

Curriculum vitae Anna Akhmanova

Personal Information

Name : Anna S. Akhmanova

Date and place of birth: 11-05-1967, Moscow

Nationality: Russian, Dutch

Present address: Prof. Dr. Anna Akhmanova, Cell Biology, Neurobiology and Biophysics, Department of Biology, Faculty of Science, Utrecht University, Padualaan 8, 3584 CH, Utrecht, The Netherlands;

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Academic education and degrees

University Education: 1984-1989, Moscow State University

MS degree: June 1989 *Discipline:* Biochemistry

PhD thesis: March 4, 1997 *University:* Catholic University of Nijmegen

Appointments

January 1, 2011: Professor and co-chair, Division of Cell Biology, Faculty of Science, Utrecht University, Utrecht, The Netherlands.

2008-2010: Associate Professor (UHD), Department of Cell Biology, Erasmus Medical Centre, Rotterdam, The Netherlands.

2003-2008: Assistant Professor (UD), tenure position at the Department of Cell Biology, Erasmus Medical Centre, Rotterdam, The Netherlands.

2001-2002: group leader at the Erasmus Medical Centre, Rotterdam, The Netherlands.

1997-2001: postdoc, Department of Cell Biology and Genetics, Erasmus University of Rotterdam, The Netherlands.

1996-1997: postdoc, Department of Microbiology and Evolutionary Biology, Catholic University of Nijmegen, The Netherlands.

1992-1996: Ph.D. student, Department of Genetics, Catholic University of Nijmegen, The Netherlands.

1991-1992: Research Scholar, Microscopy Group, Department of Applied Physics, University of Twente, The Netherlands.

1989-1991: junior scientist at A.N.Belozersky Laboratory of Bioorganic Chemistry and Molecular Biology, Moscow State University.

Memberships and honors

Elected member of EMBO (European Molecular Biology Organization)

Elected member the Royal Netherlands Academy of Arts and Sciences (KNAW)

Chair of the Netherlands Microscopy Society 2011-2017

Major Grants and Awards

2018. Netherlands Organisation for Scientific Research (NWO) Spinoza Prize, the highest academic distinction in the Netherlands. 2.5 M€ to be spent freely on research.

2013. European Research Council (ERC) Synergy grant, together with Marileen Dogterom (TU Delft), 7.1 M€.

2007. Netherlands Organisation for Scientific Research (NWO) Innovational Research Incentives Scheme VICI award and Aspasia Award (1.250 M € to expand the research group)

2001. Netherlands Organisation for Scientific Research (NWO) Innovational Research Incentives Scheme award (600, 000 € to start an independent research group)

Overview of scientific career

Dr. Anna Akhmanova is a Professor of Cellular Dynamics at the Faculty of Science at the University of Utrecht, The Netherlands. Anna Akhmanova was trained as a biochemist and a molecular biologist and graduated from Moscow State University, Russia, in 1989. She completed her PhD on chromatin proteins in the fruit fly *Drosophila melanogaster* at the University of Nijmegen, the Netherlands in 1997. She did her first postdoctoral research on the early eukaryotic evolution in anaerobic environments at the Department of Microbiology at the University of Nijmegen (1997). During this period, A. Akhmanova demonstrated for the first time the presence of a genome in a hydrogen-producing organelle of an anaerobic protozoan (A.Akhmanova et al., 1998, Nature, 396,527-8). A. Akhmanova then moved to the Department of Cell Biology at the Erasmus MC, where she was first a postdoctoral fellow, and later, since 2001, a group leader. In 2011, Akhmanova became a full Professor and co-chair of the Division of Cell Biology at Utrecht University, the Netherlands.

Scientific achievements of Akhmanova's group:

- Employed mouse GFP knock-in technology, mass spectrometry and advanced live cell imaging to unravel key interactions within protein networks that regulate microtubule dynamics.
- Delineated fundamental structural principles of protein recruitment to microtubule ends and used these insights for in-vitro reconstitution experiments with purified proteins and functional in vivo studies.
- Characterized basic mechanisms of bi-directional microtubule-based motility of membrane organelles such as cell nuclei and exocytotic vesicles, and identified the mechanisms of molecular motor recruitment to membranes.
- Used advanced microscopy approaches such as laser microsurgery in combination with in vitro reconstitution to identify the mechanistic basis of a major pathway for microtubule minus-end stabilization in mammalian cells
- Revealed the mechanistic basis of human neurodevelopmental syndrome Congenital Fibrosis of the Extraocular Muscles (CFEOM1)
- Demonstrated the importance of microtubule plus end dynamics for cancer cell motility in 3D and cancer metastasis
- Revealed the role of the major microcephaly-related factors, ASPM and katanin, in regulation of minus end dynamics at spindle poles and the mitotic spindle architecture
- Identified the molecular mechanism of microtubule minus-end binding by the members of CAMSAP family of proteins
- Provided insights into the activity of microtubule-targeting agents by directly imaging the interactions of their fluorescent analogues with microtubules

Research output in numbers

- 208 papers in peer-reviewed journals
- >13.000 citations (Web of Science)
- 15 PhD students completed their PhD

Membership of scientific committees

2020 Member of the NWO ENW VICI committee

2019 Chair of the Cell&Developmental Biology panel ATIP Avenir young group leader program, Inserm and CNRS, France; Chair KNAW selection committee MMBG domain, member of the NWO ENW VICI committee

2018 Chair of the ERC LS3 Starting grant panel, Chair KNAW selection committee MMBG domain, NWO ZonMW VIDI committee,

2017 KNAW selection committee MMBG domain, NWO ZonMW VIDI committee,

2016 Chair of the ERC LS3 Starting grant panel, member of the ERC Advanced panel, committee member EMBO Long Term Fellowship, NWO ZonMW VIDI committee, member of the Scientific Advisory Board of the Netherlands Institute for Neuroscience.

2015 EMBO Long Term Fellowship, NWO VENI committee, member of the Scientific Advisory Board of the Netherlands Institute for Neuroscience.

2014 Grant Panel member and vice-chair for ERC Starting Grant, Agence Nationale de la Recherche France, AERES evaluation committee of Curie Institute Genotoxic Stress and Cancer unit, EMBO Long Term Fellowship, Faculty Search committee Curie Institute France

2013 Agence Nationale de la Recherche France, Academy of Finland, EMBO Long Term Fellowship.

2012 Grant Panel member for ERC Starting Grant, Agence Nationale de la Recherche France, Academy of Finland EMBO Long Term Fellowship, Netherlands Organisation for Scientific Research ALW (Earth and Life Sciences) Open program, Faculty search committee Curie Institute France; Faculty Search Committee ETH Zurich, Switzerland.

2011 Member of the Jury of the FOM projects (Netherlands Organisation for Scientific Research, Physics).

2009 Evaluator and committee member for the EU 7th Framework Programme in the area of Systems Biology

2008, 2009 Member of the Advisory Committee (Benoemingsadviescommissie (BAC)) Bionanoscience TU Delft

2007, 2008 Member of the Netherlands Organisation for Scientific Research (NWO) Mosaic advisory committee, which awards PhD grants for national minorities in the Netherlands

Membership in Scientific Advisory Boards: Netherlands Institute for Neuroscience, Amsterdam, the Netherlands, Instituto de Investigação e Inovação em Saúde (i3S), Porto, Portugal.

Editorial activities

- Elife, Deputy Editor
- Current Opinion in Cell Biology, Guest Editor 2012, Editorial Board member 2017-present
- Journal of Cell Science, Editorial Advisory Board Member
- PLoS Biology, Editorial Board Member
- Journal of Biological Chemistry, Reviewing Editor 2014-2016
- Encyclopedia of Cell Biology, Section Editor 2014

Organization of Scientific Meetings

2020, 2018. Organisation of the EMBO/EMBL Symposium “Microtubules: From Atoms to Complex Systems”, Heidelberg, Germany.

2014-2017. Organisation of QBio Summer School, July 14-18, 2014, Utrecht University.

2014. Biophysical Society meeting "Disordered Motifs and Domains in Cell Control", Dublin, Ireland.

2011-2017 Organisation of the Joint Annual meeting of the Dutch Microscopy Society (NVvM) and the “Dutch meeting on Molecular and Cellular Biophysics”, Veldhoven, the Netherlands

2009, 2010. Member of the program committee for the “Dutch meeting on Molecular and Cellular Biophysics”, Veldhoven, the Netherlands.

2006. Invited co-chair of the minisymposium “Life at the Microtubule Plus End” at the American Society for Cell Biology (ASCB) Annual Meeting, San Diego, USA.

2005. Invited co-chair of the minisymposium “The Cytoskeleton” at the European Life Scientist Organisation Meeting (ELSO), Dresden, Germany.

Publications

1. Serra-Marques A, Martin M, Katrukha EA, Grigoriev I, Peeters CA, Liu Q, Hooikaas PJ, Yao Y, Solianova V, Smal I, Pedersen LB, Meijering E, Kapitein LC, and **Akhmanova A**. Concerted action of kinesins KIF5B and KIF13B promotes efficient secretory vesicle transport to microtubule plus ends. *Elife* 2020, 9.
2. Yao Y, Smal I, Grigoriev I, **Akhmanova A**, and Meijering E. Deep-learning method for data association in particle tracking. *Bioinformatics* 2020, 36(19): 4935-4941.
3. Saraon P, Snider J, Kalaidzidis Y, Wybenga-Groot LE, Weiss K, Rai A, Radulovich N, Drecun L, Vuckovic N, Vucetic A, Wong V, Theriault B, Pham NA, Park JH, Datti A, Wang J, Pathmanathan S, Aboulizadeh F, Lyakisheva A, Yao Z, Wang Y, Joseph B, Aman A, Moran MF, Prakesch M, Poda G, Marcellus R, Uehling D, Samarzija M, Jakopovic M, Tsao MS, Shepherd FA, Sacher A, Leighl N, **Akhmanova A**, Al-Awar R, Zerial M, and Stagljar I. A drug discovery platform to identify compounds that inhibit EGFR triple mutants. *Nat Chem Biol* 2020, 16(5): 577-586.
4. Rodriguez-Garcia R, Volkov VA, Chen CY, Katrukha EA, Olieric N, Aher A, Grigoriev I, Lopez MP, Steinmetz MO, Kapitein LC, Koenderink G, Dogterom M, and **Akhmanova A**. Mechanisms of Motor-Independent Membrane Remodeling Driven by Dynamic Microtubules. *Curr Biol* 2020, 30(6): 972-987.
5. Rai A, Liu T, Glauser S, Katrukha EA, Estevez-Gallego J, Rodriguez-Garcia R, Fang WS, Diaz JF, Steinmetz MO, Altmann KH, Kapitein LC, Moores CA, and **Akhmanova A**. Taxanes convert regions of perturbed microtubule growth into rescue sites. *Nat Mater* 2020, 19(3): 355-365.
6. Peronne L, Denarier E, Rai A, Prudent R, Vernet A, Suzanne P, Ramirez-Rios S, Michallet S, Guidetti M, Vollaire J, Lucena-Agell D, Ribba AS, Jossierand V, Coll JL, Dallemagne P, Diaz JF, Oliva MA, Sadoul K, **Akhmanova A**, Andrieux A, and Lafanechere L. Two Antagonistic Microtubule Targeting Drugs Act Synergistically to Kill Cancer Cells. *Cancers (Basel)* 2020, 12(8).
7. Muller-Deku A, Meiring JCM, Loy K, Kraus Y, Heise C, Bingham R, Jansen KI, Qu X, Bartolini F, Kapitein LC, **Akhmanova A**, Ahlfeld J, Trauner D, and Thorn-Seshold O. Photoswitchable paclitaxel-based microtubule stabilisers allow optical control over the microtubule cytoskeleton. *Nat Commun* 2020, 11(1): 4640.
8. Meiring JCM, Shneyer BI, and **Akhmanova A**. Generation and regulation of microtubule network asymmetry to drive cell polarity. *Curr Opin Cell Biol* 2020, 62: 86-95.
9. Meiring JCM and **Akhmanova A**. Microtubules keep large cells in shape. *J Cell Biol* 2020, 219(6).
10. Luo Y, Xiang S, Hooikaas PJ, van Bezouwen L, Jijumon AS, Janke C, Forster F, **Akhmanova A**, and Baldus M. Direct observation of dynamic protein interactions involving human microtubules using solid-state NMR spectroscopy. *Nat Commun* 2020, 11(1): 18.
11. Jost M, Chen Y, Gilbert LA, Horlbeck MA, Krenning L, Menchon G, Rai A, Cho MY, Stern JJ, Prota AE, Kampmann M, **Akhmanova A**, Steinmetz MO, Tanenbaum ME, and Weissman JS. Pharmaceutical-Grade Rigosertib Is a Microtubule-Destabilizing Agent. *Mol Cell* 2020, 79(1): 191-198.
12. Gao L, Meiring JCM, Kraus Y, Wranik M, Weinert T, Pritzl SD, Bingham R, Ntoulou E, Jansen KI, Olieric N, Standfuss J, Kapitein LC, Lohmuller T, Ahlfeld J, **Akhmanova A**, Steinmetz MO, and Thorn-Seshold O. A Robust, GFP-Orthogonal Photoswitchable Inhibitor Scaffold Extends Optical Control over the Microtubule Cytoskeleton. *Cell Chem Biol* 2020, S2451-9456(20)30470-0.
13. Aher A, Rai D, Schaedel L, Gaillard J, John K, Liu Q, Altelaar M, Blanchoin L, They M, and **Akhmanova A**. CLASP Mediates Microtubule Repair by Restricting Lattice Damage and Regulating Tubulin Incorporation. *Curr Biol* 2020, 30(11): 2175-2183.

14. Adriaans IE, Hooikaas PJ, Aher A, Vromans MJM, van Es RM, Grigoriev I, **Akhmanova A**, and Lens SMA. MKLP2 Is a Motile Kinesin that Transports the Chromosomal Passenger Complex during Anaphase. *Curr Biol* 2020, 30(13): 2628-2637 e9.
15. Yu M, Le S, Ammon YC, Goult BT, **Akhmanova A**, and Yan J. Force-Dependent Regulation of Talin-KANK1 Complex at Focal Adhesions. *Nano Lett* 2019, 19(9): 5982-5990.
16. van de Willige D, Hummel JJ, Alkemade C, Kahn OI, Au FK, Qi RZ, Dogterom M, Koenderink GH, Hoogenraad CC, and **Akhmanova A**. Cytolinker Gas2L1 regulates axon morphology through microtubule-modulated actin stabilization. *EMBO Rep* 2019, 20(11): e47732.
17. Pan X, Cao Y, Stucchi R, Hooikaas PJ, Portegies S, Will L, Martin M, **Akhmanova A**, Harterink M, and Hoogenraad CC. MAP7D2 Localizes to the Proximal Axon and Locally Promotes Kinesin-1-Mediated Cargo Transport into the Axon. *Cell Rep* 2019, 26(8): 1988-1999.
18. Jespersen N, Estelle A, Waugh N, Davey NE, Blikstad C, Ammon YC, **Akhmanova A**, Ivarsson Y, Hendrix DA, and Barbar E. Systematic identification of recognition motifs for the hub protein LC8. *Life Sci Alliance* 2019, 2(4).
19. Hooikaas PJ, Martin M, Muhlethaler T, Kuijntjes GJ, Peeters CAE, Katrukha EA, Ferrari L, Stucchi R, Verhagen DGF, van Riel WE, Grigoriev I, Altelaar AFM, Hoogenraad CC, Rudiger SGD, Steinmetz MO, Kapitein LC, and **Akhmanova A**. MAP7 family proteins regulate kinesin-1 recruitment and activation. *J Cell Biol* 2019, 218(4): 1298-1318.
20. Frikstad KM, Molinari E, Thoresen M, Ramsbottom SA, Hughes F, Letteboer SJF, Gilani S, Schink KO, Stokke T, Geimer S, Pedersen LB, Giles RH, **Akhmanova A**, Roepman R, Sayer JA, and Patzke S. A CEP104-CSPP1 Complex Is Required for Formation of Primary Cilia Competent in Hedgehog Signaling. *Cell Rep* 2019, 28(7): 1907-1922 e6.
21. Freal A, Rai D, Tas RP, Pan X, Katrukha EA, van de Willige D, Stucchi R, Aher A, Yang C, Altelaar AFM, Vocking K, Post JA, Harterink M, Kapitein LC, **Akhmanova A**, and Hoogenraad CC. Feedback-Driven Assembly of the Axon Initial Segment. *Neuron* 2019, 104(2): 305-321 e8.
22. Faltova L, Jiang K, Frey D, Wu Y, Capitani G, Prota AE, **Akhmanova A**, Steinmetz MO, and Kammerer RA. Crystal Structure of a Heterotetrameric Katanin p60:p80 Complex. *Structure* 2019, 27(9): 1375-1383 e3.
23. Atherton J, Luo Y, Xiang S, Yang C, Rai A, Jiang K, Stangier M, Vemu A, Cook AD, Wang S, Roll-Mecak A, Steinmetz MO, **Akhmanova A**, Baldus M, and Moores CA. Structural determinants of microtubule minus end preference in CAMSAP CCK domains. *Nat Commun* 2019, 10(1): 5236.
24. **Akhmanova A** and Steinmetz MO. Microtubule minus-end regulation at a glance. *J Cell Sci* 2019, 132(11).
25. Tas RP, Chen CY, Katrukha EA, Vleugel M, Kok M, Dogterom M, **Akhmanova A**, and Kapitein LC. Guided by Light: Optical Control of Microtubule Gliding Assays. *Nano Lett* 2018, 18(12): 7524-7528.
26. Martin M, Veloso A, Wu J, Katrukha EA, and **Akhmanova A**. Control of endothelial cell polarity and sprouting angiogenesis by non-centrosomal microtubules. *Elife* 2018, 7.
27. Martin M and **Akhmanova A**. Coming into Focus: Mechanisms of Microtubule Minus-End Organization. *Trends Cell Biol* 2018, 28(7): 574-588.
28. Jiang K, Faltova L, Hua S, Capitani G, Prota AE, Landgraf C, Volkmer R, Kammerer RA, Steinmetz MO, and **Akhmanova A**. Structural Basis of Formation of the Microtubule Minus-End-Regulating CAMSAP-Katanin Complex. *Structure* 2018, 26(3): 375-382 e4.
29. Galmarini CM, Martin M, Bouchet BP, Guillen-Navarro MJ, Martinez-Diez M, Martinez-Leal JF, **Akhmanova A**, and Aviles P. Plocabulin, a novel tubulin-binding agent, inhibits angiogenesis by modulation of microtubule dynamics in endothelial cells. *BMC Cancer* 2018, 18(1): 164.
30. Fielmich LE, Schmidt R, Dickinson DJ, Goldstein B, **Akhmanova A**, and van den Heuvel S. Optogenetic dissection of mitotic spindle positioning in vivo. *Elife* 2018, 7.
31. **Akhmanova A** and Hoogenraad CC. More is not always better: hyperglutamylation leads to neurodegeneration. *EMBO J* 2018, 37(23).

32. **Akhmanova A.** Strengthening Microtubules by Cuts that Heal. *Dev Cell* 2018, 47(4): 400-401.
33. Aher A, Kok M, Sharma A, Rai A, Olieric N, Rodriguez-Garcia R, Katrukha EA, Weinert T, Olieric V, Kapitein LC, Steinmetz MO, Dogterom M, and **Akhmanova A.** CLASP Suppresses Microtubule Catastrophes through a Single TOG Domain. *Dev Cell* 2018, 46(1): 40-58 e8.
34. Aher A and **Akhmanova A.** Tipping microtubule dynamics, one protofilament at a time. *Curr Opin Cell Biol* 2018, 50: 86-93.
35. Yao Y, Smal I, Grigoriev I, Martin M, **Akhmanova A,** and Meijering E. Automated Analysis of Intracellular Dynamic Processes. *Methods Mol Biol* 2017, 1563: 209-228.
36. Yang C, Wu J, de Heus C, Grigoriev I, Liv N, Yao Y, Smal I, Meijering E, Klumperman J, Qi RZ, and **Akhmanova A.** EB1 and EB3 regulate microtubule minus end organization and Golgi morphology. *J Cell Biol* 2017, 216(10): 3179-3198.
37. Wu J and **Akhmanova A.** Microtubule-Organizing Centers. *Annu Rev Cell Dev Biol* 2017, 33: 51-75.
38. van Riel WE, Rai A, Bianchi S, Katrukha EA, Liu Q, Heck AJ, Hoogenraad CC, Steinmetz MO, Kapitein LC, and **Akhmanova A.** Kinesin-4 KIF21B is a potent microtubule pausing factor. *Elife* 2017, 6.
39. Schou KB, Mogensen JB, Morthorst SK, Nielsen BS, Aleliunaite A, Serra-Marques A, Furstenberg N, Saunier S, Bizet AA, Veland IR, **Akhmanova A,** Christensen ST, and Pedersen LB. KIF13B establishes a CAV1-enriched microdomain at the ciliary transition zone to promote Sonic hedgehog signalling. *Nat Commun* 2017, 8: 14177.
40. Schmidt R, Fielmich LE, Grigoriev I, Katrukha EA, **Akhmanova A,** and van den Heuvel S. Two populations of cytoplasmic dynein contribute to spindle positioning in *C. elegans* embryos. *J Cell Biol* 2017, 216(9): 2777-2793.
41. Rezaczkova L, Jiang K, Capitani G, Prota AE, **Akhmanova A,** Steinmetz MO, and Kammerer RA. Structural basis of katanin p60:p80 complex formation. *Sci Rep* 2017, 7(1): 14893.
42. Noordstra I and **Akhmanova A.** Linking cortical microtubule attachment and exocytosis. *F1000Res* 2017, 6: 469.
43. Liu Q, Rimmelzwaal S, Heck AJR, **Akhmanova A,** and Liu F. Facilitating identification of minimal protein binding domains by cross-linking mass spectrometry. *Sci Rep* 2017, 7(1): 13453.
44. Kumar A, Manatschal C, Rai A, Grigoriev I, Degen MS, Jaussi R, Kretschmar I, Prota AE, Volkmer R, Kammerer RA, **Akhmanova A,** and Steinmetz MO. Short Linear Sequence Motif LxxPTPh Targets Diverse Proteins to Growing Microtubule Ends. *Structure* 2017, 25(6): 924-932 e4.
45. Katrukha EA, Mikhaylova M, van Brakel HX, van Bergen En Henegouwen PM, **Akhmanova A,** Hoogenraad CC, and Kapitein LC. Probing cytoskeletal modulation of passive and active intracellular dynamics using nanobody-functionalized quantum dots. *Nat Commun* 2017, 8: 14772.
46. Jost M, Chen Y, Gilbert LA, Horlbeck MA, Krenning L, Menchon G, Rai A, Cho MY, Stern JJ, Prota AE, Kampmann M, **Akhmanova A,** Steinmetz MO, Tanenbaum ME, and Weissman JS. Combined CRISPRi/a-Based Chemical Genetic Screens Reveal that Rigosertib Is a Microtubule-Destabilizing Agent. *Mol Cell* 2017, 68(1): 210-223 e6.
47. Jiang K, Rezaczkova L, Hua S, Liu Q, Capitani G, Altelaar AFM, Heck AJR, Kammerer RA, Steinmetz MO, and **Akhmanova A.** Microtubule minus-end regulation at spindle poles by an ASPM-katanin complex. *Nat Cell Biol* 2017, 19(5): 480-492.
48. Gummy LF, Katrukha EA, Grigoriev I, Jaarsma D, Kapitein LC, **Akhmanova A,** and Hoogenraad CC. MAP2 Defines a Pre-axonal Filtering Zone to Regulate KIF1- versus KIF5-Dependent Cargo Transport in Sensory Neurons. *Neuron* 2017, 94(2): 347-362 e7.
49. Bouchet BP and **Akhmanova A.** Microtubules in 3D cell motility. *J Cell Sci* 2017, 130(1): 39-50.

50. Bohnacker T, Protá AE, Beaufils F, Burke JE, Melone A, Inglis AJ, Rageot D, Sele AM, Cmiljanovic V, Cmiljanovic N, Bargsten K, Aher A, **Akhmanova A**, Diaz JF, Fabbro D, Zvelebil M, Williams RL, Steinmetz MO, and Wymann MP. Deconvolution of Buparlisib's mechanism of action defines specific PI3K and tubulin inhibitors for therapeutic intervention. *Nat Commun* 2017, 8: 14683.
51. Au FK, Jia Y, Jiang K, Grigoriev I, Hau BK, Shen Y, Du S, **Akhmanova A**, and Qi RZ. GAS2L1 Is a Centriole-Associated Protein Required for Centrosome Dynamics and Disjunction. *Dev Cell* 2017, 40(1): 81-94.
52. Atherton J, Jiang K, Stangier MM, Luo Y, Hua S, Houben K, van Hooff JJE, Joseph AP, Scarabelli G, Grant BJ, Roberts AJ, Topf M, Steinmetz MO, Baldus M, Moores CA, and **Akhmanova A**. A structural model for microtubule minus-end recognition and protection by CAMSAP proteins. *Nat Struct Mol Biol* 2017, 24(11): 931-943.
53. **Akhmanova A** and Maiato H. Closing the tubulin deetyrosination cycle. *Science* 2017, 358(6369): 1381-1382.
54. Wu J, de Heus C, Liu Q, Bouchet BP, Noordstra I, Jiang K, Hua S, Martin M, Yang C, Grigoriev I, Katrukha EA, Altelaar AFM, Hoogenraad CC, Qi RZ, Klumperman J, and **Akhmanova A**. Molecular Pathway of Microtubule Organization at the Golgi Apparatus. *Dev Cell* 2016, 39(1): 44-60.
55. van de Willige D, Hoogenraad CC, and **Akhmanova A**. Microtubule plus-end tracking proteins in neuronal development. *Cell Mol Life Sci* 2016, 73(10): 2053-77.
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57. Rezakbova L, Kraatz SH, **Akhmanova A**, Steinmetz MO, and Kammerer RA. Biophysical and Structural Characterization of the Centriolar Protein Cep104 Interaction Network. *J Biol Chem* 2016, 291(35): 18496-504.
58. Portegijs V, Fielmich LE, Galli M, Schmidt R, Munoz J, van Mourik T, **Akhmanova A**, Heck AJ, Boxem M, and van den Heuvel S. Multisite Phosphorylation of NuMA-Related LIN-5 Controls Mitotic Spindle Positioning in *C. elegans*. *PLoS Genet* 2016, 12(10): e1006291.
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