

DMITRY LIM
CURRICULUM VITAE



PERSONAL INFO

Name **DMITRY LIM**
Address **VIA BOVIO 6, 28100, NOVARA, ITALY**
Phone **+39 0321 375822**
Fax **+39 0321 375821**
E-mail **dmitry.lim@uniupo.it**

Citizenship Italiana
DOB 29/10/1968

EMPLOYMENT

- Date (2019 – presente)
 - Employer Associate Professor of Fisiology, SSD Bio/09
Università del Piemonte Orientale “Amedeo Avogadro”, Department of Pharmaceutical Sciences, Largo Donegani 2, Novara, 28100, Italy
- Date (2016 – 2019)
 - Employer Ricamatore RTDb, SSD Bio/09, Fisiologia
Università del Piemonte Orientale “Amedeo Avogadro”, Department of Pharmaceutical Sciences, Largo Donegani 2, Novara, 28100, Italy
- Date (2009 – 2016)
 - Employer Research Fellow
Università del Piemonte Orientale “Amedeo Avogadro”, Department of Pharmaceutical Sciences, Largo Donegani 2, Novara, 28100, Italy
- Date (2007 – 2008)
 - Employer Postdoctoral Fellow
Venetian Institute of Molecular Medicine, Padova, Italy
- Date (2004 – 2006)
 - Employer Co.Co.Pro.
Università di Padova, Department of Biochemistry, Padova, Italy

EDUCATION

- Date (1999 – 2003) PhD in Physiology and Cell Biology. The Open University of London, UK e Stazione Zoologica di Napoli “Anton Dohrn”, Italy
- Date (1994 – 1999) Master degree in Physiology Cum Laude, The Moscow State University “Michail Lomonosov”
- Date (1984 – 1988) Degree in Nursing Cum Laude. Novokuybishevsk school of nursing, Novokuybishevsk, Russia.

PROFESSIONAL ACTIVITIES

- Date (2017 – 2020) Member of Academic Board of the PhD in Chemistry and Biology, Università del Piemonte Orientale.
- Date (2019 – 2024) Member of council of the Department of Pharmaceutical Sciences, Università Del Piemonte Orientale
- Date (2020 – presente) Member of Academic Board of the PhD in Pharmaceutical innovation, Università del Piemonte Orientale.
- Date (2021 – presente) member of Technical-Scientific Committee, Interdipartimental Center for Allergic and Autoimmune Diseases (CAAD), Università del Piemonte Orientale.

- Date (2021 – presente) Vice president of Master Degree in Pharmaceutical Biotechnologies, Department of Pharmaceutical Sciences, Università del Piemonte Orientale.
- Date (2021 – presente) Delegate for International Relations, Department of Pharmaceutical Sciences, Università del Piemonte Orientale.

Scientific interest:

Research interests of Prof. Dmitry Lim fall within three main domains:

- Pathophysiology of calcium (Ca²⁺) homeostasis and signaling;
- Pathophysiology of astrocytes and their role in Alzheimer's disease pathogenesis;
- Organization endoplasmic reticulum (ER)-mitochondrial contact sites and their role in cellular pathophysiology.

PUBBLICAZIONI

- Dematteis G, Tapella L, Casali C, Talmon M, Tonelli E, Reano S, Ariotti A, Pessolano E, Malecka J, Chrostek G, Kulkovienė G, Umbrasas D, Distasi C, Grilli M, Ladds G, Filigheddu N, Fresu LG, Mikoshiba K, Matute C, Ramos-Gonzalez P, Jekabsone A, Cali T, Brini M, Biggiogera M, Cavaliere F, Miggiano R, Genazzani AA, **Lim D**. ER-mitochondria distance is a critical parameter for efficient mitochondrial Ca²⁺ uptake and oxidative metabolism. *Commun Biol*. 2024 Oct 10;7(1):1294. doi: 10.1038/s42003-024-06933-9. PMID: 39390051; PMCID: PMC11467464.
- Pinton G, Perucca M, Gigliotti V, Mantovani E, Clemente N, Malecka J, Chrostek G, Dematteis G, **Lim D**, Moro L, Chiazza F. EZH2-Mediated H3K27 Trimethylation in the Liver of Mice Is an Early Epigenetic Event Induced by High-Fat Diet Exposure. *Nutrients*. 2024 Sep 26;16(19):3260. doi: 10.3390/nu16193260. PMID: 39408226; PMCID: PMC11479199.
- Dematteis G, Tapella L, **Lim D**. Probing the endoplasmic reticulum-mitochondria interaction in Alzheimer's disease: searching far and wide. *Neural Regen Res*. 2024 Oct 1;19(10):2103-2104. doi: 10.4103/1673-5374.392880. Epub 2024 Jan 8. PMID: 38488539; PMCID: PMC11034600.
- Romagnolo A, Dematteis G, Scheper M, Luinenburg MJ, Mühlebner A, Van Hecke W, Manfredi M, De Giorgis V, Reano S, Filigheddu N, Bortolotto V, Tapella L, Anink JJ, François L, Dedeurwaerdere S, Mills JD, Genazzani AA, **Lim D**, Aronica E. Astroglial calcium signaling and homeostasis in tuberous sclerosis complex. *Acta Neuropathol*. 2024 Feb 28;147(1):48. doi: 10.1007/s00401-024-02711-3. PMID: 38418708; PMCID: PMC10901927.
- Tapella L, Dematteis G, La Vitola P, Leva S, Tonelli E, Raddi M, Delconti M, Dacomo L, La Macchia A, Murari E, Talmon M, Malecka J, Chrostek G, Grilli M, Colombo L, Salmona M, Forloni G, Genazzani AA, Balducci C, **Lim D**. Genetic deletion of astrocytic calcineurin B1 prevents cognitive impairment and neuropathology development in acute and chronic mouse models of Alzheimer's disease. *Glia*. 2024 Jan 30. doi: 10.1002/glia.24509. Epub ahead of print. PMID: 38288580.
- Lim, D.***, Verkhatsky, A. Alterations of protein homeostasis in Alzheimer's disease: beyond Procrustean bed of endoplasmic reticulum stress and unfolded protein response. (2024) *Neural Regeneration Research*, 19(0):000-000. doi.org/10.4103/ (in press).
- Dionisi, M., Riva, B., Delconti, M., Meregalli, C., Chiorazzi, A., Canta, A., Alberti, P., Carozzi, V., Pozzi, E., **Lim, D.**, Genazzani, A.A., Distasi, C., Cavaletti, G. Inhibition of NHE1 transport activity and gene transcription in DRG neurons in oxaliplatin-induced painful peripheral neurotoxicity. (2023) *Scientific Reports*, 13. DOI: 10.1038/s41598-023-31095-9.
- Lim, D.***, Tapella, L., Dematteis, G., Genazzani, A.A., Corazzari, M., Verkhatsky, A. The endoplasmic reticulum stress and unfolded protein response in Alzheimer's disease: A calcium dyshomeostasis perspective. (2023b) *Ageing Research Reviews*, 87. DOI: 10.1016/j.arr.2023.101914.
- Tapella, L., Dematteis, G., Genazzani, A.A., De Paola, M., **Lim, D.*** Immortalized hippocampal astrocytes from 3xTg-AD mice, a new model to study disease-related astrocytic dysfunction: a comparative review. (2023) *Neural Regeneration Research*, 18:1672-1678. DOI: 10.4103/1673-5374.363192.
- Gong, C., Bonfili, L., Zheng, Y., Cecarini, V., Cuccioloni, M., Angeletti, M., Dematteis, G., Tapella, L., Genazzani, A.A., **Lim, D.***, Eleuteri, A.M. Immortalized Alzheimer's Disease Astrocytes: Characterization of Their Proteolytic Systems. (2023) *Molecular Neurobiology*, 60:2787-2800. DOI: 10.1007/s12035-023-03231-z.
- Lim, D.***, Tapella, L., Dematteis, G., Talmon, M., Genazzani, A.A. Calcineurin Signalling in Astrocytes: From Pathology to Physiology and Control of Neuronal Functions (2023a) *Neurochemical Research*, 48:1077-1090. DOI: 10.1007/s11064-022-03744-4.

12. Villani, S., Dematteis, G., Tapella, L., Gagliardi, M., **Lim, D.**, Corazzari, M., Aprile, S., Del Grosso, E. Quantification of the Chemical Chaperone 4-Phenylbutyric Acid (4-PBA) in Cell Culture Media via LC-HRMS: Applications in Fields of Neurodegeneration and Cancer (2023) *Pharmaceuticals*, 16. DOI: 10.3390/ph16020298.
13. Moccia, F., Fiorio Pla, A., **Lim, D.**, Lodola, F., Gerbino, A. Intracellular Ca²⁺ signalling: unexpected new roles for the usual suspect (2023) *Frontiers in Physiology*, 14. DOI: 10.3389/fphys.2023.1210085.
14. Tapella, L., Dematteis, G., Moro, M., Pistolato, B., Tonelli, E., Vanella, V.V., Giustina, D., La Forgia, A., Restelli, E., Barberis, E., Cali, T., Brini, M., Villani, S., Del Grosso, E., Grilli, M., Manfredi, M., Corazzari, M., Grolla, A.A., Genazzani, A.A., **Lim, D.*** Protein synthesis inhibition and loss of homeostatic functions in astrocytes from an Alzheimer's disease mouse model: a role for ER-mitochondria interaction (2022) *Cell Death and Disease*, 13. DOI: 10.1038/s41419-022-05324-4, PUBMED ID: 36257957.
15. **Lim D.**, Tapella L, Dematteis G, Talmon M, Genazzani AA. Calcineurin Signalling in Astrocytes: From Pathology to Physiology and Control of Neuronal Functions. *Neurochem Res*. 2022 doi: 10.1007/s11064-022-03744-4.
16. Favero F, Barberis E, Gagliardi M, Espinoza S, Contu L, Gustincich S, Boccafoschi F, Borsotti C, **Lim D.**, Rubino V, Mignone F, Pasolli E, Manfredi M, Zucchelli S, Corà D, Corazzari M. A Metabologenomic approach reveals alterations in the gut microbiota of a mouse model of Alzheimer's disease. *PLoS One*. 2022 17:e0273036. doi: 10.1371/journal.pone.0273036.
17. Faris P, Rumolo A, Tapella L, Tanzi M, Metallo A, Conca F, Negri S, Lefkimmiatis K, Pedrazzoli P, **Lim D.**, Montagna D, Moccia F. Store-Operated Ca²⁺ Entry Is Up-Regulated in Tumour-Infiltrating Lymphocytes from Metastatic Colorectal Cancer Patients. *Cancers (Basel)*. 2022 14:3312. doi: 10.3390/cancers14143312.
18. Dematteis G, Restelli E, Vanella VV, Manfredi M, Marengo E, Corazzari M, Genazzani AA, Chiesa R, **Lim D.**, Tapella L. Calcineurin Controls Cellular Prion Protein Expression in Mouse Astrocytes. *Cells*. 2022. 11:609. doi: 10.3390/cells11040609.
19. Merlo S, Spampinato SF, **Lim D.** Molecular Aspects of Cellular Dysfunction in Alzheimer's Disease: The Need for a Holistic View of the Early Pathogenesis. *Biomolecules*. 2021. 11:1807. doi: 10.3390/biom11121807.
20. Tapella L, Dematteis G, Ruffinatti FA, Ponzoni L, Fiordaliso F, Corbelli A, Albanese E, Pistolato B, Pagano J, Barberis E, Marengo E, Balducci C, Forloni G, VerPELLI C, Sala C, Distasi C, Sala M, Manfredi M, Genazzani AA, **Lim D.** Deletion of calcineurin from astrocytes reproduces proteome signature of Alzheimer's disease and epilepsy and predisposes to seizures. *Cell Calcium*. 2021. 100:102480. doi: 10.1016/j.ceca.2021.102480.
21. **Lim D.**, Dematteis G, Tapella L, Genazzani AA, Cali T, Brini M, Verkhatsky A. Ca²⁺ handling at the mitochondria-ER contact sites in neurodegeneration. *Cell Calcium*. 2021. 98:102453. doi: 10.1016/j.ceca.2021.102453.
22. **Lim D.**, Semyanov A, Genazzani A, Verkhatsky A. Calcium signaling in neuroglia. *Int Rev Cell Mol Biol*. 2021. 362:1-53. doi: 10.1016/bs.ircmb.2021.01.003.
23. Forcaia G, Formicola B, Terribile G, Negri S, **Lim D.**, Biella G, Re F, Moccia F, Sancini G. Multifunctional Liposomes Modulate Purinergic Receptor-Induced Calcium Wave in Cerebral Microvascular Endothelial Cells and Astrocytes: New Insights for Alzheimer's disease. *Mol Neurobiol*. 2021 58:2824-2835. doi: 10.1007/s12035-021-02299-9.
24. Lomazzi, S., Caccia, M., Distasi, C., Dionisi, M., **Lim, D.**, Martemiyarov, A., Nardo, L., Ruffinatti, F.A., Santoro, R. Assessment of the potential of SiPM-based systems for bioluminescence detection. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*. 2020. 979:164493. DOI: 10.1016/j.nima.2020.164493.
25. Dionisi M, Ruffinatti FA, Riva B, **Lim D.**, Canta A, Meregalli C, Fumagalli G, Monza L, Ferrer-Montiel A, Fernandez-Carvajal A, Cavaletti G, Genazzani AA, Distasi C. Early Stimulation of TREK Channel Transcription and Activity Induced by Oxaliplatin-Dependent Cytosolic Acidification. *Int J Mol Sci*. 2020. 21:7164. doi: 10.3390/ijms21197164.
26. Ruffinatti FA, Lomazzi S, Nardo L, Santoro R, Martemiyarov A, Dionisi M, Tapella L, Genazzani AA, **Lim D.**, Distasi C, Caccia M. Assessment of a Silicon-Photomultiplier-Based Platform for the Measurement of Intracellular Calcium Dynamics with Targeted Aequorin. *ACS Sens*. 2020. 5:2388-2397. doi: 10.1021/acssensors.0c00277. Epub 2020 Aug 5. PMID: 32701269.
27. Dematteis G, Vydmantaitė G, Ruffinatti FA, Chahin M, Farruggio S, Barberis E, Ferrari E, Marengo E, Distasi C, Morkūnienė R, Genazzani AA, Grilli M, Grossini E, Corazzari M, Manfredi M, **Lim D.**, Jekabsone A, Tapella L. Proteomic analysis links alterations of bioenergetics, mitochondria-ER interactions and proteostasis in hippocampal astrocytes from 3xTg-AD mice. *Cell Death Dis*. 2020. 11:645. doi:10.1038/s41419-020-02911-1
28. Kriauciūnaitė K, Kaušylė A, Pajarskienė J, Tunaitis V, **Lim D.**, Verkhatsky A, & Pivoriūnas A. Immortalised Hippocampal Astrocytes from 3xTG-AD Mice Fail to Support BBB Integrity In Vitro: Role of Extracellular Vesicles in Glial-Endothelial Communication. *Cellular and molecular neurobiology*, 2020 <https://doi.org/10.1007/s10571-020-00871-w>

29. Astesana V, Faris P, Ferrari B, Siciliani S, **Lim D**, Biggiogera M, De Pascali SA, Fanizzi FP, Roda E, Moccia F, & Bottone MG. (2020). [Pt(O,O'-acac)(γ-acac)(DMS)]: Alternative Strategies to Overcome Cisplatin-Induced Side Effects and Resistance in T98G Glioma Cells. *Cellular and molecular neurobiology*, **2020** <https://doi.org/10.1007/s10571-020-00873-8>
30. Dematteis G, Restelli E, Chiesa R, Aronica E, Genazzani AA, **Lim D**, & Tapella L. Calcineurin Controls Expression of EAAT1/GLAST in Mouse and Human Cultured Astrocytes through Dynamic Regulation of Protein Synthesis and Degradation. *International journal of molecular sciences*, **2020**. 21:2213. <https://doi.org/10.3390/ijms21062213>
31. Torretta S, Colombo G, Travelli C, Boumya S, **Lim D**, Genazzani AA, & Grolla AA. The Cytokine Nicotinamide Phosphoribosyltransferase (eNAMPT; PBEF; Visfatin) Acts as a Natural Antagonist of C-C Chemokine Receptor Type 5 (CCR5). *Cells*, **2020** 9:496. <https://doi.org/10.3390/cells9020496>
32. Di Buduo CA, Abbonante V, Marty C, Moccia F, Rumi E, Pietra D, Soprano PM, **Lim D**, Cattaneo D, Iurlo A, Gianelli U, Barosi G, Rosti V, Plo I, Cazzola M, Balduini A. Defective interaction of mutant calreticulin and SOCE in megakaryocytes from patients with myeloproliferative neoplasms. *Blood*. **2020** 135:133-144. doi: 10.1182/blood.2019001103.
33. Tapella L, Soda T, Mapelli L, Bortolotto V, Bondi H, Ruffinatti FA, Dematteis G, Stevano A, Dionisi M, Ummarino S, Di Ruscio A, Distasi C, Grilli M, Genazzani AA, D'Angelo E, Moccia F, **Lim D**. Deletion of calcineurin from GFAP-expressing astrocytes impairs excitability of cerebellar and hippocampal neurons through astroglial Na⁽⁺⁾/K⁽⁺⁾ ATPase. *Glia*. **2020** 68:543-560 doi: 10.1002/glia.23737.
34. Lodola F, Rosti V, Tullii G, Desii A, Tapella L, Catarsi P, **Lim D**, Moccia F, Antognazza MR. Conjugated polymers optically regulate the fate of endothelial colony-forming cells. *Sci Adv*. **2019** Sep 27;5(9):eaav4620. doi: 10.1126/sciadv.aav4620.
35. Talmon M, Rossi S, **Lim D**, Pollastro F, Palattella G, Ruffinatti FA, Marotta P, Boldorini R, Genazzani AA, Fresu LG. Absinthin, an agonist of the bitter taste receptor hTAS2R46, uncovers an ER-to-mitochondria Ca⁽²⁺⁾-shuttling event. *J Biol Chem*. **2019** Jun 27. pii: jbc.RA119.007763. doi: 10.1074/jbc.RA119.007763.
36. Zuccolo E, Kheder DA, **Lim D**, Perna A, Nezza FD, Botta L, Scarpellino G, Negri S, Martinotti S, Soda T, Forcaia G, Riboni L, Ranzato E, Sancini G, Ambrosone L, D'Angelo E, Guerra G, Moccia F. Glutamate triggers intracellular Ca⁽²⁺⁾ oscillations and nitric oxide release by inducing NAADP- and InsP(3) –dependent Ca⁽²⁺⁾ release in mouse brain endothelial cells. *J Cell Physiol*. **2019**. Apr;234(4):3538-3554. doi: 10.1002/jcp.26953. Epub 2018 Nov 19. PubMed PMID: 30451297.
37. Faris P, Pellavio G, Ferulli F, Di Nezza F, Shekha M, **Lim D**, Maestri M, Guerra G, Ambrosone L, Pedrazzoli P, Laforenza U, Montagna D, Moccia F. Nicotinic Acid Adenine Dinucleotide Phosphate (NAADP) Induces Intracellular Ca⁽²⁺⁾ Release through the Two-Pore Channel TPC1 in Metastatic Colorectal Cancer Cells. *Cancers (Basel)*. **2019**. Apr 15;11(4). pii: E542. doi: 10.3390/cancers11040542. PubMed PMID:30991693.
38. Rocchio F, Tapella L, Manfredi M, Chisari M, Ronco F, Ruffinatti FA, Conte E, Canonico PL, Sortino MA, Grilli M, Marengo E, Genazzani AA, **Lim D**. Gene expression, proteome and calcium signaling alterations in immortalized hippocampal astrocytes from an Alzheimer's disease mouse model. *Cell Death Dis*. **2019**. Jan 10;10(1):24. doi: 10.1038/s41419-018-1264-8
39. Zuccolo E, Kheder DA, **Lim D**, Perna A, Nezza FD, Botta L, Scarpellino G, Negri S, Martinotti S, Soda T, Forcaia G, Riboni L, Ranzato E, Sancini G, Ambrosone L, D'Angelo E, Guerra G, Moccia F. Glutamate triggers intracellular Ca⁽²⁺⁾ oscillations and nitric oxide release by inducing NAADP- and InsP(3) –dependent Ca⁽²⁺⁾ release in mouse brain endothelial cells. *J Cell Physiol*. **2018**. Nov 19. doi: 10.1002/jcp.26953.
40. **Lim D**, Mapelli L, Canonico PL, Moccia F, Genazzani AA. Neuronal Activity-Dependent Activation of Astroglial Calcineurin in Mouse Primary Hippocampal Cultures. *Int J Mol Sci*. **2018**. Sep 30;19(10). pii: E2997. doi: 10.3390/ijms19102997
41. Riva B, Dionisi M, Potenzieri A, Chiorazzi A, Cordero-Sanchez C, Rigolio R, Carozzi VA, **Lim D**, Cavaletti G, Marmioli P, Distasi C, Genazzani AA. Oxaliplatin induces pH acidification in dorsal root ganglia neurons. *Sci Rep*. **2018**. Oct 10;8(1):15084. doi: 10.1038/s41598-018-33508-6
42. Riva B, Griglio A, Serafini M, Cordero-Sanchez C, Aprile S, Di Paola R, Gugliandolo E, Alansary D, Biocotino I, **Lim D**, Grosa G, Galli U, Niemeyer B, Sorba G, Canonico PL, Cuzzocrea S, Genazzani AA, Piralì T. Pyrriazoles, a Novel Class of Store-Operated Calcium Entry Modulators: Discovery, Biological Profiling, and in Vivo Proof-of-Concept Efficacy in Acute Pancreatitis. *J Med Chem*. **2018**. Oct 30. doi: 10.1021/acs.jmedchem.8b01512.
43. Ruffinatti F, Tapella L, Gregnanin I, Stevano A, Chiorino G, Canonico PL, Distasi C, Genazzani AA, **Lim D**. Transcriptional remodeling in primary hippocampal astrocytes from an Alzheimer's disease mouse model. *Curr Alzheimer Res*. **2018**. Jun 12. doi: 10.2174/1567205015666180613113924.
44. Tapella L, Cerruti M, Biocotino I, Stevano A, Rocchio F, Canonico PL, Grilli M, Genazzani AA, **Lim D**. TGF-β2 and TGF-β3 from cultured β-amyloid-treated or 3xTg-AD-derived astrocytes may mediate astrocyte-neuron communication. *Eur J Neurosci*. **2018**. 47:211-221.

45. Marmioli P, Riva B, Pozzi E, Ballarini E, **Lim D**, Chiorazzi A, Meregalli C, Distasi C, Renn CL, Semperboni S, Morosi L, Ruffinatti FA, Zucchetti M, Dorsey SG, Cavaletti G, Genazzani A, Carozzi VA. **2017**. Susceptibility of different mouse strains to oxaliplatin peripheral neurotoxicity: Phenotypic and genotypic insights. *PLoS One*. 12:e0186250.
46. Zuccolo E, **Lim D**, Kheder DA, Perna A, Catarsi P, Botta L, Rosti V, Riboni L, Sancini G, Tanzi F, D'Angelo E, Guerra G, Moccia F. **2017**. Acetylcholine induces intracellular Ca(2+) oscillations and nitric oxide release in mouse brain endothelial cells. *Cell Calcium*. 66:33-47.
47. De Mario A, Peggion C, Massimino ML, Viviani F, Castellani A, Giacomello M, **Lim D**, Bertoli A, Sorgato MC. **2017**. The prion protein regulates glutamate-mediated Ca(2+) entry and mitochondrial Ca(2+) accumulation in neurons. *J Cell Sci*. 130:2736-2746.
48. Vicidomini C, Ponzoni L, **Lim D**, Schmeisser MJ, Reim D, Morello N, Orellana D, Tozzi A, Durante V, Scalmani P, Mantegazza M, Genazzani AA, Giustetto M, Sala M, Calabresi P, Boeckers TM, Sala C, Verpelli C. **2017**. Homer1b/c clustering is impaired in Phelan-McDermid Syndrome iPSCs derived neurons. *Mol Psychiatry*. 22:637.
49. Vicidomini C, Ponzoni L, **Lim D**, Schmeisser MJ, Reim D, Morello N, Orellana D, Tozzi A, Durante V, Scalmani P, Mantegazza M, Genazzani AA, Giustetto M, Sala M, Calabresi P, Boeckers TM, Sala C, Verpelli C. **2017**. Pharmacological enhancement of mGlu5 receptors rescues behavioral deficits in SHANK3 knock-out mice. *Mol Psychiatry*. 22:784.
50. Zuccolo E, Dragoni S, Poletto V, Catarsi P, Guido D, Rappa A, Reforgiato M, Lodola F, **Lim D**, Rosti V, Guerra G, Moccia F. **2016**. Arachidonic acid-evoked Ca(2+) signals promote nitric oxide release and proliferation in human endothelial colony forming cells. *Vascul Pharmacol*. 87:159-171.
51. Poletto V, Dragoni S, **Lim D**, Biggiogera M, Aronica A, Cinelli M, De Luca A, Rosti V, Porta C, Guerra G, Moccia F. **2016**. Endoplasmic Reticulum Ca(2+) Handling and Apoptotic Resistance in Tumor-Derived Endothelial Colony Forming Cells. *J Cell Biochem*. 117:2260-7.
52. **Lim D**, Rocchio F, Mapelli L, Moccia F. 2016. From pathology to physiology of calcineurin signalling in astrocytes. *Opera Medica & Physiologica*, 2:43-61
53. **Lim D**, Bertoli A, Sorgato MC, Moccia F. **2016**. Generation and usage of aequorin lentiviral vectors for Ca(2+) measurement in sub-cellular compartments of hard-to-transfect cells. *Cell Calcium*. 59:228-39.
54. Dinamarca MC, Guzzetti F, Karpova A, **Lim D**, Mitro N, Musardo S, Mellone M, Marcello E, Stanic J, Samaddar T, Burguière A, Caldarelli A, Genazzani AA, Perroy J, Fagni L, Canonico PL, Kreutz MR, Gardoni F, Di Luca M. **2016**. Ring finger protein 10 is a novel synaptonuclear messenger encoding activation of NMDA receptors in hippocampus. *Elife*. 5:e12430.
55. **Lim D**, Rodriguez-Arellano JJ, Parpura V, Zorec R, Zeidán-Chuliá F, Genazzani AA, Verkhratsky A. **2015**. Calcium signalling toolkits in astrocytes and spatio-temporal progression of Alzheimer's disease. *Curr Alzheimer Res*. 13:359-69.
56. De Mario A, Castellani A, Peggion C, Massimino ML, **Lim D**, Hill AF, Sorgato MC, Bertoli A. **2015**. The prion protein constitutively controls neuronal store-operated Ca2+ entry through Fyn kinase. *Front.Cell.Neurosci*. 9:416.
57. Marmioli P, Cavaletti G, Carozzi V, Riva B, **Lim D**, Genazzani AA. **2015**. Calcium-related Neurotoxicity of Oxaliplatin: Understanding the Mechanisms to Drive Therapy. *Curr Med Chem*. 22:3682-3694.
58. Grolla AA, Torretta S, Gnemmi I, Amoruso A, Orsomando G, Gatti M, Caldarelli A, **Lim D**, Penengo L, Brunelleschi S, Genazzani AA, Travelli C. **2015**. Nicotinamide phosphoribosyltransferase (NAMPT/PBEF/visfatin) is a tumoural cytokine released from melanoma. *Pigment Cell Melanoma Res*. Sep 10. doi: 10.1111/pcmr.12420.
59. Ronco V, Potenza DM, Denti F, Vullo S, Gagliano G, Tognolina M, Guerra G, Pinton P, Genazzani AA, Mapelli L, **Lim D***, Moccia F*. **2015**. A novel Ca2+-mediated cross-talk between endoplasmic reticulum and acidic organelles: implications for NAADP-dependent Ca2+ signalling. *Cell Calcium*. 57:89-100. (*, joint senior authorship)
60. Iyer AM, van Scheppingen J, Milenkovic I, Anink JJ, **Lim D**, Genazzani AA, Adle-Biassette H, Kovacs GG, Aronica E. **2014**. Metabotropic Glutamate Receptor 5 in Down's Syndrome Hippocampus During Development: Increased Expression in Astrocytes. *Curr Alzheimer Res*. 11:694-705.
61. **Lim D**, Ronco V, Grolla AA, Verkhratsky A, Genazzani AA. **2014**. Glial Calcium Signalling in Alzheimer's Disease. *Rev Physiol Biochem Pharmacol*. 167:45-65.
62. Ronco V, Grolla AA, Glasnov TN, Canonico PL, Verkhratsky A, Genazzani AA, **Lim D**. **2014**. Differential deregulation of astrocytic calcium signalling by amyloid-β, TNFα, IL-1β and LPS. *Cell Calcium*. 55:219-29.
63. Rahimian R, Fakhfour G, Ejtemaei Mehr S, Ghia JE, Genazzani AA, Payandemehr B, Dehpour AR, Mousavizadeh K, **Lim D**. **2013**. Tropisetron attenuates amyloid-beta-induced inflammatory and apoptotic responses in rats. *Eur J Clin Invest*. 43:1039-51.

64. Grolla AA, Sim JA, **Lim D**, Rodriguez JJ, Genazzani AA, Verkhatsky A. **2013**. Amyloid- β and Alzheimer's disease type pathology differentially affects calcium signalling toolkit in astrocytes from different brain regions. *Cell Death & Disease*, 4:e623. doi: 10.1038/cddis.2013.145.
65. **Lim D**, Iyer A, Ronco V, Grolla A, Canonico PL, Aronica E, Genazzani AA. **2013**. Amyloid beta deregulates astroglial mGluR5-mediated calcium signaling via calcineurin and NF- κ B. *Glia*. 2013 Apr 25. doi: 10.1002/glia.22502.
66. Grolla AA, Fakhfouri G, Balzaretto G, Marcello E, Gardoni F, Canonico P, Diluca M, Genazzani AA, **Lim D**. **2013**. A β leads to Ca(2+) signaling alterations and transcriptional changes in glial cells. *Neurobiol Aging*. 34:511-522.
67. Lodola F*, Laforenza U*, Bonetti E*, **Lim D***, Dragoni S, Bottino C, Guerra G, Ganini C, Massa M, Manzoni M, Rosti V, Pedrazzoli P, Tanzi F, Moccia F, Porta C. **2012**. Store-operated Ca2+ entry is remodelled and controls in vitro angiogenesis in endothelial progenitor cells isolated from tumoral parients. *PlosOne*. 7(9):e42541. doi: 10.1371/journal.pone.0042541. Epub 2012 Sep 25. (*, joint first authorship).
68. Lazzari C, Peggion C, Stella R, Massimino ML, **Lim D**, Bertoli A, Sorgato MC. **2011**. Cellular prion protein is implicated in the regulation of local Ca2+ movements in cerebellar granule neurons. *J Neurochem*. 116:881-890.
69. Zaninetti R, Fornarelli A, Ciarletta M, **Lim D**, Caldarelli A, Pirali T, Cariboni A, Owsianik G, Nilius B, Canonico PL, Distasi C, Genazzani AA. **2011**. Activation of TRPV4 channels reduces migration of immortalized neuroendocrine cells. *J Neurochem*. 116:606-615
70. Costa V, Giacomello M, Hudec R, Lopreiato R, Ermak G, **Lim D**, Malorni W, Davies KJ, Carafoli E, Scorrano L. **2010**. Mitochondrial fission and cristae disruption increase the response of cell models of Huntington's disease to apoptotic stimuli. *EMBO Mol Med*. 2:490-503
71. Spiden SL, Bortolozzi M, Leva F, de Angelis M, Fuchs H, **Lim D**, Ortolano S, Ingham NJ, Brini M, Carafoli E, Mammano F and Steel KP. **2008**. The Novel Mouse Mutation Oblivion Inactivates the PMCA2 Pump and Causes Progressive Hearing Loss. *PLoS Genetics*. 4:e1000238.
72. Fedrizzi L, **Lim D**, Carafoli E, Brini M. **2008**. Interplay of the Ca2+-binding protein dream with presenilin in neuronal Ca2+ signaling. *J Biol Chem*. 283:27494-27503.
73. Fedrizzi L, **Lim D**, Carafoli E. **2008**. Calcium and signal transduction. *BaMBE*. 36:175-80.
74. Di Leva F, Domi T, Fedrizzi L, **Lim D**, Carafoli E. **2008**. The plasma membrane Ca(2+) ATPase of animal cells: Structure, function and regulation. *Arch Biochem Biophys*. 476:65-74.
75. **Lim D**, Fedrizzi L, Tartari M, Zuccato C, Cattaneo E, Brini M, Carafoli E. **2008**. Calcium homeostasis and mitochondrial dysfunction in striatal neurons of Huntington's disease. *J Biol Chem*. 283:5780-5789.
76. Brini M, Di Leva F, Domi T, Fedrizzi L, **Lim D**, Carafoli E. **2007**. Plasma-membrane calcium pumps and hereditary deafness. *Biochem Soc Trans*. 35:913-918.
77. Ficarella R, Di Leva F, Bortolozzi M, Ortolano S, Donaudy F, Petrillo M, Melchionda S, Lelli A, Domi T, Fedrizzi L, **Lim D**, Shull GE, Gasparini P, Brini M, Mammano F, Carafoli E. **2007**. A functional study of plasma-membrane calcium-pump isoform 2 mutants causing digenic deafness. *Proc Natl Acad Sci U S A*. 104:1516-1521.
78. Nusco GA, Chun JT, Ercolano E, **Lim D**, Gragnaniello G, Kyojuka K, Santella L. **2006**. Modulation of calcium signalling by the actin-binding protein cofilin. *Biochem Biophys Res Commun*. 348:109-114.
79. Moccia F, Nusco GA, **Lim D**, Kyojuka K, Santella L. **2006**. NAADP and InsP3 play distinct roles at fertilization in starfish oocytes. *Dev Biol*. 294:24-38.
80. Moccia F, **Lim D**, Kyojuka K, Santella L. **2004**. NAADP triggers the fertilization potential in starfish oocytes. *Cell Calcium*. 36, 515-524.
81. Santella L, **Lim D**, Moccia F. **2004**. Calcium and fertilization: the beginning of life. *Trends Biochem. Sci*. 29, 400-408. Rreview.
82. **Lim D**, Ercolano E, Kyojuka K, Nusco GA, Moccia F, Lange K, Santella L. **2003**. The M-phase promoting factor modulates the sensitivity of the Ca2+ stores to inositol 1,4,5-trisphosphate via the actin cytoskeleton. *J Biol Chem*. 278, 42505-42514.
83. Moccia F, **Lim D**, Nusco GA, Ercolano E, Santella L. **2003**. NAADP activates a Ca2+ current which is dependent on F-actin cytoskeleton. *FASEB J*. 17, 1907-1909.
84. Moccia F, Nusco GA, **Lim D**, Ercolano E, Gragnaniello G, Brown ER, Santella L. **2003**. Ca2+ signalling and membrane current activated by cADPr in starfish oocytes. *Pflugers Arch*. 446, 541-552.
85. Santella L, Ercolano E, **Lim D**, Nusco GA, Moccia F. **2003**. Activated M-phase-promoting factor (MPF) is exported from the nucleus of starfish oocytes to increase the sensitivity of the Ins(1,4,5)P3 receptors. *Biochem. Soc. Trans*. 31, 79-82.
86. Nusco GA, **Lim D**, Sabala P, Santella L. **2002**. Ca2+ response to cADPr during maturation and fertilization of starfish oocytes. *Biochem. Biophys. Res. Commun*. 290, 1015-1021.
87. Sabala P, Targos B, Caravelli A, Czajkowski R, **Lim D**, Gragnaniello G, Santella L, Baranska J. **2002**. Role of the actin cytoskeleton in store-mediated calcium entry in glioma C6 cells. *Biochem. Biophys. Res. Commun*. 296, 484-491.
88. **Lim D**, Lange K, Santella L. **2002**. Activation of oocytes by latrunculin A. *FASEB J*. 16, 1050-1056.

89. **Lim D**, Kyojuka K, Gragnaniello G, Carafoli E, Santella L. **2001**. NAADP+ initiates the Ca²⁺ response during fertilization of starfish oocytes. *FASEB J.* 15, 2257-2267.

Book Chapters:

Santella L, Nusco GA, **Lim D**. **2002**. Calcium and calcium-linked second messengers are main actors in the maturation and fertilization of starfish oocytes. In "Cyclic ADP-ribose and NAADP. Structures, metabolism and function". Edt. by Lee HC. Kluwer Academic Publishers.

Carafoli E, **Lim D**. **2009**. Plasma membrane Calcium ATPase. In "Handbook of Neurochemistry and Molecular Neurobiology: Neural signaling mechanisms". Ed. Lajtha A., Volume Ed. Mikishiba K. 2009 Springer.

Novara, 16.04.2025

Dmitry Lim