specific regulatory T cells generate mixed chimerism and allograft tolerance. Paula Maldonado[1], Paulina Ruiz[1], Yessia Hidalgo[1], Mario Rosemblatt[1,2,3], María Rosa Bono[1]. [1]Departamento de Biología, Facultad de Ciencias, Universidad de Chile. [2]Fundación Ciencia & Vida. [3]Universidad Andrés Bello. paulamaldonadov@gmail.com

Histone Modifications and DNA methylation, key regulators of Osterix gene expression. Hugo Sepúlveda, Candy Rojas and Martín Montecino. Center for Biomedical Research and FONDAP Center for Genome Regulation, Faculty of Biological Sciences and Faculty of Medicine, Andres Bello University.

The c-Abl tyrosine kinase phosphorylates HDAC2 and increases its activity and protein levels: a new mechanism of regulation of the gene expression. González Z.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]. [1]Laboratorio de Señalización Celular, [2]CARE-Chile-UC, Pontificia Universidad Católica de Chile. [3]H..Lee.Moffitt Cancer.Center and Research Institute,.USA. magonza1@uc.cl

S-nitrosation of P120 and VASP: a new mechanism in the regulation of microvascular permeability. [1]Zamorano P, [1]Marín N, [1]Burboa P, [2]Boric M, [3]Durán WN, [1]Sánchez FA.[1] Instituto de Inmunología, Facultad de Medicina, Universidad Austral de Chile, Valdivia, Chile. [2]Departamento de Ciencias Fisiológicas, Pontificia Universidad Católica de Chile. [3]Department of Pharmacology and Physiology, New Jersey Medical School, Newark, New Jersey, USA. zamorano.patricia@gmail.com (Sponsor: C. Figueroa).

Detection of flap endonuclease activity in *Trypanosoma cruzi.* Iván Ponce, Sofía Sepúlveda, Lucía Valenzuela, Santiago Ramírez, Soledad Sierra, Paula Bahamondes, Gilda Garrido, Natalia Muñoz, Ulrike Kemmerling, Gonzalo Cabrera, Norbel Galanti. Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. ivponce@ciq.uchile.cl

16:30 – 19:00 Schools and Science: Students from Puerto Varas at the Chilean Society for Cell Biology
Room Business Center

17:00 – 19:00 Poster Viewing Session III: 160-238 Even Numbers
Convention Center Foyer
Coordinators: Patricia Burgos – Gonzalo Mardones – Carlos B. González

(160) Rab5 activation promotes cell migration and focal adhesion turnover. Pablo Mendoza[1,2], Jorge Díaz[2], Rina Ortiz[2], Andrew F.G Quest[2], Lisette Leyton[2], Dwayne Stupack[3] and Vicente Torres[1,2]. [1]Laboratory of Celular and Molecular Biology, Faculty of Dentistry, Universidad de Chile. [2]Laboratory of Cellular Comunications, FONDAP Centre for Molecular Studies of the Cell, Faculty of Medicine, Universidad de Chile. [3]Moores UCSD Cancer Center, University of California San Diego, USA. pa.men2a@gmail.com

(162) *In vivo* single cell labeling by focal electroporation on the brain of zebrafish larvae. Meynard M.M., Armijo L., Guerrero N., Palma K. and Concha M.L. Instituto de Ciencias Biomedicas, Facultad de Medicina, Universidad de Chile. mmeynard@med.uchile.cl

(164) **Ascorbic acid metabolic switch failure in Huntington's disease.** [1]Pablo Moll, [1]Felipe Beltrán, [1]Aníbal I. Acuña, [2]Claudio Hetz, [1]Ilona I. Concha, [3]Michael Levine, [1]Maite A. Castro. [1]Instituto Bioquímica y Microbiología, UACh; [2]ICBM, U. Chile [3]Semel Institute, UCLA. pablo.moll.angulo@gmail.cl

(166) The role of protein S-nitrosylation in neurotoxocity versus neuroprotection. Barbara Maturana, Ariel Caviedes, Felipe Gordillo, Veronica Martinez, Thilo Kaehne, Ursula Wyneken. Universidad de los Andes, Otto-von-Guericke University. maturana.barbara@gmail.com

(168) Vasopressin induces mTOR activation in vascular smooth muscle cells cultured in high extracellular glucose concentration. Daniela K. Montes, Vanessa C. Muñoz, Patricia V. Burgos, Carlos B. González. Instituto de Fisiología. Facultad de Medicina. Universidad Austral de Chile. danielamontes24@gmail.com

(170) Tolerogenic dendritic cells acquire a specific migratory pattern when activated with monophosphoryl lipid A. Rodrigo Morales, Lorena Hoyos, Paulina García, Karina Pino-Lagos, Bárbara Pesce, Diego Catalán, Juan Carlos Aguillón. Immune Regulation and Tolerance Group (www.irtgroup.cl), Programa Disciplinario de Inmunología, Instituto de Ciencias Biomédicas (ICBM), Facultad de Medicina, Universidad de Chile. ramoralescastro@gmail.com

(172) C99 is degraded by autophagy in an ubiquitin-dependent manner. Vanessa Muñoz, Hianara Bustamante, Andrés Rivera-Dictter, Alexis Gonzalez, Viviana Cavieres, Gonzalo A. Mardones y Patricia V. Burgos. Instituto de Fisiología, Facultad de Medicina, Universidad Austral de Chile. vanenusve2@gmail.com

(174) *Drosophila* phosphatidate phosphatase-2 (dPAP2) modulates binary cell fate decision mediated by Notch signaling. Patricio Olguín, Sophie Balmer, Ursula Weber and Marek Mlodzik. Programa de Genética Humana, ICBM, Facultad de Medicina, Universidad de Chile, Santiago, Chile. Mount Sinai School of Medicine, New York, NY, USA. patricioolguin@med.uchile.cl

(176) Epigenetic characterization of Runx2 gene P1 and P2 promoters: Identification of potential new regulatory elements. Tatiana Opazo, Hugo Sepúlveda and Martín Montecino. Center for Biomedical Research and FONDAP Center for Genome Regulation, Faculty of Biological Sciences and Faculty of Medicine, Universidad Andrés Bello.

(178) Galectin-8 induces partial epithelial-mesenchymal transition in MDCK cells. Claudia Oyanadel, Evelyn Pardo, Remziye Doger, Marcela Bravo-Zehnder, Andrea Soza, and Alfonso González. Centro de Envejecimiento y Regeneración (CARE), Facultad de Ciencias Biológicas. Departamento de Inmunología Clínica y Reumatología, Facultad de Medicina. Pontificia Universidad Católica de Chile.

(180) Dopamine receptor D3 expressed on CD4+ T-cells favours neurodegeneration of dopaminergic neurons during Parkinson's disease. Hugo Gonzalez[1], Francisco Contreras[1], Carolina Prado[1], Daniela Elgueta[1] Dafne Franz[1] and Rodrigo Pacheco[1,2]. [1]Fundación Ciencia & Vida and [2]Universidad San Sebastián. Santiago, Chile. rpacheco@cienciavida.cl

(182) Proteomic analysis of germinal layer from hydatid cyst of *Echinococcus granulosus*. Christian Hidalgo and Rodolfo Paredes. Escuela de Medicina Veterinaria, Facultad de Ecología y Recursos Naturales, Universidad Andrés Bello. rparedes@unab.cl

(184) SDF1a as a retention signal for zebrafish neutrophils during inflammation resolution. Oscar A. Peña, Carlos Rubilar, Miguel L. Allende. FONDAP Center for Genome Regulation, Facultad de Ciencias, Universidad de Chile. oscarpena@ug.uchile.cl; allende@uchile.cl

(186) Characterization of the motor phenotype of $p75^{NTR}$ null mice. Viviana Pérez(1), Andrés González(2), Francisca Bronfman(2), Juan Pablo Henríquez(1)*. (1)Department of Cell Biology and CMA Bio-Bio, University of Concepcion, and (2)Department of Physiology, P. Catholic University of Chile. *jhenriquez@udec.cl

(188) Assessment of the expression of a chimeric Growth Hormone (*Seriola sp.*) and their recruitment to the secretory pathway. Marysol Paz, Juan Carlos Leiva, Pedro Zamorano*. Faculty of Health Sciences, University of Antofagasta, Chile. *zamorano@gmail.com

(190) Human platelet factor XIII: synthesis and functional role in hemostasis. Pozo L.M., Panes O., Matus V., Sáez CG, Pereira J., Mezzano D. Dpto. Hematología-Oncología, Escuela de Medicina, Pontificia Universidad Católica de Chile. luzmapozo@gmail.com

(192) Endoplasmic reticulum organization and modulation of calcium signals in astrocytes. Omar Ramírez[1,2,3], Alex Córdova[3], Jorge Toledo[1,2,3], Mauricio Cerda[1,2,3], Andrés Couve[1,2], Steffen Härtel[1,2,3]. [1]Program of Anatomy and Developmental Biology, [2]Biomedical Neuroscience Institute (BNI), [3]SCIAN-Lab, Faculty of Medicine, University of Chile, Santiago, Chile. oramirez@med.uchile.cl

(194) Role of I_{KD} current in hypersensitivity to cold induced by peripheral injury in primary sensory neurons. Restrepo, C.[1], Piña, R.[1,2], Ugarte, G. [1], Bacigalupo, J.[2], Pertusa, M. [1] and Madrid, R.[1]. [1]Facultad de Química y Biología, Universidad de Santiago de Chile; [2]Facultad de Ciencias, Universidad de Chile. rodolfo.madrid@usach.cl

(196) Evaluation of inflammatory cytokines profile in the physiopathology of preeclampsia. Ribeiro A., Tempio F., Gatica J., Falcón C., Falcón F., Behrens C., Guerrero P., Pardo A., Parra C., López M.N. Program of Immunology, ICBM, Faculty of Medicine, Clinical Hospital University of Chile. anaadelia25@gmail.com (Sponsor: F Salazar).

(198) Neuropeptide secretion during aging in *C. elegans.* Alicia N. Minniti[2] and Rebeca Aldunate[1,2]. [1]Escuela de Biotecnología, Universidad Santo Tomás; [2]Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. raldunate@santotomas.cl

(200) Ablation of the gallbladder decreases basal metabolic rate and favors fatty liver disease in mice. Fermín Robledo[1], Ludwig Amigo[1], Javiera Gallardo[1], Kurt Schalper[2], Víctor Cortés[3], Daniel Bastías[4], Silvana Zanlungo[1], Juan Francisco Miquel[1], Sergio González[2], Marco Arrese[1], Francisco Bozinovic[4], Flavio Nervi[1]. [1]Departamentos de Gastroenterología, [2]Anatomía Patológica, [3]Nutrición y Diabetes, Facultad de Medicina, [4]CASEB and Departamento de Ecología, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile. farobled@uc.cl

(202) ALS astrocytes release factors that trigger motoneuron death by increasing sodium channel activity. Fabiola Rojas[1,2], Elsa Fritz[1,2], David Gonzalez[2], Sebastian Abarzua[2], Nicole Cortes[2], Brigitte van Zundert[2]. [1]Universidad de Concepción; [2]Universidad Andrés Bello. folarojas@gmail.com

(204) Indirect transcytotic apical sorting of Sonic Hedgehog in polarized MDCK cells. Lorena Rosa[1,2], Mariana Labarca[1,2], Claudio Retamal[1,2], Juan Larraín[2] and Alfonso González [1,2]. Departamento de Inmunología Clínica y Reumatología, Fac. Medicina[1]. Centro de Envejecimiento y Regeneración (CARE). Fac. Cs. Biológicas[2]. Pontificia Universidad Católica de Chile. Lore.rosa@gmail.com

(206) Mild copper overload modulates energetic output and induces OXPHOS supercomplexes remodeling in the erythropoietic cell line K562. Lina Ruiz, Erik Jensen, Alan Briones and Alvaro Elorza Experimental Bioenergetics Laboratory, Universidad Andres Bello (UNAB). aelorza@unab.cl

(208) The role of KLOTHO in the regulation of adult hippocampal neurogenesis. Felipe Salech[1,2,3], Lorena Varela-Nallar[4], Magdalena Gonzalez[1], Luis Michea[1], Nibaldo C. Inestrosa[4], María Isabel Behrens[1,3] and Andrés Couve[1,2]. [1]Physiology and Biophysics, ICBM, [2]Biomedical Neuroscience Institute (BNI), Facultad de Medicina, Universidad de Chile, Santiago, Chile. [3]Hospital Clínico Universidad de Chile, Santiago, Chile. [4]Centro de Envejecimiento y Regeneración (CARE), Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, Santiago, Chile. fhsalech@gmail.com

(210) Analysis of colocalization with superresolution optical fluctuation imaging (SOFI). Felipe Santibáñez-Leal[1], Omar Ramírez[1], Anja Huss[3], Jörg Enderlein[3], Andrés Couve[2] & Steffen Härtel[1]. [1]SCIAN-Lab and [2]Couve-Lab at BNI, ICBM, Faculty of Medicine, U. of Chile. [3]III. Physikalisches Institut, Universität Göttingen, Germany. fsantibanez@med.uchile.cl

(212) Expression and localization of components of the IRE-**1A/XBP**-1 pathway of the misfolded protein response in salivary glands from Sjögren's Syndrome patients. Sepúlveda D, Aguilera S, Bahamondes V, Barrera MJ, Castro I, Molina C, González S, Urzúa U, Leyton C and González MJ. ICBM-Facultad de Medicina, Universidad de Chile. sepulveda.denisse@gmail.com.

(214) Apurinic/apyrimidinic TcAP1 endonuclease and *Trypanosoma cruzi* resistance to persistent oxidative stress. Soledad Sierra, Sofia Sepúlveda, Lucía Valenzuela, José Delgadillo, Santiago Ramírez, Iván Ponce, Paula Bahamondes, Natalia Muñoz, Ulrike Kemmerling, Norbel Galanti, Gonzalo Cabrera. Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile. sierra.soledad@gmail.com

(216) Monocarboxylates are not important to support synaptic activity **in Huntington's disease.** [1]Macarena Solís, [1]Felipe Beltrán, [1]Aníbal I. Acuña, [1]Alejandra Parra, [2]Claudio Hetz, [1]Ilona I. Concha, [3]Michael Levine, [1]Maite A. Castro. [1]Instituto Bioquímica y Microbiología, UACh; [2]ICBM, U. Chile [3]Semel Institute, UCLA. msolismaldonado@gmail.cl

(218) EphA7 expression during posterior commissure development. Stanic K, Vera A, Montecinos H, Caprile T. Departamento Biología Celular, Universidad Concepción, Chile. kstanic@udec.cl

(220) Immune genes expression in response to spinal cord injury in *Xenopus laevis*. Víctor Tapia[1], Mauricio Moreno[1], Dasfne Lee[1], Leonardo Almonacid[2], Francisco Melo[2], Juan Larraín[1]. [1]Center for Aging and Regeneration and Millennium Nucleus in Regenerative Biology; [2]Molecular Bioinformatics Laboratory, Millennium Institute on Immunology and Immunotherapy; Pontificia Universidad Católica de Chile. victor.tapia.o@gmail.com

(222) The organization of the tubular network of the endoplasmic reticulum modifies the transport of cargo proteins. Jorge Toledo[1,2,3], Luis Briones[2,3], Mauricio Cerda[2,3], Jorge Jara[2,3], Steffen Härtel[2,3], Omar Ramírez[2,3],and Andrés Couve[1,2]. [1]Program of Physiology and Biophysics, [2]Biomedical Neuroscience Institute (BNI), [3]SCIAN-Lab; ICBM, Facultad de Medicina, Universidad de Chile. jorgetoledoh@gmail.com

(224) **The M105I mutation of αSNAP reduces its brain membrane binding properties.** Gabriela Toro[1], Camilo Muñoz[1], Guillermo Márquez[1], Breyan Ross[2], Gonzalo Mardones[2], Luis Federico Bátiz[1]. Institutos de Histología[1] y Fisiología[2], Facultad de Medicina. Universidad Austral de Chile. federicobatiz@uach.cl

(226) Selective inhibition of protein translocation into the ER as a novel treatment for multiple myeloma. Ureta, G.[1,2], Amoroso, A.[3], McCullagh, E.[1], Maglathlin, R.[4], Taunton, J.[4], Bernales, S[1]. [1]Fundación Ciencia & Vida, [2]Universidad Andrés Bello, [3]Universidad San Sebastián, [4]University of California. g.ureta.diaz@gmail.com

(228) Measurement of GLUT4 translocation and glucose uptake in skeletal muscle fibers from HFD-fed mice. [1]Yildy Utreras-Mendoza, [1,2]Alejandra Espinosa, [1]Ariel Contreras, and [1]Enrique Jaimovich. [1]Laboratorio de Fisiología Celular del Músculo, Centro de Estudios Moleculares de la Célula, ICBM; [2] Escuela de Tecnología Médica, Facultad de Medicina, Universidad de Chile. yp_utreras@med.uchile.cl

(230) Dendritic endoplasmic reticulum transport defines a non-canonical trafficking modality for $GABA_B$ receptors. José Valenzuela[1], Matías Jaureguiberry[1,2], Viviana Valdés[1], Omar Ramírez[1], Thomas Blanpied[3], and Andrés Couve[1]. [1]Biomedical Neuroscience Institute, Facultad de Medicina, Universidad de Chile. [2]School of Biochemistry, Faculty of Biological Science, Universidad Andrés Bello. [3]Department of Physiology, University of Maryland School of Medicine, Baltimore, MD. joseignacio.v@gmail.com

(232) Nitric Oxide is a novel key factor in Wnt-5a signaling in synapse. Carla Montecinos-Oliva[1], Rodrigo Varas[2], Nibaldo C. Inestrosa[1]. [1]Centro de Envejecimiento y Regeneración (CARE), Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, P. Universidad Católica de Chile. [2]Departamento de Fisiología; Facultad de Ciencias Biológicas, P. Universidad Católica de Chile. cjmontec@uc.cl

(234) Runx2 transcription factor modulates expression of MMP2, MMP9 and MMP13, and enhance cellinvasion in human osteosarcoma cells. Karina Villegas[1,2], Sofía Jerez[1,2], Oscar Vega[1,2], Marcela Hernández[3], Jorge Gamonal[3], Gary S Stein[4], Andre van Wijnen[5] and Mario Galindo[1,2]. 1Millennium Institute on Immunology and Immunotherapy, [2]Programa de Biología Celular y Molecular, ICBM, Facultad de Medicina, Universidad de Chile. [3]Laboratorio de Biología Periodontal, Facultad de

Odontología, Universidad de Chile. [4]Department of Biochemistry, Vermont Cancer Center for Basic and Translational Research, University of Vermont. [5]Departments of Orthopedic Surgery & Biochemistry and Molecular Biology, Mayo Clinic. mgalindo@med.uchile.cl

(236) Evaluating ionic conductances at the single vesicle level using an hybrid fret pair. Juan Pablo Vivar and Sebastián Brauchi. Instituto de Fisiología, Fac. de Medicina, Universidad Austral de Chile, Valdivia. vivarcasas.j@gmail.com

(238) Teneurin-4 is expressed in human ovarian carcinoma and is associated with tumor differentiation. [1]Ziegler A., [1]Graumann R., [1]Vásquez M., [2]Corvalán A., [3]Casanello P., [4]Brañes J.A., [5]Roa I. [1]Center for Human Genetics, Faculty of Medicine, Clínica Alemana-Universidad del Desarrollo; [2]Department of Hematology-Oncology, [3]Perinatology Research Laboratory (PRL) & Cellular and Molecular Physiology Laboratory (CMPL), and [4]Division of Obstetrics and Gynecology, School of Medicine, Pontificia Universidad Católica de Chile; [5]Division of Pathology, Clínica Alemana de Santiago. aziegler@udd.cl (Sponsor: C. Cabello).

19:00 – 20:30 Society Members Meeting

20:30 – 21:30 Plenary Lecture Sociedad de Biologia Celular de Chile
Volcanes Room
Chair: Maria Rosa Bono

Ideas meta-metabólicas en el estudio de la dinámica celular. Juan-Carlos Letelier, Departamento de Biología, Facultad de Ciencias, Universidad de Chile.

21:30 Awards Ceremony
Volcanes Room
Nikon - Loncotec: Best Images in Cell Biology
Genexpress: Best Presentations in Oral and Poster Communications

22:00 Dinner and Party