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WALTHER STRAUB INSTITUT FÜR PHARMAKOLOGIE
UND TOXIKOLOGIE – MED.FAKULTÄT LMU MÜNCHEN



2 PhD positions in pharmacology/drug discovery at the LMU Munich, Germany

We are looking for recent graduates (Master of Science in biology, biochemistry, chemistry, pharmaceutical sciences or similar) who are interested in pharmacology, drug discovery, and CRISPR/Cas/iPSC disease models related to e.g. lysosomal storage and neurodegenerative diseases (Alzheimer, Parkinson, FTD) but also other disease areas. Our molecular target focus is on ion channel and transport proteins in endosomes and lysosomes, in particular in TRPML cation channels (mucolipins) and two-pore channels (TPCs). The candidate would ideally have experience in a wide range of molecular biology techniques including working with CRISPR/Cas9 and, and/or experience in or interest in patch-clamp electrophysiology and imaging techniques. As part of this project the PhD candidate will also cooperate with Proteomics facilities at the LMU. The LMU is one of the top ranked German universities and our department is located in the vibrant center of the city of Munich (Medical campus city).

If you believe you fit this description then please send a brief letter of motivation, a short CV highlighting your academic and research accomplishments as well as copies of academic certificates and recommendation letters to christian.grimm@med.uni-muenchen.de

For more information please check also:

<https://www.wsi.med.uni-muenchen.de/forschung/molekulare-pharmakologie/index.html>

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Selected publications:

- Xu M*, Zhong XZ*, Huang P*, Jašlan D*, Wang, P., Sun X, Weiden, E-M, EL Hiani Y, Grimm C#, Dong, X#: TRPML3/BK complex promotes autophagy and bacterial clearance by providing a positive feedback regulation of mTOR. PNAS 20(34):e2215777120, 2023.
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- Scotto Rosato A*, Krogsaeter EK*, Jašlan D, Abrahamian C, Montefusco S, Soldati C, Spix B, Böck J, Pizzo, MT, Grieco, G, Wyatt A, Wünkhaus D, Passon M, Stieglitz M, Keller M, Hermey G, Markmann S, Gruber-Schoffnegger D, Cotman S, Johannes L, Crusius D, Boehm U, Wahl-Schott C, Biel M, Bracher F, De Leonibus, E, Polishchuk E, Medina DL#, Paquet D#, Grimm C#: TPC2 rescues lysosomal storage in mucopolipidosis type IV, Niemann-Pick type C1 and Batten disease. EMBO Mol Med 5:e15377, 2022.
- Yuan Y, Jašlan D, Rahman T, Bolsover SR, Arige V, Wagner LE, Abrahamian C, Keller M, Hartmann J, Scotto Rosato A, Weiden E-M, Bracher F, Yule DI, Grimm C#, Patel, S#: Segregated cation flux by TPC2 biases Ca²⁺ signaling through lysosomes. Nature Commun 13(1):4481, 2022.
- Spix B, Butz ES, Chen C-C, Scotto Rosato A, Tang, R, Jeridi A, Kudrina V, Plesch E, Wartenberg P, Arlt E, Briukhovetska D, Ansari M, Günes Günsel G, Conlon TM, Wyatt A, Wetzel S, Teupser D, Holdt LM, Ectors F, Boekhoff I, Boehm U, García Añoveros J, Saftig P, Giera M, Kobold S, Schiller HB, Zierler S, Gudermann T, Wahl-Schott C, Bracher F, Yildirim AO, Biel, M, Grimm C#: Lung emphysema and impaired macrophage elastase clearance in mucolipin 3 deficient mice. Nature Commun 13(1):318, 2022.
- Chen C-C, Krogsaeter EK, Butz E, Li Y, Puertollano R, Wahl-Schott C, Biel M, Grimm C#: TRPML2 is an osmo-/mechano-sensitive cation channel in endolysosomal organelles. Science Adv 6(46):eabb5064, 2020.
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- 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 12:1639-1658, 2017.
- 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.
- 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 mucopolipidosis type IV. Nature Commun 5:4681, 2014.
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