

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, 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

Research output in numbers

- 180 papers in peer-reviewed journals
- >9.000 citations (Web of Science)
- h-index: 53 (Web of Science)
- 12 PhD students completed their PhD under her supervision

Membership of scientific committees

International: Chair of the ERC Starting Grant, panel member ERC Starting Grant, ERC Advanced Grant; EU 7th Framework Programme in the area of Systems Biology
EMBO Long Term Fellowship, Agence Nationale de la Recherche France, Academy of Finland.

National: Netherlands Organisation for Scientific Research ZonMW Vernieuwingsimpuls VIDI, ALW (Earth and Life Sciences) VernieuwingsimpulsVENI grant panel member Netherlands Organisation for Scientific Research, ALW Open program, FOM (Physics) Open competition panel member.

Membership in Scientific Advisory Boards: Netherlands Institute for Neuroscience, Amsterdam, the Netherlands, Instituto de Investigação e Inovação em Saúde (i3S), Porto, Portugal; Max Planck Institute of Molecular Physiology, Dortmund, Germany.

Editorial activities

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

Organization of Scientific Meetings

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. Aher A and **Akhmanova A**. Tipping microtubule dynamics, one protofilament at a time. *Curr Opin Cell Biol*, 2018; 50: 86-93.
2. Martin M and **Akhmanova A**. Coming into Focus: Mechanisms of Microtubule Minus-End Organization. *Trends Cell Biol*, 2018.
3. 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.
4. 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: 164.

5. 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: 375-382 e4.
6. **Akhmanova A** and Maiato H. Closing the tubulin detyrosination cycle. *Science*, 2017; 358: 1381-1382.
7. Rezabkova 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: 14893.
8. Liu Q, Remmelzwaal S, Heck AJR, **Akhmanova A**, and Liu F. Facilitating identification of minimal protein binding domains by cross-linking mass spectrometry. *Sci Rep*, 2017; 7: 13453.
9. 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: 931-943.
10. 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: 210-223 e6.
11. 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: 3179-3198.
12. 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: 2777-2793.
13. Wu J and **Akhmanova A**. Microtubule-Organizing Centers. *Annu Rev Cell Dev Biol*, 2017; 33: 51-75.
14. 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: 924-932 e4.
15. Noordstra I and **Akhmanova A**. Linking cortical microtubule attachment and exocytosis. *F1000Res*, 2017; 6: 469.
16. Jiang K, Rezabkova 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: 480-492.
17. 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: 347-362 e7.
18. 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.
19. 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.
20. 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.

21. Bohnacker T, Prota AE, Beaufile 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.
22. 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.
23. Bouchet BP and **Akhmanova A**. Microtubules in 3D cell motility. *J Cell Sci*, 2017; 130: 39-50.
24. 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: 81-94.
25. Bouchet BP, Noordstra I, van Amersfoort M, Katrukha EA, Ammon YC, Ter Hoeve ND, Hodgson L, Dogterom M, Derksen PWB, and **Akhmanova A**. Mesenchymal Cell Invasion Requires Cooperative Regulation of Persistent Microtubule Growth by SLAIN2 and CLASP1. *Dev Cell*, 2016; 39: 708-723.
26. Noordstra I, Liu Q, Nijenhuis W, Hua S, Jiang K, Baars M, Remmelzwaal S, Martin M, Kapitein LC, and **Akhmanova A**. Control of apico-basal epithelial polarity by the microtubule minus-end-binding protein CAMSAP3 and spectraplakins ACF7. *J Cell Sci*, 2016; 129: 4278-4288.
27. 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: e1006291.
28. 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: 44-60.
29. Guesdon A, Bazile F, Buey RM, Mohan R, Monier S, Garcia RR, Angevin M, Heichette C, Wieneke R, Tampe R, Duchesne L, **Akhmanova A**, Steinmetz MO, and Chretien D. EB1 interacts with outwardly curved and straight regions of the microtubule lattice. *Nat Cell Biol*, 2016; 18: 1102-8.
30. Liu Q, Liu F, Yu KL, Tas R, Grigoriev I, Remmelzwaal S, Serra-Marques A, Kapitein LC, Heck AJ, and **Akhmanova A**. MICAL3 Flavoprotein Monooxygenase Forms a Complex with Centralspindlin and Regulates Cytokinesis. *J Biol Chem*, 2016; 291: 20617-29.
31. Bianchi S, van Riel WE, Kraatz SH, Olieric N, Frey D, Katrukha EA, Jaussi R, Missimer J, Grigoriev I, Olieric V, Benoit RM, Steinmetz MO, **Akhmanova A**, and Kammerer RA. Structural basis for misregulation of kinesin KIF21A autoinhibition by CFEOM1 disease mutations. *Sci Rep*, 2016; 6: 30668.
32. Bouchet BP, Gough RE, Ammon YC, van de Willige D, Post H, Jacquemet G, Altelaar AM, Heck AJ, Goult BT, and **Akhmanova A**. Talin-KANK1 interaction controls the recruitment of cortical microtubule stabilizing complexes to focal adhesions. *Elife*, 2016; 5.
33. Rezabkova 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: 18496-504.

34. Doodhi H, Prota AE, Rodriguez-Garcia R, Xiao H, Custar DW, Bargsten K, Katrukha EA, Hilbert M, Hua S, Jiang K, Grigoriev I, Yang CH, Cox D, Horwitz SB, Kapitein LC, **Akhmanova A**, and Steinmetz MO. Termination of Protofilament Elongation by Eribulin Induces Lattice Defects that Promote Microtubule Catastrophes. *Curr Biol*, 2016; 26: 1713-1721.
35. Sharma A, Aher A, Dynes NJ, Frey D, Katrukha EA, Jaussi R, Grigoriev I, Croisier M, Kammerer RA, **Akhmanova A**, Gonczy P, and Steinmetz MO. Centriolar CPAP/SAS-4 Imparts Slow Processive Microtubule Growth. *Dev Cell*, 2016; 37: 362-376.
36. **Akhmanova A** and van den Heuvel S. Tipping the spindle into the right position. *J Cell Biol*, 2016; 213: 293-5.
37. van de Willige D, Hoogenraad CC, and **Akhmanova A**. Microtubule plus-end tracking proteins in neuronal development. *Cell Mol Life Sci*, 2016; 73: 2053-77.
38. Kuijpers M, van de Willige D, Freal A, Chazeau A, Franker MA, Hofenk J, Rodrigues RJ, Kapitein LC, **Akhmanova A**, Jaarsma D, and Hoogenraad CC. Dynein Regulator NDEL1 Controls Polarized Cargo Transport at the Axon Initial Segment. *Neuron*, 2016; 89: 461-71.
39. Hoogenraad CC and **Akhmanova A**. Bicaudal D Family of Motor Adaptors: Linking Dynein Motility to Cargo Binding. *Trends Cell Biol*, 2016; 26: 327-340.
40. van Beuningen SFB, Will L, Harterink M, Chazeau A, van Battum EY, Frias CP, Franker MAM, Katrukha EA, Stucchi R, Vocking K, Antunes AT, Slenders L, Doukeridou S, Sillevis Smitt P, Altelaar AFM, Post JA, **Akhmanova A**, Pasterkamp RJ, Kapitein LC, de Graaff E, and Hoogenraad CC. TRIM46 Controls Neuronal Polarity and Axon Specification by Driving the Formation of Parallel Microtubule Arrays. *Neuron*, 2015; 88: 1208-1226.
41. **Akhmanova A** and Steinmetz MO. Control of microtubule organization and dynamics: two ends in the limelight. *Nat Rev Mol Cell Biol*, 2015; 16: 711-26.
42. Long Y, Goedhart J, Schneijderberg M, Terpstra I, Shimotohno A, Bouchet BP, **Akhmanova A**, Gadella TW, Jr., Heidstra R, Scheres B, and Blilou I. SCARECROW-LIKE23 and SCARECROW jointly specify endodermal cell fate but distinctly control SHORT-ROOT movement. *Plant J*, 2015; 84: 773-84.
43. Long Y, Smet W, Cruz-Ramirez A, Castelijn B, de Jonge W, Mahonen AP, Bouchet BP, Perez GS, **Akhmanova A**, Scheres B, and Blilou I. Arabidopsis BIRD Zinc Finger Proteins Jointly Stabilize Tissue Boundaries by Confining the Cell Fate Regulator SHORT-ROOT and Contributing to Fate Specification. *Plant Cell*, 2015; 27: 1185-99.
44. **Akhmanova A** and Hoogenraad CC. Microtubule minus-end-targeting proteins. *Curr Biol*, 2015; 25: R162-71.
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46. Schlager MA, Serra-Marques A, Grigoriev I, Gumy LF, Esteves da Silva M, Wulf PS, **Akhmanova A**, and Hoogenraad CC. Bicaudal d family adaptor proteins control the velocity of Dynein-based movements. *Cell Rep*, 2014; 8: 1248-56.
47. Preciado Lopez M, Huber F, Grigoriev I, Steinmetz MO, **Akhmanova A**, Koenderink GH, and Dogterom M. Actin-microtubule coordination at growing microtubule ends. *Nat Commun*, 2014; 5: 4778.
48. Van Battum EY, Gunput RA, Lemstra S, Groen EJ, Yu KL, Adolfs Y, Zhou Y, Hoogenraad CC, Yoshida Y, Schachner M, **Akhmanova A**, and Pasterkamp RJ. The

intracellular redox protein MICAL-1 regulates the development of hippocampal mossy fibre connections. *Nat Commun*, 2014; 5: 4317.

49. Pedersen LB and **Akhmanova A**. Kif7 keeps cilia tips in shape. *Nat Cell Biol*, 2014; 16: 623-5.
50. Yau KW, van Beuningen SF, Cunha-Ferreira I, Cloin BM, van Battum EY, Will L, Schatzle P, Tas RP, van Krugten J, Katrukha EA, Jiang K, Wulf PS, Mikhaylova M, Harterink M, Pasterkamp RJ, **Akhmanova A**, Kapitein LC, and Hoogenraad CC. Microtubule minus-end binding protein CAMSAP2 controls axon specification and dendrite development. *Neuron*, 2014; 82: 1058-73.
51. Preciado Lopez M, Huber F, Grigoriev I, Steinmetz MO, **Akhmanova A**, Dogterom M, and Koenderink GH. In vitro reconstitution of dynamic microtubules interacting with actin filament networks. *Methods Enzymol*, 2014; 540: 301-20.
52. Jaarsma D, van den Berg R, Wulf PS, van Erp S, Keijzer N, Schlager MA, de Graaff E, De Zeeuw CI, Pasterkamp RJ, **Akhmanova A**, and Hoogenraad CC. A role for Bicaudal-D2 in radial cerebellar granule cell migration. *Nat Commun*, 2014; 5: 3411.
53. Jiang K, Hua S, Mohan R, Grigoriev I, Yau KW, Liu Q, Katrukha EA, Altelaar AF, Heck AJ, Hoogenraad CC, and **Akhmanova A**. Microtubule minus-end stabilization by polymerization-driven CAMSAP deposition. *Dev Cell*, 2014; 28: 295-309.
54. Doodhi H, Katrukha EA, Kapitein LC, and **Akhmanova A**. Mechanical and geometrical constraints control kinesin-based microtubule guidance. *Curr Biol*, 2014; 24: 322-8.
55. Shahbazi MN, Megias D, Epifano C, **Akhmanova A**, Gundersen GG, Fuchs E, and Perez-Moreno M. CLASP2 interacts with p120-catenin and governs microtubule dynamics at adherens junctions. *J Cell Biol*, 2013; 203: 1043-61.
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- reticulum-associated TCC-1 protein contribute to stereotypic spindle movements in the *Caenorhabditis elegans* embryo. *Mol Biol Cell*, 2013; 24: 2201-15.
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178. Miedema K, Harhangi H, Mentzel S, Wilbrink M, **Akhmanova A**, Hooiveld M, Bindels P, and Hennig W. Interspecific sequence comparison of the muscle-myosin heavy-chain genes from Drosophila hydei and Drosophila melanogaster. *J Mol Evol*, 1994; 39: 357-68.
179. **Akhmanova AS**, Kagramanova VK, and Mankin AS. Heterogeneity of small plasmids from halophilic archaea. *J Bacteriol*, 1993; 175: 1081-6.
180. Spiridonova VA, **Akhmanova AS**, Kagramanova VK, Kopke AK, and Mankin AS. Ribosomal protein gene cluster of Halobacterium halobium: nucleotide sequence of the genes coding for S3 and L29 equivalent ribosomal proteins. *Can J Microbiol*, 1989; 35: 153-9.

Selected invited lectures at international conferences:

1. Keynote Lecture at the Israeli Forum for Cytoskeleton and cell motility (IFCM), Weizmann Institute, Rehovot, 2018.
2. Plenary Lecture at the 3rd International Symposium on Mechanobiology, 2017, Singapore.
3. Keynote lecture at the EMBO meeting “Frontiers in cytoskeleton research”, 2017, Pune, India.
4. EMBO/EMBL Symposium “Mechanical Forces in Biology”, 2017, Heidelberg, Germany.
5. FEBS Advanced Course “Functional imaging of cellular signals”, 2017, Amsterdam, the Netherlands.
6. Journal of Cell Science conference “Cellular dynamics: membrane-cytoskeleton interface”, 2017, Southbridge, USA.
7. BSDB, BSCB and Genetics Society Joint Meeting, 2017, University of Warwick, UK
8. EMBO Conference Series “Cilia”, 2016, Amsterdam, the Netherlands.
9. Keynote lecture at the Gordon Research conference Muscles and Molecular Motors, Mount Snow resort, West Dover, USA, July 2016
10. EMBO Conference Series “Microtubules - Structure, Regulation and Functions”, 2016, Heidelberg, Germany.
11. 14th CRG Symposium – Cellular Machineries, Barcelona, Spain, October 2015
12. EPFL Life Sciences Symposium, Lausanne, Switzerland, September 2015
13. European Cytoskeleton Forum 2015, Postojna, Slovenia, September 2015
14. Microscience Microscopy Congress, MMC2015, Manchester, UK, July 2015.
15. FASEB conference “Mitosis: Spindle Assembly and Function”, Big Sky, Montana, USA
16. CNRS conference “Actin and microtubule cytoskeleton in cell motility and morphogenesis: An integrated view”, Roscoff, France, May 2015
17. 1st International SBCF Meeting “Building the Cell”, Paris, France. September 25, 2014
18. Biophysical Society Thematic meeting “Disordered Motifs and Domains in Cell Control”, October 11-15, 2014, Dublin, Ireland. October 2014
19. Gordon Research conference Muscles and Molecular Motors, 2014, Mount Snow resort, West Dover, USA
20. Gordon Research conference Signaling by Adhesion Receptors, 2014, Bates College, Lewiston, USA
21. Bijvoet Tutorial Symposium, Soesterberg, the Netherlands.
22. Symposium “Life Simplified”, 2014, AMOLF, Amsterdam, the Netherlands.
23. IGC PhD Course on Structural and Molecular Biology. “Regulation of Microtubule Cytoskeleton”, 2014, Oeiras, Portugal.
24. 3rd Symposium on Physiology and Dynamics of Cellular Microcompartments, 2013, Utrecht, the Netherlands.
25. The 5th EMBO meeting, 2013, Amsterdam, the Netherlands
26. The British Society for Cell Biology meeting on Mechanochemical Cell Biology, 2013, Windermere, UK.
27. Gordon Research conference on Motile & Contractile Systems, 2013, New London, USA.
28. Gordon Research conference on Molecular Membrane Biology, 2013, Proctor Academy, USA.
29. ICTS-TIFR Advanced School on Axonal Transport and Neurodegenerative Disorders, 2013, IIT-Bombay, India.
30. Hunter Cellular Biology meeting, 2012, Pokolbin, Hunter valley, Australia.
31. European Microscopy Congress, 2012, Manchester, UK.
32. International Conference “Linking the Nuclear Envelope to the Cytoskeleton”, 2011, Fondation Les Treilles, France.

33. EMBO conference “Dynamic Endosomes: Mechanisms Controlling Endocytosis”, 2011 Crete, Greece.
34. EMBO members workshop, 2011, Heidelberg, Germany.
35. ASCB Annual Meeting, 2011, 3-7 December, Denver, Colorado, USA. Subgroup Meeting “Posttranslational Regulation of the Cytoskeleton”.
36. Dutch Cell Biology meeting “Molecular Cell Dynamics”, 2010, Amsterdam, The Netherlands.
37. International Workshop “Mechanisms of cytoskeleton dynamics and intracellular trafficking”, 2010, Warsaw, Poland.
38. ESF-EMBO Symposium “Emergent Properties of the Cytoskeleton”, 2010, Sant Feliu, Spain.
39. INSERM Workshop “Microtubule dynamics in cell migration”, 2010, Saint-Raphael, France.
40. FEBS/EMBO Lecture course “The Cytoskeleton in Development and Pathology”, 2010, Djurönäs, Stockholm, Sweden.
41. Lecture course “Cytoskeleton in Cell Division and Migration”, Institut Curie in Paris 2010, Paris, France.
42. EMBO Conference Series “Microtubules - Structure, Regulation and Functions”, 2010, Heidelberg, Germany.
43. 8th EMBO-Annaberg Conference “Protein and Lipid Function in secretion and endocytosis”, 2010, Goldegg, Austria
44. Keynote lecture for the 12th "Young Researchers and Life Science" meeting, 2009, Paris, France.
45. Annual meeting of the Japanese Molecular Biology Society, 2009, Yokohama, Japan.
46. Annual Meeting of the Dutch Microscopy Society (NVvM), 2009, Amsterdam, The Netherlands.
47. CRG Symposium “Imaging approaches to study cytoskeleton dynamics”, 2009, Barcelona, Spain.
48. 3rd Mechanobiology Workshop, 2009, Singapore.
49. Annual Dutch Meeting on Molecular and Cellular Biophysics 2009, Veldhoven, The Netherlands
50. Gordon Research conference on Molecular Membrane Biology, 2009, Proctor Academy, USA.
51. Gordon Research conference on Motile & Contractile Systems, 2009, New London, USA.
52. “The Dynamic Cell” meeting of the Biochemical Society and the British Society for Cell Biology, 2009, Edinburgh, UK.
53. 1st Joint Meeting of the German and Swiss Societies of Cell Biology (DGZ/ZMG), 2009, Konstanz, Germany.
54. Subgroup meeting at the European Life Scientist Organisation Meeting, 2008, Nice, France.
55. MCRI Microtubule Dynamics Workshop, 2008, Oxted, UK.
56. Subgroup meeting, American Society for Cell Biology Annual Meeting 2007, Washington DC, USA.
57. Gordon Research conference on Motile & Contractile Systems, 2007, New London, USA.
58. Minisymposium, American Society for Cell Biology Annual Meeting 2006, San Diego, USA.
59. Minisymposium, 78th Annual Meeting of the Japanese Biochemical Society, 2005, Kobe, Japan.

60. Minisymposium, American Society for Cell Biology Annual Meeting 2004, Washington DC, USA.
61. Subgroup meeting, American Society for Cell Biology Annual Meeting 2004, Washington DC, USA.
62. Minisymposium, European Life Scientist Organisation Meeting, 2003, Dresden, Germany.

Invited seminars:

1. École Polytechnique Fédérale de Lausanne (EPFL), Switzerland, June 2018
2. University of Munster, Germany, April 2018
3. Tel Aviv University, Israel, March 2018
4. Ben-Gurion University of the Negev, Beer-Sheva, Israel, March 2018
5. The Francis Crick Institute, London, UK, February 2018
6. University of Kent, Canterbury, UK, June 2017
7. Leiden University, the Netherlands, June 2017
8. University of British Columbia, Vancouver, Canada, May 2017
9. GIGA research centre, University of Liège, Belgium, March 2017
10. Brandeis University, Waltham, USA, July 2016
11. Instituto Gulbenkian de Ciência, Oeiras, Portugal, July 2016
12. IST Austria, Klosterneuburg, Austria, April 2016
13. University of Edinburgh, UK, March 2013
14. Institut Pasteur, Paris, France, February 2016
15. Physiology course at Marine Biological Laboratory, Woods Hole, USA, June 2015
16. University of California Berkley, USA, May 2015
17. University of California San Francisco, USA, May 2015
18. University of California San Diego, USA, May 2015
19. University of California Davis, USA, May 2015
20. Radboud University Medical Center, Nijmegen, the Netherlands, 2014.
21. ETH Zurich, Switzerland, 2014.
22. Institut Albert Bonniot, Grenoble, France, 2014.
23. University of Illinois at Chicago, Chicago, USA 2014
24. Northwestern University, Chicago, USA, June 2014
25. University of Pennsylvania, Philadelphia, USA, April 2014.
26. Scripps Research Institute, San Diego, USA, April 2014.
27. Institute Curie, Orsay, France, February 2014.
28. Instituto Gulbenkian de Ciência, Oeiras, Portugal, January 2014.
29. CRG-Center for Genomic Regulation, Barcelona, Spain, June 2013.
30. Medical University Innsbruck, Austria, April 2013.
31. Department of Genetics, University of Cambridge, March 2013
32. University of Turku, Finland, February 2013
33. Tata Institute of Fundamental Research, Mumbai, India, 2013
34. Charité - Universitätsmedizin Berlin, Berlin, Germany, June 2012
35. Temasek Lifesciences Laboratory, Singapore, April 2012.
36. University of Liverpool, UK, March 2013
37. Centre for Mechanochemical Cell Biology, Warwick Medical School, UK, January 2012
38. University of Antwerp, Belgium, January 2012
39. Institut Cochin, Paris, France, November 2011
40. Department of Zoology, University of Cambridge, UK, May 2011
41. Faculty of Life Sciences, University of Manchester, UK, March 2011

42. Wadsworth Center, Albany, USA, December 2010
43. IMP-Research Institute of Molecular Pathology, Vienna, Austria, April 2010
44. University College London, UK, April 2010
45. Nagoya University, Japan, December 2009
46. RIKEN Center for Developmental Biology (CDB), Kobe, Japan, December 2009
47. Physiology course at Marine Biological Laboratory, Woods Hole, USA, July 2009
48. Max-Planck-Institute of Neurobiology, Martinsried, Germany, June 2009
49. Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany, March 2009
50. University of Copenhagen, Denmark, March 2009
51. Centre de Recherches de Biochimie, Montpellier, France, November 2008
52. University of Wageningen, The Netherlands; October 2008
53. Helmholtz Zentrum für Infektionsforschung, Braunschweig, Germany; February 2008
54. Georg-August-Universität Göttingen, Germany; January 2008
55. University of Groningen, The Netherlands; December 2007
56. The Johns Hopkins University, USA; December 2007
57. National Heart, Lung and Blood Institute, National Institutes of Health, Bethesda, USA; December 2007
58. University Medical Center Utrecht, The Netherlands; November 2007
59. Harvard Medical School, Boston, USA; July 2007
60. University of Pennsylvania, Philadelphia, USA; July 2007
61. University of Connecticut Health Center, Farmington, USA; July 2007
62. Marie Curie Research Institute, Oxted, United Kingdom; June 2007
63. Vanderbilt University Medical Center, Nashville, USA, December; 2006.
64. Paul Scherrer Institut, Villigen, Switzerland; October 2006
65. Wellcome Trust Centre for Cell Biology, University of Edinburgh, United Kingdom; June 2006.
66. Institut Curie, Paris, France; April 2006.
67. The Netherlands Cancer Institute, Amsterdam, The Netherlands; January 2006.
68. Kyoto University, Kyoto, Japan; October 2005.
69. Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany; February 2003.
70. Northwestern University Medical School, Chicago, USA; June 2003.
71. Institute of Molecular Biology, Salzburg, Austria; July 2002.