

Last updated: 16022016

Curriculum vitae J. Klumperman

Family name: Klumperman
First name: Judith

Work address: Department of Cell Biology
University Medical Center (UMC) Utrecht
AZU H02.313, Heidelberglaan 100
3584CX Utrecht, The Netherlands
Phone: 31-88-75-56550/56551
Email: J.Klumperman@umcutrecht.nl

Nationality: Dutch

Start university training: September 1979, University of Leiden
Discipline: Biology
Graduate: April 1985
PhD: May 1990

h-index 2015: 56. Citations: >9000. Publications; 132 [Science (1x); Nature journals (10x)]. International presentations: >100.

Employment record

1985-1989: PhD-student, Laboratory for Electron Microscopy, Medical Faculty, University of Leiden (UL), The Netherlands (Promotor: Prof. W. T. Daems) and Department for Biochemistry, Academic Medical Centre, University of Amsterdam, The Netherlands (Promotor: Prof. J.M. Tager).
PhD thesis: Transport of lysosomal and brush border enzymes in polarized colon carcinoma cell lines.
1989-1992: Post-doctoral fellow, Department of Cell Biology, Center for Electron Microscopy, Medical Faculty, University of Utrecht, the Netherlands. (Prof. H.J. Geuze) and Department of Biochemistry, Georg-August University, Göttingen, Germany (Prof. K. Von Figura).
1992-1997: Assistant professor (tenure), Department of Molecular and Cellular Neurobiology, Faculty Biology, Free University (VU), Amsterdam, The Netherlands.
1997: Assistant professor (tenure), Department of Cell Biology, UMC Utrecht, The Netherlands.
1999-2001: Associate professor (tenure), Department of Cell Biology, UMC Utrecht, The Netherlands.
2001-present: Full professor Cell Biology and Head Cell Microscopy Centre, Department of Cell Biology, UMC Utrecht, The Netherlands.
2009-present: Head Cell Screening Centre, Department of Cell Biology, UMC Utrecht, The Netherlands.
2007-present: Chair Department of Cell Biology, UMC Utrecht, The Netherlands

International working experience

1988-1989: Department of Pharmacology, Biocentre University Basel, Switzerland (Prof. H.P. Hauri).
1990-1991: Laboratory for Biochemistry, Georg-August University, Göttingen, Germany (Prof. K. Von Figura).

Management

1989-1990: Board Department of Cell Biology, Medical Faculty, University of Utrecht.
1995-1997: Board Department of Molecular and Cellular Neurobiology, Faculty Biology, Free University Amsterdam.
1998-2007: Management team Department of Cell Biology, UMC Utrecht.
2000: Interim-project leader Utrecht Graduate School Institute of Biomembranes
2001: Project leader Utrecht Graduate School Institute of Biomembranes
2001: Board Netherlands Society for Microscopy (NVvM)
2001 - present: Chair Cell Microscopy Centre UMC Utrecht
2002-2007: Vice-president Netherlands Society for Microscopy (NVvM)

Last updated: 16022016

2004-2006: Board Utrecht Graduate School 'Institute of Biomembranes'

2006-2010: Chair Utrecht Graduate School 'Institute of Biomembranes'

2007 - present: Chair Department of Cell Biology UMC Utrecht

2009 - present: Chair Cell screening Centre UMC Utrecht

2009 - 2015: Coordinator CLEM workpackage ESFRI initiative EuroBioimaging

2009 - present: Vice national contact person (NCP) for the Netherlands in EuroBioimaging

2010 - present: Board Utrecht PhD program Biomembranes

2011 - present: Project Management Team NL-Bioimaging-AM Dutch Research Infrastructure for Advanced Microscopy.

2011 - present: Core group Dutch Technology Centre (DTL) representing NL-Bioimaging AM

Committees

2001-2007: UMC pre-selection committee NWO medium-sized investment grants

2002-2011: Council for Medical Sciences (Raad Medische Wetenschappen), Royal Dutch Academy of Arts and Sciences (KNAW).

2002-2004: Financing Biomedical Research. Royal Dutch Academy of Arts and Sciences (KNAW).

2004-2008: 'Internationalisering', UMC Utrecht.

2005: Exploratory committee 'Tissue Engineering', Council for Medical Sciences (Raad Medische Wetenschappen), Royal Dutch Academy of Arts and Sciences (KNAW). (Chair)

2005-2006: ZON-MW-committee medium-sized investment grants

2006: University of Utrecht delegation to improve contact with Chinese universities.

2006-2010: Region committee Asia, University of Utrecht

2007-2009: ZON-MW "Investment grants (Vice-chair)

2008-2011: 'Internationalisering II'. UMC Utrecht

2010 - present: Steering Committee ESFRI initiative EuroBioimaging

2011: Electron microscopy University Utrecht (Chair)

2011-2012: NWO-committee Grote Investerings/Big Investments

2012: UMC pre-selection committee medium investment grants

2012- present. User committees STW projects of Meijering (Erasmus MC), Gerritsen (UU), Giepmans (UMC Groningen), Koster (Leiden UMC)

2013: Review panel Cell Biology and Biophysics Unit European Molecular Biology Laboratory (EMBL), Heidelberg, Germany

2013-2014. Chair ad hoc committee scientific integrity, installed by B. vd Zwaan, rector /head University Utrecht

2015: NWO-committee Grote Investerings/Big Investments

- regular member or chair of Appointment Advisory Committee's (Benoemings advies commissies) for the appointment of new professors (Utrecht, Nijmegen and Groningen University)

- regular member of thesis assessment committee's and member of the opposition (universities of Utrecht, Leiden, Rotterdam, Amsterdam, Nijmegen, Leuven (Belgium), Copenhagen (Denmark))

Research management

1985-1989 (UL): practical internship 5 undergraduate biology students, 1 research technician.

1989-1992 (UU): practical internship 1 undergraduate medical biology student, 1 research technician.

1993-1997 (VU): supervisor 1 undergraduate biology student, 1 research technician, 1 PhD-student.

1997-2001 (UMCU): supervisor 3 PhD-students, 2 post-doctoral fellows, 1 research technician, 2 undergraduate medical biology students, 1 visiting professor on 9 months sabbatical leave.

July 2001 - present: research supervision of the Cell Microscopy Centre and the Morphology unit of the Cell Biology Department (on average 25 people, including 2 staff members (PI's), 5 technicians, 2 photographers, 9 post-docs, 3 PhD-students).

September 2007 - present: research supervision of the Department of Cell Biology (on average 65 people, presently 5 research staff members)

Theses

2000. H. de Wit. Formation of synaptic vesicles in neuroendocrine PC12 cells (Co-promotor)

2002. M. Sachse. Sorting of growth factor receptors during endocytosis (Promotor)

Last updated: 16022016

- 2005.** M. Réchards. A subcellular View on Alzheimer's Diseases; an immuno-electron microscopy study (Promotor)
- 2006.** B. Herpers. Asymmetric localization of Gurken protein and mRNA in the oocyte of *Drosophila melanogaster* (Promotor)
- 2008.** H. Schotman. The unconventional secretion of integrin during epithelial remodelling in *Drosophila melanogaster* (Promotor)
- 2010.** E. van Meel. Mannose 6-phosphate-dependent and independent pathways of lysosome biogenesis. (Promotor)
- 2010.** A. van der Vaart Membrane dynamics during autophagy in yeast *saccharomyces cerevisiae* (Promotor)
- 2010.** H. van Nispen tot Pannerden. Morphological characterization of complex membrane compartments in antigen presenting cells and blood platelets (Promotor).
- 2011** M. Ulasli: Coronavirus Replication in host Cells (Promotor)
- 2011** Z. Anvarian: Axin tumour suppressor function and dysfunction in the Wnt/ β -catenin signalling pathway (Promotor)
- 2011** M. Noutsou: Protein scaffolding in Wnt/ β -catenin signalling (Promotor)
- 2012** E. Rieter: The molecular organization of the phagophore assembly site (Promotor)
- 2013** M. Pols. Transport pathways of lysosomal membrane proteins through the endosomal system (Promotor)
- 2014** R. Galmes. Functional characterization of homologues of the mammalian CORVET/HOPS subunit Vps33 within the endo-lysosomal system (Promotor)
- 2015** J. Gerlach. Control of Wnt signaling by multi-protein complexes (Promotor)
- 2016:** M. Spit. Balancing Wnt signaling in stem cells and cancer (Promotor)

In progress

- 2011 – present. C. Jonker. The role of CORVET in integrin transport (Promotor)
- 2014 – present. J. Fermie. Correlative microscopy (Promotor)
- 2015 –present. R. vd Welle: The role of Vps41 in lysosome biogenesis and Parkinson's disease (Promotor)

Editorships

- 2002-** : Traffic
- 2002-** : Histochemistry and Cell Biology
- 2003-** : Biology of the Cell
- 2004:** Section editor of the Membranes and organelles (August 2004) issue of Current Opinion in Cell Biology
- 2010-** : Molecular Biology of the Cell, associate editor
- 2011-** : Editorial Board 'PeerJ'. Open access journal of The Royal Society

Reviewer: Cell, Nature, Journal of Cell Biology, EMBO Journal, Nature Cell Biology, Nature Communications, Cell Reports, Molecular Biology of the Cell, Journal of Cell Science, Traffic, Histochemistry & Cell Biology.

Grant reviewer: Dutch Society for Scientific research (NWO), Wellcome Trust (UK), Medical Research Council (UK), Telethon (Italy), KNAW, Koningin Wilhelmina Fonds (KWF), EMBO

Grants

- 1996:** Grant 805-26.183 of the Netherlands Organization of Scientific Research (NWO/Stichting Levenswetenschappen): Molecular mechanisms of neuronal membrane traffic in synaptic vesicle recycling. (PhD position)
- 1998:** UMCU-grant: Attraction and maintenance of female talent.
- 2000:** Grant 8PJ/00-31 of the Netherlands Organization of Scientific Research (NWO/ALW): Identification and characterization of vesicular transport intermediates in axons. (post-doc position)

Last updated: 16022016

- 2000:** FOM Grant FBI-IIEOI/00-11: Electron tomography and 3D-analysis of intracellular compartments: The early biosynthetic pathway. With Dr. A.J. Koster (UU). (post-doc position)
- 2001 - :** Genentech, Inc., San Francisco, USA. Purchase order No. 559963. Project: Intracellular trafficking of Tumor Antigens and their Binding Antibodies. (post-doc plus technician). Renewed every year. Since **2011** extended with 0.5 fte senior postdoc.
- 2002:** ISAO Award (International Foundation Alzheimer Research): Subcellular localization of the active γ -secretase complex. Border crossing research grant with Prof. W. Annaert, University of Leuven.
- 2003:** ZonMW investment grant: Advanced Live-cell Imaging station for multipurpose biomedical imaging. With Dr. J.L. Bos. (€450.000,-)
- 2004:** Intra-European Marie-Curie Fellowship (Motility 5): Defining the transport pathway of the receptor-mediated sorting of lysosomal enzymes by correlative live-cell imaging and electron-microscopy. (postdoc position)
- 2004:** ZonMW VICI award: Defining novel pathways of lysosome biogenesis: a genome-wide screen combined with correlative microscopy. (€1.500.000,-)
- 2005:** Horizon Breakthrough. A semi-automated fluorescence microscopy-based RNA-interference screen to define novel pathways of lysosome biogenesis. (postdoc position)
- 2005** UMC Utrecht Grant for improvement international collaborations I. Microscopy-based screen for druggable genes involved in lysosome biogenesis. With Dr. R. Pepperkok, EMBL, Germany
- 2007:** ZonMW investment grant 911-07-001: Ultrasensitive DeltaVision microscope real time (RT) technology for biomedical investigations at the subcellular level. With Dr. F. Reggiori. (€450.000,-)
- 2008** UMC Utrecht Grant for improvement international collaborations II. Identification of alternative pathways for lysosomal enzyme transport in I-cell disease. With Dr. S. Kornfeld, Washington University, St. Louis, USA
- 2008** Utrecht University short stay fellowships for PhD students from China and India. Role of Drosophila eye color genes, light and carnation in lysosome biogenesis and trafficking. With S. Mayor and M.S. Swetha, National Centre for Biological Sciences, Bangalore, India
- 2009:** Utrecht University short Stay Fellowship for PhD Students from Utrecht University partners in North America. Sorting of transmembrane proteins into the regulated secretory pathway With: Dan Sirkis and Robert Edwards, University of California, San Francisco, USA.
- 2010:** STW open technology program. Targeting the Jak2 - growth hormone receptor interaction for treatment of cancer. (€750.000,-)
- 2010:** EU 7th FRAMEWORK PROGRAMME THEME [INFRA-2010-2.2.7]. EuroBioImaging; Research infrastructure for imaging technologies in biological and biomedical sciences. Preparatory phase. Coordinator Workpackage correlative microscopy (CLEM). (€55.000)
- 2012:** NL Bioimaging AM. Dutch Research Infrastructure for Advanced Microscopy. Selection on national Roadmap.
- 2012:** Microscopy Valley. STW perspective grant on correlative Microscopy (m€ 5.2). Co-applicant (1PhD, 1 postdoc, 1 technician).
- 2013.** Internationale Stichting Alzheimer onderzoek (ISAO)/International Foundation for Alzheimer Research. Targeting Lysosomal activity in Alzheimer's disease. €150.000
- 2014.** Genentech year 13 plus 14 (1.5 fte postdoc plus 1.0 fte technician)
- 2014.** Netherlands Foundation for Scientific Research/ Medical sciences (,ZonMW). Enabling Technologies. Development of high content screening methods. €29.000
- 2015** EU-HORIZON 2020. CORBEL (coordinated Research Infrastructures Building Enduring Life science services) (€91.000)

Prizes/honours

- 1998:** UMCU-grant: Attraction and maintenance of female talent.
- 2004:** ZonMW VICI award: Defining novel pathways of lysosome biogenesis: a genome-wide screen combined with correlative microscopy. (€1.500.000,-)
- 2007:** 20th Foundation lecture of the Center for Cell and Molecular Biology, Hyderabad, India
- 2008.** Elected EMBO member (European Molecular Biology Organization)
- 2012.** Member AcademiaNet. Robert Bosch Stiftung expert database of outstanding Female Scientists and Scholars (*nominated by Netherlands organization for scientific Research (NWO)*).
- 2015.** Ratification as Dutch Flagship Node and Euro-Biolmaging Node Candidate for Correlative Light Electron Microscopy.

Last updated: 16022016

Professional Societies

Dutch Society for Microscopy
Dutch Society for Cell Biology
American Society for Cell Biology

Organization International Conferences

1999: Co-organiser of the international mini-symposium: 'Cell Biology of Disease'. AZU-UMCU, Utrecht, The Netherlands.
2000: Co-organizer and chair of the mini-symposium 'Membrane Traffic' of the European Electron Microscopy congress EUREM 2000, Brno, Czech Republic, July 9-14, 2000.
2001: Co-organizer of and chair international symposium Molecular mechanisms in membrane transport. June 28-29, Utrecht, The Netherlands.
2001: Vice-president organizing committee annual meeting of the Dutch Society for Microscopy (NVvM). December 13-14, Papendal Conference Center, The Netherlands
2002: Organizing committee of the 44th International Symposium of the Society for Histochemistry 'Proteomics in situ: imaging proteins at work'. Vlissingen, 25-28 September 2002, The Netherlands.
2002: Co-organizer and chair of the mini-symposium 'Organelle Biogenesis and Inheritance' at the 42nd Annual Meeting of the American Society for Cell Biology (ASCB). 14-18 December 2002, San Francisco, USA.
2004: Chair mini-symposium: Transport through the Golgi apparatus. Keystone symposium: Golgi apparatus and secretory pathway of eukaryotic cells. January 20 – January 25, Beaver Run Resort, Breckenridge, Colorado. Organizers: L.A. Staehelin, B. Glick & K.E. Howell
2004: Organizing committee of the Royal Dutch Academy of Arts and Sciences (KNAW) symposium: Financing biomedical research in the Netherlands (De financiering van (bio) medisch wetenschappelijk onderzoek in Nederland). June 17. Amsterdam, The Netherlands.
2004: Scientific Advisory Board of the 2004 Electron Microscopical Society (EMC) Congress. August 22-27. Antwerpen, Belgium
2004: Program committee 2004 European Life Science Organization (ELSO) annual meeting. September 4-8. Nice, France.
2007: Organizer mini-symposium 'Bio-imaging and Cell Modeling'. Indian Institute of Sciences, Bangalore. November 28, India
2008: International Scientific Advisory Board (ISAB) European Microscopy Congress in 2008 (EMC 2008), Aachen, Germany.
2009: Co-organizer international symposium 'Ubiquitin function in health and disease'. UMC Utrecht, September 4, 2009
2009: Organizer and Chair mini-symposium 'Autophagy and Organelle Turnover'. 49th Annual Meeting of the American Society for Cell Biology (ASCB). December 5 - 9, 2009, San Diego Convention Center, San Diego, USA
2010: Scientific Program Committee for Life Sciences 17th International Microscopy Congress (IMC17). Rio de Janeiro, September 19-24, 2010
2010: Chair symposium 'Correlative Microscopy'. 17th International Microscopy Congress (IMC17). Rio de Janeiro, September 19-24, 2010
2012: Co-organizer session 'Organelle Dynamics'. European Microscopy Congress (emc2012). 16 – 21 September 2012, Manchester, UK.
2016: Co-organizer session Cell functions, European Microscopy Congress. The XVIth edition, EMC2016, August 28 - September 2, Lyon, France.

Teaching

1985 (UL): 1st Degree License Biology teacher.

1987 (UL): teacher in Boerhaave course: Immuno-electron microscopy

1993-1997 (VU):

- Organizer and lecturer of the course: Cell Biology. 1st year Medical Biology students
- Organizer and lecturer of the course: Morphological methods in Neurobiology. 2nd & 3rd year Medical Biology students
- Cell Biology lectures 1st year Biology & Medical Biology students
- Cell Biology lectures in the course: Signal Transduction. 2nd year Biology & Medical Biology students

Last updated: 16022016

- Teacher in several practical courses (animal morphology, histology, pathobiology, animal physiology).

1996 (VU): Appointed best teacher by 1st year Medical Biology & Biology students (course: Introduction into Biology: Biochemistry/Cell Biology/Embryology/Histology).

1998 - present (UMC Utrecht):

- Introduction into cell biology. 1st year medical students: Lectures, 'Meeting the expert' sessions, supervisor workgroup
- Course 'Cells', 1st year Biomedical Sciences.
- -Advanced and Experimental Cell Biology 2012 (2nd plus 3rd year Biomedical Sciences)
- Master Program Molecular and Cellular Life Sciences. Course 'Intracellular membrane processes'
- Master program Developmental Biology and Cancer Genomics. Course 'The role of membrane trafficking in development and disease'.
- Leica course Immuno-electron microscopy
- PhD program 'Biomembranes'.
- 'Healthy and Diseased Cells I', 1st year's medical students (co-organizer).
- Master program Developmental Biology and Biomedical Genetics. Course 'From cell to organism' (co-organizer).

Miscellaneous

1996-1997: Co-organiser weekly seminar series Department of Molecular and Cellular Neurobiology, Faculty Biology, Free University, Amsterdam.

1997: Organising committee AIO/OIO-meeting of the Research Institute Neurosciences Amsterdam.

1999: *J. Klumperman*. Arts and artifacts of electron microscopy. **Trends in Cell Biology**, 1999, Vol. 9:247. Review on 'Biomedical Electron Microscopy, Illustrated methods and Interpretations, by A.B. Maunsbach and B.A. Afzelius, ISBN0124806104. (on invitation)

2000: Cover design **Molecular Biology of the Cell**, the international journal of the American Society for Cell Biology (ASCB), Vol. 11, No. 2. (on invitation)

2000: *J. Klumperman*. Immuno-electronenmicroscopie, **Analyse**, vakblad Nederlandse Vereniging van bio-Medische Laboratoriummedewerkers. November 2000, 270-274. (on invitation).

2001: Jury 'Stichting Electronenmikroskopie Nederland (SEN)' (Dutch society for Electron microscopy) for awarding the SEN-prize 2001.

2004-2009: Talma Eykman prize jury

2005-present: Member F1000.

2007-2009: X-track excellent trace jury

2007-2012: Mentor Steyn Parve program for stimulating female talent at the UMC

2010-2011: Microscopy Today innovation Award Jury.

Research

My research aims to understand how cells organize their intra- and extracellular communication and how genetic mutations lead to cellular disorganization and disease.

Many genetic diseases find their basis in a defect in membrane trafficking, which is required for cell functioning in general and the biogenesis of organelles. Membrane traffic requires protein sorting, vesicle formation and vesicle fusion. These steps are tightly regulated by specific sets of machinery proteins, such as Rabs, coat components and SNAREs. My work has contributed to the functional characterization of various machinery proteins, including the SNAREs syntaxin 6, 7, 8, 11, 13 and 17, VAMP 4 and 7, the Rab proteins Rab4 and 14, the adaptor protein AP3 and the coat complexes COPI and COPII.

My research has focused on 2 areas.

The early secretory pathway. Most newly synthesized proteins must leave the endoplasmic reticulum (ER) to travel to their final cellular destination. By a combination of immuno-electron microscopy (IEM) and electron tomography, I found that ER exit is mediated by complex, COPII-coated tubulo-vesicles (Zeuschner et al., Nature Cell Biology, 2006), which fuse with the so-called vesicular tubular clusters (VTCs). I discovered that VTCs are the major protein concentration station in the secretory pathway of professional secretory cells and have postulated the 'concentration-by-exclusion' model of secretory

Last updated: 16022016

protein transport (Martinez-Menarguez et al., Cell, 1999; J. Klumperman. Current Opinion in Cell Biology. 2000). I also found that VTCs regulate the level of the Alzheimer-associated proteins Presenilin-I and amyloid precursor protein (APP) that is targeted to the plasma membrane (Rechards et al., Traffic, 2003 and 2006). 'Concentration-by-exclusion' proceeds in the Golgi complex. The mode of transport through the Golgi complex, however, remains debated. My group was the first to demonstrate that COPI-coated vesicles budding from the Golgi cisternae contain Golgi enzymes, but are depleted of forward moving cargo, providing a key argument for the 'cisternal maturation' model of intraGolgi transport (Martinez-Menarguez et al., J Cell Biol., 2001; Rabouille and Klumperman. Nature Reviews Molecular Cell Biol., 2005)

Lysosome biogenesis and functioning. Lysosomes are the primary degradative compartments of the cell. They degrade extracellular material internalized by endocytosis and intracellular components by autophagy. To date, more than 50 diseases are known with a primary defect in lysosomal functioning. During my post-doctoral studies, I studied how mannose 6-phosphate receptors (MPRs) mediate transport of lysosomal enzymes to endosomes and lysosomes (Kuliawat et al., J. Cell Biol., 1997; Klumperman et al., J. Cell Biol., 1998; Klumperman et al., J. Cell Biol., 1993). I discovered a novel, bi-layered Hrs/clathrin-coated membrane sub-domain on endosomes that regulates the sorting of growth factor receptors for down-regulation in lysosomes (Sachse et al., Molc. Biol. Cell, 2002). This discovery introduced a novel role for clathrin, i.e. in protein retention. I also defined a novel, AP3-mediated pathway by which lysosomal membrane proteins travel from tubular sorting endosomes to lysosomes (Dell'Angelica et al., Science, 1998; Peden et al., J. Cell Biol., 2004). These studies clarified the cellular role of AP3 as causative gene for Hermansky-Pudlak syndrome II (a pigmentation bleeding disorder), but also implicated early endosomes in lysosomal protein trafficking and revealed the existence of a tubular sorting endosome.

Relevance for disease. My research aims at understanding the molecular basis of human diseases, with emphasis on diseases of the endo-lysosomal system. Diseases that I have specifically addressed are: Lysosomal storage disorders (Pompe disease; Mucopolysaccharidosis II/I-Cell disease) – Alzheimer disease – Hermansky Pudlak Syndrome (pigmentation bleeding disorder) - Cancer – Nephrogenic diabetes insipidus – virus and bacterial infections – Intrahepatic cholestasis type 1.

Current research and outlook. My most recent finding is a novel pathway for the delivery of lysosomal membrane proteins to the lysosomes. This pathway requires components of the HOPS and CORVET complexes, which are increasingly recognized as causative genes for myopathies, neurological and multisystem disorders. My current focus is on establishing the role of HOPS and CORVET in the functional organization of the endo-lysosomal system. The ultimate aim is to use this knowledge to manipulate endo-lysosomes in disorders with disturbed endo-lysosomal functioning, including neurodegenerative diseases (e.g. Alzheimer disease, Parkinson's disease), viral infections, cancer metastasis and lysosomal cancer cell death.

Microscopy. During my career I have specialized in the application of immuno-electron microscopy (IEM) to biomedical questions. Since 2001 I chair the Cell Microscopy Center of the University Medical Centre Utrecht, The Netherlands, which is widely recognized as one of the best morphological expertise centres in the world. The recently correlative light-electron microscopy (CLEM) developed in my group, literally bridges the gap between live cell imaging and IEM (van Rijnsoever et al., Nature Methods, 2008). Within the ESFRI initiative EuroBioimaging that aims to set up an European network for microscopy infrastructure I am coordinator of the CLEM workpackage. Since 2009 I also chair the Cell Screening Center, a Cellomics Facility specialized in automated microscopy for high content and high throughput screens.

Seminars

1997

Lysosomal enzymes and their receptors are sorted from secretory granules via AP-1, clathrin- and syntaxin 6-positive vesicles. 4th International workshop on intracellular transport of proteins and vesicles, Ohrbeck, Germany. October 8-10.

1998

Last updated: 16022016

Clathrin-mediated protein sorting from immature secretory granules. 4th International Annaberg-conference, EMBO-workshop: Protein sorting and processing in the secretory pathway, Annaberg/St Martin, Austria. January 13-18.

Synaptic vesicle formation from early endosomes in PC12 cells. Gordon Conference: Cell Biology of the Neuron, Plymouth NH, USA. June 14-19.

1999

Concentration of secretory proteins in ER-Golgi intermediate compartments occurs by exclusion from COPI-coated retrograde membranes. Keystone meeting: Molecular Physiology and Pathology of Membrane Traffic. Santa Fe, New Mexico. January 9-14.

Protein concentration in preGolgi membranes. Scandinavian EM meeting 99, Bergen, Norway. June 2-5.

The role of preGolgi membranes in protein concentration. International Meeting: "Transport of proteins and Membranes in Eukaryotic Cells", Göttingen, Germany. September 29-October 1.

Protein sorting and membrane transport along the secretory pathway. IB-seminar Research school and Institute for Biomembranes, Utrecht University, The Netherlands. October 15.

Protein sorting in preGolgi and endosomal membranes. CLB, Amsterdam, The Netherlands. Host: Dr. J. Voorberg. November 1.

2000

Protein sorting events in the exo- and endocytic pathways. Institute of Biotechnology, University of Helsinki, Finland. Host: Prof. M. Makarow. January 10.

Protein sorting in the exo- and endocytotic pathway. Molecular Neuroscience lecture, Rudolf Magnus Institute for Neurosciences, Utrecht. Host: M. Verhage. January 18.

Protein sorting in the exo- and endocytic pathway. Department of Molecular Cell Biology, Faculty of Medicine, University of Leiden, The Netherlands. Host: Prof. H.J. Tanke. January 27.

ImmunoEM analysis of protein sorting events in the exo- and endocytotic pathway. 12th European congress on electron microscopy. Chairperson plus introductory lecture of the minisymposium: Membrane traffic. Brno, Czech Republic, July 9-14.

Ultrastructural analysis of protein sorting and concentration. Gordon Conference on Hormonal and Neural Peptide Biosynthesis, New London, USA. July 16-21.

Protein transport to and through the Golgi. In mini-symposium: The structure and function of the Golgi complex, ELSO meeting, Geneva, Switzerland. September 2-6.

Organisatie en functies van de endosomale-lysosomale route in de cel. Najaarsvergadering van de vereniging Erfelijke Stofwisselingsziekten. Nederland. Host: Dr. A. Groener. October 10.

Immuno-electronmicroscopy in Cell biology. Leica Cryoworkshop, November 15-24, Utrecht, The Netherlands

Protein sorting events between ER and Golgi. Institute Curie, Paris, France. Host: Dr. G. Raposo. November 7.

Anterograde and retrograde traffic to and through the Golgi, EMBL, Heidelberg, Germany, Host: Dr. J. Ouwendijk, December 14.

2001

Last updated: 16022016

Pathways of protein traffic to and through the Golgi. 5th International Annaberg Conference on Protein Sorting and Processing in the Secretory Pathway. EMBO workshop. Schloss-Goldegg, Austria. January 9-14.

The organization of the endocytic pathway: Combining housekeeping with specialized tasks. 43rd Symposium of the Society for Histochemistry, University of Vienna, Austria, September 26-29.

Transport of secretory proteins through early biosynthetic compartments. Joint Meeting European COST action: Mammary biology, function and cancer. Hannah Research Institute, Ayr, Scotland, December, 7-8.

A novel flat embedding method for cryo-sectioning: rab4 in synaptic vesicle formation. Annual meeting Dutch Society for Microscopy, Papendal Conference Centre, The Netherlands, December 13-1.

2002

The organization of the exo- and endocytic pathways as revealed by immuno-electron microscopy. Seminar series 'Protein traffic and signal transduction'. Biocenter of the University of Basel, Switzerland, Organizer: Prof M. Hall. Host: H. Riezman. April 10.

The role of coated membranes in pre- and post-Golgi traffic. Joint Euresco Conference/EMBO workshop 'Exocytosis'. Membrane structure and dynamics'. 20-25 April, Tomar, Portugal

Vesicular tubular clusters between ER and Golgi regulate Presenilin I levels in pre- and post-Golgi pools. 5th meeting of the Gordon Research Conference on 'Hormonal and Neuronal Peptide Biosynthesis'. July 21-26, New London (NH), USA.

By Marloes Rechards: *Presenilin-1 localization and its effect on trafficking of APP-products in vesicular tubular clusters between ER and Golgi.* 8th Int. Conference on Alzheimer's disease and related Disorders. Stockholm, Sweden, July 21-15.

By Martin Sachse: *Clathrin coats on endosomal vacuoles are involved in lysosomal sorting of growth factor receptors.* 7th IUBMB conference in Bergen, Oslo. 4-8 May.

Traffic to and through endosomes. 55th Harden Conference of the Biochemical Society 'Dynamics of Membrane Traffic'. 25-29 August, Ambleside, UK.

Multiple roads to the lysosome. 1st international Workshop on Lysosome-Related Organelles. Instituto Gulbenkian de Ciência, Portugal. 24-26 October.

The role of coated membranes in endosomal sorting. Department of Biochemistry. Radium Hospital. Oslo. Norway. Host: D. Gilloolly.

The endosome equilibrium: Pathways to and from early endosomes. 42nd Annual Meeting of The American Society for Cell Biology. San Francisco. USA. December 14-18.

Morpho-molecular characterization of exo- and endocytic pathways by immuno-electron microscopy. Genentech, San Francisco, USA. December 13. Hosts: Dr. A. Peden/RH Scheller

Sorting domains in the endocytic system. Washington University StLouis, USA. December 20. Host: Dr. P. Hansson

2003

Sorting in the endocytic system. Institute of Biochemistry; Zürich, Switzerland. February 17th. Host: L. Pelkmans/A. Helenius

Transport pathways to and through endosomes. Membrane dynamics in Endocytosis. ESF/EMBO Workshop. Acquafredda di Maratea, Italy, 13 - 18 September. Organizers: M. Zerial & M. Robinson

Last updated: 16022016

2004

Coats and sorting in the secretory pathway. Protein sorting in the secretory pathway. 6th International EMBO workshop Annaberg conference. Goldegg, Austria. January 13 – January 18. Organizers: S.A. Tooze, D. Shields & G. Seethaler

Sorting domains in the secretory pathway. Golgi apparatus and secretory pathways of eukaryotic cells. Keystone symposium. January 20–25. Beaver Run Resort, Breckenridge, Colorado. Organizers: L.A. Staehelin, B. Glick & K.E. Howell

ZMBE, the Center for Molecular Biology of Inflammation, Muenster, Germany. 27-28 February. Host: V. Gerke

Protein sorting in secretory and endocytic membranes. Consortio Mario Negro del Sud, Italy. May 4. Host: Alberto Luini

Pathways of endosomal trafficking. 16th International Congress of the international federation of associations of anatomists (IFAA): from gene to body. August 22-27, Kyoto, Japan.

The role of coated membranes in protein traffic through the early secretory pathway. ELSO (European Life Science Organization). Plenary speaker. September 4-8. Nice, France.

Endosomal carriers in anterograde axonal transport. 2nd International workshop on Lysosome-related organelles. September 26-28. Oeira, Portugal.

Transport carriers of the early secretory pathway. 3rd International Göttingen meeting SFB 523: Protein and membrane transport in the secretory pathway. October 7-9. Göttingen, Germany.

How might delocalization of receptors to a new membrane compartment enhance, terminate or otherwise alter signaling? Horizon symposium "A living frontier - the changing face of cell membranes". Organized by Nature Publishing Group and Aventis. October 21-23, Verona, Italy (on invitation only).

2005

Protein transport through secretory and endocytic membranes. International seminar series National Institute of health (NIH), Bethesda, USA, February 10; Host: Bill Gahl

Transport through the early secretory pathway. Joint meeting of The Histochemical Society and The Society for Histochemistry. April 27-30. Noordwijkerhout

Ultrastructural imaging of membrane dynamics: Correlative microscopy and immuno- electron tomography. EMBO workshop micro-injection & probe detection: European Molecular Biology Laboratory (EMBL), June 13-17, Heidelberg, Germany

Endosomal carriers involved in protein transport. Gordon Conference: Molecular Membrane Biology, July 10-15, Andover, USA.

Immuno-electron tomography studies on COPII coated vesicle formation from the endoplasmic reticulum. Dreiländertagung Microscopy Conference, August 28- September 2, Davos, Austria.

Ultrastructural imaging of membrane dynamics by immuno- electron tomography and correlative microscopy German Society for Biochemistry and Molecular Biology (GBM) Fall Meeting, September 18-21, Berlin, Germany.

Ultrastructural imaging of membrane dynamics. EMBO workshop 'Endocytosis and signaling during development'. Max-Planck Institute of Molecular Cell Biology and Genetics, October 4-15, Dresden, Germany.

Last updated: 16022016

Imaging of membrane dynamics by light and electron microscopy based methods. Genentech, December 8, San Francisco, USA

2006

Structure and function of intracellular vesicle trafficking. Opening's symposium Centre for Ultrastructural Imaging, King's College, London. February 6, London, United Kingdom

Imaging of membrane dynamics by correlative live cell electron microscopy. Symposium on the introduction of the 4Pi confocal microscope, April 6, Optical Imaging centre, Erasmus MC, Rotterdam,

Imaging intracellular membrane transport and dynamics by correlative live cell - electron microscopy methods. Shanghai Institute of Biological Sciences, Chinese Academy of Sciences. May 8. Shanghai, China, Host: Xu Zhang

Imaging secretory protein transport by immuno-electron tomography and correlative microscopy. May 23, Katholieke Universiteit Leuven, Belgium. Host: Prof. W. Annaert

Transport carriers of the lysosomal pathway Gordon conference 'lysosomes and endocytosis'. June 25-30, New Hampshire, USA

Possible pathways to the lysosome. Joint meeting of the British Society for Cell Biology and the Royal Microscopy Society: Dynamic imaging of membrane traffic. September 14-17. Royal Holloway, London, United Kingdom

How to define dynamic endosomal subdomains and their specialized functions? Joint initiative of the Max Planck Society and Nature Cell Biology focusing on cell, molecular and development biology: Self organization and morphogenesis in biological systems. December 3-6. Ringberg castle, Munich, Germany.

Imaging the dynamics of intracellular protein sorting and vesicle trafficking. Dutch chinese life science forum 2006. October 7. UMC Utrecht, The Netherlands

2007

Trafficking of lysosomal proteins at the TGN-endosome interface. January 9-14: 6th International Annaberg Conference on Protein and Lipid Sorting in the Secretory Pathway, Goldegg, Austria

Vincent Schoonderwoert: *Microscopy based high-throughput siRNA screening to define novel pathways of lysosome biogenesis.* Conference on: Enhancing Screening Strategies with Cell-Based Assays. Session on Imaging applications, Monday 5th – Thursday 8th February 2007, Munich, Germany.

Imaging of protein sorting events involved in lysosome biogenesis. Special seminar series Cancer Research UK. June 28, London, UK. Host: Dr. Sharon Tooze

Imaging protein sorting events at the TGN-endosome interface. September 18-23: ESF/EMBO European Endocytosis Conference: Endocytic Systems. Geneva, Switzerland

Imaging of protein sorting events involved in lysosome biogenesis. Seminar series "Sonderforschungsbereich 415 "Spezifität und Pathophysiologie von Signaltransduktionswegen. Christian-Albrecht University Kiel, Germany. October 30. Host: Dr. P. Saftig

Imaging protein sorting events in lysosome biogenesis. Fall Symposium Dutch Society for Biochemistry and molecular biology. November 9, Amsterdam, The Netherlands

The inner world of the Cell: beauty, function, impact. Foundation lecture 20th anniversary of the Center for Cellular and Molecular Biology (CCMB), November 26, Hyderabad, India

Last updated: 16022016

Imaging lysosome biogenesis. Center for Cellular and Molecular Biology (CCMB), November 27, Hyderabad, India. Host. Dr. G. Pande

Imaging lysosome dynamics. Indian Institute of Science (IISc)), November 28, Bangalore, India. Host. Dr. D. Nandi

Imaging lysosome dynamics. National Centre for Biological Sciences (NCBS) November 29, Bangalore, India. Host. Dr. S. Mayor

2008

Imaging protein transport events at the TGN-endosome interface. International Symposium on intracellular Trafficking and Transport, April 2-4, Göttingen, Germany

Imaging lysosome dynamics. Cambridge Institute for Medical Research (CIMR). August 4, Cambridge, UK. Host: Dr. A. Peden

Dynamic events in the endosomal system. Gordon research Conference on Growth factors and signaling. August 3-8, Oxford, UK

Formation of Golgi to endosome carriers. The 2008 Golgi meeting: Membrane trafficking in global cellular responses, September 4-9, Pavia, Italy

Imaging protein transport pathways at the TGN-endosome interface. 50th Symposium of the Society of Histochemistry. October 1-4, Interlaken, Switzerland

Imaging protein transport and sorting at the TGN-endosome interface. Leids Universitair Medisch Centrum. October 30, Leiden. Host: Bram Koster

Imaging endo-lysosome dynamics. Plenary lecture Fall meeting Dutch Society on Microscopy. November 10-11, Lunteren, The Netherlands

Imaging the endosomal system Combined meeting NWO study sections protein research, nucleic acids and lipids & biomembranes: chemistry in biology and medicine. Plenary lecture Veldhoven 8-10 December 2008.

Imaging cellular dynamics by correlative live cell – electron microscopy methods. Genentech, San Francisco, USA. December 11.

2009

Imaging the endo-lysosomal system by correlative live cell – electron microscopy. Plenary lecture Opening symposium of the Wolfson Bioimaging Facility, January 8, Bristol, UK

Zicht op de verborgen wereld van de cel; de schoonheid, de functie, de impact. Plenary lecture Universiteitsdag UU Utrecht. 28 maart. 2009

Imaging cellular dynamics by correlative live cell – electron microscopy. Plenary lecture. Focus on Microscopy 2009 Conference (FOM2009), 5-8 April, Krakow, Poland.

Imaging cellular dynamics by correlative live cell – electron microscopy. Plenary lecture. Symposium 'Light microscopy meets structural Biology' June 22-23, EMBL Heidelberg, Germany

Intracellular transport pathways to the lysosome. Washington University, December 3, StLouis, USA. Host: Stuart Kornfeld.

Mannose-6-phosphate receptor independent pathways of lysosome biogenesis. 49th ASCB Annual Meeting, December 5–9, 2009, San Diego

2010

Last updated: 16022016

Mannose-6-phosphate receptor independent pathways of lysosome biogenesis. Plenary lecture 8th EMBO & Annaberg meeting 'Protein and lipid function in secretion and endocytosis', 12 - 17 January, 2010, Goldegg am See, Austria

Lysosome biogenesis and cancer. Apoptosis laboratory, institute of Cancer biology, Danish Cancer Society. January 22. Host: Marja Jäättelä

Zicht op de verborgen wereld van de cel. Publiekslezing studentenwetenschapsdag, 4 maart 2010, UMC Utrecht.

Imaging the endo-lysosomal system by correlative live cell – electron microscopy. CIMST Microscopy & Nanoscopy Seminar, ETH, Zurich, May 6th, 2010, Switzerland

Imaging the endo-lysosomal system by correlative live cell – electron microscopy 10th ELMI (European Light Microscopy Initiative) meeting, Heidelberg, Germany, May 18th and 21st 2010

Mannose-6-phosphate receptor independent pathways of lysosome biogenesis and Mucopolipidosis type II (MLII). Plenary lecture International symposium on 'Protein Trafficking in Health and Disease' Graduate Research Training Group (GRK), May 27-28, 2010, Hamburg, Germany

Correlative microscopy. CLEM course (org. Paul Verkade), July 12 – 16 2010, Bristol, United Kingdom

Imaging the endo-lysosomal system by correlative live cell – electron microscopy. 52nd Symposium of the Society for Histochemistry, Prague, 1 - 4 September, 2010

Imaging the endo-lysosomal system by 'correlative live cell – electron microscopy' (CLEM) and 'section light electron microscopy' (SLEM). Plenary lecture 17th International Microscopy Congress (IMC17). Rio de Janeiro, September 19-24, 2010

Correlative Microscopy. B-Basic Masterclass Single Molecule & Single Cell Analysis. December 08-10, 2010, Hampshire Hotel Plaza Groningen, The Netherlands.

2011

Studying the endo-lysosomal system by correlative microscopy. Plenary lecture. EMBO Conference on Systems Dynamics of Intracellular Communication (Spatial 2011) Engelberg, Switzerland, May 15-19, 2011

The role of the mammalian HOPS complex in lysosome biogenesis. SFB Symposium Endocytosis & signalling. June 16 – 18, 2011, Max Planck Institute Münster, Germany

Correlative microscopy. Plenary lecture. CLEM course (org. Paul Verkade). July 25 – 29 2011, Bristol, United Kingdom

Correlative light-electron microscopy. Plenary lecture Advanced Microscopy and Vital Imaging Symposium, July 8. Maastricht, The Netherlands

Mannose 6-phosphate receptor dependent and independent pathways of lysosome biogenesis International conference on LYSOSOMES. September 29 – October 1, 2011, Hamburg, Germany

Correlative light-electron microscopy. Symposium 'Imaging BioComplexity'. Org: Anna Akhmanova and Caspar Hoogenraad. October 7, Utrecht, The Netherlands

Correlative light-electron microscopy (workshop moderator). International workshop on correlative light and electron microscopy in the Life Sciences, Carl Zeiss, October 11-13 2011, Muenchen.

2012

Last updated: 16022016

CLEM: Correlative Light Electron Microscopy. Bridging the gap between light and electron microscopy. Spring Meeting Biolmaging Utrecht, May 22, 2012

The role of the mammalian HOPS complex in lysosome biogenesis. Gordon Research Conference on Lysosomes and Endocytosis. Proctor Academy, Andover, New Hampshire, June 17-22, 2012

The role of HOPS complex components in the endo-lysosomal system in relation to tumor development. Beatson Institute for Cancer Conference on "Membrane Dynamics in Cancer", to be held July 1st to 4th 2012, Beatson Institute for Cancer Research in Glasgow, Scotland

Tokuyasu CLEM. EMBO CLEM course, Bristol, UK, July 15-20, 2012

Applications of electron and correlative microscopy in biomedical research. Genentech, San Francisco, USA, 11 December 2012.

2013

Correlative light-electron microscopy. Master class in Cellular Imaging course, Dept. of Cell Biology UMC Groningen, March ,7 2013

The role of the mammalian HOPS complex in lysosome biogenesis. Research seminar in the "Molecular Medicine Series", UMC Groningen. Host: B. Giepmans. March 7, 2013

Applications of electron and correlative light-electron microscopy in biomedical research. Institute of Molecular and Cell Biology/Institute of Medical Biology. Singapore. March 13, 2013

Imaging the endo-lysosomal system in health and disease. Liverpool, April 23, 2013

Applications of electron and correlative microscopy in biomedical research. Practicalities of Cellular Analysis, Newcastle, UK, 25 April 2013

The role of HOPS complex components in organizing the endo-lysosomal system. 19th European Study Group on Lysosomal Diseases (ESGLD) symposium. Seggau Castle, Graz, Austria, September 26-29, 2013

Correlative light-electron microscopy of the endo-lysosomal system. EMBO meeting: Seeing Is Believing, organizers: J. Lippincott-Schwartz and J. Ellenberg. Heidelberg, October 5, 2013

The role of HOPS complex components in organizing the endo-lysosomal system. Integrated Research Training Group (IRTG) meeting Collaborative Research Center (CRC) "Physiology and Dynamics of Cellular Microcompartments" of the University of Osnabrück, 23 November 2013, Utrecht

Euro-Biolmaging Proof-of-Concept Studies Perspective. 5th Stakeholder Meeting EuroBiolmaging, 24 November 2013, EMBL, Heidelberg, Germany

2014

The role of HOPS complex components in organizing the endo-lysosomal system. EMBO meeting: Protein and lipid function in secretion and endocytosis. Goldegg, Austria, January 14-19, 2014

The role of HOPS complex components in organizing the endo-lysosomal system. Zing Conference "Lysosome-Related Organelles in Health and Disease. Nerja, Spain, February 13-16, 2014.

Correlative light-electron microscopy of the endo-lysosomal system. European Light Electron Microscopy Initiative (ELMI) meeting, Oslo, Norway, May 20-23

Clearance of Alzheimer cells. International Foundation Alzheimer Research. Den Bosch, The Netherlands, June 17, 2014

Last updated: 16022016

The role of the mammalian CORVET/HOPS complexes in lysosome biogenesis. International seminar series MRC Laboratory for Molecular Cell Biology, University College London, March 3, London, UK

Correlative Light Electron Microscopy: from live cells to cryo-immunogold electron microscopy. EMBO CLEM course, Bristol, UK, July 5-7, 2014

The role of the mammalian CORVET/HOPS complexes in lysosome biogenesis. Institute of Genetics and Developmental Biology, Beijing, Chinese Academy of Science, Oct 9th, 2014

The role of HOPS complex components in organizing the endo-lysosomal system. 13th National Symposium on Membrane Biology, Biophysical Society of China, Dali, China, October 10 -13, 2014.

2015

Correlative immuno Light Electron Microscopy (CLEM) and its applications to the endo-lysosomal system. EMBO course - Current Methods in Cell Biology, September 14 - 22, EMBL, Heidelberg, Germany. Org: Yannick Schwab and Pierre Neveu

Correlative immuno Light Electron Microscopy (CLEM) of intracellular compartments. Opening symposium Nikon Center of Excellence, Charité, Berlin, September 22 -24. Org: Britta Eickholt

Endocytotic pathway to the lysosome. Graduate course European study group on lysosomal diseases (ESGLD), September 30, Telethon Institute of Genetics and Medicine (TIGEM), Naples, Italy. Host: Andrea Ballabio

Mutations in Vps41, encoding a regulator of lysosomal fusion events, cause a Parkinson-like phenotype and reduction in cellular LAMP levels. European study group on lysosomal diseases (ESGLD). October 1-4. Telethon Institute of Genetics and Medicine (TIGEM), Italy.

Membrane trafficking defects in lysosomal disorders. Sick Children Hospital, July 31, Toronto, Canada. Host: David Chitayat

Correlative Light and Electron Microscopy (CLEM) on Biological Samples Using Immuno Electron Microscopy. Microscopy and Microanalysis 2015 meeting, August 2-6, Portland, USA

Cellular architecture in health and disease; developments and applications of electron microscopy. August 7, Genentech, San Francisco, USA.

Key publications (11 out of 133)

1. Dell'Angelica, E.C., J. Klumperman, W. Stoorvogel, and J.S. Bonaficino. 1998. Association of the AP-3 adaptor complex with clathrin. **Science** 280:431-434.
2. Martinez-Menarguez, J., H.J. Geuze, J.W. Slot and J. Klumperman. 1999. Vesicular tubular clusters between ER and Golgi mediate concentration of soluble secretory proteins by exclusion from COPI-coated vesicles. **Cell** 98:81-90.
3. Martinez-Menarguez, J.A., R. Prekeris, V. Oorschot, RH Scheller, JW Slot, HJ Geuze, and J. Klumperman. 2001. Peri-Golgi vesicles contain retrograde but not anterograde proteins consistent with the cisternal progression model of intra-Golgi transport. **J Cell Biol.** 155: 1213-1224.
4. Sachse M., S. Urbé, V. Oorschot, G. Strous, and J. Klumperman. 2002. Bi-layered clathrin coats on endosomal vacuoles are involved in protein sorting towards lysosomes. **Molc. Biol. Cell.** 13:1313-1328.
5. A.J. Koster and J. Klumperman. Electron microscopy: stretching the resolution limits of imaging (Review). 2003. **Nature Review Mol Cell Biology/Nature Cell Biology.** Supplement September issue:ss6-ss10.

Last updated: 16022016

6. Peden, A.A., Oorschot, V., Hesser, B., Austin, C.D., Scheller, R.H. and *J. Klumperman*. 2004. Localization of the AP-3 adaptor complex defines a novel endosomal exit site for lysosomal membrane proteins. **J. Cell Biol.** 164:1065-1076.
7. Rabouille, C. and *J. Klumperman*. 2005. The maturing role of COPI vesicles in intra-Golgi transport. **Nature Reviews Molecular Cell Biology** 6:812-817.
8. Zeuschner D, Geerts WJC, van Donselaar E, Humbel. B., Slot JW, Koster AJ, and *J. Klumperman*. 2006. Immuno-electron tomography reveals the existence of free COPII-coated transport carriers. **Nature Cell Biol.** 8:377-383.
- 9 van Rijnsoever C., Oorschot V. and *J. Klumperman* A novel correlative light-electron microscopy (CLEM) method integrating live-cell imaging and immunolabeling of ultrathin cryosections. 2008. **Nature Methods**, Nov;5(11):973-80
10. Saftig P, Klumperman J. Lysosome biogenesis and lysosomal membrane proteins: trafficking meets function. 2009. **Nat Rev Mol Cell Biol.** Sep;10(9):623-35. Epub 2009 Aug 12. Review.
11. Pols M., van Meel E, Oorschot V, ten Brink C, Fukuda M, Swetha MG, Mayor S, *Klumperman J.* hVps41 and VAMP7 function in direct TGN to late endosome transport of lysosomal membrane proteins. 2013. **Nature Communications** 4:1361

Full list of Publications

1. Tager, J.M., R.P. Oude Elferink, A. Reuser, M. Kroos, L.A. Ginsel, J.A. Fransen, and *J. Klumperman*. 1987. Alpha-glucosidase deficiency (Pompe's disease). [Review]. **Enzyme** 38:280-285.
2. Fransen, J.A., L.A. Ginsel, P.H. Cambier, *J. Klumperman*, R.P. Oude Elferink, and J.M. Tager. 1988. Immunocytochemical demonstration of the lysosomal enzyme alpha-glucosidase in the brush border of human intestinal epithelial cells. **Eur. J. Cell Biol.** 47:72-80.
3. Eilers, U., *J. Klumperman*, and H.P. Hauri. 1989. Nocodazole, a microtubule-active drug, interferes with apical protein delivery in cultured intestinal epithelial cells (Caco-2). **J. Cell Biol.** 108:13-22.
4. Oude Elferink, R.P., J.A. Fransen, *J. Klumperman*, L.A. Ginsel, and J.M. Tager. 1989. Secretion of a precursor form of lysosomal alpha-glucosidase from the brush border of human kidney proximal tubule cells. **Eur. J. Cell Biol.** 50:299-303.
5. Matter, K., B. Stieger, *J. Klumperman*, L.A. Ginsel, and H.P. Hauri. 1990. Endocytosis, recycling, and lysosomal delivery of brush border hydrolases in cultured human intestinal epithelial cells (Caco-2). **J. Biol. Chem.** 265:3503-3512.
6. *Klumperman, J.*, J.C. Boekestijn, A.M. Mulder, J.A. Fransen, and L.A. Ginsel. 1991. Intracellular localization and endocytosis of brush border enzymes in the enterocyte-like cell line Caco-2. **Eur. J. Cell Biol.** 54:76-84.
7. *Klumperman, J.*, J.A. Fransen, J.C. Boekestijn, R.P. Oude Elferink, K. Matter, H.P. Hauri, J.M. Tager, and L.A. Ginsel. 1991. Biosynthesis and transport of lysosomal alpha-glucosidase in the human colon carcinoma cell-line Caco-2: secretion from the apical surface. **J. Cell Science** 100:339-347.
8. Damke, H., *J. Klumperman*, K. von Figura, and T. Bräulke. 1991. Effects of brefeldin A on the endocytic route. Redistribution of mannose 6-phosphate/insulin-like growth factor II receptors to the cell surface. **J. Biol. Chem.** 266:24829-24833.

Last updated: 16022016

9. Damke, H., *J. Klumperman*, K. von Figura, and T. Braulke. 1992. Brefeldin A affects the cellular distribution of endocytic receptors differentially. **Biochem. Biophys. Res. Comm.** 185:719-727.
10. Hille, A., *J. Klumperman*, H.J. Geuze, C. Peters, F.M. Brodsky, and K. von Figura. 1992. Lysosomal acid phosphatase is internalized via clathrin-coated pits. **Eur. J. Cell Biol.** 59:106-115.
11. *Klumperman, J.*, J.A. Fransen, J.M. Tager, and L.A. Ginsel. 1992. The cation-independent mannose 6-phosphate receptor is not involved in the polarized secretion of lysosomal alpha-glucosidase from Caco-2 cells. **Eur. J. Cell Biol.** 57:147-154.
12. *Klumperman, J.*, A. Hille, T. Veenendaal, V. Oorschot, W. Stoorvogel, K. von Figura, and H.J. Geuze. 1993. Differences in the endosomal distributions of the two mannose 6-phosphate receptors. **J. Cell Biol.** 121:997-1010.
13. *Klumperman, J.*, J. Krijnse-Locker, A. Meijer, M.C. Horzinek H.J. Geuze and P.J. Rottier, 1994. Coronavirus M proteins accumulate in the Golgi complex beyond the site of virion budding. **J. Virology** 68:6523-6534.
14. Krijnse-Locker, J., *J. Klumperman*, V. Oorschot, M.C. Horzinek, H.J. Geuze and P.J. Rottier. 1994. The cytoplasmic tail of mouse hepatitis virus M protein is essential but not sufficient for its retention in the Golgi complex. **J. Biol. Chem.** 269:28263-28269.
15. Itin, C., M. Foguet, F. Kappeler, *J. Klumperman*, and H.P. Hauri. 1995. Recycling of the endoplasmic reticulum/Golgi intermediate compartment protein ERGIC53 in the secretory pathway. **Biochem. Soc. Transactions** 23:541-544.
16. *Klumperman, J.*, S. Spijker, J. van Minnen, H. Sharp-Baker, A.B. Smit, and W.P.M. Geraerts. 1996. Cell type specific sorting of neuropeptides: a mechanism to modulate peptide composition of large dense core vesicles. **J. of Neuroscience** 15:7930-7940.
17. Kuliawat, R., *J. Klumperman*, L. Ludwig, and P. Arvan. 1997. Differential sorting of lysosomal enzymes out of the regulated secretory pathway in pancreatic beta cells. **J. Cell Biol.** 137:595-608.
18. Bock, J., *J. Klumperman*, S. Davanger, and R.H. Scheller. 1997. Syntaxin 6 functions in trans-Golgi network vesicle trafficking. **Mol. Biol of the Cell.**8:1261-1271.
19. Feng, Z., *Klumperman, J.*, Lukowiak, K. and N.I. Syed. 1997. In vitro synaptogenesis between the somata of identified Lymnaea neurons requires proteins synthesis but not extrinsic growth factors or substrate adhesion molecules. **J. Neuroscience** 17:7839-7849.
20. Dell'Angelica, E.C., *J. Klumperman*, W. Stoorvogel, and J.S. Bonaficino. 1998. Association of the AP-3 adaptor complex with clathrin. **Science** 280:431-434.
21. *Klumperman, J.*, R. Kuliawat, J. Griffith, H.J. Geuze and P. Arvan. 1998. Mannose 6-phosphate receptors are sorted from immature secretory granules via AP-1, clathrin and syntaxin 6-positive vesicles. **J. Cell Biol.**141:359-371.
22. Hay*, J.C., *Klumperman**, J., V. Oorschot, M. Steegmaier, C.S. Kuo and R.H. Scheller. 1998. Localization, dynamics, and protein interactions reveal distinct roles for ER and Golgi SNAREs. **J. Cell Biol.** 141:1489-1502. ***with equal contributions.**
23. *Klumperman, J.*, A. Schweizer, H. Clausen, B.L. Tang, W. Hong, V. Oorschot, and H.P. Hauri. 1998. The recycling pathway of protein ERGIC-53 and dynamics of the ER-Golgi intermediate compartment. **J Cell Science** 111:3411-3425
24. Prekeris, R., *J. Klumperman*, Y.A. Chen, and R.H. Scheller. 1998. Syntaxin 13 mediates cycling of plasma membrane proteins via tubulovesicular recycling endosomes. **J. Cell Biol.** 143:957-971.

Last updated: 16022016

25. Spencer, GE, J. Klumperman, and NI Syed. 1998. Neurotransmitters and neurodevelopment. Role of dopamine in neurite outgrowth, target selection and specific synapse formation. *Perspect Dev Neurobiol.* 5:451-467. Review.
26. Chao, D., J.C. Hay, S. Winnick, R. Prekeris, *J. Klumperman* and R.H. Scheller. 1999. SNARE Membrane trafficking dynamics in vivo. **J. Cell Biol.** 144:869-881.
27. Steegmaier, M., *J. Klumperman*, D.L. Foletti, J. Yoo and R.H. Scheller. VAMP4 functions in trans-Golgi network vesicle trafficking. **Molc. Biol. of the Cell** 10:1957-1972, 1999.
28. Martinez-Menarguez, J., H.J. Geuze, J.W. Slot and *J. Klumperman*. Vesicular tubular clusters between ER and Golgi mediate concentration of soluble secretory proteins by exclusion from COPI-coated vesicles. **Cell** 98:81-90, 1999.
29. Advani, R.J., B. Yang, R. Prekeris, K.C. Lee, *J. Klumperman*, and R.H. Scheller. 1999. VAMP7 mediates vesicular transport from endosomes to lysosomes. **J. Cell Biol.**146:765-775.
30. de Wit, H., Y. Lichtenstein, H.J. Geuze, R.B. Kelly, P. van der Sluijs and *J. Klumperman*. 1999. Synaptic vesicles form by budding from tubular extensions of sorting endosomes in PC12 cells. **Molc. Biol. of the Cell** 10: 4163-4176.
31. Prekeris, R., B. Yang, V. Oorschot, *J. Klumperman*, and R.H. Scheller. 1999. Differential roles of syntaxin 7 and syntaxin 8 in endosomal trafficking. **Molc. Biol. of the Cell** 10:3891-3908.
32. Dittie, A., *J. Klumperman* and S. Tooze. 1999. Mannose-6-phosphate receptors are present on a subset of immature secretory granules in PC12 cells. **J. Cell Science** 112:3955-3966.
33. Huang, C.S. J. Zhou, A.K. Feng, C.C. Lynch, *J. Klumperman*, S.J. DeArmond and W.C. Mobley. 1999. NGF signaling in caveolae-like domains at the plasma membrane. **J. Biol. Chem.** 274: 36707-36714.
34. Krantz, D.E., Y. Liu, R.I. Wilson, P.K. Tan, V. Oorschot, *J. Klumperman*, and R.H. Edwards. 2000. Phosphorylation regulates sorting of the vesicular acetylcholine transporter to different classes of secretory vesicles. **J. Cell Biol.** 149:379-395.
35. Steegmaier, M., V. Oorschot, *J. Klumperman*, and R.H. Scheller. 2000. Syntaxin 17 is abundant in steroidogenic cells and implicated in smooth endoplasmic reticulum membrane dynamics. **Molc. Biol. of the Cell.** 11:2719-2731.
36. *Klumperman, J.* 2000. Transport between ER and Golgi. [Review]. **Current Opinion in Cell Biology** 12:445-449.
37. Prekeris, R., *J. Klumperman*, and R.H. Scheller. 2000. Syntaxin 11 is an atypical SNARE abundant in the immune system. **Eur. J. Cell Biology** 79, 771-780.
38. *J. Klumperman*. The growing Golgi: in search of its independence. 2000. **Nature Cell Biol.** 2, E217-E218.
39. Prekeris, R., *J. Klumperman*, and R.H. Scheller. 2000. A Rab11/Rip11 protein complex regulates apical membrane trafficking via recycling endosomes. **Molecular Cell** 6, 1437-1448.
40. Pende, M., S.C. Kozma, M. Jacquet, V. Oorschot, R. Burcelin, Y. Le Marchand-Brustel, *J. Klumperman*, B. Thorens, and G. Thomas. 2000. Hypoinsulinaemia, glucose intolerance and diminished β -cell size in S6K1-deficient mice. **Nature** 408, 994-997.
41. Van Kerkhof, P., M. Sachse, *J. Klumperman*, and G. Strous. 2001. Growth hormone receptor ubiquitination coincides with recruitment to clathrin-coated membrane domains. **J. Biol. Chem.** 27, 3778-3784.

Last updated: 16022016

42. Smit AB, NI Syed, D Schaap, J. van Minnen, *J. Klumperman*, KS Kits, H. Lodder, RC van der Schors, R. van Elk, B. Sorgedraeger, K. Brejc, TK Sixma, WP Geraerts. 2001. A glia-derived acetylcholine-binding protein that modulates synaptic transmission. **Nature** 411, 261-268. (impact factor)
43. de Wit, H., Y. Lichtenstein, R.B. Kelly, H.J. Geuze, *J. Klumperman**, and P. van der Sluijs*. 2001. Rab4 regulates formation of synaptic-like microvesicles and constitutive recycling vesicles from early endosomes in PC12 cells. **Mol Biol Cell**. 12 (11):3703-3715. ***with equal contributions**
44. Sachse, M., P. van Kerkhof, G. Strous, and *J. Klumperman*. 2001. The ubiquitin-dependent endocytosis motif is required for the incorporation of growth hormone receptor in the forming clathrin-coated pit. **J. Cell Science** 114 (21):3943-3952.
45. Oprins, A, C. Rabouille, G. Posthuma, *J. Klumperman*, H.J. Geuze and J.W. Slot. 2001. The ER to Golgi interface is the major site of secretory protein concentration in exocrine pancreatic cells. **Traffic** 2:831-838.
46. Sprong, H., S. Degroote, T. Claessens, J. van Drunen, V. Oorschot, B.H.. Westerink, Y. Hirabayashi, *J. Klumperman*, P. van der Sluijs, and G. van Meer. 2001 Glycosphingolipids are required for sorting melanosomal proteins in the Golgi complex. **J Cell Biol**. 155 (3):369-380.
47. Klopfenstein DR, *J. Klumperman*, A. Lustig, RA Kammerer, V. Oorschot, and HP Hauri. 2001. Subdomain-specific localization of CLIMP-63 (p63) in the endoplasmic reticulum is mediated by its luminal alpha-helical segment. **J Cell Biol**. 153 (6):1287-1300.
48. van Kerkhof P, CM dos Santos, M. Sachse, *J. Klumperman*, G. Bu, and GJ Strous. 2001. Proteasome Inhibitors Block a Late Step in Lysosomal Transport of Selected Membrane but not Soluble Proteins. **Mol Biol Cell**. 12 (8):2556-2566.
49. Martinez-Menarguez, J.A., R. Prekeris, V. Oorschot, RH Scheller, JW Slot, HJ Geuze, and *J. Klumperman*. 2001. Peri-Golgi vesicles contain retrograde but not anterograde proteins consistent with the cisternal progression model of intra-Golgi transport. **J Cell Biol**. 155: 1213-1224.
50. Sachse, M., G. Ramm, G. Strous, and *J. Klumperman*. 2002. Endosomes: multipurpose designs for integrating housekeeping and specialized tasks. [Review]. **Histochem. and Cell Biol**. 117:91-104
51. Sachse M., S. Urbé, V. Oorschot, G. Strous, and *J. Klumperman*. 2002. Bi-layered clathrin coats on endosomal vacuoles are involved in protein sorting towards lysosomes. **Molc. Biol. Cell**. 13:1313-1328.
52. Mohrmann K., L. Gerez, V. Oorschot, *J. Klumperman* and P. van der Sluijs. 2002. Rab4 function in membrane recycling from early endosomes depends on a membrane to cytoplasm cycle. **J. Biol. Chem**. 277:32029-3325.
53. Oorschot V., de Wit, H., Annaert, W and *Klumperman, J*. 2002. A novel flat-embedding method to prepare ultrathin cryosections from cultured cells in their in situ orientation. **J. Histochem. Cytochem** 50:1067-1080.
54. Andrieux A, Salin PA, Vernet M, Kujala P, Baratier J, Gory-Faure S, Bosc C, Pointu H, Proietto D, Schweitzer A, Denarier E, *Klumperman J*, Job D. 2002. The suppression of brain cold-stable microtubules in mice induces synaptic defects associated with neuroleptic-sensitive behavioral disorders. **Genes Dev**. 16:2350-2364.
55. Deneka M, Neeft M, Popa I, van Oort M, Sprong H, Oorschot V, *Klumperman J*, Schu P, van der Sluijs P. 2003. Rabaptin-5alpha/rabaptin-4 serves as a linker between rab4 and gamma(1)-adaplin in membrane recycling from endosomes. **EMBO J**. 22(11):2645-2657.

Last updated: 16022016

56. Rechards, M., Xia, W., Oorschot, VM, Selkoe DJ and *J. Klumperman*. 2003. Presenilin-1 Exists in both Pre- and Post-Golgi Compartments and Recycles Via COPI-Coated Membranes. **Traffic** 4(8):553-565.
57. Urbé, S., Sachse, M., Row, P.E., Preisinger, C., Barr, F.A., Strous, G., *Klumperman, J.*, and Clague, M.J. 2003. The UIM domain of Hrs couples receptor sorting to vesicle formation. **J Cell Sci**. 116:4169-4179.
58. A.J. Koster and *J. Klumperman*. Electron microscopy: stretching the resolution limits of imaging (Review). 2003. **Nature Review Mol Cell Biology/Nature Cell Biology**. Supplement September issue:ss6-ss10
59. Hendriks G, Koudijs M, Van Balkom BW, Oorschot V, *Klumperman J*, Deen PM, Van Der Sluijs P. 2004. Glycosylation is important for cell surface expression of the water channel aquaporin-2, but is not essential for tetramerization in the endoplasmic reticulum. **J Biol Chem**. 279:2975-2983. Epub 2003 Oct 30.
60. Sachse, M., Strous, G.J. and *J. Klumperman*. 2004. ATPase deficient hVPS4 impairs formation of internal endosomal vesicles and stabilizes bilayered clathrin coats on endosomal vacuoles. **J. Cell Science**. 117:1699-1708. Epub 2004 Mar 09.
61. Bouwman, J., Maia, A.S., Camoletto, P., Posthuma, G., Roubos, E.W., Oorschot, V.M.J., *Klumperman, J.* and M. Verhage. 2004. Quantification of synapse formation and maintenance in vivo in the absence of synaptic release. **Neuroscience** 126:115-126.
62. Junutala, J.R., De Mazière, A., Peden, A.A., Ervin K.E., Advani R.J., van Dijk, S.M., *Klumperman, J.* and R.H. Scheller. 2004. Rab14 is involved in membrane trafficking between the Golgi complex and endosomes. **Mol. Biol. Cell**. 15:2218-2229.
63. Griffith, G. and *J. Klumperman*. 2004. Membranes and sorting. **Current Opinion in Cell Biology** 16:341-342. (review on invitation).
64. Peden, A.A., Oorschot, V., Hesser, B., Austin, C.D., Scheller, R.H. and *J. Klumperman*. 2004. Localization of the AP-3 adaptor complex defines a novel endosomal exit site for lysosomal membrane proteins. **J. Cell Biol**. 164:1065-1076.
65. Esselens, C., Oorschot, V., Baert, V., Raemaekers, T., Spittaels, K., Serneels, L., Zheng, H., Saftig, P., De Strooper, B., *Klumperman, J.* and W. Annaert. 2004. Presenilin 1 deficiency affects the Telencephalin-mediated autophagic degradative pathway in hippocampal neurons. **J. Cell Biol**. 27;166(7):1041-54.
66. Cerny, J., Feng, Y., Yu, A., Miyake, K., Borgonovo, B., *Klumperman, J.*, Meldolesie, J., McNeil, P.L. and T. Kirchhausen. 2004. The small chemical Vacuolin-1 inhibits Ca⁺⁺-dependent lysosomal exocytosis but not cell wound healing. **EMBO J**. 5(9):883-888.
67. Carlton, J., Bujny, M., Peter, B.J., Oorschot, V.M.J., Rutherford, A., Mellor, H., *Klumperman, J.*, McMahon, H., and P.J. Cullen. 2004. Sorting nexin-1 mediates tubular endosome-to-TGN transport through co-incidence sensing of high curvature membranes and 3-phosphoinositides. **Current Biology**. 26;14(20):1791-800.
68. Austin, C. D., De Maziere, A. M., Pisacane, P. I., van Dijk, S. M., Eigenbrot, C., Sliwkowski, M. X., *Klumperman, J.* & Scheller, R. H. 2004. Endocytosis and sorting of ErbB2 and the site of action of cancer therapeutics Trastuzumab and Geldanamycin. **Mol Biol Cell** 15, 5268-82.
69. Cavalli, V., Kujala, P., *Klumperman, J.* and L.S.B. Goldstein. 2005. Sunday Driver links axonal transport to damage signaling **J Cell Biol**. 168(5):775-787.

Last updated: 16022016

70. Rabouille, C. and J. Klumperman. 2005. The maturing role of COPI vesicles in intra-Golgi transport. **Nature Reviews Molecular Cell Biology** 6:812-817 (Review on invitation).
71. van Kerkhof P, Lee J, McCormick L, Tetrault E, Lu W, Schoenfish M, Oorschot V, Strous GJ, Klumperman, J, and G. Bu. 2005. Sorting nexin 17 facilitates LRP recycling in the early endosome. **EMBO J** 24(16):2851-2861.
72. Carlton JG, Bujny MV, Peter BJ, Oorschot VM, Rutherford A, Arkell RS, Klumperman J, McMahon HT, Cullen PJ. 2005. Sorting nexin-2 is associated with tubular elements of the early endosome, but is not essential for retromer-mediated endosome-to-TGN transport. **J Cell Sci.** 118 (Pt 19):4527-4239.
73. Zeuschner D, Geerts WJC, van Donselaar E, Humbel. B., Slot JW, Koster AJ, and J. Klumperman. 2006. Immuno-electron tomography reveals the existence of free COPII-coated transport carriers. **Nature Cell Biol.** 8:377-383 Epub March 16.
74. Rechards M, Xia W, Oorschot V, van Dijk S, Annaert W, Selkoe DJ, Klumperman J. 2006. Presenilin-1-mediated retention of APP Derivatives in early biosynthetic compartments. **Traffic** 7(3):354-364.
75. Wessels E, Duijsings D, Niu TK, Neumann S, Oorschot VM, de Lange F, Lanke KH, Klumperman J, Henke A, Jackson CL, Melchers WJ, van Kuppeveld FJ. 2006. A Viral Protein that Blocks Arf1-Mediated COP-I Assembly by Inhibiting the Guanine Nucleotide Exchange Factor GBF1. **Dev Cell.** 11:191-201
76. Austin CD, Lawrence DA, Peden AA, Varfolomeev EE, Totpal K, De Maziere AM, Klumperman J, Arnott D, Pham V, Scheller RH, Ashkenazi A. Death-receptor activation halts clathrin-dependent endocytosis. **Proc Natl Acad Sci U S A.** 2006 Jul 5;103(27):10283-8. Epub 2006 Jun 26
77. Kamsteeg EJ, Hendriks G, Boone M, Konings IB, Oorschot V, van der Sluijs P, Klumperman J, Deen PM. 2006. Short-chain ubiquitination mediates the regulated endocytosis of the aquaporin-2 water channel. **Proc Natl Acad Sci U S A.** 103(48):18344-18349. Epub 2006 N
78. Sprong H, Suchanek M, van Dijk SM, van Remoortere A, Klumperman J, Avram D, van der Linden J, Leusen JH, van Hellemond JJ, Thiele C. 2006. Aberrant receptor-mediated endocytosis of *Schistosoma mansoni* glycoproteins on host lipoproteins. **PLoS Med.** 3(8):e253.
79. Li X, Kaloyanova D, van Eijk M, Eerland R, van der Goot G, Oorschot V, Klumperman J, Lottspeich F, Starkuviene V, Wieland FT, Helms JB. 2007. Involvement of a Golgi-resident GPI-anchored protein in maintenance of the Golgi structure. **Mol Biol Cell.** 18:1261-1271. Epub 2007 Jan 24
80. Mieulet V, Roceri M, Espeillac C, Sotiropoulos A, Ohanna M, Oorschot V, Klumperman J, Sandri M, Pende M. 2007. S6 kinase inactivation impairs growth and translational target phosphorylation in muscle cells maintaining proper regulation of protein turnover. **Am J Physiol Cell Physiol.** 293:C712-722. Epub 2007 May 9.
81. Oueslati M, Hermosilla R, Schonenberger E, Oorschot V, Beyermann M, Wiesner B, Schmidt A, Klumperman J, Rosenthal W, Schulein R. 2007. Rescue of a nephrogenic diabetes insipidus-causing vasopressin V2 receptor mutant by cell-penetrating peptides. **J Biol Chem.** 13:20676-20685. Epub 2007 May 8.
82. Schmidt M, Paes K, De Maziere A, Smyczek T, Yang S, Gray A, French D, Kasman I, Klumperman J, Rice DS, Ye W. 2007. EGFL7 regulates the collective migration of endothelial cells by restricting their spatial distribution. **Development.** 134:291329-23. Epub 2007 Jul 11.
83. Halter D, Neumann S, van Dijk SM, Wolthoorn J, de Maziere AM, Vieira OV, Mattjus P, Klumperman J, van Meer G, Sprong H. 2007. Pre- and post-Golgi translocation of glucosylceramide in glycosphingolipid synthesis. **J Cell Biol.** 179(1):101-115

Last updated: 16022016

84. Schmidt M, De Mazière A, Smyczek T, Gray A, Parker L, Filvaroff E, French D, van Dijk S, Klumperman J, Ye W. 2007. The role of Egf17 in vascular morphogenesis. **Novartis Found Symp.**;283:18-28; discussion 28-36, 238-241
85. Botos E, Klumperman J, Oorschot V, Igyártó B, Magyar A, Oláh M, Kiss AL. 2007. Caveolin-1 is transported to multivesicular bodies after albumin-induced endocytosis of caveolae in HepG2 cells. **J Cell Mol Med.** Dec 5. [Epub ahead of print]
86. De Mazière A., Parker L., van Dijk SM, Ye W, J. Klumperman. 2008. Egf17 knockdown causes defects in junction formation of endothelial cells during zebrafish vasculogenesis. **Developmental Dynamics** Mar;237(3):580-591
87. Mari M., Bujny M.V. Zeuschner D., Geerts W.J.C., Griffith J., Petersen C.M. Cullen P.J. Klumperman J. * and Geuze H.J. 2008. SNX1 defines an early endosomal recycling exit for sortilin and mannose 6-phosphate receptors. **Traffic.** Mar;9(3):380-393. Epub 2007 Dec 9. *corresponding author
88. Yap, C., Wisco D., Kujala P, Lasiecka Z., Cannon T., Chang M., Hirling H., Klumperman J and B. Winckler. 2008. A role for somatodendritic endosomes in axonal localization of NgCAM. **J. Cell Biol.** Feb 25;180(4):827-42.
89. E. van Meel and J. Klumperman. 2008. Imaging and imagination: understanding the endo-lysosomal system. 50th Anniversary issue of **Histochemistry and Cell Biology**, Mar;129(3):253-66. Epub 2008 Feb 15 (review on invitation).
90. Groux-Degroote S, van Dijk SM, Wolthoorn J, Neumann S, Theos AC, De Mazière AM, Klumperman J, van Meer G, Sprong H. 2008. Glycolipid-dependent sorting of melanosomal from lysosomal membrane proteins by luminal determinants. **Traffic.** Jun;9(6):951-963. Epub Mar 28
91. Dubé N, Kooistra MR, Pannekoek WJ, Vliem MJ, Oorschot V, Klumperman J, Rehmann H, Bos JL. 2008. The RapGEF PDZ-GEF2 is required for maturation of cell-cell junctions. **Cell Signal.** Sep;20(9):1608-1615. Epub 2008 May 23.
92. Blanchet MH, Le Good JA, Mesnard D, Oorschot V, Baflast S, Minchiotti G, Klumperman J and DB. Constam. 2008. Cripto recruits Furin and PACE4 and controls Nodal trafficking during proteolytic maturation. **EMBO J.** 2008 Sep 4. [Epub ahead of print]
93. Degtyarev M, De Mazière A, Orr C, Lin J, Lee BB, Tien JY, Prior WW, van Dijk S, Wu H, Gray DC, Davis DP, Stern HM, Murray LJ, Hoeflich KP, Klumperman J, Friedman LS, Lin K. 2008. Akt inhibition promotes autophagy and sensitizes PTEN-null tumors to lysosomotropic agents. **J Cell Biol.** Oct 6;183(1):101-116
94. van Rijnsoever C, Oorschot V and J. Klumperman. 2008. A novel correlative light-electron microscopy (CLEM) method integrating live-cell imaging and immunolabeling of ultrathin cryosections. **Nature Methods**, Nov;5(11):973-80.
95. Marie-Hélène Blanchet, J. Ann Le Good, Viola Oorschot, Stéphane Baflast, Gabriella Minchiotti, Judith Klumperman, and Daniel B. Constam. 2008. Cripto localizes Nodal at the limiting membrane of early endosomes. **Sci Signal.** Nov 11;1(45):ra13
96. Maaïke Pols and Judith Klumperman. 2008. Trafficking and function of the tetraspanin CD63. **Exp. Cell. Res.** (Review on invitation)
97. Degtyarev M, De Mazière A, Klumperman J, Lin K. 2009. Autophagy, an Achilles' heel AKTing against cancer? **Autophagy.** Apr;5(3):415-8.

Last updated: 16022016

98. Collins CA, De Mazière A, van Dijk S, Carlsson F, *Klumperman J*, Brown EJ. 2009. Atg5-independent sequestration of ubiquitinated mycobacteria. **PLoS Pathog.** 5. Epub 2009 May 15
99. Robben JH, Kortenoeven ML, Sze M, Yae C, Milligan G, Oorschot VM, *Klumperman J*, Knoers NV, Deen PM. 2009. Intracellular activation of vasopressin V2 receptor mutants in nephrogenic diabetes insipidus by nonpeptide agonists. **Proc Natl Acad Sci U S A.** Jul 21;106(29):12195-200. Epub 2009 Jul 8
100. Saftig P, *Klumperman J*. Lysosome biogenesis and lysosomal membrane proteins: trafficking meets function. 2009. **Nat Rev Mol Cell Biol.** Sep;10(9):623-35. Epub 2009 Aug 12. Review.
101. Yamasaki A, Menon S, Yu S, Barrowman J, Meerloo T, Oorschot V, *Klumperman J*, Satoh A, Ferro-Novick S. 2009. mTrs130 Is a Component of a Mammalian TRAPP II Complex, a Rab1 GEF that Binds to COPI Coated Vesicles. **Mol Biol Cell.** Aug 5.
102. van Anken E, Pena F, Hafkemeijer N, Christis C, Romijn EP, Grauschopf U, Oorschot VM, Perte T, Engels S, Ora A, Lástun V, Glockshuber R, *Klumperman J*, Heck AJ, Luban J, Braakman I. 2009. Efficient IgM assembly and secretion require the plasma cell induced endoplasmic reticulum protein pERp1. **Proc Natl Acad Sci U S A.** 2009 Oct 6;106(40):17019-24. Epub 2009 Sep 17
103. Hoogenraad CC, Popa I, Futai K, Sanchez-Martinez E, Wulf PS, van Vlijmen T, Dortland BR, Oorschot V, Govers R, Monti M, Heck AJ, Sheng M, *Klumperman J*, Rehmann H, Jaarsma D, Kapitein LC, van der Sluijs P. Neuron specific Rab4 effector GRASP-1 coordinates membrane specialization and maturation of recycling endosomes. **PLoS Biol.** 2010 Jan 19;8(1):e1000283
104. Verhulst PM, van der Velden LM, Oorschot V, van Faassen EE, *Klumperman J*, Houwen RH, Pomorski TG, Holthuis JC, Klomp LW. A flippase-independent function of ATP8B1, the protein affected in familial intrahepatic cholestasis type 1, is required for apical protein expression and microvillus formation in polarized epithelial cells. **Hepatology.** 2010 Jun;51(6):1885-7.
105. Yu L, McPhee CK, Zheng L, Mardones GA, Rong Y, Peng J, Mi N, Zhao Y, Liu Z, Wan F, Hailey DW, Oorschot V, *Klumperman J*, Baehrecke EH, Lenardo MJ. Termination of autophagy and reformation of lysosomes regulated by mTOR. **Nature.** 2010 Jun 17;465(7300):942-6. Epub 2010 Jun 6.
106. Cheong FY, Sharma V, Blagoveshchenskaya A, Oorschot VM, Brankatschk B, *Klumperman J*, Freeze HH, Mayinger P. Spatial Regulation of Golgi Phosphatidylinositol-4-Phosphate is Required for Enzyme Localization and Glycosylation Fidelity. **Traffic.** 2010 Sep;11(9):1180-1190. Epub 2010 Jun 21.
107. Marielle Boonen[#], Eline van Meel[#], *Judith Klumperman* and Stuart Kornfeld. [#]Authors contributed equally. Vacuolization of mucopolipidosis type II mouse exocrine gland cells represents accumulation of autolysosomes. **Molecular Biology of the Cell.** 2011. Apr;22(8):1135-1147. Feb 23. [Epub ahead of print] 2011
108. Eline van Meel[#], Marielle Boonen[#], Haibo Zhao, Viola Oorschot, F. Patrick Ross, Stuart Kornfeld and *Judith Klumperman*. [#]Authors contributed equally. Disruption of the Man-6-P Targeting Pathway in Mice Impairs Osteoclast Secretory Lysosome Biogenesis. 2011. **Traffic.** Jul;12(7):912-24.
109. Swetha M.G, V. Sriram¹, KS Krishnan, Viola M.J. Oorschot, Corlinda ten Brink, *J. Klumperman* and S. Mayor. Lysosomal protein composition, acidic pH and sterol content are regulated by a Light-dependent pathway in metazoan cells. 2011. **Traffic.** Aug;12(8):1037-1055
110. *Judith Klumperman*. Architecture of the mammalian Golgi. In: **The Golgi book**. Cold Spring Harbor editions 2011. Eds. Jim Rothman and G. Warren. Review (on invitation).
111. Jones C, Denecke J, Sträter R, Stölting T, Schunicht Y, Zeuschner D, *Klumperman J*, Lefeber DJ, Spelten O, Zarbock A, Kelm S, Streng K, Haslam SM, Lühn K, Stahl D, Gentile L, Schreiter T,

Last updated: 16022016

Hilgard P, Beck-Sickinger AG, Marquardt T, Wild MK. A Novel Type of Macrothrombocytopenia Associated with a Defect in Alpha2,3-Sialylation. 2011. **Am J Pathol**. 179: 1969-1977.

112. Deselm CJ, Miller BC, Zou W, Beatty WL, van Meel H, Takahata Y, *Klumperman J*, Tooze SA, Teitelbaum SL, Virgin HW Autophagy proteins regulate the secretory component of osteoclastic bone resorption. **Dev Cell**. 2011 Nov 15;21(5):966-74. Epub 2011 Nov 4

113. Thayanidhi N, Liang Y, Hasegawa H, Nycz DC, Oorschot V, *Klumperman J*, Hay JC. R-SNARE YKT6 Resides in Membrane-Associated Protease-Resistant Protein Particles and Modulates Cell Cycle Progression When Over-Expressed. **Biol Cell**. 2012 Mar 22. doi: 10.1111/boc.201100048.

114. Smith H, Galmes R, Gogolina E, Straatman-Iwanowska A, Reay K, Banushi B, Bruce CK, Cullinane AR, Romero R, Chang R, Ackermann O, Baumann C, Cangul H, Cakmak Celik F, Aygun C, Coward R, Dionisi-Vici C, Sibbles B, Inward C, Ae Kim C, *Klumperman J*, Knisely AS, Watson SP, Gissen P. Associations among genotype, clinical phenotype, and intracellular localization of trafficking proteins in ARC syndrome. **Hum Mutations**. 2012 Dec;33(12):1656-64.

115. Ivan V, Martinez-Sanchez E, Sima LE, Oorschot V, *Klumperman J*, Petrescu SM, van der Sluijs P. AP-3 and Rabip4' Coordinately Regulate Spatial Distribution of Lysosomes. **PLoS One**. 2012;7(10):e48142. Epub 2012 Oct 29.

116. Hassink G, Slotman J, Oorschot V, Van Der Reijden BA, Monteferrario D, Noordermeer SM, Van Kerkhof P, *Klumperman J*, Strous GJ. Identification of the ubiquitin ligase Triad1 as a regulator of endosomal transport. **Biol Open**. 2012 Jun 15;1(6):607-14.

117. MS. Pols, C ten Brink, P Gosavi, V Oorschot, and *J Klumperman*. The HOPS proteins hVps41 and hVps39 are required for homotypic and heterotypic late endosome fusion. **Traffic** 2013 Feb;14(2):219-32

118. M Pols , E van Meel , V Oorschot , C ten Brink , M Fukuda , Swetha MG , S Mayor, *Klumperman J*. hVps41 and VAMP7 function in direct TGN to late endosome transport of lysosomal membrane proteins. **Nature Communications** 2013, 4:1361

119. Lowery J, Sztul T, Styers M, Holloway Z, Oorschot V, *Klumperman J*, Sztul E. The Sec7 guanine nucleotide exchange factor GBF1 regulates membrane recruitment of BIG1 and BIG2 to the trans-Golgi network (TGN). **J Biol Chem**. 2013 Apr 19;288(16):11532-45.

120. Wilson CW, Parker LH, Hall CJ, Smyczek T, Mak J, Crow A, Posthuma G, De Mazière A, Sagolla M, Chalouni C, Vitorino P, Roose-Girma M, Warming S, *Klumperman J*, Crosier PS, Ye W.. Rasip1 regulates vertebrate vascular endothelial junction stability through Epac1-Rap1 signaling. **Blood**. 2013 Nov 21;122(22):3678-90

121. Ellegaard AM, Groth-Pedersen L, Oorschot V, *Klumperman J*, Kirkegaard T, Nylandsted J, Jäättelä M. Sunitinib and SU11652 Inhibit Acid Sphingomyelinase, Destabilize Lysosomes, and Inhibit Multidrug Resistance. **Mol Cancer Ther**. 2013 Oct;12(10):2018-30

122. Johnson L, Huseni M, Smyczek T, Lima A, Yeung S, Cheng JH, Molina R, Kan D, De Mazière A, *Klumperman J*, Kasman I, Zhang Y, Dennis MS, Eastham-Anderson J, Jubb AM, Hwang O, Desai R, Schmidt M, Nannini MA, Barck KH, Carano RA, Forrest WF, Song Q, Chen DS, Naumovski L, Singh M, Ye W, Hegde PS. Anti-EGFL7 antibodies enhance stress-induced endothelial cell death and anti-VEGF efficacy. **J Clin Invest**. 2013 Sep 3;123(9):3997-4009

123. Nakamura N, Lill JR, Phung Q, Jiang Z, Bakalarski C, de Mazière A, *Klumperman J*, Schlatter M, Delamarre L, Mellman I. Endosomes are specialized platforms for bacterial sensing and NOD2 signalling. **Nature**. 2014 May 8;509(7499):240-4.

124. Wiegerinck CL, Janecke AR, Schneeberger K, Vogel GF, van Haaften-Visser DY, Escher JC, Adam R, Thöni CE, Pfaller K, Jordan AJ, Weis CA, Nijman IJ, Monroe GR, van Hasselt PM, Cutz E,

Last updated: 16022016

Klumperman J, Clevers H, Nieuwenhuis EE, Houwen RH, van Haften G, Hess MW, Huber LA, Stapelbroek JM, Müller T, Middendorp S. Loss of Syntaxin 3 Causes Variant Microvillus Inclusion Disease. **Gastroenterology**. 2014 Jul;147(1):65-68

125. *Klumperman J*, Raposo G. The Complex Ultrastructure of the Endolysosomal System. **Cold Spring Harb Perspect Biol**. 2014

126. Helm JR, Bentley M, Thorsen KD, Wang T, Foltz L, Oorschot V, *Klumperman J*, Hay JC. Apoptosis-linked Gene-2 (ALG-2)/Sec31 Interactions Regulate Endoplasmic Reticulum (ER)-to-Golgi Transport: A POTENTIAL EFFECTOR PATHWAY FOR LUMINAL CALCIUM. **J Biol Chem**. 2014 Aug 22;289(34):23609-28

127. Remaut K, Oorschot V, Braeckmans K, *Klumperman J*, De Smedt SC. Lysosomal capturing of cytoplasmic injected nanoparticles by autophagy: An additional barrier to non viral gene delivery. **J Control Release** 2014 Aug 11. pii: S0168-3659(14)00582-3

128. van Meel, E. and *Klumperman J*. TGN exit of the cation-independent mannose 6-phosphate receptor does not require acid hydrolase binding. **Cellular Logistics** 4 (3), 2014

129. Schneeberger K, Vogel GF, Teunissen H, van Ommen DD, Begthel H, El Bouazzaoui L, van Vugt AH, Beekman JM, *Klumperman J*, Müller T, Janecke A, Gerner P, Huber LA, Hess MW, Clevers H, van Es JH, Nieuwenhuis EE, Middendorp S. An inducible mouse model for microvillus inclusion disease reveals a role for myosin Vb in apical and basolateral trafficking. *Proc Natl Acad Sci U S A*. 2015 Oct 6;112(40):12408-13. doi: 10.1073/pnas.1516672112. Epub 2015 Sep 21. PMID: 26392529

130. Galmes R, Ten Brink C, Oorschot V, Veenendaal T, Jonker C, van der Sluijs P, *Klumperman J*. Vps33B is required for delivery of endocytosed cargo to lysosomes. *Traffic*. 2015 Sep 25. doi: 10.1111/tra.12334. [Epub ahead of print] PMID: 26403612

131. van der Kant R, Jonker CT, Wijdeven RH, Bakker J, Janssen L, *Klumperman J*, Neefjes J. Characterization of the mammalian CORVET and HOPS complexes and their modular restructuring for endosome specificity. **J Biol Chem**. 2015 Oct 13. pii: jbc.M115.688440. [Epub ahead of print] PMID: 2646320

132. Mareninova OA, Sendler M, Malla SR, Yakubov I, French SW, Tokhtaeva E, Vagin O, Oorschot V, Lüllmann-Rauch R, Blanz J, Dawson D, *Klumperman J*, Lerch MM, Mayerle J, Gukovsky I, Gukovskaya AS. Lysosome associated membrane proteins maintain pancreatic acinar cell homeostasis: LAMP-2 deficient mice develop pancreatitis. **Cell Mol Gastroenterol Hepatol**. 2015 Nov 1;1(6):678-694

133. Boonen M, Staudt C, Gillis F, Oorschot V, *Klumperman J*, Jadot M. Cathepsin D and its newly identified transport receptor SEZ6L2 can modulate neurite outgrowth. **J Cell Sci**. 2016 Feb 1;129(3):557-68. doi: 10.1242/jcs.179374. Epub 2015 Dec 23