

Curriculum Vitae – Matteo BARBERIS, PhD, FRSB

CONTACT INFORMATION

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• EDUCATION

- 2006 PhD Industrial Biotechnology, *max. grades*, 1st Class Honours (Advisor: *Lilia Alberghina*)
Department of Biotechnology and Biosciences, University of Milano-Bicocca, Milan, Italy
- 2003 Bachelor (BSc) Bioinformatics, *110/110 cum Laude*, 1st Class Honours
Department of Informatics, University of Turin, Turin, Italy
- 2000 Master (MSc) Industrial Biotechnology, *110/110 cum Laude*, 1st Class Honours
Department of Biotechnology and Biosciences, University of Milano-Bicocca, Milan, Italy

• PROFESSIONAL EXPERIENCE (15, of which 6 listed)

- 2018 – Professor/Reader in Systems Biology, School of Biosciences (SB), Faculty of Health and Medical Sciences (FHMS), University of Surrey (SURREY), Guildford, Surrey, UK
- 2018 – Visiting Professor, Synthetic Systems Biology and Nuclear Organization (SSB-NOG), Swammerdam Institute for Life Sciences (SILS), University Amsterdam (UvA), Netherlands
- 2018 – 2019 Scientific Researcher of Integrative Systems Biology, Molecular Cell Physiology, VU University Amsterdam (VUA), Amsterdam, Netherlands
- 2013 – 2018 Assistant Professor, Synthetic Systems Biology, SILS, UvA, Amsterdam, Netherlands
- 2009 – 2013 Postdoc, Theoretical Biophysics, Humboldt University Berlin (HUB), Berlin, Germany
- 2007 – 2013 Postdoc, Max Planck Institute for Molecular Genetics (MPI-MG), Berlin, Germany

• HONOURS AND AWARDS

- 2021 Vice-Chancellor (VC) Award, Researcher of the Year 2021, SB, FHMS, UK
- 2021 International Lead for Research and Teaching, School of Biosciences (SB), FHMS, UK
- 2019 Fellow, Elected Member, of the Royal Society of Biology (FRSB), UK
- 2016 Habilitation, University Teaching Qualification, UvA, Amsterdam, Netherlands

• RESEARCH FELLOWSHIPS (6, of which 4 are listed)

- 2017 NIH no. 5R35GM119770-01, University of Nebraska-Lincoln, USA (visiting Assistant Professor, Developing multi-scale models of T cell differentiation, Advisor: *Tomáš Helikar*)
- 2011 ENFIN (EU FP6), Swiss Institute of Bioinformatics, University of Lausanne, Switzerland (visiting Postdoc, Developing logical models of the cell cycle, Advisor: *Ioannis Xenarios*)
- 2010 UNICELLSYS (EU FP7), University Pompeu Fabra, Barcelona, Spain (visiting Postdoc, Identification of transcriptional mechanisms in budding yeast, Advisor: *Frances Posas*)
- 2005 Marie Curie EST (EU FP6), MPI-MG, Berlin, Germany (visiting Ph.D. student, Developing kinetic models of the cell cycle in budding yeast, Advisor: *Edda Klipp*)

• INSTITUTIONAL RESPONSIBILITIES

- 2022 – Examination Panel, Vice-Chancellor's Studentship Award, FHMS, SURREY
- 2022 – Examination Panel, Faculty Research Support Fund, FHMS, SURREY
- 2022 – Organizer, Internationalisation Workshop, SBM, FHMS, SURREY
- 2021 – International Engagement and Mobility Committees, SB, FHMS, SURREY
- 2021 – International Lead for Research and Teaching, School of Biosciences (SB), FHMS, UK
- 2021 – Examination Panel, Associate Professor positions, FHMS, SURREY
- 2020 – Coordinator, Centre for Mathematical and Computational Biology Seminar Series, SURREY
- 2019 – Coordinator, Centre for Mathematical and Computational Biology (CMCB), FHMS, SURREY
- 2019 – 2020 University Ethics Committee (UEC) Review Panel, FHMS, SURREY
- 2015 – 2018 Coordinator, Systems Biology Amsterdam Seminar Series, SILS, UvA
- 2014 – Examinations Board, MSc and BSc Programme in Biomedical Sciences, SILS, UvA
- 2013 – 2018 Co-Chairman, Systems Biology Research Priority Area, SILS, UvA
- 2013 – 2018 Financial Officer, SSB-NOG, SILS, UvA

• PATENTS

- 2019 **Barberis M**, "MAMTOW methodology": Method for quantification of gene copy number in mammalian cells. App. No. GB1804753.0

• TEACHING ACTIVITIES

- 2020 – Coordinator, Systems Biology (BSc Biomedical Sciences, 3rd year), SURREY
 2019 Lecturer, Systems Biology (BSc Biomedical Sciences, 3rd year), SURREY
 2016 – 2020 Lecturer, Systems Biology and Medicine (BSc Biomolecular Sciences, 3rd year), VUA
 2016 – 2018 Lecturer, Biochemistry (BSc Biomedical Sciences, 2nd year), UvA
 2015 – 2018 Lecturer, Molecular Systems Biology (BSc Biomedical Sciences, 2nd year), UvA
 2014 – 2018 Lecturer, Biomedical Systems Biology (MSc Biomedical Sciences, 2nd year), UvA
 2014 – 2018 Lecturer, Cellular Biochemistry (BSc Chemistry, 1st year), UvA
 2014 – 2018 Lecturer, Gene Regulation (BSc Biomedical Sciences, 3rd year), UvA

• COMMISSIONS OF TRUST (selection)

- 2022 – International Expert Examiner, International Doctorate, Doctoral College in Convergent Technologies for Biomolecular Systems (TeCSBi), University of Milano-Bicocca, Milan, Italy
 2021 – Examinations Board and Board of Studies, Doctoral College in Translational and Molecular Medicine (DIMET), University of Milano-Bicocca (UNIMIB), Milan, Italy
 2021 – Ad Hoc Associate Editor, Nature NPJ Systems Biology and Applications (Springer Nature)
 2021 – Associate Editor, Frontiers in Cellular and Developmental Biology (Cellular Biochemistry)
 2021 – Associate Editor, Frontiers in Molecular Biosciences (Cellular Biochemistry)
 2021 – Associate Editor, Frontiers in Molecular Biosciences (Biological Modeling and Simulation)
 2021 – Associate Editor, Frontiers in Physiology (Computational Physiology and Medicine)
 2020 – Associate Editor, Frontiers in Genetics (Computational Genomics)
 2020 – Associate Editor, Frontiers in Microbiology (Microbial Physiology and Metabolism)
 2020 – Editorial Board, Biology (Basel) (Biochemistry and Molecular Biology) (MDPI)
 2019 – Editor-in-Chief, Current Opinion in Systems Biology (Elsevier)
 2019 – 2020 Associate Editor, Frontiers in Bioengineering and Biotechnology and Frontiers in Genetics (Bioinformatics and Computational Biology)
 2018 – Coordinator, Computational Modeling of Biological Systems (SysMod), Communities of Special Interest (COSI) of the International Society for Computational Biology (ISCB)
 2016 – 2021 Associate Editor, Frontiers in Physiology (Systems Biology)
 2016 – Editor-in-Chief, In Silico Biology (IOS Press)
 2016 – Editorial Board, Current Opinion in Systems Biology (Elsevier)
 2015 – Ad Hoc Associate Editor, PLoS Computational Biology (PLoS)
 2015 – Editorial Board, Nature NPJ Systems Biology and Applications (Springer Nature)
 2014 – Editorial Board, Current Genomics (Bentham Science)
 2014 – Executive Director, International Society of Systems Biology (ISSB)
 2014 – Review panel member for 12 PhD theses: MPI-MG (1) and HU (1), Germany; EPFL (1), Switzerland; UvA (2), VU University (2) and Sanquin Blood Supply Foundation (1), Netherlands; University of Milano-Bicocca (3) and Politecnico di Milano (1), Italy
 2013 – Selected Expert Review panel member for 23 International grant applications, e.g. ERC Advanced Grant, EU (Chromatin Regulation); HFSP, France (Quantitative Cell Engineering and Cell Cycle); MRC, UK (Molecular & Cellular Medicine Board: Cellular Proliferation and Cancer); MRC, UK (Infection & Immunity Board: Immune response and vaccines); BBSRC-NSF/BIO, UK/USA (Synthetic Biology and Epigenetics); Wellcome Trust, UK/ DBT India Alliance (Systems Biology of Proliferation); NIHR, UK (Wearable Devices and Neurodegenerative Disorders); NWO VIDI, Netherlands (Quantitative Cell Differentiation); BMBF, Germany (Systems Medicine, e:Med); NWCR, UK (Cell Cycle Quantitative Proteomics); FSS, Denmark (Cell Cycle Systems Biology); SNSF, Switzerland (Computational Biology); NWO/ZonMw, Netherlands (Bioinformatics and Computational Biology); COST, EU (Systems Biology); BeIPD-COFUND, EU (Systems Biology); COST, EU (Systems Biology of Nuclear Organization in Space and Time); NCN, Poland (Systems Biology of Proliferation and Aging); ESCMID, UK (Prevention, Diagnosis and Treatment of Infectious Diseases)
 2009 – Reviewer for 52 peer-reviewed journals, e.g. Genome Biology, Genome Research, Nucleic Acids Research, Cell Reports, Clinical and Translational Medicine, Briefings in Bioinformatics, Bioinformatics, iScience, Nature NPJ Systems Biology and Applications, Computational and Structural Biotechnology Journal, PLoS Computational Biology, Current Opinion in Systems Biology, FASEB Journal, Trends in Biochemical Sciences, Cells, Genes, Frontiers in (Cell And Developmental Biology; Immunology; Biotechnology and Bioengineering; Pharmacology; Genetics; Physiology), Molecular Neurobiology, Scientific Reports, Journal of the Royal Society Interface, FEBS Journal, Journal of Theoretical Biology

- **CONFERENCE ORGANISATION AND COMMITTEES (42, of which 23 are listed)**

2022	<u>Chair</u> , Plenary Symposium and <u>Scientific Committee</u> , BGRS\SB-2022, Novosibirsk, Russia
2021	<u>Scientific Program Committee</u> , ISMCO 2021, San Diego, USA (VIRTUAL)
2021	<u>Chair</u> , SYSMOD 2021 at ISMB/ECCB 2021, Lyon, France (VIRTUAL)
2021	<u>Chair</u> , Invited Session, MED 2021, Bari, Italy (VIRTUAL)
2020	<u>Scientific Program Committee</u> , ISMCO 2020, San Diego, USA (VIRTUAL)
2020	<u>Chair</u> , SYSMOD 2020 at ISMB 2020, Montreal, Canada (VIRTUAL)
2020	<u>Chair</u> , Plenary Symposium and <u>Scientific Committee</u> , BGRS\SB-2020, Novosibirsk, Russia
2019	<u>Organizing Committee</u> , ICSB 2019, Okinawa, Japan
2019	<u>Session Chair</u> and <u>Scientific Program Committee</u> , ICSB 2019, Okinawa, Japan
2019	<u>Scientific Program Committee</u> , ISMCO 2019, Incline Village, Lake Tahoe, USA
2019	<u>Organizing Committee</u> , SYSMOD 2019 at ISCB 2019, Basel, Switzerland
2019	<u>Scientific Committee</u> , SSBSS 2019, Scuola Normale Superiore, Pisa, Italy
2018	<u>Session Chair</u> and <u>Scientific Program Committee</u> , ICSB 2018, Lyon, France
2018	<u>Chair</u> , Plenary Symposium, XV FISV, Sapienza University of Rome, Rome, Italy
2018	<u>Chair</u> , Educational Session, ECI 2018, Amsterdam, Netherlands
2018	<u>Chair</u> , Plenary Symposium, BGRS\SB-2018, Novosibirsk, Russia
2018	<u>Scientific Committee</u> , SSBSS 2018, Certosa di Pontignano, Siena, Italy
2017	<u>Session Chair</u> and <u>Scientific Program Committee</u> , ICSB 2017, Blacksburg, USA
2017	<u>Scientific Committee</u> , SSBSS 2017, Cambridge, UK
2016	<u>Chair</u> , Plenary Symposium, XIV FISV, Sapienza University of Rome, Rome, Italy
2016	<u>Co-Organizer</u> and <u>Session Chair</u> , ICSB 2016, Barcelona, Spain
2015	<u>Chairman</u> , <u>Session Chair</u> and <u>Scientific Program Committee</u> , ICSB 2015, Singapore
2014	<u>Session Chair</u> and <u>Scientific Program Committee</u> , ICSB 2014, Melbourne, Australia

- **COMPETITIVE GRANTS (16, of which 11 are listed)**

2022	<u>Doctoral College in Translational and Molecular Medicine (DIMET)</u> (PI), University of Surrey, Total award: € 58,000
2021	<u>Faculty PhD studentship (FHMS-SC-35)</u> (PI), University of Surrey, Total award: £ 65,000
2021	<u>University Global Partnership Network (UGPN) Research Collaboration Fund (RCF)</u> (PI), University of Surrey and NC State University, Total award: \$ 20,000 (Barberis £ 10,000)
2021	<u>Biotechnology and Biological Sciences Research Council (BBSRC) Research Grant (BB/V010611/1 (09.2021 – 08.2024))</u> (Co-PI), University of Surrey and Crick Institute, Total award: £ 940,500 (Barberis £ 123,000)
2019	<u>Institute of Advanced Studies (IAS) Fellowship Grant</u> (PI), University of Surrey, Total award: £ 5,000
2019	<u>Faculty Research Support Fund</u> (PI), University of Surrey, Total award: £ 8,000
2019	<u>EU ERASMUS+ Traineeship Grant</u> (PI), University of Surrey, Total award: £ 2,000
2018	<u>Systems Biology Grant</u> (PI), University of Surrey, Total award: £ 185,000
2016	<u>Systems Biology Research Priority Area Grant</u> (PI:) University of Amsterdam, Total award: € 45,000
2015	<u>Strategic Funding on Systems Biology</u> (PI), University of Amsterdam, Total award: € 200,000
2013	<u>SILS Systems Biology Grant</u> (PI), University of Amsterdam, Total award: € 895,000

- **SUPERVISION OF SCIENTIFIC STAFF (in *italic* when publications were achieved)**

2013 –	<u>7 PhD</u> : 3 SURREY (<i>Rojas López MA: Clin Transl Med 2022, Curr Opin Syst Biol 2020; Emam Mousavi F; Guerra F; current</i>), 3 SILS, UvA (<i>Mondeel TDGA: Comput Struct Biotechnol J 2022, Nature NPJ Syst Biol Appl 2020, Nucleic Acids Res 2019, Bioinformatics 2018; Zhang Y: Int J Mol Sci 2017; Versteegen N: Front Immunol 2021</i>), 1 VUA (<i>Abudukelimu A: Front Immunol 2020, 2018, Biochem Soc Trans 2017</i>)
2013 – 2020	<u>9 Research Assistants / Technicians</u> : 2 computational (1 SURREY and 1 SILS, UvA) and 7 experimental (2 SILS, UvA & 4 Hogeschool Inholland, Amsterdam, and 1 Avans Hogeschool, Breda, Netherlands)
2009 –	<u>4 Postdocs</u> (<i>Zorzan I: Curr Opin Syst Biol 2020; current / Linke C: Proc Natl Acad Sci U S A 2017, Nature NPJ Syst Biol Appl 2017, Front Physiol 2013</i> , SILS, UvA; after: Postdoc, Institut für Pathologie, Brandenburg an der Havel, Germany / <i>Verbruggen P: Front Physiol 2018, Nature NPJ Syst Biol Appl 2017</i> , SILS, UvA; after: Researcher in Physiology, Warmenhuizen, Netherlands / <i>Schreiber G: FASEB J 2012, Mol Biosyst, 2011</i> , HUB; after: Staff Scientist, HUB)
2008 – 2012	<u>2 PhD</u> (<i>Linke C: Biotechnol Adv 2012, MPI-MG; Spiesser TW: PLoS ONE 2010, Curr Genomics 2010, Mol Genet Genomics 2009</i> , HUB)

2007 – 38 Master/Bachelor, e.g. *Bloem M (Mol Metab 2022)*, *Ubels V (Front Immunol 2021; 2020–2024 PhD student, Imperial College, London, UK)*, *Min J (2021–2024 PhD student, Karolinska Institute, Stockholm, Sweden)*, *Maissan P (Biology (Basel) 2021)*, *Al Sawad I (Nature NPJ Syst Biol Appl 2017)*, *van der Zee L (Methods Mol Biol 2019, FEMS Yeast Res 2017)*, *Supady A (J Biotechnol, 2013; 2012–2016 PhD student, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin, Germany)*, *Beck C. (Mol Biosyst, 2011)*

• **REVIEWER PhD COMMITTEES (12, of which 8 are listed; 1 Chair of Evaluation Committee)**

2019 *Marzia Di Filippo*, University of Milano-Bicocca, Milan, Italy (Advisor: *Dario Pescini*)
Topic: Systems Biology of Metabolism in mammalian cells (Biology and Biotechnology)

2018 *Raju Prasad Sharma*, VU Amsterdam, Netherlands (Advisor: *Hans V. Westerhoff*)
Topic: Integrative Systems Toxicology for human health (Physiology)

2017 *Ulrike Münzner*, Humboldt University Berlin, Germany (Advisors: *M. Krantz, Edda Klipp*)
Topic: Systems Biology of the cell cycle control network in budding yeast (Biophysics)

2017 *Gaia De Sanctis*, University of Milano-Bicocca, Italy (Advisor: *Marco Vanoni*)
Topic: Integrated Systems Metabolism of cancer in fibroblasts (Industrial Biotechnology)

2017 *Marco Bolis*, Politecnico di Milano, Italy (Advisors: *Linda Pattini, Enrico Garattini*)
Topic: Systems Biology in tumor biology (Bioengineering) (*Chair of Evaluation Committee*)

2017 *Ricardo Hendrik Paap*, SILS, UvA, Netherlands (Advisor: *Marten Smidt*)
Topic: Transcription network dynamics in brain development (Molecular Neuroscience)

2016 *Tiziano Dallavilla*, EPFL, Lausanne, Switzerland (Advisor: *Vassily Hatzimanikatis*)
Topic: Systems Biology of palmitoylation (Computational Science)

2014 *Vikash Kumar Pandey*, MPI-MG, Berlin, Germany (Advisor: *Hans Lehrach*)
Topic: Metabolic modeling of steatohepatitis in mice (Natural Sciences)

• **PUBLICATIONS (<https://www.ncbi.nlm.nih.gov/pubmed/?term=barberis+matteo>;
publications: 57, 23 First, 20 Last (#) and 41 Corresponding (*) author; # citations: 991;
h-index: 18; i10-index: 31; 29 peer-reviewed articles over the last 5 years; 25 are listed)**

– **PEER-REVIEWED ARTICLES**

1. Zhang Y, van der Zee L, **Barberis M*** (2023) Two-way communication between cell cycle and metabolism in budding yeast: what do we know? *Front Microbiol* **14**: 1187304.
2. **Barberis M***, *Rojas López A* (2022) T cell phenotype switching in autoimmune disorders: Clinical significance of targeting metabolism. *Clin Transl Med* **12**: e898.
3. **Barberis M***, *Mondeel TDGA*, (2022) Unveiling Forkhead-mediated regulation of yeast cell cycle and metabolic networks. *Comput Struct Biotechnol J* **20**:1743–1751.
4. Strini EJ, Bertolino LT, San Martin JAB, Souza HAO, Pessotti F, Pinoti VF, Ferreira PB, De Paoli HC, Lubini G, Del-Bem L-E, Quiapim AC, Mondin M, Araújo APU, Eloy NB, **Barberis M***, Goldman MHS* (2022) Stigma/Style Cell-Cycle Inhibitor 1, a Regulator of Cell Proliferation, Interacts With a Specific 14-3-3 Protein and Is Degraded During Cell Division. *Front Plant Sci* **13**: 857745.
5. **Barberis M*** (2021) Cyclin/Forkhead-mediated coordination of cyclin waves: An autonomous oscillator rationalizing the quantitative model of Cdk control for budding yeast. *Nature NPJ Syst Biol Appl* **7**: 48.
6. *Verstegen NJM, Ubels V, Westerhoff HV, van Ham SM, Barberis M** (2021) System-Level Scenarios for the Elucidation of T Cell-Mediated Germinal Center B Cell Differentiation. *Front Immunol* **12**: 734282.
7. Wertheim KY, Puniya BL, La Fleur A, Shah AR, **Barberis M***, Helikar T* (2021) A multi-approach and multi-scale platform to model CD4+ T cells responding to infections. *PLoS Comput Biol*, **17**: e1009209.
8. **Barberis M*** (2021) Quantitative model of eukaryotic Cdk control through the Forkhead CONTROLLER. *Nature NPJ Syst Biol Appl* **7**: 28.
9. *Maissan P, Mooij EJ, Barberis M** (2021) Sirtuins-Mediated System-Level Regulation of Mammalian Tissues at the Interface between Metabolism and Cell Cycle: A Systematic Review. *Biology (Basel)* **10**: 194. **Editor's choice**
10. *Zorzan I, Rojas López A, ..., Ellis T, Barberis M** (2021) Synthetic designs regulating cellular transitions: Fine-tuning of switches and oscillators. *Curr Opin Syst Biol*, **25**: 11–26.
11. Puniya BL, Amin R, Lichter B, Moore R, Ciurej A, Bennett SJ, Shah AR, **Barberis M***, Helikar T* (2021) Integrative computational approach identifies drug targets in CD4+ T-cell-mediated immune disorders. *Nature NPJ Syst Biol Appl* **7**: 4.

12. Kolodkin A, Sharma RP, Colangelo AM, Ignatenko A, ..., **Barberis M**, *Mondeel TDGA*, ..., Peters B, Skupin A, Alberghina L, Balling R, Westerhoff HV (2020) ROS networks: designs, aging, Parkinson's disease and precision therapies. *Nature NPJ Syst Biol Appl*, 6: 34.
13. Marucci M*, **Barberis M***, Karr J*, Ray O*, Race PR*, de Souza Andrade M, Grierson C, ..., Woods C (2020) Computer-aided whole-cell design: taking a holistic approach by integrating synthetic with systems biology. *Front Bioeng Biotechnol*, 8: 942.
14. *Mondeel TDGA*, Ivanov O, Westerhoff HV, Liebermeister W, **Barberis M#.*** (2020) Clb3-centered regulations are recurrent across distinct parameter regions in minimal autonomous cell cycle oscillator designs. *Nature NPJ Syst Biol Appl*, 6: 8.
15. *Abudukelimu A*, **Barberis M**, Redegeld F, Sahin N, Sharma RP, Westerhoff HV (2020) Complex Stability and an Irreversible Transition Reverted by Peptide and Fibroblasts in a Dynamic Model of Innate Immunity. *Front Immunol*, 10: 3091.
16. *van der Zee L*, **Barberis M#.*** (2019) Advanced modeling of cellular proliferation: Towards multi-scale coupling of cell cycle to metabolism by integrating logical and constraint-based models. *Methods Mol Biol*, 2049: 365–385.
17. *Mondeel TDGA*, Holland P, Nielsen J, **Barberis M#.*** (2019) ChIP-exo analysis highlights Fkh1 and Fkh2 transcription factors as hubs that integrate multi-scale networks in budding yeast. *Nucleic Acids Res*, 47: 7825–7841.
18. *Abulikemu A*, **Barberis M**, Redegeld F, Sahin N, Westerhoff HV (2018) Predictable Switching between Acute and Chronic Inflammation. *Front Immunol*, 9: 1596.
19. **Barberis M***, Helikar T, *Verbruggen P* (2018) Simulation of Stimulation: Cytokine Dosage and Cell Cycle Crosstalk in the Timing-Dependent T Cell Lineage. *Front Physiol*, 9: 879.
20. Puniya BL, Todd RG*, Brown DM, **Barberis M#.***, Helikar T#.* (2018) Plasticity of CD4+ T cell differentiation is a function of cytokine composition and dosage. *Front Physiol*, 9: 878.
21. *Mondeel TDGA*, Crémazy F, **Barberis M#.*** (2018) GEMMER: GENome-wide software for Multi-scale Modeling data Extraction and Representation for *Saccharomyces cerevisiae*. *Bioinformatics*, 34: 2147–2149.
22. **Barberis M***, *Verbruggen P* (2017) Quantitative systems biology to decipher design principles of the dynamic cell cycle network: the "Maximum Allowable mammalian Trade-Off-Weight" (MAMTOW). *Nature NPJ Syst Biol Appl*, 3: 26.
23. Ostrow AZ, Kalhor R, ..., *Linke C*, **Barberis M***, Chen L, Aparicio OM* (2017) Conserved forkhead dimerization motif controls DNA replication timing and spatial organization of chromosomes in *S. cerevisiae*. *Proc Natl Acad Sci U S A*, 114: E2411–E2419.
24. *Linke C*, Chasapi A, ..., *Al Sawad I*, Tognetti S, Klipp E, Loog M, Krobitsch S, Posas F, Xenarios I, **Barberis M#.*** (2017) A Clb/Cdk1-mediated regulation of Fkh2 synchronizes CLB expression in the budding yeast cell cycle. *Nature NPJ Syst Biol Appl*, 7: 3.
25. **Barberis M***, Todd RG, van der Zee L (2017) Advances and challenges in logical modeling of cell cycle regulation: perspective for multi-scale, integrative yeast cell models. *FEMS Yeast Res*, 17: 1–15.

• **INVITED LECTURES AT INTERNATIONAL CONFERENCES & ADVANCED SCHOOLS**
(41, of which 32 are listed; **Keynote, Plenary and Session Chair lectures are indicated**)

- 2022 (*Plenary*) BGRS\SB-2022, 13th International Multiconference on Bioinformatics of Genome Regulation and Structure/Systems Biology, Novosibirsk, Russia, July 4-8
- 2022 Workshop Complex Systems: from Biophysics to Biomedicine, Rome, Italy, May 10
- 2021 SIB CONGRESS 2021, FEBS Congress, Milan, Italy (Virtual), September 23-24
- 2020 Workshop Systems Biology of Vaccinology, Siena, Italy (Virtual), November 5
- 2020 (*Plenary*) BGRS\SB-2020, 12th International Multiconference on Bioinformatics of Genome Regulation and Structure/Systems Biology, Novosibirsk, Russia (Virtual), July 6-10
- 2020 AUS-ICMS (Discrete Dynamic Modeling of Biological Systems), Sharjah, UAE, January 6-8
- 2019 (*Chair*) ICSB 2019 (Session Modeling Networks and Circuits), Okinawa, Japan, November 1-5
- 2019 (*Plenary*) ICYGMB 2019 (Symposium Cell Cycle and Cell Fate), Gothenburg, Sweden, August 18-22
- 2019 Workshop Computer Aided Whole Cell Design and Engineering, Bristol, UK, July 2-3
- 2019 Workshop Modeling in Biology and Medicine, Gothenburg, Sweden, May 9-10
- 2019 (*Keynote*) EMBO 2019 Whole-Cell Modelling Summer School, Barcelona, Spain, April 7-13
- 2019 Workshop Systems and Synthetic Biology, Padova, Italy, February 12
- 2018 (*Plenary*) XV FISV (Symposium Regulatory Network Dynamics), Rome, Italy, September 18-21
- 2018 (*Chair*) BGRS\SB-2018 (Symposium Systems Computational Biology), Novosibirsk, August 20-25
- 2018 BGRS\SB-2018 (Symposium Mathematical modeling & high-performance computing in bioinformatics, biomedicine and biotechnology), Novosibirsk, Russia, August 20-25

- 2018 SSBSS 2018, Certosa di Pontignano, Siena, Italy, July 25-29
- 2018 SIMAI 2018 (Symposium Mathematical Modeling in Systems Biology), Rome, Italy, July 2-6
- 2017 ICSB 2017 (Session Cellular Signaling Networks), Blacksburg, USA, August 6-12
- 2017 SSBSS 2017, University of Cambridge, UK, July 17-21
- 2016 2nd Systems Biology & Systems Medicine Advanced School, Como, Italy, September 26-30
- 2016 (*Plenary*) XIV FISV (Symposium Systems Biology), Rome, Italy, September 20-23
- 2016 ICY14 (Session Systems & Synthetic Biology), Hyogo, Awaji Island, Japan, September 11-15
- 2015 (*Chair*) ICSB 2015, Singapore, Singapore, November 23-26
- 2015 ICYGMB 2015, Levico Terme, Trento, Italy, September 6-12
- 2014 1st Systems Biology and Systems Medicine Advanced School, Como, Italy, September 21-27
- 2014 ICSB 2014, Melbourne, Australia, September 14-18
- 2013 FEBS Practical Course on Yeast Systems Biology, Gothenburg, Sweden, June 3-10
- 2012 Gordon Research Conferences, Cellular Systems Biochemistry, Davidson, USA, July 24-29
- 2011 36th FEBS Congress, Biochemistry for Tomorrow's Medicine, Torino, Italy, June 25-30
- 2010 35th FEBS Congress, Molecules of Life, Gothenburg, Sweden, June 26-July 1
- 2009 Dynamics in Systems Biology, Aberdeen, UK, September 14-18
- 2008 Computational Cell Biology, Hinxton, UK, March 26-29, 2008

• **SELECTED TALKS AT INTERNATIONAL CONFERENCES & ADVANCED SCHOOLS**
(34, of which 22 are listed)

- 2022 Cell Cycle Conference 2022, The Francis Crick Institute, London, UK, May 23
- 2021 ISMB 2021 (Session Computational Modeling of Biological Systems), Lyon, July 25-30
- 2020 ISMB 2020 (Session Computational Modeling of Biological Systems), Montreal, July 13-16
- 2019 Workshop Understanding Complexity in Life Sciences, Milan, Italy, February 14-15
- 2018 ICSB 2018 (Session Multiscale Systems Biology), Lyon, France, October 28-November 1
- 2018 ICSB 2018 (Session Systems Biology of Transcription Regulation), Lyon, France, October 27
- 2018 ECCB 2018 (Workshop Logical Modelling of Networks), Athens, Greece, September 8-12
- 2018 ISMB 2018 (Session Regulatory and Systems Genomics), Chicago, USA, July 6-10
- 2018 ISMB 2018 (Session Computational Modeling of Biological Systems), Chicago, July 6-10
- 2017 ICSB 2017 (Session Regulatory Network Architecture and Dynamics), USA, August 6-12
- 2017 ICSB 2017 (Session Multicellular Systems Biology), Blacksburg, USA, August 6-12
- 2017 ISMB/ECCB 2017, Prague, Czech Republic, July 21-25
- 2017 FEMS 2017, Valencia, Spain, July 9-13
- 2016 ICSB 2016, Barcelona, Spain, September 16-20
- 2015 9th Salk Institute Cell Cycle Meeting, La Jolla, USA, July 7-10
- 2013 8th Salk Institute Cell Cycle Meeting, La Jolla, USA, June 19-22
- 2012 ICSB 2012, Toronto, Canada, August 19-23
- 2011 7th Salk Institute Cell Cycle Meeting, La Jolla, USA, June 17-20
- 2011 ICMSB 2011, Biological Design Principles, Lleida, Spain, May 8-12
- 2011 4th FEBS Advanced Lecture Course, Innsbruck, Austria, February 26-March 4
- 2010 ICSB 2010, Edinburgh, UK, October 10-15
- 2007 2nd FEBS Advanced Lecture Course, Gosau, Austria, March 10-16

• **INVITED SEMINARS AT UNIVERSITIES & RESEARCH INSTITUTES (27, of which 27 are listed)**

- 2022 Centre for Mathematical and Computational Biology Seminar Series, Faculty of Health and Medical Sciences, University of Surrey, Guildford, UK, July 15. Host: *Anne Skeldon*
- 2022 Department of Biology Seminar, Departamento de Biologia, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, University of São Paulo, Ribeirão Preto, Brazil, July 1. Host: *Maria Helena de Souza Goldman*
- 2022 Symposium on Chair Systems and Synthetic Biology, Department of Systems and Synthetic Biology, Wageningen University & Research, Wageningen, Netherlands, January 18. Host: *Edith Feskens*
- 2021 Faculty of Health and Medical Sciences research Event – Exploring interfaces between Chronobiology & Sleep and Immunity & Infection, University of Surrey, Guildford, UK, February 11. Host: *Mark A. Chambers*
- 2020 Systems Biology and Medicine Seminar, Department of Molecular Cell Physiology, VU University Amsterdam, Amsterdam, Netherlands, June 8. Host: *Hans V. Westerhoff*
- 2020 Systems Biology of Biological Clocks Seminar, Department of Biology, Duke University,

- Durham, NC, USA, January 24. Host: *Steven B. Haase*
- 2020 Synthetic & Systems Biology Seminar, Department of Molecular Biomedical Sciences, North Carolina State University, Raleigh, NC, USA, January 23. Host: *Nicolas E. Buchler*
- 2020 Seminar on Systems Biology Research, Department of Genetics and Biochemistry and Center for Human Genetics, Clemson University, Greenwood, SC, USA, January 20. Hosts: *Robert N.H. Anholt and Trudy Mackay*
- 2019 Systems Biology and Medicine Seminar, Department of Molecular Cell Physiology, VU University Amsterdam, Amsterdam, Netherlands, June 7. Host: *Hans V. Westerhoff*
- 2019 School of Biosciences and Medicine Seminar Series, Faculty of Health and Medical Sciences, University of Surrey, Guildford, UK, June 19. Hosts: *Deborah Dunn-Walters and André P. Gerber*
- 2019 Professor Symposium on Systems Biology of Microorganisms, Department of Chemical Engineering, Biotechnology and Materials, Universidad de Chile, Santiago, Chile, April 18. Host: *Marcela Munizaga Munoz*
- 2019 CeBiB Seminar, Centre for Biotechnology and Bioengineering, CeBiB, Universidad de Chile, Santiago, Chile, April 17. Host: *Juan Asenjo*
- 2019 Senior Principal Investigator Symposium on Cancer and Genome: Bioinformatics, Biostatistics, Epidemiology of Complex Systems, Institut Curie, Paris, France, January 10. Host: *Emmanuel Barillot*
- 2018 Colloquia@IASI, Institute for Systems Analysis and Computer Science (IASI), Italian National Research Council (CNR), Rome, Italy, July 4. Host: *Pasquale Palumbo*
- 2017 Biochemistry Seminar, University of Nebraska-Lincoln, Department of Biochemistry, Lincoln, NE, USA, October 24. Host: *Tomáš Helikar*
- 2017 Amsterdam Microbiology ZuidAs (AMZA) meeting, VU University Amsterdam, Amsterdam, Netherlands, February 16. Host: *Bas Teusink*
- 2015 RIKEN Center for Integrative Medical Sciences (IMS) Seminar Series, Tokyo, Japan, January 14. Host: *Hiroaki Kitano*
- 2014 Max Planck Institute for Molecular Genetics (MPI-MG) Seminar Series, Berlin, Germany, October 27. Host: *Hans Lehrach*
- 2014 Institute of Molecular and Cell Biology (IMCB) Seminar, Singapore, Republic of Singapore, September 5. Host: *Philipp Kaldis*
- 2013 AIMMS Seminar Series 2013, Amsterdam Institute for Molecules, Medicines and Systems, VU University Amsterdam, Amsterdam, Netherlands, September 30. Host: *Eelco Ruijter*
- 2013 University of Colorado Seminars, Anschutz Medical Campus, Linda Crnic Institute for Down Syndrome, Aurora, CO, USA, June 25. Host: *Huntington Potter*
- 2012 Seminar Series, RIKEN Research Center for Allergy and Immunology (RCAI), Tokyo, Japan, October 18. Host: *Mariko Okada-Hatakeyama*
- 2012 Molecular Systems Biology Seminars, Institute for Theoretical Biology, Berlin, Germany, June 22. Host: *Nils Blüthgen*
- 2011 Group Leader Seminar, Max Planck Institute of Molecular Physiology, Dortmund, Germany, December 12. Host: *Andrea Musacchio*
- 2011 Group Leader Symposium on Systems Biology of Cells and Tissues, Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany, February 28. Host: *Marino Zerial*
- 2010 USF Health and Johnnie B. Byrd, Sr. Alzheimer's Center & Research Institute Seminars, Tampa, FL, USA, May 14. Host: *Dave Morgan*
- 2009 Interdisciplinary Program in Neuroscience Research, USF Health and Johnnie B. Byrd, Sr. Alzheimer's Center & Research Institute, Tampa, FL, USA, August 13. Host: *Dave Morgan*

• **MAIN CONTACT INFORMATION FOR REFERENCE LETTERS (alphabetical order)**

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