

ANA POMBO, DPHIL

Epigenetic Regulation & Genome Architecture Group, Berlin Institute for Medical Systems Biology
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orcid.org/0000-0002-7493-6288

EDUCATION

- 1998 **D.Phil. in Physiological Sciences**, University of Oxford, UK.
1992 **Licenciatura (BSc/MSc equiv.) in Biochemistry**, University of Lisbon, Portugal.

CAREER HISTORY

- 2022 - present **Vice-speaker**, Program-Oriented Funding (POF) on 'Systems-wide and Cardiovascular Diseases' of the Helmholtz Association, Max Delbrück Centre for Medical Medicine (MDC), Berlin, Germany.
- 2019 - present **Deputy Scientific Director**, Berlin Institute for Medical Systems Biology, Max Delbrück Centre for Medical Medicine, Berlin, Germany.
- 2013 - present **Professor in Epigenetic Regulation and Genome Architecture (W3)**, Institute of Biology, Humboldt University, Berlin, Germany.
- 2013 - present **MDC Group Head (Tenured)**, Epigenetic Regulation and Genome Architecture group, Berlin Institute for Medical Systems Biology, Max Delbrück Centre for Medical Medicine, Berlin-Buch, Germany.
- 2020 - 2021 **Deputy Speaker**, Program-Oriented Funding on 'Systems-wide and Cardiovascular Diseases' of the Helmholtz Association, Max Delbrück Centre for Medical Medicine (MDC), Berlin, Germany.
- 2012 - 2015 **Professor in Cell Biology**, Institute of Clinical Sciences, Imperial College London, UK. (0.2 FTE appointment during Apr 2013-Mar 2015)
- 2012 **Chair, Integrative Biology Section**, MRC London Institute for Medical Sciences, London, UK.
- 2011 - 2012 **Honorary Professor in Cell Biology**, Division of Clinical Sciences, Imperial College London, UK.
- 2010 - 2012 **Joint Head, Molecular Sciences Section**, Institute of Clinical Sciences, Imperial College London, UK.
- 2010 - 2011 **Deputy Chair, Epigenetics Section**, MRC London Institute for Medical Sciences, London, UK.
- 2008 - 2013 **MRC Programme Leader (Tenured)**, Genome Function group, MRC London Institute for Medical Sciences, London, UK.
- 2007 - 2011 **Honorary Reader in Cell Biology**, Division of Clinical Sciences, Imperial College London, UK.
- 2003 **Visiting scientist**, Duke University, Durham, NC, USA. (with Arno Greenleaf)
- 2002 - 2008 **MRC Programme Leader (Tenure-Track)**, Nuclear Organisation group, MRC London Institute for Medical Sciences, London, UK.
- 2002 - 2007 **Honorary Senior Lecturer**, Division of Clinical Sciences, Imperial College London, UK.
- 2000 - 2002 **Group Head (Royal Society Dorothy Hodgkin Fellow)**, Nuclear Organisation group, MRC London Institute for Medical Sciences, London, UK.
- 1998 - 2002 **Royal Society Dorothy Hodgkin Fellow**, Sir William Dunn School of Pathology, University of Oxford, and MRC London Institute for Medical Sciences, London, UK.
- 1997 - 2000 **Hayward Junior Research Fellow**, Oriel College, University of Oxford, UK.
- 1994 - 1998 **PhD student**, Sir William Dunn School of Pathology, University of Oxford, UK.
- 1993 **Voluntary research**, Institute of Histology and Embryology, Faculty of Medicine, University of Lisbon, Portugal.

1992 - 1993 **Demonstrator**, Cell Biology, Superior Inst. Health Sciences, Oeiras, Portugal.

PERSONAL AWARDS

2022 **Membership to the European Academy of Sciences.**
2022 **PABMB lecture**, Pan-American Association for Biochemistry and Molecular Biology.
2018 **Elected EMBO member.**
2018 **Don Gilden Memorial Lecture**, 8th, Colorado Alphaherpesvirus Latency Symposium, Vail, CO, US.
2013 - 2018 **Helmholtz Distinguished Professorship**, Helmholtz Association, DE.
2007 **Robert Feulgen Prize**, Society for Histochemistry.
1998 - 2002 **Royal Society Dorothy Hodgkin Fellowship**, Univ. Oxford and MRC-LMS, UK.
1997 - 2000 **Hayward Junior Research Fellowship**, Oriel College, Oxford, UK.
1994 - 1997 **4-Year PhD Fellowship**, JNICT, Programa Ciência, Portugal.

STRATEGY AND LEADERSHIP, EXTERNAL ACTIVITIES

2021 - present Steering committee co-chair, NIH 4D-Nucleome consortium, US
2020 - present Member, The Wellcome Trust, Mol. Basis Cell Funct. Expert Review Group, UK.
2020 - present Member, Helmholtz Association Think Tank.
2020 - present Co-chair, Education and Outreach Working Group, 4D-Nucleome Consortium, NIH.
2019 - present Elected member, DFG Review board Biology and Medicine, Cell Biol. (201-03).
2019 - present Co-coordinator, DFG Priority Program "Spatial Genome Architecture in Development and Disease" (SPP2202).
2019 - present Scientific Advisory Board, Centre for Integrative Biology of Toulouse, University of Toulouse 3 and CNRS, Toulouse, France.
2019 - present Strategy Advisory Board, Institute of Biology of the École Normale Supérieure (IBENS), Paris, France.
2018 - present Strategy Advisory Board, MRC Human Genetics Unit, Edinburgh, UK.
2021 Chair of recruitment committee of new group leaders, Centre for Integrative Biology, Toulouse, France.
2019 - 2021 Vice-Chair, Management Committee, European Commission COST Action on 'International Nucleome Consortium', EU.
2019 Strategy Advisory Board, VIB-KU Leuven Center Brain & Disease Res., Belgium
2014 Site visit committee member, DFG-TRR81, Freiburg, Germany.
2013 Site visit committee member, Institute Pasteur, Paris, France.
2009 Site visit committee member, Inst. of Biology, École Normale Supérieure, Paris.

STRATEGY AND LEADERSHIP, INTERNAL ACTIVITIES

2020 - present Extended Board member, Max Delbrück Centre for Medical Medicine, Berlin.
2016 - 2022 BIMS Systems Imaging platform committee, Chair.
2016 - 2021 MDC Pluripotent Stem Cells committee, Chair.
2016 - 2019 MDC Extended Directorate, member.
2016 - 2017 Berlin Institute of Health (BIH) Genomics Steering committee.
2014 - 2020 BIMS Genomics platform committee, Chair.
2013 - present BIMS PI Recruitment committee.
2012 Section Chair, Integrative Biology Section, MRC London Institute for Medical Sciences, London, UK.
2010 - 2012 Joint Head, Molecular Sciences Section, Institute of Clinical Sciences, Imperial College London, UK.
2010 - 2011 Deputy Chair, Epigenetics Section, MRC-LMS, London, UK.
2010 - 2011 MRC-LMS representative, Imperial Molecular Pathology Scientific Steering Committee.
2009 - 2010 Chair, Management-Led Internal Review on PhD Student Recruitment and Training.
2008 - 2012 Member of MRC-LMS Institute Planning and Operations Group.
2001 - 2004 Academic leader of Microscopy Facility, MRC-LMS, UK.
2004 - 2012 Academic leader of TEM and laser microdissection laboratories, MRC-LMS, UK.

OTHER RESEARCH-RELATED ACTIVITIES

- 2018 - present Member, NeuroCure Cluster of Excellence, DFG, Berlin, Germany.
2015 - present Member, NIH 4D-Nucleome consortium, US.
2014 - present MDC mentor to Junior PIs (2yr and 5yr MDC internal reviews): A.Loewer, A. Akalin, M. Chekulaeva, B. Tursun, S. Preibisch, I. Piazza, S. Grosswendt.
2003 - present Grant reviewing (e.g. ERC, HFSP, BBSRC, MRC, WT, NIH, FP6/7, NSF).
2000 - present Ad-hoc referee (e.g. Science, Nature, Cell, Cell Stem Cell, Nat Genet, EMBO J, etc).
2018 - 2019 MDC Finance committee, member.
2018 - 2019 MDC Campus Cohesion committee, member.
2018 - 2019 MDC Postdoc Career and Training Committee, member.
2017 - 2018 MDC Emeritus Scientists Concept group, member.
2017 - 2018 BIH Chair Genomic Medicine search committee.
2016 - 2018 MDC Equipment committee, member.
2016 - 2017 BIH Stem Cells Steering committee.
2014 - 2018 BIMS Bioinformatics committee, Member.
2012 - 2014 British Cell Biology Society, committee member.
2011 - 2016 Collaborator, FANTOM5 consortium, RIKEN Omics Sci Cent., Yokohama, Japan.
2009 - 2010 Juri member of Robert Feulgen Prize, Histochemistry Society.
2007 - 2009 Project ARC ChromoNet, French National Institute for Research in Computer Science and Control.
2007 Head of jury for Prize 'Premio Pulido Valente 2007', Portugal.
1997 - 2000 Member, Microscopy Committee, Sir William Dunn School Path., Univ. Oxford, UK.
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FUNDING

Active

- 2022 - 2025 DFG Priority Program 'Spatial Genome Architecture in Development and Disease', SPP2202 'Deregulation of 3D genome structure in models of memory and learning disability' (PI).
2021 - 2024 EU-H2020 Sustainable Food Security. 'Three-dimensional holo'omic landscapes to unveil host-microbiota interactions shaping animal production'. (co-PI)
2021 - 2023 Helmholtz-MDC Pre-GoBio. 'A novel approach to quantify RNA'. (PI)
2021 - 2025 DFG Network of Excellence (EXC 2049): Comprehensive approaches to neurological and psychiatric disorders "NeuroCure", Collaborative Research Project 'Mapping 3D genome architecture in-situ in human Amyotrophic Lateral Sclerosis patients'. (PI)
2021 - 2024 Core-funded MDC International PhD studentship (3yr) to Andréa Willemin.
2020 - 2025 NIH 4D Nucleome consortium, member. (Bing Ren, PI; 1UM1HG011585-01). (co-PI)
2019 - 2022 DFG Priority Program 'Spatial Genome Architecture in Development and Disease', SPP2202, (co-coordinator and PI)
2018 - 2022 H2020 EU-International Training Network PEPNET 'Predictive Epigenetics: fusing theory and experiment.'" (PI)
2018 - 2022 DFG IRTG2403 'Dissecting and Reengineering the Regulatory Genome', Humboldt-Duke Universities. (PI)
2017 - 2022 Einstein BIH Visiting Fellowship, 3yr+2yr extension (to support collaborative work with Dr. Mario Nicodemi) (PI)
2013 - 2034 MDC Core-Funded Research Programme (PI)

Past

- 2021 - 2023 Fondation Jerome Lejeune, 'Understanding multi-level changes in 3D genome topology in Down trisomic neurons'. (declined). (PI)
2019 - 2021 NIH 4D Nucleome consortium, supplement grant (Mitchell Guttman, PI; U01DA040612-04). (co-PI)
2017 - 2021 Core-funded MDC-NYU International PhD studentship (4yr) to Thomas M. Sparks
2015 - 2021 Core-funded MDC International PhD studentship (3yr) to Gesa Loof
2015 - 2020 NIH 4D Nucleome consortium, member. (U54DK107977-01). (co-PI)
2014 - 2020 Core-funded MDC-NYU International PhD studentship (3yr) to Rieke Kempfer
2014 - 2020 Core-funded MDC-NYU International PhD studentship (4yr) to Ana M. Fernandes
2014 - 2018 Core-funded MDC International PhD studentship (3yr) to Giulia Caglio

- 2014 - 2018 Berlin Institute of Health, Collaborative Research Grant. (co-PI)
 2013 - 2018 Core-funded MDC International PhD studentship (3yr) to Dorothee Kraemer
 2013 - 2018 Helmholtz Association Distinguished Professorship. (PI)
 2011 - 2013 MRC-BHF Stem Cell Strategic Development Grant. (co-Pi)
 2010 - 2013 BBSRC program grant. (PI)
 2010 - 2013 Incentivizing the Faculty, Imperial College London. (PI)
 2009 - 2012 FP7 International Training Network InteGeR, 'Integrative Gene Regulation' International Training Network, FP7. (co-PI)
 2007 - 2009 Development Gap Fund, Genome Architecture Mapping, MRC-Technology. (PI)
 2000 - 2016 MRC core-funded Research Programme. (PI; incl. own position, 5.5 core positions, and consumables) (*declined from April 2013*)

PATENTS

- 2015 Patent '*Genome Architecture Mapping*'. **Pombo A**, Edwards PAW, Nicodemi M, Scialdone A, Beagrie RA. EP 3,230,465 B1, US 10,526,639 B2.
 2020 Patent application '*Method for nucleic acid detection by oligo hybridization and PCR-based amplification*'. **Pombo A**, Sparks TM. *International patent filed 22 October 2021 to the European Patent Office*. EP 20,203,357.7, PCT/EP2021/079393.

EDITORIAL ACTIVITIES

- 2020 - present Editorial board of 'Current Opinion in Cell Biology', Elsevier
 2020 - present Editorial board of 'Cell', Cell Press.
 2019 - present Editorial board of 'Developmental Cell', Cell Press.
 2019 - present Editorial board of 'Epigenetics Insights', SAGE Publishing.
 2017 - present Senior academic editor, 'Journal Cell Biology', Rockefeller University Press.
 2017 - present Editorial board of 'Molecular Systems Biology', EMBO Press.
 2012 - present Editorial board of 'Epigenetics', Landes Bioscience.
 2008 - present Editorial board of 'Epigenetics & Chromatin', BioMed Central.
 2020 - 2021 Guest co-editor, edited book, 'Nucleus', CSHL Press.
 2019 Guest co-editor, Curr. Op. Genet. Dev. section on 'Genome Architecture and Expression'.
 2015 - 2018 Editorial board of 'Molecular and Cellular Biology', Springer.
 2015 - 2017 Editorial board of 'Journal Molecular Medicine', Springer.
 2015 - 2016 Editorial board of 'Journal Cell Biology', Rockefeller University Press.
 2012 Guest editor for PLoS Genetics.
 2010 Guest co-editor, Curr. Op. Cell Biology section on "Nucleus and Gene Expression".
 2009 - 2020 Editorial board of 'Nucleus', Landes Bioscience.

CONFERENCE ORGANISATION

- 2024 CSHL meeting on "*Nuclear Function & Genome Organisation*", Cold Spring Harbor, NY, US.
 2023 FEBS congress symposium "*3D genomics and nuclear compartmentalization*", Moscow, RU. (cancelled)
 2023 Gordon Research Conference, "*Genome Architecture in Cell Fate and Disease*", Hong Kong.
 2022 Aegean Conferences on "*Genomes, Pathways and Systems Medicine*", Rhodes, Greece
 2022 Abcam conference on "*Epigenetics in the nervous system*", Berlin, DE.
 2022 CSHL meeting on "*Nuclear Function & Genome Organisation*", Cold Spring Harbor, NY, US.
 2021 NIH 4D Nucleome Annual meeting, virtual (chair of organisation committee).
 2020 Abcam virtual conference on "*Epigenetics in the nervous system*".
 2020 VIB-Lifetime conference on "*Emerging technologies in Single Cell Research*", Leuven, BE.
 2020 CSHL Symposium on "*Nuclear Organization & Function*", Cold Spring Harbor, NY, US.
 2019 "*Berlin Summer Meeting: Methods, Models and Myths: From machine learning to biomedical understanding*", Berlin, DE.
 2019 4D Nucleome Annual meeting, Washington, DC, US.
 2019 EMBO workshop on "*The genome in three dimensions*", Kyllini, Greece.
 2019 EMBO workshop on "*Chromatin and Epigenetics*", Heidelberg, DE.
 2019 Keystone Symposium on "*3D Genome: Gene Regulation and Disease*", Banff, Canada.
 2018 "*Berlin Summer Meeting: BIMSB Grand Opening*", Berlin, DE.

- 2018 4DN-ASCB joint symposium on “4D Nucleome”, San Diego, US.
 2018 EMBL Symposium on “Principles of chromosome structure and function”, Heidelberg, DE.
 2018 Abcam conference on “Epigenetics in the nervous system: development and disease”, Stockholm, Sweden.
 2017 “Berlin Summer Meeting: Imaging Gene Regulation from DNA to RNA to protein”, Berlin, DE.
 2016 Danube Conferences on “Epigenetics”, Budapest, Hungary.
 2016 Conference on “Genome Architecture in Space and Time”, ICTP, Trieste, Italy.
 2014 “Advanced Workshop on Interdisciplinary Views on Chromosome Structure and Function”, Trieste, Italy.
 2013 Co-organiser of “Berlin Summer Meeting 2013: From chromatin to RNA and back”, Max Delbrück Centre, Berlin, DE.
 2012 Organiser of FP7-ITN-InteGeR workshop on “Imaging the Cell Nucleus”, London, UK.
 2012 “Berlin Epigenetics Symposium”, Berlin, DE.
 2011 “Computational Biology workshop”, MRC-LMS International PhD program, London, UK.
 2002 Co-organiser of MRC-LMS International Symposium on “The dynamic nucleus; questions and implications”, London, UK.

INVITED SEMINARS (selected, since 2017)

- 2017 Keystone Symposia on “Single Cell Omics”, Stockholm, Sweden. (session chair)
 2018 CSHL Meeting “Systems Biology: Global Regulation of Gene Expression”, USA.
 2018 Keystone Symposia “Chromatin Architecture and Chromosome Organization”, Whistler, CA.
 2018 CSHL meeting “Nuclear Organization & Function”, Cold Spring Harbor, USA (session chair)
 2018 Chan Zuckerberg Biohub meeting on “Beyond the Cell Atlas: Frontiers in Cell Biology Driven by New Technologies”, San Francisco, US.
 2019 EMBO workshop on “Chromatin and Epigenetics”, Heidelberg, Germany.
 2019 EMBO workshop entitled “The genome in three dimensions”, Kyllini, Greece.
 2019 4DN-ASCB Meeting “Bridging the 4D Genome with Cell Biology”, US (keynote speaker)
 2020 EMBO conference on “Transcription and Chromatin”, virtual (session chair)
 2020 CSHL meeting on “Epigenetics and Chromatin”, virtual (session chair)
 2020 Lifetime-VIB Conferences “Emerging technologies in single cell research”, virtual. (session chair)
 2021 15th Asian Epigenomics Meeting, virtual (keynote speaker).
 2021 Wellcome Trust Epigenomics of Common Diseases conference, virtual (keynote speaker).
 2021 Keystone Symposia on “Higher-Order Chromatin Architecture in Time and Space”, virtual.
 2022 Keystone Symposia on “Single Cell Biology”, Florence, Italy.
 2022 24th Biennial Meeting of the International Society for Developmental Neuroscience, Vancouver, Canada (session chair)
 2022 Human Genome Meeting 2021, Tel Aviv, Israel.
 2022 COB workshop ‘Cell State Transitions: Approaches, Experimental Systems and Models’, Wiston House, West Sussex, U

SUPERVISION OF POSTDOCTORAL FELLOWS AND PhD STUDENTS

Postdoctoral Fellows

Past

- 2000 - 2013 Sheila Q. Xie
 2001 - 2004 Pascale V. Guillot
 2004 - 2010 André Möller
 2007 - 2008 Miguel R. Branco
 2003 - 2007 Julie K. Stock
 2008 - 2012 Mita Pabari
 2010 - 2011 Emily Brookes
 2011 - 2012 C. Ribeiro de Almeida
 2011 - 2012 Inês de Santiago
 2012 - 2013 Liron-Mark Lavitas
 2012 - 2013 Inês de Castro
 2012 - 2014 Kelly J. Morris
 2013 Kedar N. Natarajan

currently at

- Senior Postdoctoral Fellow, MRC-LMS, UK. (with M. Percharde)
 Non-clinical Associate Professor, UCL GOS ISH, London, UK.
 Assistant Editor, BMC Biology, BioMed Central.
 Reader (Associate Professor), Blizard Institute, eLondon UK.
 Associate Director, BerGenBio ASA, Oxford, UK.
 Grants Adviser, The Wellcome Trust, London, UK
 Postdoctoral fellow, MRC-LMCB, UK (with Antonella Riccio).
 Group Leader, Babraham Institute, Cambridge, UK
 Principal Scientist – Comp. Biol., e-Therapeutics PLC, Oxford, UK
 Clinical Project Assistant, PPD Pharmaceuticals, Munich, DE.
 Postdoctoral fellow, Heidelberg Univ., DE (with Marina Lusic)
 Career break.
 Group Leader, University of Southern Denmark, Odense, Denmark.

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|-------------|------------------------------|--|
| 2013 - 2016 | Markus Schueler | Head of Data Science, mobile.de/eBay, Berlin, DE. |
| 2015 - 2016 | Robert A Beagrie | Group Leader, Sir Henry Dale fellow, Wellcome Trust Centre, Oxford, UK |
| 2013 - 2016 | Mariano Barbieri | Credit Risk Assoc., Morgan Stanley, Financial Serv, Budapest, HU. |
| 2013 - 2017 | Tiago Rito | Postdoctoral fellow, Crick Institute, London, UK (with J.Sharpe). |
| 2015 - 2018 | Konstantina Skourti-Stathaki | Senior Research Scientist at MiNA Therapeutics, Oxford, UK |
| 2017 | João Dias | Postdoctoral Fellow, Montpellier, France (with Monsef Benkirane). |
| 2008 - 2017 | Carmelo Ferrai | Senior fellow, Göttingen, Germany (with Andre Fischer). |
| 2014 - 2018 | Marta Slimak-Mastrobuoni | Head of Sales Operations, Biotecon Diagnostics GmbH, Potsdam, DE. |
| 2017 - 2018 | Elena Torlai Triglia | Postdoctoral fellow, Broad Institute, Boston, US (with Aviv Regev). |
| 2020 | Ana Miguel Fernandes | Data scientist, OLX Group, Berlin, DE. |
| 2020 | Rieke Kempfer | NGS specialist, SOPHiA Genetics, Geneva, Switzerland. |
| 2020 - 2021 | Lavanya Iyer | Research Scientist (Comput. Biology) at Evotec, Göttingen, DE |
| 2017 - 2021 | Ehsan Irani | |
| 2021 | Gesa Loof | Postdoctoral fellow, Marseille, FR |

Present

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|----------------|--|
| 2012 - present | Alexander Kukalev (senior staff scientist) |
| 2016 - present | Christoph Thieme |
| 2017 - present | Warren Winick-Ng |
| 2018 - present | Ibai Irastorza Azcarate (FEBS Fellowship) |

PhD students

Past

| | | |
|-------------|----------------------|---|
| 2000 - 2004 | Sonya Martin | Microscopy Support Associate, University of Southampton, UK |
| 2003 - 2007 | Miguel R. Branco | Reader (Associate Professor), Blizard Institute, London UK. |
| 2003 - 2007 | Julie K. Stock | Associate Director, BerGenBio ASA, Oxford, UK. |
| 2007 - 2011 | Emily Brookes | Postdoctoral fellow, MRC-LMCB, London, UK (with Antonella Riccio). |
| 2007 - 2011 | Inês de Santiago | Principal Scientist – Comp. Biology, e-Therapeutics PLC, Oxford, UK |
| 2008 - 2012 | Liron Mark Lavitas | Clinical Project Assistant, PPD Pharmaceuticals, Munich, Germany |
| 2008 - 2012 | Kelly J. Morris | Postdoctoral Fellow, Pombo lab, MDC-BIMSB, Berlin, Germany |
| 2008 - 2012 | Inês de Castro | Postdoctoral Fellow, Lusic lab, Heidelberg University, Germany. |
| 2009 - 2013 | Kedar N. Natarajan | Group Leader, University of Southern Denmark, Odense, Denmark. |
| 2011 - 2015 | Robert A. Beagrie | Group Leader, Sir Henry Dale fellow, SWDPathology, Oxford, UK. |
| 2010 - 2016 | João Dias | Postdoctoral Fellow, Montpellier, France (with Monsef Benkirane). |
| 2012 - 2017 | Elena Torlai Triglia | Postdoctoral fellow, Broad Institute, Boston, US (with Aviv Regev). |
| 2013 - 2018 | Dorothee Kraemer | Global Grant Developer, Medical, Medscape, Grenoble, France |
| 2014 - 2018 | Giulia Caglio | Full Stack Data Scientist, Consultant, Catenion, Berlin, Germany. |
| 2014 - 2020 | Ana M. Fernandes | Junior Data Scientist, OLX Group, Berlin, DE. |
| 2014 - 2020 | Rieke Kempfer | NGS specialist, SOPHiA Genetics, Geneva, Switzerland. |
| 2015 - 2021 | Gesa Loof | Postdoctoral Fellow (Pombo lab) |

currently at

Present

| | |
|----------------|---|
| 2017 - present | Thomas M. Sparks (MDC-NYU Int. PhD program, jointly with R. Bonneau, New York, US) |
| 2017 - present | Izabela Harabula (BIF studentship) |
| 2018 - present | Silvia Carvalho (GABBA PhD program, Univ. Oporto; jointly with H. Maiato, A. R. Grosso) |
| 2019 - present | Luna Zea Redondo (DFG-IRTG Humboldt-Duke joint PhD school) |
| 2019 - present | Dominik Szabo |
| 2019 - present | Jennifer Giannini (EU-ITN PEP-NET) |
| 2020 - present | Dominika Vojtasova (DFG-IRTG Humboldt-Duke joint PhD school) |
| 2021 - present | Andréa Willemin (MDC International PhD Program) |

MSc students

Past

| | | |
|------|----------------------------|--|
| 2009 | Patrizia Beolchi | Clinical Trial Manager, Medpace, London UK |
| 2015 | Marisa Saponaro | PhD student, Kolbe lab, Hamburg, DE |
| 2016 | Leonid Serebreni | Postdoctoral Fellow, Junker lab, Berlin, DE |
| 2016 | A. Julieta Ramirez Cuellar | PhD student, Beato lab, CRG, Barcelona, SP |
| 2017 | Izabela Harabula | PhD student, Pombo lab, MDC, Berlin, DE |
| 2017 | Franka Rang | PhD student, Kind lab, Hubrecht Institute, Utrecht, NL |

currently at

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|----------------|---------------------|---|
| 2018 | Vahid Asimi | PhD student, Hinsz lab, MPI Molecular Genetics, Berlin, DE |
| 2018 | David Pride | Medical trainee, Texas Tech School of Medicine, El Paso, US |
| 2018 - 2019 | Dominik Szabo | PhD student, Pombo lab, MDC, Berlin, DE |
| 2019 - 2020 | Cleis Battaglia | PhD student, Marenduzzo lab, Univ. Edinburgh, UK |
| 2021 | Chloe Tang | PhD student, Feldmann lab, DKFZ, Heidelberg, DE |
| <u>Present</u> | | |
| 2022 | Berta Jimenez Hacha | Master student, Medical Epigenomics, Radboud University, NL |
| 2022 | Federico Billeci | Master student, Biophysics, Univ. Torino, IT |

MRes students

Past

| | |
|------|----------------------------|
| 2002 | James Dixon |
| 2003 | Julie K. Stock |
| 2005 | Edward Andress |
| 2005 | Claire Mitchell |
| 2006 | Nikolay Popov |
| 2006 | Emily Brookes |
| 2007 | Jonathan Pavelin |
| 2007 | Pippa Hadland (née Clarke) |
| 2007 | Liron Mark Lavitas |
| 2008 | Kelly J Morris |

BSc students

Past

| | |
|----------------|---------------|
| 2017 | Daria Ivanova |
| 2021 - present | Rita Moldovan |

Fulbright Research Fellows

Past

| | |
|------|-------------------|
| 2019 | Jennifer Giannini |
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Technical Assistants

| | |
|--------------|----------------|
| 2021-present | Laura Arguedas |
| 2021-present | Sergej Herzog |

SOCIETY MEMBERSHIPS

| | |
|----------------|---|
| 2017 - present | AcademiaNet member. |
| 2015 - present | American Society for Cell Biology, member. |
| 2014 - present | German Developmental Biology Society, member. |
| 2014 - present | German Cell Biology Society, member. |
| 2012 - present | British Cell Biology Society, member. |
| 2001 - 2005 | Member of International Committee for the Wilhelm Bernhard's workshops. |

EXTERNAL MENTORING / GENDER EQUALITY ACTIVITIES

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|--------------|---|
| 2022-present | External mentor of female Research Group Leader, NIH-NIDDK, US. |
| 2022-present | External mentor of male Research Group Leader, NIH-NICHD, US. |
| 2021 | Talk on personal perspectives and career reflections "“Scientist behind the Science”", Young Embryologist Network (YEN) 2021 meeting. |
| 2020 | Lecture, 'Challenges for Women in Academia' workshop, MDC Postdoc Office. |
| 2019 - 2022 | Oversight Board, European Innovative Training H2020 EU-ITN-PEPNET Action. |
| 2019 - 2020 | Maria Reiche Mentoring Programme of the TU-Dresden, mentor of female Research Group Leader, TU-Dresden, Germany |
| 2018 - 2019 | Maria Reiche Mentoring Programme of the TU-Dresden, mentor of female postdoctoral fellow, TU-Dresden, Germany |
| 2017 - 2018 | EU-LIBRA Career Development Compass, mentor of female postdoctoral fellow CeMM, Vienna, Austria |
| 2015 | BIH Talking Biography – a network event for female scientists with Prof. Ana Pombo, Berlin Institute of Health, Berlin, Germany |

TEACHING

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|----------------|---|
| 2013 - present | HU PhD supervisor to students of junior BIMSB/MDC PIs (Zinzen, Chekulaeva, Junker, Preibisch, Panakova, Spagnoli, Akalin, Lupianez, Grosswendt, Iszvac) |
| 2005 - present | PhD examinations for Universities of London, Berlin, Cambridge, Edinburgh, Warwick, Amsterdam, Rotterdam, Därmstad, Nijmegen, Zurich, Barcelona and Lausanne. |
| 2000 - present | PhD supervision (25 PhD students enrolled, 17 completed and 8 enrolled) |
| 2021 | Lecture on "Higher-order chromatin, (older) chromatin conformation technologies", Masters/PhD course on 'Transcription, Epigenetics and early Development', Spemann Graduate School of Biology and Medicine, University of Freiburg, DE |
| 2021 | Lecture on "Specialisation of brain cell types is encoded by specific 3D genome architectures", workshop in Epigenetics, Masters course, University of Montpellier, FR. |
| 2021 | Lecture on "Specialization of brain cell types is encoded by specific 3D genome structures", KAUST Practical Course on Epigenetics and Chromatin. |

- 2020 Lecture on “Emerging topics in 3D genome”, Course on “Epigenetic mechanisms of gene regulation”, Masters in “Molecular Life Sciences”, Humboldt University of Berlin, Berlin, Germany (lecturer).
- 2019 Lecture on “Immunofluorescence and 3D topology”, PEP-NET, (organiser and lecturer)
- 2019 Graduate course on “Single cell omics”, Neurosciences School of Advanced Studies, Venice, Italy (lecturer)
- 2018 Graduate course on “Functional Organization of the Cell Nucleus”, Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland
- 2018 Wellcome Trust training course on “Chromatin Structure and Function”, Hinxton, UK
- 2018 Master’s Program on “Genes, Cells and Development”, Toulouse, France.
- 2017 IRI Summer School “Epigenetics meets mathematics”, Berlin, Germany.
- 2017 13th Course on Epigenetics, Institute Curie, Paris, France.
- 2016 Graduate course on “Single cells”, Humboldt University, Berlin, Germany.
- 2016 Research school Cancer Stem Cells & Developmental Biology, University Medical Center Utrecht, The Netherlands.
- 2016 The Autumn School on Computational Approaches to Chromatin Organization, Institute of Mathematics of the Polish Academy of Sciences, Bedlewo, Poland.
- 2015 Otto Warburg course, MPI, Berlin.
- 2015 11th Course on Epigenetics, Institute Curie, Paris, France.
- 2015 School on “Theoretical and Computational Approaches in Biophysics”, Italian Society of Biophysics, Venice, Italy.
- 2015 French-German Summer school on “Integrative biology in metabolic and cardiovascular diseases”, MDC and INSERM, Paris, France.
- 2014 Winter Doctoral School in Biophysics 2014, Institute of Physics of Biological Systems, EPFL, Crans-Montana, Switzerland.
- 2014 Graduate courses on “Stem cells” and “Systems Biology Lectures: Methods and Technologies”, Humboldt University, Berlin, Germany.
- 2013 - 2015 PhD programme GABBA, University of Oporto, Portugal.
- 2013 Berlin Summer School 2013, Humboldt University of Berlin, Germany.
- 2013 Graduate course on “Epigenetics”, Humboldt University of Berlin, Germany.
- 2012 MRC-LMS PhD program, Integrative Biology week, London, UK.
- 2011 - 2012 PhD programme GABBA, University of Lisbon, Portugal.
- 2011 2nd Year BSc degrees in Biomedical Sciences and Biology, Imperial College London, UK.
- 2009 - 2010 MRC-LMS PhD program, Epigenetics week, London, UK.
- 2008 PhD program in Experimental Biology and Biomedicine, Coimbra, Portugal.
- 2006, 2007 3rd Year BSc degree in Biochemistry, Imperial College London, UK.
- 2006 PhD program in Computational Biology, Gulbenkian Institute of Science, Portugal.
- 2004 - 2005 Postgraduate lectures on Nuclear Organisation for 'International Research and Training Group, Heidelberg/London' [funded by (DFG Germany) and MRC (UK)].
- 2001 - 2005 PhD programme GABBA, University of Oporto, Portugal.
- 1999 - 2000 Tutorials of Genetics, Oriel and Worcester Colleges, University of Oxford, UK.
- 1994 - 2000 Demonstration of Cell Biology, Sir William Dunn School of Pathology, Univ. of Oxford, UK.
- 1992 - 1993 Lecturing, demonstration and examinations in Cell Biology, BSc in Pharmacology, Superior Institute of Health Sciences, Portugal.

SCIENCE AND SOCIETY

- 2022 Nature Biotechnology Podcasts. Forum with Jennifer Cremins-Phillips and Barbara Cheifet. <https://www.nature.com/nbt/podcasts>.
- 2022 Interview for Deutschlandfunk Kultur podcast „Systembiologie: Die Entschlüsselung des Lebendigen“. <https://www.deutschlandfunkkultur.de/systembiologie-mensche-verstehen-100.html>
- 2022 Interview for Dance A (2022) Revealing chromosome countours, one dot at a time. Nature 602, 713-715. doi: <https://doi.org/10.1038/d41586-022-00496-7>
- 2021 Interview for the StemCells@Lunch Digested podcast <https://soundcloud.com/user-563815853/episode-133-ana-pombo-every-day-i-learn-something>
- 2021, 2022 Virtual laboratory visit in molecular life sciences (20 students Biophysics and Biology, Institute of Biology, Humboldt University of Berlin, DE; 1h contact time)
- 2019 Interview for the Epigenetics Podcast <https://activemotif.podbean.com/?s=ana+pombo>
- 2018 Laboratory visit in molecular life sciences (26 students Biophysics and Biology, Institute of Biology, Humboldt University of Berlin, DE; 3h contact time)

- 2018 Science career seminar to secondary school pupils (years 10-12), Berlin British School, Berlin, DE (>50 students, 1.5h contact time)
- 2017 Hosted open lab sessions for the Long Night of Sciences, Berlin, DE.
- 2017 Elevator pitch: A DNA detective (<https://elevatorscience.wordpress.com/2018/01/26/in-the-elevator-with-a-dna-detective/#more-239>)
- 2016 Interviewed for Marx V (2016) Genomics in 3D and 4D. *Nature Methods* 13, 829-832.
- 2014 Interviewed for Pennisi E (2015) Inching toward the 3D genome. *Science* 347, 10.
- 2013 Introductory speech for the Caroline von Humboldt Prize 2013; <https://frauenbeauftragte.hu-berlin.de/de/veranstaltungen/cvh-preis/hc-artikel-cvh-preis-dezember-2013.pdf>
- 2010 Contribution to photographic project “Mulheres Portuguesas” (“Portuguese Women”) <http://www.movimentomulheresportuguesas.blogspot.com/>
- 2008 Images for Scopic Project, Inner and Outer Space; <http://www.myscopic.co.uk>.
- 2006 Interview for TV series ‘Generation Scientist’ for Portuguese channel RTP2.
- 2002 ‘Genes in Action’, In ‘The science in art. The art in science’, Wolfson College, Oxford.
- 2002 Exhibit ‘NucleArt’, exhibition ‘Biology as an Art Medium’, Lugar Comum, Lisbon, Portugal. (with Marta de Menezes; <http://www.martademenezes.com>)
- 2000-2001 Collaboration with Marta de Menezes, project ‘NucleArt’.

PUBLICATIONS

Voluntary research work (1993)

1. **Pombo A**, Ferreira J, Bridges E, Carmo-Fonseca M (1994) Adenovirus replication and transcription sites are spatially separated in the nucleus of infected HeLa cells. *EMBO J.* 13, 5075-5085.
2. **Pombo A**, Carmo-Fonseca M (1995) Interactions of adenovirus with the nucleus of the host cell. *Rev. Med. Virol.* 5, 213-218.

PhD (1994-1998)

3. Hughes TA, **Pombo A**, McMannus J, Hozak P, Jackson DA, Cook PR (1995) On the structure of replication and transcription factories. *J. Cell Sci.*, Suppl. 19, 59-65.
4. Iborra FJ, **Pombo A**, Jackson DA, Cook PR (1996) Active RNA polymerases are localized within discrete transcription ‘factories’ in human nuclei. *J. Cell Sci.* 109, 1427-1436.
5. **Pombo A**, Cook PR (1996) The localization of sites containing nascent RNA and splicing factors. *Exp. Cell Res.* 229, 201-203.
6. McMannus J, Hughes TA, **Pombo A**, Jones E, Iborra FJ, Jackson DA, Cook PR (1996) Nuclear factories for replication, transcription and repair. *Proceed. 10th Int. Cong. Rad. Res.* 2, 352-361.
7. Iborra FJ, **Pombo A**, McMannus J, Jackson DA, Cook PR (1996) The topology of transcription by immobilized polymerases. *Exp. Cell Res.* 229, 167-173.
8. **Pombo A**, McMannus J, Hughes TA, Iborra FJ, Jackson DA, Cook PR (1997) Transcription factories and chromosome structure. In “Chromosomes Today”, ed. Henriques-Gil N, Parker JS, Puertas MJ (Chapman & Hall, London), vol. 12, pp. 147-160.
9. Iborra FJ, **Pombo A**, Jackson DA (1997) Dedicated sites of gene expression in the nuclei of mammalian cells. *Gene Therapy Mol. Biol.* 1, 495-508.
10. **Pombo A**, Cuello P, Schul W, Yoon J-B, Roeder RG, Cook PR, Murphy S (1998) Regional and temporal specialization in the nucleus: a transcriptionally-active nuclear domain rich in PTF, Oct1 and PIKA antigens associates with specific chromosomes early in the cell cycle. *EMBO J.* 17, 1768-1778.
11. Wykes M, **Pombo A**, Jenkins C, MacPherson GG (1998) Dendritic cells interact with naive B lymphocytes to transfer antigen and initiate class-switching in a primary T-dependent response. *J. Immunol.* 161, 1313-1319.
12. Jackson DA, **Pombo A** (1998) Replicon clusters are stable units of chromosome structure: evidence that nuclear organization contributes to the efficient activation and propagation of S phase in human cells. *J. Cell Biol.* 140, 1285-1295.
13. **Pombo A**, Hollinshead M, Cook PR (1999) Bridging the resolution gap: Imaging the same transcription factories in cryosections by light and electron microscopy. *J. Histochem. Cytochem.* 47, 471-480.

14. **Pombo A**, Jackson DA, Hollinshead M, Wang Z, Roeder RG, Cook PR (1999) Regional specialization in the nucleus: visualization of discrete sites of transcription by RNA polymerase III. *EMBO J.*, 18, 2241-2253.

Royal Society Dorothy Hodgkin Fellow, University of Oxford (1998 – 2000)

15. McDowell TL, Gibbons RJ, O'Rourke D, Sutherland H, Bickmore WA, **Pombo A**, Turley H, Gatter K, Picketts D, Buckle VJ, Chapman L, Rhodes D, Higgs DR (1999) Localization of a putative transcriptional regulator (ATRX) at pericentric heterochromatin and the tips of acrocentric chromosomes. *Proc. Natl. Acad. Sci. USA* 96, 13983-13988.

16. Jackson DA, **Pombo A**, Iborra F (2000) The balance sheet for transcription: an analysis of nuclear RNA metabolism in mammalian cells. *FASEB J.* 14, 242-254.

17. Kenny E, Mason D, **Pombo A**, Ramirez F (2000) Phenotypic analysis of peripheral CD4⁺CD8⁺ T cells in the rat. *Immunology* 101, 178-184.

18. **Pombo A**, Jones E, Iborra FJ, Kimura H, Sugaya K, Cook PR, Jackson DA (2000) Specialized transcription factories within mammalian nuclei. *Crit. Rev. Eukar. Gene Expr.* 10, 21-29.

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20. Robinson JM, Takizawa T, **Pombo A**, Cook PR (2001) Integrated fluorescence and electron microscopy on ultrathin cryosections: bridging the resolution gap. *J. Histochem. Cytochem.* 49, 803-808.

21. Boyd DC, **Pombo A**, Murphy S (2003) Interaction of proteins with promoter elements of the human U2 snRNA genes *in vivo*. *Gene* 315, 103-112.

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Group Leader and Section Chair, MRC London Institute for Medical Sciences, Imperial College London (2000 – 2013)

23. Politz J, **Pombo A** (2002) Genomics meets nanoscience: probing genes and the cell nucleus at 10-9 meters. *Genome Biol.* 3, REPORTS4007.

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Cell 38, 675-88.

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65. Swingland JT, Durrenberger PF, Reynolds R, Dexter DT, **Pombo A**, Deprez M, Roncaroli F, Turkheimer FE (2012) Mean expression of the X chromosome is associated with neuronal density. **Frontiers Neurosci.** 6, 161.

Group Leader and Deputy Scientific Director, BIMSB, MDC (2013 – present)

66. Barbieri M, Chotalia M, Fraser J, Lavitas LM, Dostie J, **Pombo A**¹, Nicodemi M¹ (2013) A model for large-scale organization of chromatin. **Biochem. Soc. Trans.** 41, 508-12. (¹joint corresponding authors)
67. Barbieri M, Scialdone A, Piccolo A, Chiariello AM, di Lano C, Prisco A, **Pombo A**¹, Nicodemi M¹ (2013) Polymer models of chromatin organization. **Front. Genet.** 4, 113. (¹joint corresponding authors)
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