Christian Michael Grimm – CV

1) General information

Name:	**PD Dr. Dr. Christian Michael Grimm**
Address:	Department of Pharmacy/Pharmacology, Faculty of Chem. & Pharm., Ludwig-Maximilians-Universität (LMU) München, Butenandt Str. 5-13, 81377 München, Germany Phone: +49-89-2180-77320 E-Mail: chgrph@cup.uni-muenchen.de

2) Academic education

2015	**Habilitation** and Venia legendi in Pharmacology, **LMU München**
2011	**Ph.D.** (Dr. phil. in Philosophy/Theory of Science; magna cum laude), Max-Planck-Institute for the History of Science, Berlin and Universität Kassel, Germany (Mentors: Prof. Dr. Dr. Kristian Köchy (Kassel) and Prof. Dr. Dr. Hans-Jörg Rheinberger)
2004	**Ph.D.** (Dr. rer. nat. in **Pharmacology**; summa cum laude), **Freie Universität Berlin**, Germany
2001-2004	Graduate research at the Institute of Pharmacology, Faculty of Medicine, **Freie Universität Berlin** (Mentors: Prof. Dr. Günter Schultz and PD Dr. Christian Harteneck)
1995-2000	**M.Sc. Pharmacy**, Julius-Maximilians-Universität Würzburg, Germany

3) Professional experience

2011-	**Lecturer** (since 01/2015 ”Privatdozent”) and independent Group Leader, Department of Pharmacy/Pharmacology, Faculty of Chem. & Pharm., **LMU München** (Prof. Dr. Martin Biel)
2009-2011	**Principal Scientist** (Group Leader), Pain Research Unit - Discovery Biology, **Pfizer Ltd. Global R&D**, Sandwich, Kent, UK
2005-2009	**Post-Doc**, Department of Otolaryngology - Head & Neck Surgery and Molecular & Cellular Physiology, **Stanford University**, CA, USA (Prof. Dr. Stefan Heller)
2004-2005	**Post-Doc**, Department of Otolaryngology and Program in Neuroscience, Massachusetts Eye & Ear Infirmary, **Harvard University**, Boston, MA, USA (Prof. Dr. Stefan Heller)
2000	Trainee, Pharmaceutical R&D, **Bayer AG**, Leverkusen, Germany

4) Calls for professorship positions, funding and awards

07/2017	Tertio loco/rank 3 for a **Full Professorship** (W3) at the Department of Pharmacology, **University of Greifswald**, Germany
06/2017	Secundo loco/rank 2 for an **Associate Professorship** at the Department of Cell Biology, **University of Copenhagen**, Denmark
01/2017	Call for an **Associate Professorship** (W2) in Pharmacology, **University of Jena**, Germany (declined)
11/2016	Secundo loco/rank 2 for an **Associate Professorship** at the **Center for Molecular Medicine Norway (NCMM), University of Oslo**, Norway
09/2016	Call for a tenure-track **Associate Professorship** at the **Wallenberg Center for Molecular Medicine**, Department of Clinical and Experimental Medicine, **University of Linköping**, Sweden (declined)
2016-2017	**University of Pennsylvania Orphan Disease Center and MLIV** (Mucolipidosis type IV) **Foundation Grant (MDBR-17-120-ML4)**
2016	**NCL** (Neuronal Ceroid Lipofuscinosis) **Foundation Award 2016**
2015	**Fritz-Thyssen Foundation Travel Fellowship** (to Geneva/CH)
2014-2018	**SFB/TRR152** (German Research Council) **Grant TRPML TP04**
2013-2016	**BFS** (Bavarian Research Foundation) **Grant (DOK-154-13)**
2013-2014	**DFG** (German Research Council) **Single Grant GR-4315/1-1**

2005	**Ernst-Reuter Award**, FU Berlin (for best doctoral thesis in 2004)
1994	**Fonds of the Chemical Industry Award** (Verband der Chem. Industrie e.V.) for best "Abitur" (German high school diploma) in Chemistry

5) Key publications

- Chao Y-K, Schludi V, Chen C-C, Butz E, Nguyen, P., Müller, M., Krüger J, Kammerbauer C, Vollmar, A., Berking C, Biel M, Wahl-Schott C **Grimm C**[#] (2017) TPC2 polymorphisms associated with a human hair pigmentation phenotype result in gain of channel function by independent mechanisms. ***PNAS*** 2017 Sep 18. pii: 201705739. doi: 10.1073/pnas.1705739114.
Impact factor: 9.7

- Chen C-C, Butz E, Chao Y-K, Grishchuk Y, Becker L, Heller S, Slaugenhaupt S, Biel M, Wahl-Schott C, **Grimm C**[#]: Small molecules for early endosome specific patch-clamping. ***Cell Chem Biol*** 24(7):907-916.e4, 2017.
Impact factor: 6.7

- Chen C-C, Chunlei C, Fenske S, Butz E, Chao Y-K, Biel M, Ren D, Wahl-Schott C, **Grimm C**[#]: Patch clamp technique to characterize ion channels in individual intact endolysosomes. ***Nature Protoc*** 12(8):1639-1658, 2017.
Impact factor: 10.0

- Nguyen P*, **Grimm C***, Schneider L, Chao Y-K, Watermann A, Ulrich M, Mayr D, Wahl-Schott C, Biel M, Vollmar AM: Two-pore channel function is crucial for migration of invasive cancer cells. ***Cancer Res*** 77:1427-1438, 2017.
Impact factor: 9.1

- Ruas M, Davis LC, Chen C-C, Morgan AJ, Chuang K-T, Walseth TF, **Grimm C**, Garnham C, Powell T, Biel M, Wahl-Schott C, Parrington J, Galione A: Endogenous TPCs are essential for NAADP-induced Ca2+ signaling. ***EMBO J*** 34:1743-1758, 2015.
Impact factor: 10.4

- Sakurai Y, Kolokoltsov AA, Chen C-C, Tidwell MW, Bauta WE, Klugbauer N, **Grimm C**, Wahl-Schott C, Biel M, Davey RA: Two pore channels control Ebolavirus host cell entry and are drug targets for disease treatment, ***Science*** 347:995-998, 2015.
Impact factor: 33.6

- Chen C-C, Keller M, Hess M, Schiffmann R, Urban N, Wolfgardt A, Schaefer M, Bracher F, Biel M, Wahl-Schott C, **Grimm C**[#]: A small molecule restores function to TRPML1 mutant isoforms responsible for mucolipidosis type IV. ***Nature Commun*** 5:4681, 2014.
Impact factor: 12.1

- Grimm C, Holdt LM, Chen C-C, Hassan S, Müller C, Jörs S, Cuny H, Kissing S, Schröder B, Butz E, Northoff B, Castonguay J, Luber CA, Moser M, Spahn S, Lüllmann-Rauch R, Fendel C, Klugbauer N, Griesbeck O, Haas A, Mann M, Bracher F, Teupser D, Saftig P, Biel M, Wahl-Schott C: High susceptibility to fatty liver disease in two-pore channel 2-deficient mice. ***Nature Commun*** 5:4699, 2014.
Impact factor: 12.1

- Aneiros E, Cao L, Papakosta M, Stevens EB, Phillips SC, **Grimm C**[#]: Biophysical and molecular basis of TRPV1 proton gating. ***EMBO J*** 30:994-1002, 2011.
Impact factor: 10.4

- Grimm C, Jörs S, Saldanha SA, Obukhov AG, Pan B, Oshima K, Cuajungco MP, Chase P, Hodder P, Heller S: Small molecule activators of TRPML3. ***Cell Chem Biol*** 17:135-148, 2010.
Impact factor: 6.7

- Grimm C, Cuajungco MP, van Aken AFJ, Schnee M, Jörs S, Kros CJ, Ricci AJ, Heller S: A helix-breaking mutation in TRPML3 leads to constitutive activity underlying deafness in the varitint-waddler mouse. ***PNAS*** 104:19583-19588, 2007.
Impact factor: 9.7

* authors contributed equally; [#] corresponding or shared corresponding author

6) Full list of publications

Peer-reviewed scientific articles

•33.Chao, Y.-K., Schludi, V., Chen, C.-C., Butz, E., Nguyen, P., Müller, M., Krüger J, Kammerbauer C, Vollmar, A., Berking, C., Biel, M., Wahl-Schott, C., **Grimm, C.**# (2017) TPC2 polymorphisms associated with a human hair pigmentation phenotype result in gain of channel function by independent mechanisms. *PNAS*, 2017 Sep 18. pii: 201705739.

•32.Castonguay, J., Orth, J.H.C., Müller, T., Sleman, F., **Grimm, C.**, Wahl-Schott, C., Biel, M., Mallmann, R.T. Bildl, W., Schulte, U., Klugbauer, N. (2017) The two-pore channel 1 is required for efficient protein processing in early and recycling endosomes. *Sci. Rep.*, 7(1):10038

•31.Chen, C.-C., Butz, E., Chao, Y.-K., Grishchuk, Y., Becker, L., Heller, S., Slaugenhaupt, S., Biel, M., Wahl-Schott, C., **Grimm, C.**# (2017) Small molecules for early endosome specific patch-clamping. *Cell Chem. Biol.*, 24(7):907-916.e4

•30.Chen, C.-C., Chunlei, C., Fenske, S., Butz, E., Chao, Y.-K., Biel, M., Ren, D., Wahl-Schott, C., **Grimm, C.**# (2017) Patch clamp technique to characterize ion channels in individual intact endolysosomes. *Nature Protoc.*, 12(8):1639-1658

•29.Bobak, N., Feliciangeli, S., Chen, C.-C., Soussia, I.B., Bittner, S., Biel, M., Wahl-Schott, C., **Grimm, C.**, Meuth, S.G., Lesage, F. (2017) Recombinant tandem of pore-domains in a weakly inward rectifying K^+ channel 2 (TWIK2) forms active lysosomal channels. *Sci. Rep.,* 7:649

•28.Nguyen, P.*, **Grimm, C.***, Schneider, L., Chao, Y.-K., Watermann, A., Ulrich, M., Mayr, D., Wahl-Schott, C., Biel, M., Vollmar, A.M. (2017) Two-pore channel function is crucial for migration of invasive cancer cells. *Cancer Res*., 77:1427-1438

•27.Kilpatrick, B.S., Yates, E., **Grimm, C.**, Schapira, A.H., Patel, S. (2016) Endo-lysosomal TRP mucolipin-1 triggers global ER Ca2+ release and Ca2+ influx. *J. Cell Sci.*, 129:3859-3867

•26.Beck, S., Henß, L., Weidner, T., Herrmann, J., Müller, R., Chao, Y.-K., **Grimm, C.**, Weber, C., Sliva, K., Schnierle, B.S. (2016) Identification of entry inhibitors of Ebola virus pseudotyped vectors from a myxobacterial compound library. *Antiviral Res.* S0166-3542(16)30014-30016

•25.Müller, C., Binder, U., Maurer, E., **Grimm, C.**, Giera, M., Bracher, F. (2015) Fungal sterol C22-desaturase is not an antimycotic target as shown by selective inhibitors and testing on clinical isolates. *Steroids* 101:1-6

•24.Ruas, M., Davis, L.C., Chen, C.-C., Morgan, A.J., Chuang, K.-T., Walseth, T.F., **Grimm, C.**, Garnham, C., Powell, T., Biel, M., Wahl-Schott, C., Parrington, J., Galione, A. (2015) Endogenous TPCs are essential for NAADP-induced Ca2+ signaling. *EMBO J.*, 34:1743-1758

•23.Sakurai, Y., Kolokoltsov, A.A., Chen, C.-C., Tidwell, M.W., Bauta, W.E., Klugbauer, N., **Grimm, C.**, Wahl-Schott, C., Biel, M., Davey, R.A. (2015) Two pore channels control Ebolavirus host cell entry and are drug targets for disease treatment, *Science*, 347:995-998

•22.**Grimm, C.**, Holdt, L.M., Chen, C.-C., Hassan, S., Müller, C., Jörs, S., Cuny, H., Kissing, S., Schröder, B., Butz, E., Northoff, B., Castonguay, J., Luber, C.A., Moser, M., Spahn, S., Lüllmann-Rauch, R., Fendel, C., Klugbauer, N., Griesbeck, O., Haas, A., Mann, M., Bracher, F., Teupser, D., Saftig, P., Biel, M., Wahl-Schott, C. (2014) High susceptibility to fatty liver disease in two-pore channel 2-deficient mice. *Nature Commun.*, 5:4699. doi: 10.1038/ncomms5699

•21.Cuajungco, M.P., Basilio, L.C., Silva, J., Hart, T., Tringali, J., Chen, C.-C., Biel, M., **Grimm, C.**# (2014) Cellular zinc levels are modulated by TRPML1-TMEM163 interaction. *Traffic*, 15:1247-1265. doi: 10.1111/tra.12205

•20.Chen, C.-C.,Keller, M., Hess, M., Schiffmann, R., Urban, N., Wolfgardt, A., Schaefer, M., Bracher, F., Biel, M., Wahl-Schott, C., **Grimm, C.**# (2014) A small molecule restores function to TRPML1 mutant isoforms responsible for mucolipidosis type IV. *Nature Commun.*, 5:4681. doi: 10.1038/ncomms5681

•19.Gao, Z., **Grimm, C.**, Becker, L., Ricci, A.J., Heller, S. (2013) A novel ion channel formed by interaction of TRPML3 with TRPV5. *PLoS ONE,* 8:e58174

•18.**Grimm, C.**#, Jörs, S., Gao, Z., Obukhov, A.G., Heller, S. (2012) Constitutive activity of TRPML2 and TRPML3 channels versus activation by low extracellular sodium and small molecules. *J. Biol. Chem.*, 287: 22701-22708

•17.Papakosta, M., Haythornthwaite, A., Cao, L., Stevens, E.B., Burgess, G., Russell, R., Cox, P., Phillips, S.C., **Grimm, C.**# (2011) The chimeric approach reveals that differences in the TRPV1 pore domain determine species-specific sensitivity to block of heat activation. *J. Biol. Chem.,* 286:39663-39672

•16.Aneiros, E., Cao, L., Papakosta, M., Stevens, E.B., Phillips, S.C., **Grimm, C.**# (2011) Biophysical and molecular basis of TRPV1 proton gating. *EMBO J.,* 30:994-1002

•15.Jörs, S.*, **Grimm, C.***, Becker, L., Heller, S. (2010) Genetic inactivation of Trpml3 does not lead to hearing and vestibular impairment in mice. *PLoS ONE,* 5:e14317

•14.Lee, K.P.*, Nair, A.*, **Grimm, C.***, van Zeeland, F., Heller, S., Bindels, R.J.M., Hoenderop, G.J. (2010) A helix-breaking mutation in the epithelial Ca^{2+} channel TRPV5 leads to reduced Ca^{2+} dependent inactivation. *Cell Calcium*, 48:275-287

•13.Hoffmann, A.*, **Grimm, C.***, Kraft, R., Goldbaum, O., Wrede, A., Nolte, C., Hanisch, U.K., Richter-Landsberg, C., Brück, W., Kettenmann, H., Harteneck, C. (2010) TRPM3 is expressed in sphingosine-responsive myelinating oligodendrocytes. *J. Neurochem.*, 114:654-665

•12.**Grimm, C.***, Jörs, S.*, Saldanha, S.A.*, Obukhov, A.G., Pan, B., Oshima, K., Cuajungco, M.P., Chase, P., Hodder, P., Heller, S. (2010) Small molecule activators of TRPML3. *Cell Chem. Biol.*, 17:135-148

- 11.Samie, M.A., **Grimm, C.**, Evans, J.A., Curcio-Morelli, C., Heller, S., Slaugenhaupt, S.A., Cuajungco, M.P. (2009) The tissue-specific expression of TRPML2 (Mcoln-2) gene is influenced by the presence of TRPML1. Eur. J. Physiol., 459:79-91
- **Grimm, C.***, Jörs, S.*, Heller, S. (2009) Life and death of sensory hair cells expressing constitutively active TRPML3. *J. Biol. Chem.,* 284:13823-13831
- 10.D'hoedt, D., Owsianik, G., Prenen, J., Cuajungco, M.P., **Grimm, C.**, Heller, S., Voets, T., Nilius, B. (2008) Stimulus-specific modulation of the cation channel TRPV4 by PACSIN 3. *J. Biol. Chem.*, 283:6272-6280
- 9.**Grimm, C.**, Cuajungco, M.P., van Aken, A.F.J., Schnee, M., Jörs, S., Kros, C.J., Ricci, A.J., Heller, S. (2007) A helix-breaking mutation in TRPML3 leads to constitutive activity underlying deafness in the varitint-waddler mouse. *PNAS*, 104:19583-19588
- 8.Senn, P., Oshima, K., Teo, D., **Grimm, C.**, Heller, S. (2007) Robust postmortem survival of murine vestibular and cochlear stem cells. *JARO*, 8:194-204
- 7.Oshima, K., **Grimm, C.**, Corrales, E., Senn, P., Martinez Monedero, R., Géléoc, G.S.G., Edge, A., Holt, J.R., Heller, S. (2007) Differential distribution of stem cells in the auditory and vestibular organs of the inner ear. *JARO*, 8:18-31
- 6.Cuajungco, M.P.*, **Grimm, C.***, Oshima, K., D'hoedt, D., Nilius, B., Mensenkamp, A.R., Bindels, R.J.M., Plomann, M., Heller, S. (2006) PACSINS bind to the TRPV4 cation channel: PACSIN 3 modulates the subcellular localization of TRPV4. *J. Biol. Chem*., 281:18753-18762
- 5.Kraft, R., **Grimm, C.**, Frenzel, H., Harteneck, C. (2006) Inhibition of TRPM2 cation channels by N-(p-amylcinnamoyl)anthranilic acid. *Br. J. Pharmacol.*, 148:264-273
- 4.**Grimm, C.***, Kraft, R.*, Schultz, G., Harteneck, C. (2005) Activation of the melastatin-related cation channel TRPM3 by D-erythro-sphingosine. *Mol. Pharmacol.*, 67:798-805
- 3.Xu, S.Z., Zeng, F., Boulay, G., **Grimm, C.**, Harteneck, C., Beech, D.J. (2005) Block of TRPC5 channels by 2-aminoethoxydiphenyl borate: differential, extracellular and voltage-dependent effect. *Br. J. Pharmacol.*, 145:405-414
- 2.Kraft, R., **Grimm, C.**, Grosse, K., Hoffmann, A., Sauerbruch, S., Kettenmann, H., Schultz, G., Harteneck, C. (2004) Hydrogen peroxide and ADP-ribose induce TRPM2-mediated calcium influx and cation currents in microglia. *Am. J. Physiol. Cell Physiol*., 286:C129-137
- 1.**Grimm, C.***, Kraft, R.*, Sauerbruch, S., Schultz, G., Harteneck, C. (2003) Molecular and functional characterization of the melastatin-related cation channel TRPM3. *J. Biol. Chem*., 278:21493-21501

* authors contributed equally; # corresponding or shared corresponding author

Reviews (Peer-reviewed)

- **Grimm, C.**, Butz, E., Chen, C.-C., Wahl-Schott, C., Biel, M. (2017) From mucolipidosis type IV to Ebola: TRPML and two-pore channels at the crossroads of endo-lysosomal trafficking and disease. *Cell Calcium*, pii: S0143-4160(17)30046-5
- **Grimm, C.**, Chen, C.-C., Wahl-Schott, C., Biel, M. (2017) Two-pore channels: catalyzers of endolysosomal transport and function. *Frontiers in Pharmacology*, 8:45
- **Grimm, C**.# (2016) Endolysosomal cation channels as therapeutic targets - Pharmacology of TRPML channels. *Messenger*, Volume 5, Numbers 1-2, June 2016, pp. 30-36(7)
- **Grimm, C.**#, Hassan, S., Wahl-Schott, C., Biel, M. (2012) Role of TRPML and two-pore channels in endolysosomal cation homeostasis. *J. Pharmacol. Exp. Ther.* (*Perspectives in Pharmacology)*, 342:236-244
- **Grimm, C.**#, de Groot, M., Aneiros, E. (2011) Dissecting TRPV1: lessons to be learned? *CHANNELS*, 5:201-204
- Cuajungco, M.P., **Grimm, C.**, Heller, S. (2007) TRP channels as candidates for hearing and balance abnormalities in vertebrates. *Biochem. Biophys. Acta*, 1772:1022-1027

corresponding or shared corresponding author

Book chapters

- **Grimm, C.**#, Barthmes, M., and Wahl-Schott, C. (2014) *TRPML3*, in: Nilius, B. and Flockerzi, V., *Mammalian Transient Receptor Potential (TRP) cation channels*, *The Handbook of Experimental Pharmacology (HEP)*, Springer Publishing, 222:659-674
- **Grimm, C.**# and Cuajungco, M.P. (2014) *Mucolipidosis type IV and TRPML channels*, in: Koschak, A. and Weiss, N., *Pathologies of Calcium Channels*, Springer Publishing, pp. 365-379
- Saldanha, S.A., **Grimm, C.**, Allais, C., Smith, E., Ouizem, S., Mercer, B.A., Roush, W.R., Heller, S., Hodder, P. (2013) Identification of Selective Agonists of the Transient Receptor Potential Channels 3 (TRPML3). Probe Reports from the NIH Molecular Libraries Program [Internet]. Bethesda (MD): National Center for Biotechnology Information (US); 2010-2012 Mar 21 [updated 2013 Sep 03]
- Saldanha, S.A., **Grimm, C.**, Mercer, B.A., Choi, J.Y., Allais, C., Roush, W.R., Heller, S., and Hodder, P. (2011) *Campaign to Identify Agonists of Transient Receptor Potential Channels 3 and 2 (TRPML3 & TRPML2)*, Probe Reports from the NIH Molecular Libraries Program, Bethesda (MD): National Center for Biotechnology Information

corresponding or shared corresponding author

7) Recent meetings, invited talks and conferences (oral presentations only)

2011: Informa Conference Targets & Tools: Ion channels, Berlin, Germany
2012: Abbott (AbbVie) - LMU Joint Meeting, Ludwigshafen, Germany
2013: 1st Conference of the MLIV Foundation, New York Medical College, NY, USA (invited talk)
2013: LMU Research Conference on Molecular Sciences (URCUP13), Wildbad Kreuth, Germany (invited talk)
2014: LMU and University of Tübingen Summer School, Frauenchiemsee Monastery, Germany
2014 SFB TRR 152 Kick-Off Meeting, Mont-Sainte-Odile, France
2015: Department of Biochemistry, University of Geneva, Switzerland (Fritz-Thyssen funded joint research project; host: Prof. Jean Gruenberg)
2015: 81st annual meeting of the DGPT, Kiel, Germany
2015: Symposium, Institute of Biochemistry and Molecular Medicine, University of Bern, Switzerland (interview Associate Prof.)
2015: LMU and University of Tübingen Summer School, Frauenchiemsee Monastery, Germany
2015: SFB TRR 152 Symposium, Herrsching a. Ammersee, Germany
2015. Nanion Technologies, München, Germany (Webinar)
2015: Annual meeting of the NCL Foundation, Hamburg, Germany (invited talk)
2016: Graduate School Life Sciences Munich (LSM) Lecture Series WS15/16, München, Germany
2016: Wallenberg Center for Molecular Medicine, Department of Clinical and Experimental Medicine, University of Linköping, Sweden (interview Associate Prof.)
2016: 3rd Conference of the MLIV Foundation, Atlanta, GA, USA (invited talk)
2016: Roche Pharma, Research and Early Development, Basel, Switzerland
2016: Symposium, Department of Pharmacology, University of Jena, Germany (interview for W2)
2016: Symposium, Department of Pharmacology, University of Greifswald, Germany (interview for W3)
2016: Evotec AG Neuroscience Section, Hamburg, Germany (invited talk; host: Dr. Rainer Kuhn)
2016: Department of Biosciences, University of Oslo, Norway (interview Associate Prof.)
2016: Annual meeting of the German Pharmaceutical Society (DPhG), München, Germany
2016: Centre for Molecular Medicine, Nordic EMBL Partnership, Oslo, Norway (interview Associate Prof.)
2016: SFB TRR 152 Symposium, Karlsruhe, Germany
2017: Laboratory of Molecular and Cellular Signaling, Department of Cellular and Molecular Medicine, KU Leuven, Belgium (invited talk; hosts: Prof. Jan Parys and Prof. Geert Bultynck)
2017: Department of Cell Biology & Physiology, University of Copenhagen, Denmark (interview Associate Prof.)
2017: JNCL Young Investigator Symposium, Hamburg, Germany (invited keynote speaker; host: NCL Foundation)

upcoming in 2017/2018:

2017: NCL/DZNE Conference on *Adult and Childhood Neurodegenerative Diseases: Common Mechanisms and Markers*, Bonn, Germany (invited participant)
2018: Telethon Institute of Genetics and Medicine (TIGEM), Naples, Italy (invited talk; host: Dr. Diego Medina)
2018: 4th Conference of the MLIV Foundation, Atlanta, GA, USA (invited speaker)
2018: European Calcium Society Meeting, Hamburg, Germany (invited speaker)
2018: Europhysiology, London, UK (invited speaker)

8) Teaching

2012- Physiology lecture for Pharmacy and Pharmaceutical Sciences' BA/MA/State Exam. students (Topic: Endocrinology)
2012- Organisation of the clinical pharmacy course and implementation of novel teaching strategies (see certificate of the LMU "Multiplicator" project)
2012-2013 Clinical pharmacy course for Pharmacy and Pharmaceutical Sciences' MA/State Exam. students (Topic: Cardiovascular diseases)
2013-2014 Pharmacology seminar for Pharmacy and Pharmaceutical Sciences' MA/State Exam. students (Topic: Endocrinology)

2014-2015 Pharmacology seminar for Pharmacy and Pharmaceutical Sciences' MA/State Exam. students (Topic: Gastrointestinal diseases)
2015- Pharmacology seminar for Pharmacy and Pharmaceutical Sciences' MA/State Exam. students (Topic: Oncology)

9) Review activities

Reviewer for Cell Calcium, Cardiovasc. Res., Scientific Reports and eLife