

Curriculum Vitae of Paul Verkade

1. Personal information:

Name: Paul Verkade

Date of Birth: 13-06-1964

Nationality: The Netherlands

Sex: Male

Work address:

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2. Present appointment (since August 2016):

Professor of Bioimaging, School of Biochemistry, University of Bristol, United Kingdom.

3. Previous appointments:

- Reader in Cell Imaging, Schools of Biochemistry and Physiology & Pharmacology, University of Bristol, United Kingdom. 2011 – 2016.
- Senior Lecturer / Electron Microscopist, Schools of Biochemistry and Physiology & Pharmacology, University of Bristol, United Kingdom. 2006 – 2011.
- Technology Development Group Leader, Max Planck Institute of Molecular Cell Biology and Genetics. Dresden, Germany. 2003 – 2006.
- Head of Electron Microscopy Facility, Max Planck Institute of Molecular Cell Biology and Genetics. Dresden, Germany. 2000 – 2002
- Post-doctoral position with EMBO and TMR/ Marie Curie EU grants, Cell Biology Programme. Laboratory of Kai Simons, European Molecular Biology Laboratory, Heidelberg, Germany. 1996 – 1999.

4. Academic qualifications:

- PhD, 1996, Rudolf Magnus Institute for Neurosciences, Faculty of Medicine and Electron Microscopy Department, Faculty of Biology. Utrecht University, Utrecht. The Netherlands.

Thesis entitled: Anterograde transport and localisation of B-50/GAP-43 in the regenerating rat sciatic nerve.

- MSc, 1991, Faculty of Biology, Utrecht University, Utrecht, The Netherlands. (official title Drs.)

- BSc, 1986, New Teacher's Education (SOL), Utrecht, The Netherlands. Official Teacher's Certificate for Biology and Chemistry.

5. Awards:

- University Research Fellowship, 2022 -2023.

- Fellow of the Royal Microscopy Society (FRMS) since 2012

- Marie Curie / TMR long term fellowship 1997-1999

- EMBO short-term fellowship 1999

6. Research and related administration

General Summary of Publications & Invitations to Speak

116 publications, including: 97 peer-reviewed papers and 7 invited reviews (cited >9,500 times, 3 paper > 1000, 28 papers >100, H = 45 (Web of Science); 7 invited book chapters; 5 edited books, >50 invitations to speak at international meetings, including as session chair; >50 invitations to give seminars at UK/overseas departments, institutes and companies. Organiser of > 10 international meetings including 5 EMBO practical courses on Correlative Light Electron Microscopy, 2012, 2014, 2016, and 2018 (2020 and 2022 cancelled), planned for 2024.

6.1 Publications from 2013:

Papers:

- Collinson LM, Bosch C, Bullen A, Burden JJ, Carzaniga R, Cheng C, Darrow MC, Fletcher G, Johnson E, Narayan K, Peddie CJ, Winn M, Wood C, Patwardhan A, Kleywegt GJ, Verkade P. (2023) Volume EM: a quiet revolution takes shape. *Nat Methods*. doi: 10.1038/s41592-023-01861-8.

- Pope I, Tanner H, Masia F, Payne L, Arkill KP, Mantell J, Langbein W, Borri P, Verkade P. (2023) Correlative light-electron microscopy using small gold nanoparticles as single probes. *Light Sci Appl*. 12: 80-. doi: 10.1038/s41377-023-01115-4.

- Cortese K, Verkade P. (2023) Microscopy Research and Technique virtual issue: "Correlative light and electron microscopy". *Microsc Res Tech*. doi: 10.1002/jemt.24305.

- Tanner H, Sherwin O, Verkade P. (2023) Labelling strategies for correlative light electron microscopy. *Microsc Res Tech*. doi: 10.1002/jemt.24304.

- Toelzer C., Gupta K., Yadav, S.K.N., Hodgson, L., Kavanagh Williamson, M., Buzas, D., Borucu, U., Powers, K., Stenner, R., Vasileiou, K., Garzoni, F., Fitzgerald, D., Payré, C., Lambeau, G., Davidson, A.D., Verkade, P., Frank, M., Berger, I., Schaffitzel C. (2022) The Free Fatty Acid-Binding Pocket is a Conserved Hallmark in Pathogenic β -Coronavirus Spike Proteins from SARS-CoV to Omicron. *Science Advances*, 8, eadc9179. doi: 10.1126/sciadv.adc9179.

- Peddie, C.J., Genoud, C., Kreshuk, A. Meecham, K., Micheva, K.D., Narayan, K., Pape, C., Parton, R.G., Schieber, N.L., Schwab, S., Titze, B., **Verkade, P.**, Weigel, A., Collinson, L.M. (2022) Volume

electron microscopy. *Nat Rev Methods Primers* 2, 51. <https://doi.org/10.1038/s43586-022-00131-9>

- Qiu, Y., Buffonge, S., Ramnath, R., Jenner, S., Fawaz, S., Arkill, K.P., Neal, C., **Verkade, P.**, White, S.J., Hezzell, M., Salmon, A.H.J., Suleiman, M.S., Welsh, G.I., Foster, R.R., Madeddu, P., Satchell, S.C. (2022) Endothelial glycocalyx is damaged in diabetic cardiomyopathy: angiotensin 1 restores glycocalyx and improves diastolic function in mice. *Diabetologia*. 65:879-894. doi: 10.1007/s00125-022-05650-4.

- Knapp-Wilson A, Pereira GC, Buzzard E, Ford HC, Richardson A, Corey RA, Neal C, **Verkade P**, Halestrap AP, Gold VAM, Kuwabara PE, Collinson I. (2021) Maintenance of complex I and its supercomplexes by NDUFB11 is essential for mitochondrial structure, function and health. *J Cell Sci*. 134(13):jcs258399. doi: [10.1242/jcs.258399](https://doi.org/10.1242/jcs.258399).

- **Verkade P.** (2021) Correlative Light Electron Microscopy. In: *Imaging Modalities for Biological and Preclinical Research: A Compendium, Vol 2. Ch 16, III.1.a-1 to III.1.a-7.* doi: [10.1088/978-0-7503-3747-2ch16](https://doi.org/10.1088/978-0-7503-3747-2ch16)

- Walter, A., Munoz-Baruttia, A., Jones, M., Mannheim, J.G., Collinson, L., Andreana, M., Unterhuber, A, and **Verkade P.** (2021) Emerging technologies and outlook. In: *Imaging Modalities for Biological and Preclinical Research: A Compendium, Vol 2. Ch 31, IV.1-1 to IV.1-14.* doi: [10.1088/978-0-7503-3747-2ch31](https://doi.org/10.1088/978-0-7503-3747-2ch31)

- Sarkans, U., Chiu, W., Collinson, L., Darrow, M.C., Ellenberg, J., Grunwald, D., Hériché, J.K., Iudin, A., Martins, G.G., Meehan, T., Narayan, K., Patwardhan, A., Russell, M.R.G., Saibil, H.R., Strambio-De-Castilla, C., Swedlow, J.R., Tischer, C., Uhlmann, V., **Verkade, P.**, Barlow, M., Bayraktar, O., Birney, E., Catavittello, C., Cawthorne, C., Wagner-Conrad, S., Duke, E., Paul-Gilloteaux, P., Gustin, E., Harkiolaki, M., Kankaanpää, P., Lemberger, T., McEntyre, J., Moore, J., Nicholls, A.W., Onami, S., Parkinson, H., Parsons, M., Romanchikova, M., Sofroniew, N., Swoger, J., Utz, N., Voortman, L.M., Wong, F., Zhang, P., Kleywegt, G.J., and Brazma, A. (2021) REMBI: Recommended Metadata for Biological Images-enabling reuse of microscopy data in biology. *Nat Methods*. doi: 10.1038/s41592-021-01166-8.

100. - Müller-Reichert T, **Verkade P.** (2021) Preface to CLEM IV: Broaden the horizon. *Methods Cell Biol*. 162:xix. doi: 10.1016/S0091-679X(21)00029-7.

- Shewring JR, Hodgson L, Bryant HL, Bullough PA, Weinstein JA, **Verkade P.** (2021) Refining a correlative light electron microscopy workflow using luminescent metal complexes. *Methods Cell Biol*. 162: 69-87. doi: 10.1016/bs.mcb.2020.12.008.

- Walter A, Kleywegt GJ, **Verkade P.** (2021) Correlative multimodal imaging: Building a community. *Methods Cell Biol*. 162: 417-430. doi: 10.1016/bs.mcb.2020.12.010.

- Tanner H, Hodgson L, Mantell J, **Verkade P.** (2021) Fluorescent platinum nanoclusters as correlative light electron microscopy probes. *Methods Cell Biol*. 162: 39-68. doi: 10.1016/bs.mcb.2020.12.002.

- Klionsky et al., (2021) Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). *Autophagy* 10.1080/15548627.2020.1797280

- Galloway JM, Bray HEV, Shoemark DK, Hodgson LR, Coombs J, Mantell JM, Rose RS, Ross JF, Morris C, Harniman RL, Wood CW, Arthur C, **Verkade P**, Woolfson DN. (2021) De Novo Designed Peptide and Protein Hairpins Self-Assemble into Sheets and Nanoparticles. *Small*. e2100472. doi: [10.1002/sml.202100472](https://doi.org/10.1002/sml.202100472).

- Street STG, He Y, Jin XH, Hodgson L, **Verkade P**, Manners I. (2020) Cellular uptake and targeting of low dispersity, dual emissive, segmented block copolymer nanofibers. *Chem Sci*. 11(32): 8394-8408. doi: [10.1039/d0sc02593c](https://doi.org/10.1039/d0sc02593c).

- Rog-Zielinska EA, Moss R, Kaltenbacher W, Greiner J, **Verkade P**, Seemann G, Kohl P, Cannell MB. (2020) Nano-scale morphology of cardiomyocyte t-tubule/sarcoplasmic reticulum junctions revealed by ultra-rapid high-pressure freezing and electron tomography. *J Mol Cell Cardiol*, 153:86-92. DOI: [10.1016/j.yjmcc.2020.12.006](https://doi.org/10.1016/j.yjmcc.2020.12.006)

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- Curnow P, Hardy BJ, Dufour V, Arthur CJ, Stenner R, Hodgson LR, **Verkade P**, Williams C, Shoemark DK, Sessions RB, Crump MP, Jones MR, Anderson JLR. (2020) Small-residue packing motifs modulate the structure and function of a minimal de novo membrane protein. *Sci Rep*. 10(1):15203. doi: 10.1038/s41598-020-71585-8.
- Paul, DM., Mantell, J., Borucu U., Coombs, J., SurrIDGE, KJ., Squire, J., **Verkade, P.** and Dodding MP (2020) In situ cryo-electron tomography reveals filamentous actin within the microtubule lumen. *Journal of Cell Biology*, 219(9):e201911154. doi: 10.1083/jcb.201911154.
- Knudsen JR, Steenberg DE, Hingst JR, Hodgson LR, Henriquez-Olguin C, Li Z, Kiens B, Richter EA, Wojtaszewski JFP, **Verkade P**, Jensen TE. (2020) Prior Exercise in Humans Redistributes Intramuscular GLUT4 and Enhances Insulin-Stimulated Sarcolemmal and Endosomal GLUT4 Translocation. *Mol Metab*. 39:100998. doi: 10.1016/j.molmet.2020.100998
90. Walter A, Paul-Gilloteaux P, Plochberger B, Sefc L, **Verkade P**, Mannheim JG, Slezak P, Unterhuber A, Marchetti-Deschmann M, Ogris M, Bühler K, Fixler D, Geyer SH, Weninger WJ, Glösmann M, Handschuh S and Wanek T. (2020) Correlated Multimodal Imaging in Life Sciences: Expanding the Biomedical Horizon. *Front. Phys.* 8:47. <https://doi.org/10.3389/fphy.2020.00047>.
- Jenkins J, Mantell J, Neal C, Gholinia A, **Verkade P**, Nobbs AH, Su B. (2020) Antibacterial effects of nanopillar surfaces are mediated by cell impedance, penetration and induction of oxidative stress. *Nat Commun*. 11(1):1626. doi: 10.1038/s41467-020-15471-x.
- Juodeikis, R., Lee, M., Mayer, M., Mantell, J., Brown, I., **Verkade, P.**, Woolfson, D., Prentice, M., Frank, S. Warren, M. (2020) Effect of metabolosome encapsulation peptides on enzyme activity, co-aggregation, incorporation and bacterial microcompartment formation. *Microbiology Open*, i e1010, doi: 10.1002/mbo3.1010.
- Clark DJ, McMillan LE, Tan SL, Bellomo G, Massoue C, Thompson H, Mykhaylechko L, Alibhai D, Ruan X, Singleton KL, Du M, Hedges A, Schwartzberg PL, **Verkade P**, Murphy RF, Wülfing C. (2019). Transient protein accumulation at the center of the T cell antigen-presenting cell interface drives efficient IL-2 secretion. *Elife pii: e45789*. doi: 10.7554/eLife.45789
- Ulloa G, Hamati F, Dick A, Fitzgerald J, Mantell J, **Verkade P**, Collinson L, Arkill K, Larijani B, Poccia D. (2019). Lipid species affect morphology of endoplasmic reticulum: a sea urchin oocyte model of reversible manipulation. *J Lipid Res*. 60:1880-1891.
- Han S, Raabe M, Hodgson L, Mantell J, **Verkade P**, Lasser T, Landfester K, Weil T, Lieberwirth I. (2019). High-Contrast Imaging of Nanodiamonds in Cells by Energy Filtered and Correlative Light-Electron Microscopy: Toward a Quantitative Nanoparticle-Cell Analysis. *Nano Lett*. 19(3): 2178-2185.
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- Ando T., S.P. Bhamidimarri, N. Brending, H Colin-York, L. Collinson, N. De Jonge, PJ de Pablo, E. Debroye, C. Eggeling, C. Franck, M. Fritzsche, H. Gerritsen, B.N.G. Giepmans, K. Grunewald, J. Hofkens, J.P. Hoogenboom, K.P.F. Janssen, R. Kaufman, J. Klumpermann, N. Kurniawan, J. Kusch, N. Liv, V. Parekh, D.B. Peckys, F. Rehfeldt, D.C. Reutens, M.B.J. Roeffaers, T. Salditt, I.A.T. Schaap, U.S. Schwarz, **P. Verkade**, M.W. Vogel, R. Wagner, M. Winterhalter, H. Yuan, G. Zifarelli (2018). The correlative microscopy techniques roadmap. *Journal of Physics D: Applied Physics*. 51: 443001.
- Rog-Zielinska EA, Kong CHT, Zgierski-Johnston CM, **Verkade P**, Mantell J, Cannell MB, Kohl P.

- (2018). Species differences in the morphology of transverse tubule openings in cardiomyocytes. *Europace*. 20(suppl_3):iii120-iii124.
- Hodgson L., **P. Verkade**, Y. Yamauchi (2018) Correlative light and electron microscopy of influenza virus entry and budding. *Methods in Molecular Biology*, Volume 1836: Influenza virus, 237-260.
 - 80. Doyle N, Neuman BW, Simpson J, Hawes PC, Mantell J, **Verkade P**, Alrashedi H, Maier HJ. (2018) Infectious Bronchitis Virus Nonstructural Protein 4 Alone Induces Membrane Pairing. *Viruses*. 10(9). pii: E477. doi: 10.3390/v10090477.
 - Lee MJ, Mantell J, Brown IR, Fletcher JM, **Verkade P**, Pickersgill RW, Woolfson DN, Frank S, Warren MJ. (2018). De novo targeting to the cytoplasmic and luminal side of bacterial microcompartments. *Nat Commun*. 9(1):3413. doi: 10.1038/s41467-018-05922-x.
 - Beesley JL, Baum HE, Hodgson LR, **Verkade P**, Banting GS, Woolfson DN (2018). Modifying Self-Assembled Peptide Cages To Control Internalization into Mammalian Cells. *Nano letters*. doi: 10.1021/acs.nanolett.8b02633.
 - Chung G.H.C., M.C. Domart, C. Peddie, J. Mantell, K. Mclaverty, A. Arabiotorre, L. Hodgson, R.D. Byrne, **P. Verkade**, K. Arkill, L.M. Collinson, B. Larijani B (2018). Acute Depletion of Diacylglycerol from the Cis-Golgi Affects Localised Nuclear Envelope Morphology During Mitosis. *J. Lipid Res*. doi: 10.1194/jlr.M083899.
 - Lee M.J., J. Mantell, L. Hodgson, D. Alibhai, J.M. Fletcher, I.R. Brown, S. Frank, W.F. Xue, **P. Verkade**, D.N. Woolfson, M.J. Warren (2018). Engineered synthetic scaffolds for organizing proteins within the bacterial cytoplasm. *Nat. Chem. Biol*. doi: 10.1038/nchembio.2535.
 - Galloway J.M., L. Senior, J.M. Fletcher, J.L. Beesley, L.R. Hodgson, R.L. Harniman, J.M. Mantell, J. Coombs, G.G. Rhys, W.F. Xue, M. Mosayebi, N. Linden, T.B. Liverpool, P. Curnow, **P. Verkade**, D.N. Woolfson (2018). Bioinspired Silicification Reveals Structural Detail in Self-Assembled Peptide Cages. *ACS Nano*. doi: 10.1021/acsnano.7b07785.
 - Ross J.F., A. Bridges, J.M. Fletcher, D. Shoemark, D. Alibhai, H.E.V. Bray, J.L. Beesley, W.M. Dawson, L.R. Hodgson, J. Mantell, **P. Verkade**, C.M. Edge, R.B. Sessions, D. Tew, D.N. Woolfson (2017). Decorating Self-Assembled Peptide Cages with Proteins. *ACS Nano*. 11:7901-7914.
 - Lees R.M., C.J. Peddie, L.M. Collinson, M.C. Ashby, **P. Verkade** (2017). Correlative two-photon and serial block face scanning electron microscopy in neuronal tissue using 3D near-infrared branding maps. *Methods Cell Biol*. 140:245-276.
 - Miles, B.T., A.B. Greenwood, D. Benito, H. Tanner, M.C. Galan, **P. Verkade**, and H. Gersen (2017). Direct evidence of lack of colocalisation of fluorescently labelled gold labels used in Correlative Light Electron Microscopy. *Scientific Reports*, 7:44666, doi: 10.1038/srep44666.
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 - 70. Roybal, K.T., T.E. Buck, X. Ruan, B.H. Cho, D.J. Clark, R. Ambler, H.M. Turnbridge, J. Zhang, **P. Verkade**, J.S. Orange, and C. Wülfing (2016). Computational spatiotemporal analysis identifies WAVE2 and Cofilin as joint regulators of costimulation-mediated T cell actin dynamics, *Science Signalling*, 9:424, rs3. doi: 10.1126/scisignal.aad4149.
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 - Kourtesis, I, S. Kasparov, **P. Verkade**#, and A.G. Teschemacher# (2015). Ultrastructural Correlates of Enhanced Norepinephrine and Neuropeptide Y Cotransmission in the Spontaneously Hypertensive Rat Brain. *ASN Neuro*. vol. 7 no. 5, 1759091415610115.
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- Roybal, K.T., E.M. Mace, D.J. Clark, A.D. Leard, A. Herman, **P. Verkade**, J.S. Orange, and C. Wülfing (2015). Modest interference with actin dynamics in primary T cell activation by antigen presenting cells preferentially affects lamellar signaling, PLOS One, DOI: 10.1371/journal.pone.0133231.
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- Arkill, K.P., J. Mantell, S.R. Plant, **P. Verkade**, and R.E. Palmer. (2015). Using size-selected gold clusters on graphene oxide films to aid cryo-transmission electron tomography alignment. Scientific Reports, 5:9234.
- Hodgson L, D. Nam, J. Mantell, A. Achim, and **P. Verkade**. (2014). Retracing in Correlative Light Electron Microscopy: Where is My Object of Interest? Methods in Cell Biology, Volume 124: Correlative Light and Electron Microscopy, 1-21.
- 60. D. Nam, J. Mantell, D. Bull, **P. Verkade***, and A. Achim*. (2014). A Novel Framework for Segmentation of Secretory Granules in Electron Micrographs. Med Image Anal. 18:411-424.
- Patwardhan A, Ashton A, Brandt R, Butcher S, Carzaniga R, Chiu W, Collinson L, Doux P, Duke E, Ellisman MH, Franken E, Grünwald K, Heriche JK, Koster A, Kühlbrandt W, Lagerstedt I, Larabell C, Lawson CL, Saibil HR, Sanz-García E, Subramaniam S, **Verkade P**, Swedlow JR, Kleywegt GJ. (2014). A 3D cellular context for the macromolecular world. Nature Struct Biol. 21:841-845.
- Hodgson L, J. Tavaré, and **P. Verkade**. (2014). Development of a quantitative Correlative Light Electron Microscopy technique to study GLUT4 trafficking. Protoplasma. 251:403-416.
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- Maier H.J., P.C. Hawes, E.M. Cottam, J. Mantell, **P. Verkade**, P. Monaghan, T. Wileman, and P. Britton (2013). Infectious bronchitis virus generates spherules from zippered endoplasmic reticulum membranes. MBio. 4: pii: e00801-13.
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- Roybal, K.T., P. Snai, **P. Verkade**, R.F. Murphy, and C. Wülfing (2013). The actin-driven spatiotemporal organization of T cell signaling at the systems scale. Immunological Reviews. 256: 133-147.
- Fletcher, J., R. Harniman, F. Barnes, A. Boyle, A. Collins, J. Mantell, T. Sharp, M. Antognozzi, P. Booth, N. Linden, M. Miles, R. Sessions, **P. Verkade** and D. Woolfson(2013). Self-assembling cages from coiled-coil peptide modules. Science, 340: 595-599.
- Reed, S.E., L.R. Hodgson, S.S., M.T. May, C.C. Mastick, **P. Verkade**, and J.M. Tavaré (2013). A role for Rab14 in the endocytic trafficking of GLUT4 in 3T3-L1 adipocytes. Journal of Cell Science.

126: 1931-1941.

- Book Editor:

- *Methods in Cell Biology*, Volume 177: Volume Electron Microscopy IV. Shared with Kedar Narayan and Lucy Collinson (2023).
- *Methods in Cell Biology*, Volume 162: Correlative Light and Electron Microscopy IV. Shared with Thomas Müller-Reichert (2021).
- *Correlative Imaging, focussing on the future*, Edited by Paul Verkade and Lucy Collinson (2019).
- *Methods in Cell Biology*, Volume 140: Correlative Light and Electron Microscopy III. Shared with Thomas Müller-Reichert (2017).
- *Methods in Cell Biology*, Volume 124: Correlative Light and Electron Microscopy II. Shared with Thomas Müller-Reichert (2014).
- *Methods in Cell Biology*, Volume 111: Correlative Light and Electron Microscopy. Shared with Thomas Müller-Reichert (2012).

- Special Issue Editor:

Microscopy Research and Technique, 2023, Virtual issue on Correlative Light Electron Microscopy. Together with Katia Cortese.

- Cortese, K., and P. Verkade (2023)
- *Journal of Chemical Biology*, 2015, Vol. 8, issue 5. Special issue on probes for Correlative Light and Electron Microscopy. Together with Lucy Collinson.
 - Collinson, L. and **P. Verkade** (2015). Probing the future of correlative microscopy, *Journal of Chemical Biology*, 8, 127-128.

6.2 Indications of External Recognition

- Editorial and advisory boards and other:

- Member of the Executive committee of the International Federation of Societies for Microscopy (IFSM), since 2023.
- Member of the international review panel of Microscopy Australia, a NCRIS funded National Facility (2023).
- Member of the Life Sciences and Soft Materials Advisory Panel for the Science and Technology Facilities Council (STFC) (2017 - 2023).
- Panel member of the BBSRC ALERT Fund: since 2017
- Panel member of the BBSRC Tools and Resources Development Fund: Bioimaging 2016.
- Panel member of the MRC Multimodal Fund: 2021/2022.
- Panel member of the 1st Euro-BioImaging Access Fund, 2022.
- Work Group leader and Management Committee UK Member in the EU COST network "COMULIS" (October 2018 – present)
- Co-organiser of the annual Townhall meetings for the VolumeEM community, Wellcome Trust, 2019 - 2023.
- Member of the EM section of the Royal Microscopical Society (2008 – present, secretary 2011-2014, chair 2014-2017, vice chair 2018).

- Member of the council of the Royal Microscopical Society (since 2022).
- Founding member and chair of EM-UK, the Electron Microscopy network (shared with Prof. Pippa Hawes) (since 2015).
- Senior Associate Editor of Microscopy and Research Technique (since 2015, Member of the editorial board since 2014).
- Member of the editorial board of Micron (since 2015).
- Member of the editorial board of Resolution and Discovery (new Journal since 2015).
- Member of the International Technical and User Advisory Group (ITUAG) of the Australian Microscopy & Microanalysis Research Facility (AMMRF)(since 2015).
- Member of the scientific EM advisory board for the Centre for Cellular Imaging (CCI), University of Gothenburg, Sweden (since 2014).
- Member of the steering committee of the Wolfson Bioimaging facility, University of Bristol, UK.
- Member of the steering committee of the GW4 facility for high resolution electron cryo-microscopy, University of Bristol, UK
- Adviser for the set-up of new EM facilities at the Free University of Amsterdam, The Netherlands, 2012 – 2014.
- Adviser for the purchase of new EM equipment at the Free University of Amsterdam, The Netherlands, 2012 – 2014.
- Member of the international review committee for the Electron Microscopy facilities of the Flanders Institute of Biotechnology (VIB, Belgium), 2010.
- Member of the international review committee for the Electron Microscopy facilities of the London Research Institute (former ICRF), 2011.
- Consultant at the VIB, Belgium for the set up of Correlative Light Electron Microscopy facilities, 2011 – 2014.
- Visiting Professor at the Catholic University Leuven (KU Leuven, Belgium) at the Centre for Human Genetics, 2012 – 2014.

- Invited lectures, session chair, and organisation:

I have been an invited speaker and / or session chair on over 25 (inter)national conferences and (inter)national research institutes since my promotion to Professor in August 2016.

Selected

- 2023:

- MFS2023 / COMULIS Conference, Braga, Portugal, session chair and speaker, September 2023,
- Gordon Research Conference on volume Electron Microscopy, Ventura, USA, July 2023. Conference chair.
- ACMM27, Australian Conference on Microscopy and Microanalysis, Perth, Australia, February 2023. Invited speaker.

- 2022:

- COMULIS, CMI Conference, Nicosia, Cyprus, session chair on CLEM, September 2022
- M&M 2022, annual meeting of the Microscopy Society of America, Portland, Oregon,

USA, August 2022. 2 invited lectures.

- Gordon Research Conference on Optics and Photonics in Medicine and Biology, Bates College, USA, July 2022. Invited opening lecture.
- Lake Como School of Advanced Studies: Unravelling the complexity of biological systems by electron microscopy, Lake Como, Italy, April 2022. Organiser + speaker.

2021, virtual

- Netherlands Society for Biochemistry and Molecular Biology (NVBMB) fall symposium, November 2021. Invited lecture.
- PANOS spring meeting, German Society for Electron Microscopy, March 2021. Invited lecture.

- 2020, virtual, following Covid-19 lockdown:

- Spanish and Portuguese Advanced Optical Microscopy meeting (SPAOM), virtual meeting, invited speaker, November 2020.
- RMS Virtual Electron Microscopy Facility Forum in the Covid-19 era. Co-organiser and co-chair, 1st meeting May 2020, 2nd meeting June 2020, 3rd meeting July 2020, 4th meeting, October 2020.

- 2020, Physical, before Covid-19 lockdown:

- COMULIS CLEM course, Institute Gulbenkian de Ciencia, Oeiras, Portugal. Co-organiser and lecturer, February 2020.
- Invited seminar speaker at the Pirbright Institute, Woking, UK, February 2020.
- Invited seminar speaker at the University of Exeter, Exeter, UK, January 2020.

- 2019:

- COMULIS, CMI Conference, Vienna Austria, session chair on CLEM, November 2019
- Invited seminar at the National Physics Laboratory, Teddington, UK, September 2019
- MC2019, Microscopy Conference, Berlin, Germany, held every 2 years, session chair on Correlative Microscopy, September 2019.
- EMBO practical course conference, EMBL, Heidelberg, Germany, July 2019. Invited lecture
- Chair at the Crick EM symposium, London, July 2019
- Invited speaker at 89th IUVSTA meeting, Zakopane, Poland, May 2019.

- 2018:

- Session chair and invited speaker at IMC19 meeting, Sydney, Australia, September 2018.
- Invited speaker of the 4th "From 3D light to 3D electron microscopy meeting", Gent, Belgium, March 2018.

- 2017:

- EMBL Correlative Microscopy Course, EMBL, Heidelberg, Germany. December 2017. Invited speaker.
- Microscopy & Microanalysis 2017, St. Louis, USA. August 2017. Invited speaker.

- Member of the organising committee of MMC 2017, bi-annual meeting of the RMS, Manchester, UK, July 2017.
- Crick Electron Microscopy Opening Symposium: from molecules to organisms. London, UK, July 2017. Invited Speaker.
- Canadian Microscopy & Cytometry Symposium, Annual meeting, Montreal, Canada. May 2017. Invited speaker
- TEM Sussex symposium. From micromachines to cellular networks. Inaugural Symposium. Sussex, UK. May 2017. Invited speaker.

- *2016:*

- EMC2016, European Microscopy Congress, held every 4 years, session chair on Correlative Microscopy, August 2016.
- Irish Microscopy Society Annual Congress, Dublin, Ireland, June 2016, invited lecture.
- EMBO practical course conference, EMBL, Heidelberg, Germany, April 2016. Invited lecture.
- 50th anniversary symposium of the EM section of the RMS, Rothamsted Research, UK, January 2016. Scientific organiser with over 100 participants.
- 1st meeting of the EM-UK network, Rothamsted Research, UK, January 2016. Scientific organiser with over 100 participants.

7. Training and related administration:

I have always felt it really important to educate and train students in the field of Bioimaging as it is one of the corner stones in Life Science Research. This means that I teach and train people inside and outside of the University at both the undergraduate and postgraduate level. Within the University I am currently providing teaching within the 3 Beta faculties and am director of the Dynamic Cell unit within the MSc in Biomedical Sciences programme. I think my biggest achievement in this field has been the set-up of a dedicated course in Correlative Light Electron Microscopy, running in Bristol. In 2012 this was awarded the prestigious “EMBO practical course” status and attracts worldwide applications that vastly exceed the 16 places we have available. These courses have run in a bi-annual cycle since 2012. The cycle was broken by the Covid pandemic but has now been refunded to run as a volume CLEM course run at the Crick Institute in London. This course has been so successful that I have been asked to organise and teach on similar ones around the world, most notably I have given a workshop in New Zealand in February 2015 and have been teaching on a more specialised EMBL CLEM course “High-Accuracy Correlated Light and Electron Microscopy” in Heidelberg annually since 2016. Other teaching lectures that are worth highlighting are a number of online webinars, e.g. for “Microscopy and Analysis”, EuroBioImaging.

- *Mentorship:*

Together with 5 other RMS members we set up a mentoring scheme for both "soft" skills and more technical oriented mentoring and guidance where an experienced microscopist is teamed up with someone looking to gain more experience in specific skills. I myself have taken mentorship of 3 mentees so far.

Mentorship:

- 2023 -: Charlie Wood, University of Southampton, RMS mentoring scheme
- 2022 –2023: Charlotte Clews, Roslin Institute, University of Edinburgh, RMS mentoring scheme
- 2019 - 2021: Scott Dillon, Starting up new EM facility at University of Cambridge

Training outside the University (from 2012):

- Principle organiser of a 1-week practical course on the EMBO practical course on Correlative Light Electron Microscopy, July 2012, 2014, 2016, and 2018 and planned for 2024 (postponed from 2020 due to Covid crisis). 16 international students and over 10 international lecturers. (run independent in 2010 and 2011).
- Lecturer and demonstrator on the EMBL advanced course on High-Accuracy Correlated Light and Electron Microscopy. 2016, 2017, and 2019, EMBL, Heidelberg, Germany.
- Co-organiser and lecturer on a 1-week course “A practical approach to CLEM” organised under the banner of the EU COST action COMULIS, Lisbon, Portugal, 2020, 20 international students.
- Lecturer on the “Electron Microscopy Spring School”, Leeds, UK. 2012 - 2019. 16 international students with approximately 10 lecturers.
- Online Lecture on Transmission Electron Microscopy for University of Massachusetts, USA <http://www.umasslearn.net/classes/spring-2015?view=class&clid=13176>. (Course director Prof. Banafshe Larijani), September 2015.
- Lecturer, programme organiser (with help from local people), and instructor on a Correlative Light Electron Microscopy workshop at the University of Otago, Dunedin, New Zealand. February 2015. 10 students with 3 instructors.
- Lecturer and demonstrator at the CLEM Masterclass of the Australian Microscopy & Microanalysis Research Facilities (AMMRF), Sydney, Australia, June 2013. 20 students with 4 international lecturers (Prof. Filip Braet, main course organiser).
- Lecturer and demonstrator on the EMBO practical course on Electron Tomography in Life Sciences, June 2012, Leiden, The Netherlands. 20 international students and an approximate equal number of international lecturers. Prof. Bram Koster main organiser.
- Webinar for “Microscopy and Analysis”, live broadcast 15 October 2013 with 450 online attendees. <http://view6.workcast.net/?pak=5033480577792095>.