

# ABSTRACTS

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## POSTER PRESENTATIONS

1) A NEW IN VIVO STRATEGY TO INVESTIGATE THE CONTRIBUTION OF GAP JUNCTIONS TO EXCITATION-SECRETION COUPLING IN THE MOUSE ADRENAL MEDULLA.

Michel G. Desarménien, Carole Jourdan, Irena Iankova and Nathalie C. Guérineau

2) MANIPULATION OF PI3-KINASE  $\delta$ /PTEN ACTIVITIES UNCOVERS A ROLE FOR PTDINS(,5)P2 IN MOBILIZING SECRETORY VESICLES TO THE PLASMALEMMA IN CHROMAFFIN CELLS

Peter J Wen, Shona L Osborne, Mark Zanin, Damien J Keating, Frederic A. Meunier.

3) THE SECRETORY PROHORMONE SECRETOGANIN II REGULATES DENSE-CORE SECRETORY GRANULE BIOGENESIS IN CATECHOLAMINERGIC CELLS.

Maité Courel, Alejandro Soler-Jover, Juan L. Rodriguez-Flores, Sushil K. Mahata, Salah Elias, Maité Montero-Hadjadje, Youssef Anouar, Richard J. Giuly, Daniel T. O'Connor, and Laurent Taupenot,

4) TOMOSYN'S INTRAMOLECULAR AND INTERMOLECULAR DYNAMICS

Noa Bielopolski, Alice D. Lam, Daphna Meroz, Edward L. Stuenkel, Nir Ben-Tal and Uri Ashery

5) LOSS OF CAV1.3 CHANNELS REVEALS THE CRITICAL ROLE OF L-TYPE AND BK-CHANNEL COUPLING IN PACEMAKING MOUSE ADRENAL CHROMAFFIN CELLS

David H.F. Vandael, Andrea Marcantoni, Satyajit Mahapatra, Valentina Carabelli, Martina J. Sinnegger-Brauns, Joerg Striessnig, Emilio Carbonet

6) SIMULTANEOUS RECORDING OF L-TYPE CURRENTS AND EXOCYTOTIC EVENTS IN WILD-TYPE AND CAV1.3-/- MOUSE CHROMAFFIN CELLS

Victor Navarro-Tableros, Valentina Carabelli, Joerg Striessnig, Emilio Carbone.

7) OPPOSING ROLE OF cAMP AND cGMP IN MODULATING CAV 1.2 AND CAV 1.3 CHANNELS IN MOUSE CHROMAFFIN CELLS

Satyajit Mahapatra, Valentina Carabelli, Andrea Marcantoni, Joerg Striessnig, Emilio Carbone

8) BOVINE CHROMAFFIN CELLS CONTAIN A MODULATED ALPHA-7 NICOTINIC RECEPTOR THAT CAN INDUCE CYTOSOLIC CALCIUM SIGNALS AND CATECHOLAMINE EXOCYTOSIS.

Laura del Barrio, Javier Egea, Rafael León, Alejandro Romero, Ana Ruiz, Maite Montero, Javier Álvarez and Manuela G. López

9) ON THE ROLE OF CHROMOGRANINS IN THE STORAGE OF CATECHOLAMINES AND EXOCYTOSIS IN CHROMAFFIN CELLS.

José D. Machado, Jéssica Díaz-Vera, Juan R. Hernández-Fernaud, Natalia Domínguez and Ricardo Borges.

10) CHROMOGRANINS EXPRESSION AND EXOCYTOSIS IN CHROMAFFIN CELLS.

Natalia Domínguez, Jéssica Díaz-Vera, Yézer González, Miriam Rodríguez, Ricardo Borges and José D. Machado.

11) THE CALCIUM CHANNEL  $\beta$ -SUBUNIT REGULATES THE CATECHOLAMINE QUANTAL SIZE IN CHROMAFFIN CELLS.

González Jamett A, Guerra MJ, Hevia M, Hidalgo P, Neely Alan, Cárdenas AM.

12) ALTERATION IN EXOCYTOTIC EVENTS CAUSED BY THE VESICULAR ACCUMULATION OF DRUGS.

Daniel Pereda, Yézer González, Beatriz Beltrán, Miriam Rodríguez, José D. Machado and Ricardo Borges

13) DEVELOPMENT OF SENSITIZED EMISSION TIRF-FRET MICROSCOPY TO MONITOR DYNAMIC PROTEIN INTERACTIONS IN LIVING CELLS

Alice D. Lam and Edward L. Stuenkel

14) CALCIUM TRIGGERING OF NEURONAL SOMATIC EXOCYTOSIS OF SEROTONIN.

Carolina León Pinzón and Francisco F. De Miguel

15) CYTOSKELETAL MOTORS CONTRIBUTE TO NEURONAL SOMATIC EXOCYTOSIS OF SEROTONIN.

Paula L. Noguez, Carlos Bustos, Gabriela S. Torres, Ivan Santamaría-Holek, José M. Rubí and Francisco F. De Miguel

16) MUTATIONS IN MUNC 18-1 HYDROPHOBIC POCKET ABOLISH SNARE COMPLEX INTERACTION BUT HAVE A SURPRISINGLY LIMITED IMPACT ON EXOCYTOSIS IN PC12 CELLS

Nancy T Malintan, Tam H. Nguyen, Liping Han, Catherine F. Latham, Shona L. Osborne, Peter J. Wen, Siew Joo Tiffany Lim, Shuzo Sugita, Brett M. Collins, Frederic A. Meunier

17) MOLECULAR ORGANISATION OF TSNARES ON THE PLASMA MEMBRANE

Alison Dun, Claire N. Medine, Colin Rickman, Amy Gray, David J. Moulton, Magaraj Halemani, Silvio Rizzoli, Thorsten Lang, Luke H. Chamberlain and Rory R. Duncan

18) INTRACELLULAR  $Ca^{2+}$  IN PHYSIOLOGICAL RANGE AFFECTS PRIMING & DOCKING OF LARGE DENSE CORE VESICLES.

Mathias Pasche, Detlef Hof, Ulf Matti, Jens Rettig & Ute Becherer

19) AUTONOMIC DYSFUNCTIONS YIELD CARDIOVASCULAR INSTABILITY AND HYPERTENSION IN THE CHROMOGRANIN-A NULL MOUSE

Jiaur R. Gayen, Yusu Gu, Daniel T. O'Connor, and Sushil K. Mahata,

20) IDENTIFICATION OF DISTINCT TARGET GENE COHORTS INDUCED BY TNF AND PACAP IN BOVINE CHROMAFFIN CELLS WITH MICROARRAY ANALYSIS USING AGILENT AND AFFYMETRIX PLATFORMS

Babru B. Samal, Mariam Alaka, Richard Braxton, Abdel Elkahoun, Djida Ait-Ali and Lee E. Eiden

21) ELECTROCHEMICALLY PROBING INDIVIDUAL VESICLES IN A CELL-FREE MODEL REVEALS THAT ONLY A FRACTION OF NEUROTRANSMITTER CONTENT IS RELEASED DURING EXOCYTOSIS.

Donna M. Omiatek, Yan Dong, Michael L. Heien, and Andrew G. Ewing,

22) OBLIGATORY ROLE OF ETB RECEPTORS IN CATESTATIN-DEPENDENT MODULATION OF THE FRANK-STARLING RESPONSE IN THE FROG HEART Alfonsina Gattuso, Sushil K. Mahata, Bruno Tota and Rosa Mazza

23) PRECONDITIONING AND POSTCONDITIONING THE HEART WITH CATESTATIN Claudia Penna, Tommaso Angelone, Francesca Tullio, Francesca Moro, Maria-Giulia Perrelli, Sushil Mahata, Maria Carmela Cerra, Bruno Tota, Pasquale Pagliaro,

24) SYNAPTIC PROTEIN INTERACTION SITE MODULATES P/Q Ca<sup>2+</sup> CURRENT AND EXOCYTOSIS OF IMMEDIATELY RELEASABLE POOL IN MOUSE CHROMAFFIN CELLS.

Yanina D. Álvarez, Andrés Perez Bay, Scott E. Jarvis, H. W. Tedford, Gerald Zamponi and Fernando D. Marengo

## **ORAL PRESENTATIONS**

1) NEURONAL CALCIUM SENSOR-1 REGULATION OF CALCIUM CHANNELS.

Jamie L. Weiss

2) PC12 CELLS AS MODEL SYSTEM TO STUDY MODULATION OF CALCIUM SIGNALLING AND EXOCYTOSIS BY ENVIRONMENTAL POLLUTANTS.

Remco H.S. Westerink, Harm J. Heusinkveld and Milou M.L. Dingemans

3) REGULATION OF CALCIUM CHANNELS AND TRANSMITTER RELEASE BY G PROTEIN COUPLED RECEPTORS.

Jijian Zheng, Mark L. Jewell and Kevin P.M. Currie

4) INVOLVEMENT OF NICOTINIC RECEPTORS IN MDMA-INDUCED TOXICITY AND CYTOSOLIC CALCIUM INCREASE IN PC12 CELLS.

David Pubill, Sara Garcia-Ratés, Jordi Jacas, Jordi Camarasa and Elena Escubedo

5) Ca<sup>2+</sup>-DEPENDENT NANOSECOND EXCITATION OF CATECHOLAMINE RELEASE.

Gale L. Craviso, Paroma Chatterjee, Indira Chatterjee and P. Thomas Vernier, .

6) EFFECTS OF AMPHETAMINE ON NEUROTRANSMITTER RELEASE IN PC12 AND CHROMAFFIN CELLS.

Laura Hondebrink, Johan G. Timmerman, Martin van den Berg, Jan Meulenbelt, Remco H. S. Westerink

7) MYOSIN Va-DEPENDENT AND INDEPENDENT EFFECTS OF MyRIP ON SECRETORY GRANULE DOCKING TO THE PLASMA MEMBRANE

Claire Desnos, Ouardane Jouannot, Isabelle Fanget, Nathanael Larochette and François Darchen

8) INTRAVESICULAR FACTORS CONTROLLING EXOCYTOSIS.

Ricardo Borges, Yézer González, Beatriz Beltrán, Daniel Pereda and José D. Machado

9) THE COFFIN-LOWRY SYNDROME-ASSOCIATED PROTEIN RSK2 AND NEUROSECRETION.

Nicolas Vitale

10) REGULATION OF PHOSPHATIDIC ACID SYNTHESIS AT THE EXOCYTOTIC SITE: IMPLICATION OF GTPASES AND KINASES.

Nicolas Vitale

11) THE FRACTION OF CATECHOLAMINE RELEASED DURING EXOCYTOSIS IS APPROXIMATELY 50% AND IS ALTERED BY PHARMACOLOGY

Michael L. Heien, Donna M. Omiatek, Yan Dong, Andrew G. Ewing,

12) SECRETAGRANIN III FUNCTIONS AS A SORTING RECEPTOR FOR CHROMOGRANIN A AND ADRENOMEDULLIN IN CHROMAFFIN/PC12 CELLS.

Masahiro Hosaka

13) A ROLE OF MYOSIN Va AND rab 3 ISOFORMS IN THE TRAFFICKING AND MATURATION OF SECRETORY GRANULES

Hans-Hermann Gerdes

14) RELATIONSHIP BETWEEN ANNEXIN A2 AND PIP2 CLUSTERS AT EXOCYTOTIC SITES IN CHROMAFFIN CELLS

Emeline Umbrecht-Jenck, Manal Terrab, Valérie Demais, Yannick Bailly, Nicolas Vitale, Marie-France Bader and Sylvette Chasserot-Golaz

15) RAPID RECOVERY OF RELEASABLE VESICLES AND FORMATION OF NON RELEASABLE ENDOSOMES AFTER COMPENSATORY ENDOCYTOSIS AND EXCESS RETRIEVAL.

Andrés E. Perez Bay, Ana Verónica Belingheri, Yanina Álvarez and Fernando D. Marengo, .

16) CARDIOVASCULAR ACTIONS OF CATESTATIN

Sushil K. Mahata, Jiaur R. Gayen, Nagendu B. Dev, Maple M. Fung and Daniel T. O'Connor,

17) INSIGHTS INTO CHROMOGRANIN A FUNCTIONS FROM THE GENE KNOCKOUT MODEL.

Sushil K. Mahata, Jiaur R. Gayen, Simon Schenk, Nilima Biswas, Sucheta M. Vaingankar, Nagendu B. Dev, Gautam Bandyopadhyay and Daniel T. O'Connor,

18) ENLARGEOSOMES, A CLASS OF VESICLE COMPETENT FOR REGULATED EXOCYTOSIS EXPRESSED BY HIGH REST CLONES OF PC12 CELLS

Jacopo Meldolesi

19) INTRACELLULAR CA<sup>2+</sup> IN PHYSIOLOGICAL RANGE AFFECTS PRIMING & DOCKING OF LARGE DENSE CORE VESICLES.

Mathias Pasche, Detlef Hof, Ulf Matti, Jens Rettig & Ute Becherer

20) CA<sup>2+</sup>-DEPENDENT NANOSECOND EXCITATION OF CATECHOLAMINE RELEASE.

Gale L. Craviso, Paroma Chatterjee, Indira Chatterjee and P. Thomas Vernier, .

21)REGULATION OF CALCIUM CHANNELS AND TRANSMITTER RELEASE BY G PROTEIN COUPLED RECEPTORS.

Jijian Zheng, Mark L. Jewell and Kevin P.M. Currie

22)VISUALIZING MOLECULAR DYNAMICS IN THE EXOCYTOTIC PATHWAY.

Alice D. Lam, Sahar Ismail, Ray Wu, Ofer Yizhar, Stephen A. Ernst and Edward L. Stuenkel

23)CHROMOGRANIN A IN CELL ADHESION AND MIGRATION: FUNCTIONAL ROLE AND MOLECULAR MECHANISMS

Eleonora Dondossola, Anna Gasparri, Luca Crippa, Elisabetta Ferrero, Renato Longhi, Flavio Curnis and Angelo Corti

24)WHICH PROTEINS MEDIATE THE PRIMING OF LARGE DENSE-CORE VESICLES IN ADRENAL CHROMAFFIN CELLS?

Yuanyuan Liu, Claudia Schirra, Ulf Matti, Nils Brose, David Stevens and Jens Rettig

25)SNARE CLUSTER ORGANIZATION AND DYNAMICS.

Luis M. Gutiérrez, Cristina J. Torregrosa-Hetland, José Villanueva, Inmaculada López and Salvador Viniegra.

26)INOSITOL 1,4,5-TRISPHOSPHATE RECEPTORS IN CHROMAFFIN SECRETORY GRANULES AND ITS RELATION TO CHROMOGRANINS

Seung Hyun Yoo

27)DO CHROMAFFIN CELLS HAVE NEURONAL-LIKE RELEASE SITE?

Reut Friedrich, Merav Kofer, Anton Sheinin, Nina Wittenmayer, Eitan Okun, Thomas Dresbach and Uri Ashery,

28)INTEGRATING STUDIES OF LIPIDS AND PROTEINS TO IDENTIFY COMPONENTS CRITICAL FOR Ca<sup>2+</sup>-TRIGGERED MEMBRANE FUSION.

Jens R. Coorssen

29)MEMBRANE LIPID ORGANIZATION REGULATES SELECTIVE RECYCLING OF SECRETORY GRANULES

Stéphane Ory, Fanny Momboisse, Mara Ceridono, Valérie Calco, Anne-Marie Haeberlé, Yannick Bailly, Marie-France Bader & Stéphane Gasman.

30)THE ROLE OF SNARES IN FUSION PORE FORMATION

Manfred Lindau

31)PROGENITOR/STEM CELLS IN THE ADRENAL MEDULLA

Monika Ehrhart-Bornstein

32)MEDULLARY SIGNALING TOWARDS THE CORTEX AND CORTICAL SIGNALING TOWARDS THE MEDULLA

Stefan R. Bornstein

- 33) RECENT ADVANCES IN UNDERSTANDING THE DEVELOPMENT OF THE SYMPATHOADRENAL (SA) CELL LINEAGE  
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- 34) DISSECTING THE CONTRIBUTION OF PTDINS(4,5)P<sub>2</sub> IN EXOCYTOSIS.  
Peter J. Wen, Shona L Osborne, Mark Zanin, Bart Vanhaesebroeck, Damien J Keating, and Frederic A. Meunier
- 35) CONTROL OF EXOCYTOSIS BY 3-PHOSPHORYLATED PHOSPHOINOSITIDES: DYNAMIC ROLE OF Ca<sup>2+</sup>  
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- 36) ONE PRECURSOR (CGA) AND TWO DERIVED CARDIOACTIVE PEPTIDES, I.E. VASOSTATIN AND CATESTATIN: CONVERGENCE ON MYOCARDIAL AND CORONARY FUNCTIONS.  
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- 37) THE PARTNERS OF DYNAMIN SYNAPTOPHYSIN AND THE CALCIUM CHANNEL ?- SUBUNIT REGULATE THE MODE OF RETRIEVAL OF CHROMAFFIN GRANULE.  
Ana M. Cárdenas, Arlek González-Jamett, María J. Guerra, Ximena Báez, Montserrat Hevia, Agustín Martínez, Patricia Hidalgo, Alan Neely.
- 38) THE ACTIVITY-DEPENDENT SHIFT IN MOLECULAR MECHANISM FOR COMPENSATORY ENDOCYTOSIS.  
Corey Smith, Tiberiu Fulop and Bryan Doreian
- 39) CHROMOGRANIN-SECRETAGRANINS IN NEUROENDOCRINE TUMORS. IMMUNOHISTOCHEMICAL ANALYSIS OF CHROMOGRANINS A AND B, AND SECRETAGRANINS II AND III.  
Guida M. Portela-Gomes
- 40) MODULATION OF TRANSMITTER RELEASE BY ACTION POTENTIAL CODES  
Zhuan Zhou Institute of Molecular Medicine, Peking University, Beijing 100871, China
- 41) THE ANGIOGENIC NEUROPEPTIDE SECRETONEURIN RESTORES FUNCTION AND TISSUE PERFUSION IN THE MOUSE HIND-LIMB ISCHEMIA MODEL.  
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- 42) REGULATION OF TYROSINE HYDROXYLASE IN CENTRAL AND PERIPHERAL STRESS RESPONSES.  
A. William Tank, Xiqun Chen, Carol Sterling, Katsuya Takeuchi and Lu Xu
- 43) INTRACELLULAR CA<sup>2+</sup> IN PHYSIOLOGICAL RANGE AFFECTS PRIMING & DOCKING OF LARGE DENSE CORE VESICLES.  
Mathias Pasche, Detlef Hof, Ulf Matti, Jens Rettig & Ute Becherer

44) EXPRESSION OF TROPHIC PEPTIDES AND THEIR RECEPTORS IN BENIGN AND MALIGNANT PHEOCHROMOCYTOMAS

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45) CHROMAFFIN GRANULES AS CALCIUM SOURCE FOR MOTION AND EXOCYTOSIS

Jaime Santo Domingo, Laura Vay, Marcial Camacho, Esther Hernández-San Miguel, Rosalba I. Fonteriz, Carmen D. Lobatón, Mayte Montero, Alfredo Moreno and Javier Alvarez

46) INSM1 (IA-1) IS A CRUCIAL COMPONENT OF THE TRANSCRIPTIONAL NETWORK THAT CONTROLS DIFFERENTIATION OF THE SYMPATHO-ADRENAL LINEAGE

Hendrik Wildner, Mathias Gierl, Michael Strehle, Patrick Pla and Carmen Birchmeier

47) NEUROENDOCRINE AND PARACRINE REGULATION OF LUTEINIZING HORMONE BY SECRETONEURIN.

Vance L. Trudeau, E Zhao, Ajoy Basak and Allan McNeilly