# Curriculum Vitae
# Dr. Markus Plomann

**Centre for Biochemistry**
**Medical Faculty**
**University of Cologne**
**Joseph-Stelzmann-Str. 52**
**50931 Cologne**

**Room TBA**
**Phone: +49 221 478 6944**
**Email: markus.plomann(at)uni-koeln.de**

## Academic Career

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| 2010 | Habilitation in Biochemistry and Molecular Biology |
| since 1997 | Group Leader at the Institute for Biochemistry |
| 1996-1997 | Postdoctoral fellow at the Institute for Biochemistry, University of Cologne, Germany |
| 1994-1995 | Postdoctoral fellow at the Institute for Genetics, University of Cologne, Germany |
| 1990 - 1994 | PhD student at the Institute for Genetics, University of Cologne |
| 1981 - 1989 | Undergraduate and Diploma studies in Natural Sciences, Heinrich-Heine-University, Düsseldorf. |

## Fellowships and Awards

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| 1995 | fellowship from the Boehringer Ingelheim Fonds. |

## Scientific Interests

Die Arbeitsgruppe Plomann ist an der Regulation des intrazellulären Transports unter normalen physiologischen und pathologischen Bedingungen interessiert. Dazu forschen wir an

- der Identifizierung von Frachtmolekülen für bestimmte Transportwege zu ihrem Ziel
- der Charakterisierung der beteiligten molekularen Mechanismen
- Klärung pathologischer Veränderungen dieser Transportprozesse auf molekularer Ebene
- und wie diese Veränderungen für potentielle Therapieansätze korrigiert werden können

**Key Publications** (last five years)


1. Schulz J-N, Nuechel J, Niehoff A, Bloch W, Schoenborn K, Hayashi S, Kamper M, Brinckmann J, **Plomann M**, Paulsson M, Krieg T, Zaucke F and Eckes B (2016): COMP-assisted collagen secretion - a novel intracellular function required for fibrosis. J Cell Sci 129: 706-716.
2. Dumont V, Tolvanen TA, Kuusela S, Wang H, Nyman TA, Lindfors S, Tienari J, Nisen H, Suetsugu S, **Plomann M**, Kawachi H and Lehtonen S (2017): PACSIN2 accelerates nephrin trafficking and is upregulated in diabetic kidney disease. FASEB J 31: 3978-3990.
3. Semmler J, Kormann J, Srinivasan SP, Köster A, Sälzer D, Reppel M, Hescheler J, **Plomann M** and Nguemo F (2018): Pacsin 2 is required for the maintenance of a normal cardiac function in the developing mouse heart. Pharmacol Res. 128: 200-210.
4. Nüchel J, Ghatak S, Zuk AV, Illerhaus A, Mörgelin M, Schönborn S, Blumbach K, Sara A. Wickström SA, Krieg T, Sengle G, **Plomann M** and Eckes B (2018): TGFB1 is secreted through an unconventional pathway dependent on the autophagic machinery and cytoskeletal regulators. Autophagy 14: 465-486.(*shared last author*)
5. Schulz J-N, **Plomann M**, Sengle G, Gullberg D, Krieg T and Eckes B (2018): New developments on skin fibrosis - essential signals emanating from the extracellular matrix for the control of myofibroblasts. Matrix Biol. 68-69: 522-532.
6. Korkmaz Y, Roggendorf HC, Siefer OG, Seehawer J, Imhof T, **Plomann M**, Bloch W, Friebe A and Huebbers CU (2018): Downregulation of the α1- and β1-subunit of sGC in Arterial Smooth Muscle Cells of OPSCC Is HPV-Independent. J Dent Res. 97: 1214-1221.
7. Holzer T, Probst K, Etich J, Auler M, Georgieva V, Bluhm B, Frie C, Heilig J, Niehoff A, Nüchel J, **Plomann M**, Seeger J, Kashkar H, Baris O, Wiesner R and Brachvogel B (2019): Respiratory chain inactivation links cartilage-mediated growth retardation to mitochondrial diseases. J Cell Biol 218: 1853-1870.
8. van Dijk FS, Semler O, Etich J, Köhler A, Jimenez-Estrada JA, Bravenboer N, Claeys L, Riesebos E, Gegic S, Piersma SR, Jimenez CR, Waisfisz Q, Flores CL, Nevado J, Harsevoort AJ, Janus GJM, Franken AAM, van der Sar AM, Meijers-Heijboer H, Heath KE, Lapunzina P, Nikkels PGJ, Santen GWE, Nüchel J, **Plomann M**, Wagener R, Rehberg M, Hoyer-Kuhn H, Eekhoff EMW, Pals G, Mörgelin M, Newstead S, Wilson BT, Ruiz-Perez VL, Maugeri A, Netzer C, Zaucke F and Micha D. (2020): Interaction between KDELR2 and HSP47 as a Key Determinant in Osteogenesis Imperfecta Caused by Bi-allelic Variants in KDELR2. Am J Hum Genet 107: 989-999.
9. Klionsky DJ, ...**Plomann M,...** et al. (2021): Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). Autophagy 17: 1-382.
10. Park H-S, Papanastasi E, Blanchard G, Chiticariu E, Bachmann D, **Plomann M**, Morice-Picard F, Vabres P, Smahi A, Huber M and Pich C (2021). ARP-T1-associated Bazex-Dupré-Christol Syndrome is an inherited basal cell cancer with ciliary defects characteristic of ciliopathies. Commun Biol 4: 1-13.

11. Malinova TS, [1 §], Angulo-Urarte A, Nüchel J, Tauber M, van der Stoel MM, Janssen V, de Haan A, Groenen AG, Tebbens M, Graupera M, **Plomann M** and Huveneers S (2021): A junctional PACSIN2/EHD4/MICAL-L1 complex coordinates VE-cadherin trafficking for endothelial migration and angiogenesis. Nat Commun 12: 2610 https://doi.org/10.1038/s41467-021-22873-y

12. Nüchel J, Tauber M, Nolte JL, Mörgelin M, Türk C, Eckes B, Demetriades C and **Plomann M** (2021): An mTORC1-GRASP55 signaling axis controls unconventional secretion to reshape the extracellular proteome upon stress. Mol Cell https://doi.org/10.1016/j.molcel.2021.06.017

13. Zehender A, Li Y-N, Lin N-Y, Stefanica A, Nuechel J, Chen C-W, Hsu H-H, Zhu H, Ding X, Huang J, Shen L, Györfi A-H, Soare A, Rauber S, Bergmann C, Ramming A, **Plomann M**, Eckes B, Schett G and Distler J (2021): TGFβ promotes fibrosis by MYST1-dependent epigenetic regulation of autophagy. Nat Commun 12: 4404 https://doi.org/10.1038/s41467-021-24601-y

14. Pothukuchi P, Agliarulo I, Pirozzi M, Rizzo R, Russo D, Turacchio G, Nüchel J, Yang J-S, Gehin CJC, Capolupo L, Hernandez-Corbacho MJ, Biswas A, Vanacore G, Dathan N, Nitta T, Henklein P, Thattai M, Inokuchi J-I, Hsu VW, **Plomann M**, Obeid LM, Hannun YA, Luini A, D'Angelo G and Parashuraman S (2021): GRASP55 regulates intra-Golgi localization of glycan enzymes to control glycosphingolipid synthesis. EMBO J *in press*